

NSW Minerals Council

Upper Hunter Housing Research Study (Stage 2)



Component 3a Information Paper

Infrastructure Funding and Financing Options

July 2014



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NSW Minerals Council

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EXECUTIVE SUMMARY

Context and Background

This paper, the Infrastructure Funding and Financing Options Paper, is one of a number of papers being developed for the Upper Hunter Mining Dialogue (UHMD) by the NSW Minerals Council, as part of the Upper Hunter Housing Research Study.

The paper provides information on funding and financing options that may assist in addressing the infrastructure constraints impacting on housing supply in the Upper Hunter sub-region. The paper focuses on the range of options that are potentially available to assist the delivery of infrastructure and, ultimately, housing in the sub-region.

It is noted that infrastructure constraints are not the only impediment to delivering affordable and appropriate housing in a timely manner. Other issues such as the development approval process, the overall cost of delivery of housing and the planning requirements associated with housing delivery all impact on the timing, quantity and price points of housing delivery. This paper, however, focuses solely on infrastructure issues and potential funding and financing options open to infrastructure providers.

'Infrastructure' in this paper relates to local and sub-regional **development infrastructure**, as opposed to infrastructure that has a broader regional or national significance.

Development infrastructure for this paper is defined as water, sewerage, wastewater, transport and community purposes infrastructure. Local and sub-regional infrastructure relates to infrastructure that serves local (immediate surrounds) or district (a few suburbs) or local government wide (all of the Shire) or sub-regional (Upper Hunter sub-region) catchments. In this respect, the infrastructure provider is more often than

not Local Government, and as such many of the potential options outlined are geared towards Local Governments.

It is noted, however, that the growth areas in NSW's Local Government areas are largely determined by the NSW Department Planning and Environment. Discussions associated with efficient settlement patterns, therefore, relate to both local government and state government levels.

It is emphasised that the options outlined in the paper are merely that- **options** - and some may be more or less applicable to the Upper Hunter sub-region. As such, the information included in this paper is intended as a 'tool' to support the subsequent development of more specific initiatives to help address the sub-region's infrastructure constraints.

The Issues

It is widely acknowledged that many areas across Australia need greater investment in infrastructure¹. Indeed, the Local Government Infrastructure Audit, undertaken by the NSW Department of Premier and Cabinet in 2013 confirmed that there is "a large local government infrastructure backlog" in NSW and some councils face real and significant challenges in terms of maintaining and renewing the infrastructure that is critical to their communities and the NSW economy. Not surprisingly, the audit also found that

¹ Arup, 2012; Chan C, Forwood D, Roper H, Sayers C, 2009; Ernst & Young 2012, 2013; Infrastructure Australia, 2011, 2012; Infrastructure Partnerships Australia 2009; NSW Government, 2011; Pottinger 2013, NSW DPC, 2013

many of those councils with substantial backlogs are also struggling financially².

Earlier work completed for the Upper Hunter Housing Research Study clearly identified the provision of infrastructure as one of a number of key constraints to the delivery of housing and housing affordability in the Upper Hunter sub-region. This, together with consultation undertaken in this stage and review of other data, identified a number of key issues relating to infrastructure. These included:

- The cost of servicing land is a key factor contributing to the lack of new housing commencements.
- Inadequate means of recouping and financing infrastructure costs through the current use of mechanisms, particularly S94 contributions; and,
- There is limited capacity for small developers to produce housing in the sub-region, given the stringent finance industry requirements and the high development costs.

Further context associated with these elements is provided in the main body of the report.

Mechanisms Reviewed

In order to provide information on options to improve the efficient roll out of infrastructure, a number of issues and mechanisms were explored. This paper reviewed a number of funding mechanisms including:

- Rates and taxes;
- Other charges and levies;

- Grants;
- User pays;
- Impact mitigation payments;
- Betterment capture;
- Inclusionary provisions;
- Linkage fees and other Developer Infrastructure Contributions;
- Private contributions.

In addition, the paper outlines issues and options associated with efficient settlement patterns and strategically prioritising infrastructure needs.

Finally, the main body of the report also discusses financing mechanisms, such as borrowings, and different types of procurement methods.

Summary of Information

The information provided in the paper notes that in the first instance, Council's should aim to minimise infrastructure costs. This can occur by ensuring that growth areas are located in areas where infrastructure costs are minimised, and that procurement methods associated with the provision of infrastructure are optimised to ensure the cost of infrastructure is minimised. In addition to minimising infrastructure costs, different funding mechanisms can be employed to spread the burden associated with infrastructure provision. Much information about the mechanisms and issues noted above is provided in the body of the report, and the funding mechanisms discussed are more or less suitable in different environments. It is recommended that the full text be read to ensure that context is provided.

² NSW Department of Premier and Cabinet, 2013

Options for Consideration for the Upper Hunter Councils

Following the overview of the funding mechanisms above, the paper outlines potential options for Councils to address the three main problematic areas for infrastructure provision in the Upper Hunter sub-region included: local government's recovery of infrastructure costs and the ability to finance the infrastructure in a timely manner; and the ability for smaller developers to access finance and/or develop at lower costs. These options would require further investigation and include measures to address:

- The cost of infrastructure
- Local Government's recovery of infrastructure costs and the ability to finance the infrastructure in a timely manner
- The ability for smaller developers to access finance and/or develop at lower costs.

There are many options noted and these are discussed in full in the main body of the report.

1. INTRODUCTION

This paper is one of a number of papers being developed for the Upper Hunter Mining Dialogue (UHMD) by the NSW Minerals Council, as part of the Upper Hunter Housing Research Study.

The purpose of the Upper Hunter Housing Research Study is to understand the impact of mining on housing and to identify the potential roles and responsibilities required by stakeholders to address the affordability and availability of housing. Ultimately it aims to facilitate the development of a sub-regional, collaborative approach to address the sub-region's housing issue. Local government is well positioned to take a leadership role in such an approach and to that end, the NSW Minerals Council is working closely with all the Councils in the Upper Hunter sub-region, as well as with relevant State government agencies, community housing and local business in conducting the Housing Research Study.

The study has been undertaken in two parts. Stage 1 was aimed at assessing the current state of housing issues, opportunities and capacities in the Upper Hunter sub-region by reviewing existing research, undertaking consultation with key stakeholders and reviewing leading practices in other jurisdictions. Stage 1 sought to identify the strategic links between State and Local government, the community housing sector, developers and the mining industry, along with opportunities for leadership and action in response to identified issues.

This stage of the study, Stage 2, includes the development of a suite of information papers intended as resource documents to support the possible development by regional stakeholders of a sub-regional approach to housing. The following information papers have been developed to this end:

- Potential to Pool Existing Resources for Affordable Housing
- Short Term Accommodation Baseline Survey Report
- Infrastructure Funding and Financing Options.

This paper, the Infrastructure Funding and Financing Options Paper, provides information on options that may assist in addressing the infrastructure constraints impacting on housing supply in the Upper Hunter sub-region. The paper focuses on the range of options that are potentially available to assist the delivery of infrastructure and, ultimately, housing in the sub-region.

It is noted that infrastructure constraints are not the only impediment to delivering affordable and appropriate housing in a timely manner. Other issues such as the development approval process, the overall cost of delivery of housing and the planning requirements associated with housing delivery all impact on the timing, quantity and price points of housing delivery. This paper, however, focuses solely on infrastructure issues and potential funding and financing options open to infrastructure providers.

As discussed in Section 1.2, in this paper 'infrastructure', relates to local and sub-regional **development infrastructure**, as opposed to infrastructure that has a broader regional or national significance. Development infrastructure for this paper is defined as water, sewerage, waste-water, transport and community purposes infrastructure. Local and sub-regional infrastructure relates to infrastructure that serves local (immediate surrounds) or district (a few suburbs) or local government wide (all of the Shire) or sub-regional (Upper Hunter sub-region) catchments. In this respect, the infrastructure provider is more often than not Local Government. As such, the options discussed in the paper focus on those options that are most suitable for Local Government Authorities. It is noted, however, that the growth areas in NSW's Local Government areas are largely determined by the NSW Department Planning and Environment. Discussions associated with efficient settlement patterns, therefore, relate to both local government and state government levels.

It is emphasised that the options outlined in the paper are merely that, options, and some may be more or less applicable to the Upper Hunter sub-region. As such, the information included in this paper is intended as a 'tool' to support the subsequent development of more specific initiatives to help address the sub-region's infrastructure constraints. The scope of the study has not allowed a detailed investigation or consultation with infrastructure providers (primarily Local government) about the applicability of each of the options for specific application to the Upper Hunter sub-region. Indeed, some of the options may already be in place, in which case the options noted should act as a reference point and/or check list for good practice. Consultation with Local government, State Government and industry players should be undertaken in considering the best path/s forward to address the sub-region's development infrastructure constraints.

1.1. Background

It is widely acknowledged that many areas across Australia need greater investment in infrastructure³. Indeed, the Local Government Infrastructure Audit, undertaken by the NSW Department of Premier and Cabinet in 2013 confirmed that there is *"a large local government infrastructure backlog in NSW and some councils face real and significant challenges in terms of maintaining and renewing the infrastructure that is critical to their communities and the NSW economy. Not surprisingly, the audit also found that many of those councils with substantial backlogs are also struggling financially"*⁴.

The provision of infrastructure is crucial to well being as it provides the essential elements necessary for the health and safe functioning of our communities. Local and sub-regional infrastructure can be considered the backbone to our communities – it provides access to facilities and services that are vital to communities' well being, such as education, employment, health and community services; it provides services itself that are essential to our healthy lifestyles, such as water and sewage systems, and access to open space and recreation; and it provides access to facilities that serve key environmental functions, such as waste collection services and access to conservation areas. Importantly for this paper, the provision of efficient infrastructure (i.e providing

³ Arup, 2012; Chan C, Forwood D, Roper H, Sayers C, 2009; Ernst & Young 2012, 2013; Infrastructure Australia, 2011, 2012; Infrastructure Partnerships Australia 2009; NSW Government, 2011; Pottinger 2013, NSW DPC, 2013

⁴ NSW Department of Premier and Cabinet, 2013

infrastructure in areas that maximise usage and therefore minimises the per capita cost of delivery and maintenance) also provides the foundation for a well functioning housing market.

Under-investment in infrastructure therefore has a marked influence on the functioning of an area. In the micro sense, these impacts directly affect housing markets, lifestyles and community amenity. In the macro sense, this translates to lower levels of economic activity, lower productivity and lower levels of competitiveness.

Stage 1 of the Upper Hunter Housing Research Study clearly identified the provision of infrastructure as one of a number of key constraints to the delivery of housing and housing affordability in the Upper Hunter sub-region. This, together with consultation undertaken in stage 2 and review of other data, identified a number of key issues relating to infrastructure. These included:

- ***The cost of servicing land is a key factor contributing to the lack of new housing commencements.*** The cost of infrastructure upgrades, particularly in Singleton but also in Muswellbrook, is substantial. In Stage 1 of this study, key players estimated the cost of bringing land to market in the vicinity of \$100,000 per lot⁵. Given current housing take up rates, several years would need to expire prior to developers recouping the costs associated with providing major works. Discussions with Councils in the sub-region indicated that their current usage of funding and financing mechanisms are not meeting the needs associated with the delivery of infrastructure.
- ***Inadequate means of recouping and financing infrastructure costs through the current use of mechanisms, particularly S94 contributions.*** All Councils in the Upper Hunter sub-region have an active Developer Contributions Plan (DCP) in place, developed under Section 94 of the Environmental Planning and Assessment Act, 1979. However, most indicate that the costs recouped are barely (if at all) covering local level infrastructure (infrastructure serving catchment areas immediately surrounding the development in question), and are not adequate to recoup the cost of sub-regional level infrastructure (infrastructure serving an Upper Hunter sub-region catchment), which is not presently covered by DCPs. In Stage 1 of the study an example in Denman was provided. This indicated that for a minimum 750 lot development Council required \$30,000 per lot in development contributions to effectively provide essential infrastructure. However, during negotiations, the development contribution was reduced to \$12,000 per lot and Council could not easily pay the shortfall. This example was not an isolated case. And as noted in the Local Government Infrastructure Audit in 2013⁶ infrastructure backlogs associated with inadequate funds to provide required infrastructure is a typical situation across Councils in the NSW environment.

The Upper Hunter sub-region Councils noted that due to the lack of ability of developers to pay local infrastructure, sub-regional level costs are often not included in the infrastructure charges. If Councils were to include sub-regional infrastructure, then development would be even more highly constrained due to excessive upfront charges. At the time of writing most Councils were reviewing their Section 94 DCPs,

⁵ Planning for Housing in the Upper Hunter stakeholder workshop held at Muswellbrook Shire Council, 19th June, 2013 in Stage 1 of the Study

⁶ NSW Department of Premier and Cabinet, June 2013

and all noted that they are unlikely to reach the maximums allowed under the legislation.

Muswellbrook Council indicated that a State Government loan had been secured to assist in delivering works that had been identified in the s94 Plan, but unable to be funded in a timely manner due to cash flow. Council indicated that the need for the loan was due to the time lag between demand that is present, and likely future demand. Hence, should development roll out as forecast, the loan will be paid back within a given time frame via the user pays system over time as development occurs⁷.

Discussions with Singleton Council officers indicated that the Singleton Land Use Strategy 2008, which is directing growth to 2032, includes considerable areas of zoned land that is constrained by water and sewerage infrastructure provision. Areas suffering most constraints include the Huntergreen and Bridgman Ridge developments. Both these areas are dependent on the achievement of developer funded road, water and sewage services before further land can be released⁸.

Similarly, the Muswellbrook Local Environmental Plan (LEP) 2009 nominated areas for future residential expansion, most significantly in South Muswellbrook. It was expected that sewer infrastructure for the land supply will have capacity in the short term (10 years based on historic trends) but beyond this the sewerage reticulation system in South Muswellbrook will need augmenting and upgrading. Council has a long term strategy for augmentation which may need adjustment in response to housing demand, if activity levels within the Shire increase. The augmentation may need to include developer-funded staged upgrade works. In addition, as noted above, Muswellbrook secured a loan from the State Government to assist with significant works for some of its development fronts⁹.

The Upper Hunter Land Use Strategy 2008 includes planning for growth areas up to 2032 given current infrastructure constraints. Over this time the Strategy allows for marginal growth in areas such as Scone and Aberdeen. However, should growth be more rapid than allowed for in the Land Use Strategy, augmenting of most infrastructure networks will be needed. Without State Government funding, Upper Hunter Shire indicates that it will be difficult to include additional capacity in the infrastructure systems¹⁰.

This paper notes that Councils do obtain funds through mechanisms other than s94, which could be utilised on infrastructure works. These mechanisms include grants such as those obtained through the Resources for Regions program, payments through the Voluntary Planning Agreements and monies through mining rates, plus

⁷ Pers comm, Muswellbrook Council, April 2014. Please note that the expressed views are not 'adopted Council opinions' but rather the views of individuals within Council.

⁸ Pers comm, Singleton Council, Dec 2013. Please note that the expressed views are not 'adopted Council opinions' but rather the views of individuals within Council.; Manidis Roberts (2011). Upper Hunter Mining Expansion and Housing Needs. Review prepared for Landcom. September 2011. Unpublished report; Notes from Planning for Housing in the Upper Hunter stakeholder workshop held at Muswellbrook Shire Council, 19th June, 2013 in Stage 1 of the Study

⁹ Pers comm, Muswellbrook Council, April 2014. Please note that the expressed views are not 'adopted Council opinions' but rather the views of individuals within Council.

¹⁰ Pers comm.. Upper Hunter Shire, Jan 2014. Please note that the expressed views are not 'adopted Council opinions' but rather the views of individuals within Council.

other rates, charges and taxes. The use of these mechanisms, in tandem with s94 payments, is discussed throughout the paper.

- ***There is limited capacity for small developers to produce housing in the sub-region, given the stringent finance industry requirements and the high development costs.*** Post the Global Financial Crisis, the requirements on borrowings for developers have been tightened, and this has effectively 'squeezed out' many small developers. This, coupled with the high development costs, means providing housing in the sub-region is prohibitive for many small developers. An example of this is in Gowrie Links in Singleton¹¹. Fragmented land ownership in Singleton is also a constraint as small land holdings means that the development of multiple dwellings is made difficult, and this is compounded by the difficulties land owners of smaller parcels have in accessing finance¹². In Stage 1 of this study, Singleton Council indicated that they had considered innovative options such as funding infrastructure upfront (that is, 'go banker') to assist development, and recoup the costs upon sale of the land¹³. However, whether Council would have the means and be willing to proceed along these lines presently could not be ascertained. Part of the discussions included in this paper discuss potential ways Councils can utilise financing options to assist timely delivery of infrastructure.

1.2. Purpose

The purpose of this paper is to review approaches to infrastructure funding and financing that could facilitate the further development of land for housing in the Upper Hunter sub-region. As noted in the Introduction, it is important to emphasise that 'infrastructure' as discussed in this paper relates to local and sub-regional *development infrastructure*, as opposed to infrastructure that has a broader regional or national significance. Opportunities for funding and financing infrastructure at a broader regional or national level have been discussed in many papers and are not repeated here¹⁴. Development infrastructure is defined as water, sewerage, waste water, transport and community purposes infrastructure (and is the focus of this paper).

The issues described in Section 1.1 relate to three areas:

- The overall cost of infrastructure;
- Ways and means to fund and finance infrastructure; and,

¹¹ Manidis Roberts (2011). Upper Hunter Mining Expansion and Housing Needs. Review prepared for Landcom. September 2011. Unpublished report; AYPC, Notes from the Planning for Housing in the Upper Hunter Meeting held at Muswellbrook Shire Council, 19th June, 2013.

¹² Manidis Roberts (2011). Upper Hunter Mining Expansion and Housing Needs. Review prepared for Landcom. September 2011. Unpublished report

¹³ AYPC, Notes from the Planning for Housing in the Upper Hunter Meeting held at Muswellbrook Shire Council, 19th June, 2013

¹⁴ Should avenues for regional or national level issues be required, it is recommended that the following papers be reviewed: Arup, Better Value Infrastructure Plan Technical Paper, 2012; Chan C, Forwood D, Roper H, Sayers C, Public Infrastructure Financing: An International Perspective, 2009; Ernst & Young, National Financing Authority for Local Government, 2013; Infrastructure Australia, Australia's Public Infrastructure, Part of the Answer to Removing the Infrastructure Deficit Infrastructure Australia, October 2012; Infrastructure Australia, Infrastructure Finance Reform, Issues Paper, July 2011; Infrastructure Partnerships Australia, Financing Infrastructure in the Global Financial Crisis, March 2009; NSW Government, Better Value Infrastructure Plan, COAG Paper, 2011; Pottinger, Building Australia, New models for financing infrastructure, April 2013

- Improving access to finance, particularly for smaller developers and/or lowering upfront infrastructure costs.

The early focus of this paper is in regard to the last two dot points above. In-so-doing, it is noted that this paper emphasises an important distinction between infrastructure funding and financing. In many arenas, there is often confusion between these two terms. Infrastructure funding deals with **who** pays for infrastructure, whereas financing relates to **what vehicle or how** that cost may be paid, either up front or over time. For example, a local authority might finance the construction of a road through its bank borrowings, but it could service (pay for) these costs through its recurrent revenue (rates) and/or up-front development contributions. Thus, the road might be financed by bank borrowings, but it is being paid for by developers and the general community. In addition, although public private partnerships are often cited as ways of providing infrastructure, these are usually sophisticated models for the **financing** of infrastructure, rather than a funding mechanism (as who pays for the infrastructure does not change, just how the required money for the infrastructure is collected and paid over time). Funding and financing methods are discussed throughout sections 2.4 and 2.5.

Improving access to finance is also discussed in the paper (refer Section 2.6).

With regard to the first dot point – the overall cost of infrastructure - an important note must be made. Infrastructure provision can be expensive and someone or some entity has to pay for it. There are limited areas from which funds can come, and these include a combination (or all) of the following: the various levels of Government, the residential community, the business community, the development community and other organisations. Governments can either invest in infrastructure from their own revenues or impose direct charges on the users and beneficiaries of infrastructure. However, regardless of the approach, infrastructure must be paid for. The funding and financing mechanisms noted in this paper may assist to some degree, but they all come with a cost. The only way to decrease infrastructure costs is to ensure that land settlement patterns are directed towards areas with the low infrastructure requirements, and that the cost of infrastructure delivery is minimised. The paper therefore also discusses efficient settlement patterns (Section 2.1) and procurement methods (refer Section 2.3).

2. OPTIONS FOR ADDRESSING ISSUES

2.1. Efficient Settlement Patterns

Efficient settlement patterns are the first step in minimising infrastructure costs.

As noted at the outset, the cost of supplying infrastructure in the Upper Hunter sub-region often prohibits many players, particularly smaller developers, in providing an adequate supply of housing. As discussed in other papers provided as part of this study, the lack of adequate supply of housing is a large contributor to the erosion of housing affordability in the Upper Hunter sub-region. Two key issues that need to be addressed in any market system are to ensure that: 1) strategic planning efforts deliver an efficient settlement pattern; and, 2) appropriate infrastructure charges are in place.

In NSW, infrastructure charges are imposed via either a user pays system (Section 94 Development Contribution Plans (DCP) – which in some cases are capped to a maximum charge), or a ‘development cost’ system (Section 94A – where the cost of infrastructure is a proportion of the development cost)¹⁵. DCPs are generally aimed at sending price signals to the market to ensure that infrastructure costs are recovered when development proceeds. Therefore, if fully costed, by instigating a user pays system, the real cost of developing in any given area will be realised. However, by having a ‘development cost’ system in place, or by instigating caps on maximum charges – either explicitly or through negotiations with developers – the full cost of infrastructure is not captured and DCPs are less able to direct growth to efficient areas as price signals are distorted.

In a fully costed user pays system for infrastructure, it therefore follows that lower infrastructure charges would be expected in areas where there is already a high level of provision of infrastructure with capacity for more development, and higher infrastructure charges would result in areas that were more distant from existing infrastructure. The result from user charges are therefore a price signal to the market that encourages higher levels of consolidation and more compact outward growth development.

Discussions with Councils in the Upper Hunter sub-region indicated that if fully costed their infrastructure charges would be considered too expensive for some developers. However, when the charges are reduced to assist developer affordability, the mechanism does not provide an appropriate level of cost recovery and therefore infrastructure provision lags behind demand. Furthermore, Singleton and Upper Hunter Councils indicated that often there are lead infrastructure items that are required to be provided up-front, but as revenue generated by DCPs occurs over time, ample funds are not always present. In some cases additional loans have been secured to help fund the shortfall in the early phases, with the intention that development would pay back this loan over time.

Although Councils have considerable input into the process, the Department Planning and Environment (DPE) is the responsible agency for strategic planning in NSW. The

¹⁵ It is noted that the NSW Planning System is currently under review, including the infrastructure charges regime. At the time of writing, the outcomes of the review had not been published.

Strategic Regional Land Use Plan, Upper Hunter (2012) is the governing document that guides growth in the Upper Hunter. The Plan is a whole of Government document that was developed in consultation with a range of stakeholders, including Local government, representatives of the Association of Mining Related Councils, Total Environment Centre, NSW Minerals Council, Australian Petroleum Production and Exploration Association, NSW Farmers Association, Nature Conservation Council of NSW, NSW Irrigators Council, Hunter Valley Wine Industry Association, and Thoroughbred Breeders of the Hunter Valley. For future reviews of the Plan, it will be important that Councils monitor infrastructure costs in their growth areas to ensure that the roll out of infrastructure is most efficient. An example of this is that Singleton is about to commence a review of the Singleton Land Use Strategy, which will help determine whether or not enough land has been rezoned to provide for growth over the next 10 to 15 years¹⁶.

2.2. Strategically Prioritising Infrastructure Needs

Clearly articulating strategic infrastructure needs together with conducting business cases for major infrastructure items (by noting the benefits of providing the infrastructure and/or the cost to the community by not providing infrastructure) can be an important component of delivering infrastructure. Not only should the prioritisation process assist in the delivery of timely infrastructure on the part of local governments, it should also assist in attracting opportunistic un-tied funding and/or grant opportunities, if and when they arise.

The Hunter Strategic Infrastructure Plan is an initiative that spans the local government areas in the Hunter over a 20 year time period. The Plan outlines the long term infrastructure priorities in the Hunter region based on 5, 10 and 20 year increments. The Plan is intended to “*inform the recommendations for the investment of the [initial] \$350 million (Hunter Infrastructure Investment Fund) (HIIF) and provide an ongoing framework for sound infrastructure investment into the future*”. In June 2014, government announcements indicated that the first round of money had been exhausted (\$350 million), and that the Government will allocate an additional \$100 million to the fund for infrastructure in the Hunter region¹⁷.

To date this fund has been a positive addition in the Upper Hunter sub-region with around \$21 million being allocated to the Upper Hunter sub-region. Discussions with Councils in the Upper Hunter sub-region note that while this has been a welcomed addition, where successful¹⁸. In Singleton, the funded projects have been associated with infrastructure backlogs rather than facilitating infrastructure needs for expected future growth¹⁹. Muswellbrook Council indicate that the funds have relieved backlogs but also allowed for future growth. Infrastructure projects in the Upper Hunter funded to date include:

¹⁶ Pers comm., Singleton, April 2014. Please note that the expressed views are not ‘adopted Council opinions’ but rather the views of individuals within Council.

¹⁷ NSW Government, June 2014, Budget 2014-15: An Extra \$100 million for Hunter Infrastructure

¹⁸ The Upper Hunter Shire Council indicated that they have not been successful in securing funds through this grant to date and that they are excluded from Resources for Regions grants, despite being directly impacted by the mining sector (Council officers indicated that nearly 30% of the working population of the Upper Hunter Shire travel to Muswellbrook region for work). This is a significant issue for Council and warrants further investigation regarding how the Council can be acknowledged for this type of funding.

¹⁹ Pers comm, Singleton Council, Dec 2013

- \$5.7 million for the refurbishment of the Singleton “Gym and Swim” complex;
- \$2 million for the refurbishment of the Upper Hunter Conservatorium of Music;
- \$9.6 million for the replacement of the Muswellbrook Sewerage Treatment Plant; and
- \$4 million for the reconstruction of Thomas Mitchell Drive, Muswellbrook.

Given the extent of the funds (\$350 million) and the fact that around \$21 million has been directed to the Upper Hunter Councils, it is clear that the major focus of the Plan is in the Lower Hunter. Councils in the Upper Hunter sub-region believe that the funding they have received is out of proportion to the demand being generated by the mining activity. In addition, Councils indicate that there are projects that would assist in social and community development that are not eligible for funding²⁰.

While documents such as the Hunter Strategic Infrastructure Plan are invaluable tools, it is noted that these plans generally only include high level infrastructure. As such, there is scope for the Council’s within the Upper Hunter sub-region to further prioritise their local and sub-regional infrastructure requirements based on their growth expectations. In turn, this would also assist in alleviating constraints to housing supply and to also strategically position themselves to access further funds like the Hunter Infrastructure Investment Fund if more money is made available.

The Strategic Regional Land Use Plan, Upper Hunter (2012) indicates that the then Department of Planning and Infrastructure (now Department of Planning and Environment) and Infrastructure NSW will lead the preparation of a fully costed Upper Hunter Regional Infrastructure Plan. This infrastructure plan will “*review the infrastructure requirements of the region and develop a package of local and regional infrastructure to include prioritisation, staging, timing and funding of infrastructure. The infrastructure plan will also include a methodology to predict the impacts of the coal and coal seam gas industries on local and regional infrastructure as well as a program to monitor resource development*”²¹.

The documentation indicates that there will be a number of elements to this Plan, including:

“1. Infrastructure identification: Analysis is to include:

- *An audit of existing infrastructure and its capacity, including gaps in provision.*
- *Review of relevant existing studies related to infrastructure within the region.*
- *Infrastructure demand to support growth, with a focus on the demands and requirements to support expansion of the coal and coal seam gas industries.*
- *Consideration of infrastructure requirements identified in submissions to the NSW Coal and Gas Strategy and the draft Upper Hunter Strategic Regional Land Use Plan, e.g. the Scone overpass.*
- *Identification of regional infrastructure projects to include prioritisation, indicative costings, sequencing and responsible authority.*

²⁰ Pers comm., Singleton, April 2014. Please note that the expressed views are not ‘adopted Council opinions’ but rather the views of individuals within Council.

²¹ Strategic Regional Land Use Plan, Upper Hunter, 2012, State of New South Wales through the Department of Planning and Infrastructure: http://www.nsw.gov.au/sites/default/files/upperhunterslup_sd_v01.pdf

2. *Cumulative impact: establishing a methodology for identifying and predicting the cumulative infrastructure impacts of coal mining and coal seam gas extraction at a local and regional level.*

3. *Funding sources: investigation of options for funding local and regional infrastructure and establishing a range of mechanisms for the equitable sharing of infrastructure funding between users and across jurisdictions. In addition to considering the range of local, state and federal infrastructure sources that are available, options to be considered will include:*

- *Standardised annual levies for recurrent infrastructure costs (e.g. road maintenance);*
- *Section 94 levies for coal and coal seam gas industries based on, for example, per tonne of extracted material (for roads) or per employee (for community facilities);*
- *Standardised voluntary planning agreements for local infrastructure with consistent levies formula; and*
- *Cross-boundary infrastructure.*

4. *Resource development monitoring program: establishing a resource development monitoring program, similar to the Urban Development Program run by the Department of Planning and Infrastructure to provide infrastructure providers and local Government with an indicative timeline of resource development such as coal mining and coal seam gas projects in the region*²².

In many ways, this is similar to NSW's recent move towards developing Growth Infrastructure Plans (GIP) for urban infill areas. GIPs aim to *"add more certainty and consistency in order to allow efficient planning, priority setting and infrastructure investment"*²³. This is achieved by identifying where infrastructure needs to be augmented to support planned growth within an infill area.

In the case of the Upper Hunter sub-region, a sub-regional approach could be utilised and a consolidated understanding of infrastructure needs achieved. As noted in the fact sheet for the GIPs, the benefits of having a strategic infrastructure plan include the following:

- *"Increased certainty regarding future development yields will allow agencies to use their infrastructure budgets more effectively*
- *Infrastructure priorities within agencies and between agencies will be more easily identified*
- *Information contained in (strategic infrastructure plans) can be used to inform NSW Government decisions on infrastructure provision*
- *Increased certainty regarding planned infrastructure provision for industry and local councils*²⁴.

In addition to the above benefits, having a costed strategic sub-regional infrastructure plan can also greatly assist the timely application (and potential success) in accessing grant monies and funds from mechanisms such as Resources for Regions funding.

²² Action 4.1, Strategic Regional Land Use Plan, Upper Hunter, 2012, State of New South Wales through the Department of Planning and Infrastructure:

http://www.nsw.gov.au/sites/default/files/upperhunterslup_sd_v01.pdf

²³ http://www.planning.nsw.gov.au/Portals/0/HousingDelivery/GIP_infill_fact_sheet.pdf

²⁴ http://www.planning.nsw.gov.au/Portals/0/HousingDelivery/GIP_infill_fact_sheet.pdf

A similar but more local level approach, can be seen in Queensland's Local Governments' Priority Infrastructure Plans (PIP). A PIP indicates the roll out of infrastructure for expected growth areas. When coupled with efficient settlement patterns, the PIP can assist in lowering infrastructure costs and therefore promote efficient growth. Statutory Guidelines that guide the development of PIPs are available and provide more detailed information on developing PIPs²⁵.

In order to ensure that infrastructure priorities are strategic, local governments require an understanding of:

- Current infrastructure within the system and the level of spare capacity within the existing infrastructure
- Efficient settlement patterns, and costed infrastructure requirements associated with supporting growth in these areas
- The benefits associated with the provision of infrastructure, and/or the costs of not providing the infrastructure in a timely manner, and,
- How infrastructure is likely to be provided. That is, through which funding mechanism (as local government's should not rely on the delivery of grants to provide essential infrastructure). Funding mechanisms are described further in the Section 2.4.

It would be useful for the Councils within the Upper Hunter sub-region to further explore the development of a sub-regional Infrastructure Plan.

2.3. Procurement Options

Maximising the 'value' of infrastructure through traditional and less traditional means of procurement can also assist in minimising the cost of infrastructure. Thus, depending on Council's in-house skills and core activities, it is likely that they will outsource at least a part of infrastructure provision. Councils will need to determine which type of option is most likely to optimise the cost of infrastructure for their community.

Ernst and Young provided a detailed summary of these procurement methods in their *Strong foundations for sustainable local infrastructure Connecting communities, projects, finance and funds* 2012 report²⁶. The excerpt from this study is included in full at Appendix A and a short summary noted below.

Traditional means of procurement can include processes where the Council and/or State have one of a number of varying roles. The most basic of these include the 'Construct only' model, whereby the Council predetermines the design of an item and includes this in the tender documents for construction. The contract would then cover the construction of the asset but not post-construction services (refer Appendix A, 1. Construct only). Alternatively, a Design and Construct operation might offer more value

²⁵ Growth Management Queensland, Statutory guideline 01/11, Priority Infrastructure Plans: A guideline for the preparation of priority infrastructure plans under the Sustainable Planning Act 2009, 2011

²⁶ Ernst & Young, *Strong foundations for sustainable local infrastructure Connecting communities, projects, finance and funds*, 2012

for money. This would include offering both the design and construct services in one tender (refer Appendix A, 2. Design and Construct).

There are also other varying options, including Design, Construct and Novate (refer Appendix 1, 3.), Contract Management (refer Appendix 1, 4.) and Managing Contractor (refer Appendix 1, 5). These models are utilised in varying degrees by many Councils across Australia.

Less traditional means of procurement include:

- Development Agreements, which as noted in Appendix 1 *"involves Council engaging a contractor for the delivery of all aspects of the project, which may include the construction of the asset and provision of some services. Generally, the contractor is responsible for the overall delivery of the project, and the development agreement will contain all contractor responsibilities"*
- Alliancing, which aims to *"align the participants' objectives to maximise performance, proactively manage risk, reduce time and cost and achieve outstanding performance through innovative solutions"*.
- Design, Build, Operate and Maintain (DBOM), which is like a design and construct model except it also includes operational and maintenance activities post completion of the construction phase. This method of procurement is also referred to as 'build, operate, transfer' as the operation of the asset is transferred back to council at the end of a specified operations and maintenance period.
- Design, Build, Finance, and Operate (DBFO) / Design, Build, Finance and Maintain (DBFM)/ Build, Own, Operate, Transfer (BOOT), which are various procurement models where Council defines its requirements in an output specification and then enters into a contract with a special purpose vehicle (SPV) to design and maintain and/or operate the asset for a specified period.

Discussions with Councils indicate that they use efficient procurement methods. Monitoring the outcomes of the procurement methods used into the future would assist in ensuring that maximum value for money was present and infrastructure costs continued to be minimised.

2.4. Funding Mechanisms

As noted by many commentators²⁷, funding infrastructure remains challenging, and funding local and sub-regional infrastructure is no exception. There are considerable

²⁷ Ernst & Young, Strong foundations for sustainable local infrastructure Connecting communities, projects, finance and funds, 2012; Local Government Managers Australia, Local Government Revenue Raising Capacity: Submission to Productivity Commission Study, August 2007 Arup, Better Value Infrastructure Plan Technical Paper, 2012; Chan C, Forwood D, Roper H, Sayers C, Public Infrastructure Financing: An International Perspective, 2009; Ernst & Young, National Financing Authority for Local Government, 2013; Infrastructure Australia, Australia's Public Infrastructure, Part of the Answer to Removing the Infrastructure Deficit Infrastructure Australia, October 2012; Infrastructure Australia, Infrastructure Finance Reform, Issues Paper, July 2011; Infrastructure Partnerships Australia, Financing Infrastructure in the Global Financial Crisis, March 2009; NSW Government, Better Value Infrastructure Plan, COAG Paper, 2011; Pottinger, Building Australia, New models for financing infrastructure, April 2013

issues associated with adequate levels of local government funding, cost shifting, procurement efficiency, integrated planning and skills retention all impact upon the way councils deliver infrastructure for their communities²⁸. In addition, structural reform, new funding programs, a stronger focus on a more regional approach to infrastructure investment, and new requirements around integrated and long-term planning also impact on ways in which infrastructure is delivered. All these issues have resulted in “*concerted and creditable effort(s) on behalf of councils themselves to improve their financial management, asset management and prioritisation processes*”²⁹.

There are several forms of funding mechanisms associated with contributions that can assist in funding infrastructure, services and facilities. In no particular order of priority, contributions for infrastructure (and other services and facilities) can be broadly described in terms of³⁰:

- Rates and taxes;
- Other charges and levies;
- Grants;
- User pays;
- Impact mitigation payments;
- Betterment capture;
- Inclusionary provisions;
- Linkage fees and voluntary payment agreements;
- Private contributions.

Each of these systems have different intents and purposes, which are important to understand as the application of the systems can have different implications regarding fairness and equity in different circumstances, as well as cost recovery associated with infrastructure provision. The systems noted above are described briefly below.

2.4.1. Rates and Taxes

Where significant external benefits to a community are present due to the provision of infrastructure or services, rates and taxes are appropriate.

Rates and taxes are levied by government on commercial, industrial and residential properties. They are used to provide essential or desired infrastructure that are considered necessary for the effective functioning of society.

Local Councils in remote areas, with low population bases and/or those with significant drive-in-drive-out or fly-in-fly-out populations can have difficulties in collecting adequate

²⁸ Ernst & Young, Strong foundations for sustainable local infrastructure Connecting communities, projects, finance and funds, 2012

²⁹ Ernst & Young, Strong foundations for sustainable local infrastructure Connecting communities, projects, finance and funds, 2012

³⁰ Adapted from Seminar Contribution for Queensland Environmental Law Association by V Bennett (C Change Sustainable Solutions Pty Ltd) and M Spiller (SGS Economics and Planning) 2010

funds for services and infrastructure from their rate base. As such, there has been considerable debate around the efficiencies of a property-based tax where services provided relate to users or beneficiaries beyond the property boundaries³¹.

Local governments can impose rates in a general or differential manner across the LGA and/or in a specified area rate. Within land uses, general rates are applied uniformly across the Council but differential rates must be levied based upon the characteristics of the land. General rates can be used to fund any infrastructure service or facility. Specified area rates can be imposed upon land within a portion of the City for the purpose of meeting the cost of a specific work, service or facility but there needs to be a clear nexus between the areas subject to the specified area rate, and the benefits to be provided to residents or ratepayers within that area. An example is the Upper Hunter Shire's special rate variation in place to fund the finance costs of significant road infrastructure works including sealing and bridge replacements³².

It is important to note that while general rates are applied uniformly within land uses, they can differ markedly between land uses. The table below shows the general rate information for each of the Councils within the Upper Hunter sub-region for residential land (in town) compared with mining land.

Shire	Residential (in town) Rates (Base Rate - \$; Ad Valorem Rate – cents in the dollar)	Mining Rates (Base Rate - \$; Ad Valorem Rate – cents in the dollar)
Muswellbrook ³³	Base Rate: \$265 Ad Valorem Rate: 0.4258429 ^c	Base Rate: \$15,000 Ad Valorem Rate: 4.7721268 ^c
Singleton ³⁴	Base Rate: \$186.70 Ad Valorem Rate: 0.4161 ^c	Base Rate: \$0 Ad Valorem Rate: 3.2474 ^c
Upper Hunter ³⁵	Base Rate: \$0 Ad Valorem Rate: 0.7166 ^c (with a Minimum Rate of \$474)	Base Rate: \$0 Ad Valorem Rate: 39.35 ^c

Most Councils across Australia would note that their revenue collected through rates is insufficient for funding all required infrastructure and services in their municipality, and there is often a reluctance to increase rates. In addition, in NSW, there are statutory limits to which rate increases can occur on a yearly basis³⁶. Furthermore, the imposition of additional rates or charges are often resisted by Councils as they are reluctant to add further financial burden to existing residents and businesses. Some commentators note that rates and taxes could be raised and more effectively used for infrastructure³⁷, and while this is indeed true, it is the opinion of the author here that rates and taxes are most effectively used when significant external benefits are likely to be present. Councils

³¹ Local Government Managers Australia, Local Government Revenue Raising Capacity: Submission to Productivity Commission Study, August 2007, in Ernst & Young, 2012

³² pers comm. Upper Hunter Shire, Jan 2014. Please note that the expressed views are not 'adopted Council opinions' but rather the views of individuals within Council.

³³ pers comm. Rates section, Muswellbrook Council, Feb 2014

³⁴ pers comm. Rates section, Singleton Council, Feb 2014

³⁵ pers comm. Rates section, Upper Hunter Council, Feb 2014

³⁶ s. 506 of the New South Wales Local Government Act 1993, under which the Minister for Local Government sets a limit on the percentage increase in total general income that councils can raise from rates. It is noted, however, that Councils can apply for Ministerial approval to exceed the stated percentage

³⁷ Ernst & Young, Strong foundations for sustainable local infrastructure Connecting communities, projects, finance and funds, 2012; Productivity Commission, Assessing Local Government Revenue Raising Capacity, April 2008

in the Upper Hunter sub-region indicated that they do use a combination of rates and charges that is appropriate to the infrastructure being funded.

2.4.2. Other Charges (eg. licences, pay-as-you-go charges)

Where there is a clear and transparent strategic rationale for collecting charges and levies from users of infrastructure, then the levying of other charges is applicable.

Other charges such as those collected by the issuing of licenses and permits, plus user charges applied for parking, airports, community services, libraries, recreation centres, and other community facilities can also be considered a 'user charge'. However, the collection of most of these is often on the end user on a 'pay as you go' basis, as opposed to the developer in an up-front manner (see user charges in next section). Moreover, the spending of the money raised by these measures is not always on the infrastructure networks from which they were collected. In some jurisdictions, revenue raised from these types of charges has been considerable. For example, in 2010-11, the City of Perth raised over \$56.5m from car parking charges³⁸, and the Shire of Roebourne earned \$23m in 2011 from transport charges, predominantly consisting of fees for the use of Karratha Airport, which saw considerable passenger flows of during the year (over 800,000).

Other levies, such as visitor levies can also be charged (described more broadly as taxes). Overseas examples of visitor levies (also known as a 'tourism tax' or 'bed tax' where a tax is collected either as a flat rate or a percentage of the cost of accommodation for every night a visitor stays) have also been used to fund infrastructure. For example, the Upper Engadin Region in Switzerland levies a tourism tax to contribute towards the cost of public transport services. During the winter a tax of 0.25 euros is added to the nightly tariff per person in hotels and 0.16 euros during the summer months and the owners of holiday apartments are charged a flat fee of 55 euros per year as a tourism tax. The revenue generated covers approximately 28% of the cost of public transport services in the region³⁹. These levies have also been used in Australia. For example, the New South Wales government introduced a Sydney Bed Tax of 10% Sydney Central Business District and North Sydney hotels from 1998 to 2000 to assist in funding the Olympics Games.

2.4.3. Grants

Where an entity meets eligibility criteria, the use of grants is appropriate. If grants are used in items earmarked for cost recovery by other means (e.g. by user charges), the costs apportioned in the other means should be discounted by the grant or subsidy. To maximise the chances of obtaining funds, Local Governments would be well served by a costed, strategic, sub-regional infrastructure plan.

³⁸ City of Perth Annual Report, 2010-11. It is noted that the City of Perth is the third largest car park operator in Australia, operating approximately 15,000 bays, and that this is not comparable to Upper Hunter sub-region.

³⁹ MRCagney, unpublished information, 2011

As noted above, most local governments would indicate that they do not raise sufficient revenue from rates and charges to effectively operate their municipalities, and therefore require additional funds. Given the facilities and services local governments are expected to establish and maintain, it is entirely reasonable then that additional revenue from higher order governments (Australian Government and State Governments) be passed down to Councils. Examples of grants, or intergovernmental transfers as they are sometimes referred to, include:

- Commonwealth Financial Assistance Grants. These are a long-standing mechanism for providing grant funding to local government. The grants are untied, giving councils the flexibility to spend them in line with local priorities. They consist of:
 - A general purpose component which is distributed between the states and territories according to population; and,
 - An identified local road component which is distributed between the states and territories according to fixed historical shares.

Local government grants commissions' in each state and the Northern Territory recommend the distribution of the grants to local governing bodies in accordance with federal guidelines. The ACT does not have a local government grants commission because the territory government provides local government services in lieu of the territory having a system of local government⁴⁰.

- Australian Specific Purposes Payments (SPPs). These are grants from the Australian Government to the States for specific activities. They comprise National Specific Purpose Payments (NSPPs), National Health Reform Payments, National Partnership payments, and payments under some of the Australian Government's own purpose spending programs. There are four NSPPs in place: one for Schools, Skills and Workforce Development; one for Affordable Housing; and one for Disability Services. These ongoing payments grow in line with agreed indexation arrangements. No conditions are attached other than the requirement to spend the payments in the relevant sector⁴¹.

There are also numerous state and territory programs that provide funds to local government for a variety of outcomes. Programs relevant to the Upper Hunter sub-region have been documented in the Housing Research Scoping Study Stage 1 report and include:

- **Resources for Regions (sourced from Restart NSW funds):** The Fund utilises royalties sourced from various resource activities across the State and aims to support regional and rural communities affected by mining by addressing infrastructure constraints. It supports projects that focus on: Public transport; Roads; Infrastructure that may improve the competitiveness of the State; Local infrastructure in regional areas that are affected by mining operations; Health facilities and Workplaces for frontline government staff. The projects / infrastructure funded must align with the NSW 2021 Plan, which for the Hunter regions specifically includes renewing "the focus on liveability, lifestyle and land use, through affordable housing options, well-planned land and resource use, and through revitalisation of areas under population and industry pressure". Funding in 2013/14's second round totalled \$78m. To date, funded projects range from \$3.5m to \$9m. The grant is managed by Infrastructure NSW (INSW) in conjunction with Trade and Investment NSW, and Singleton and Muswellbrook are identified as

⁴⁰ <http://www.regional.gov.au/local/assistance/>

⁴¹ <http://www.treasury.wa.gov.au/cms/content.aspx?id=1909>

eligible, mine affected areas for funded projects. However, as noted earlier Upper Hunter Shire is not identified as eligible.

- **Housing Acceleration Fund (HAF):** The HAF has \$300m allocated in 2013/14 to support major State and local infrastructure projects. Over \$200m is allocated to Sydney and the Lower Hunter and funds projects predominantly in the areas of wastewater, roads, water and electricity infrastructure. The focus is on major housing growth areas where housing supply is constrained by the cost of major infrastructure. Projects to date have focussed on areas that have housing development numbers ranging between 750 – 17,600 dwellings. Funded projects must have approvals in place and land ready for development. Both Councils and developers can apply for the fund. The fund includes \$99m for a Local Infrastructure Growth Scheme to assist Councils to fund the gap between the maximum infrastructure levy cap and the actual cost. To gain funding the Independent Pricing and Regulatory Tribunal must review council's contribution plan. The fund is considered a transitional arrangement only until the new planning system is adopted. The detail of the new planning system had not be finalised at the time of writing.
- **Hunter Infrastructure and Investment Fund:** This fund includes \$350m over four years to 2015/16. It is guided by the Hunter Infrastructure and Investment Board and the Hunter Region 20 Year Infrastructure Plan (with focus on lower Hunter region). Funding is available for transport, education, water, health and emergency services infrastructure. Councils and State agencies in the Hunter region can apply, including partnerships with the private sector. Successful projects / infrastructure must demonstrate:
 - Contribution to productivity, liveability and sustainability in region / sub-region
 - Alignment with strategic planning and market need
 - Ability to implement by June 2015
 - Economic and social benefit proportionate to funding

As noted previously, the Upper Hunter sub-region has been able to secure over \$21 million from this fund to date. However, money associated with this fund has now been exhausted and it is unclear whether further funds will be available.

To obtain many grants, significant work may need to be invested into the fund application process. Local governments would best serve their communities by having pre-determined strategic priorities associated with infrastructure, together with business cases for why the infrastructure is needed. This was discussed previously at Section 2.2.

2.4.4. User Pays

Where clear beneficiaries associated with infrastructure usage can be determined, a user pays system is applicable.

When a user pays system is in effect in the planning field, planned infrastructure is funded by all proponents that are going to be using the system. A fair apportionment process is adopted whereby demand for infrastructure is divided 'fairly' by all users based on what their expected share of use of the infrastructure or item in question is likely to

be. Although these charges can in theory be imposed at any stage of the development (and therefore can be paid by developers or the end users), it is often the case that these development contributions are collected up front. As noted previously, Section 94 generally uses this system, but some distortions occur. However, a review of the NSW infrastructure charging system is currently taking place⁴².

2.4.5. Impact Mitigation Payments

Where adverse effects cannot be captured 'upfront', the application of case-by-case impact mitigation payments are applicable.

An impact mitigation payment or fee is different to a user charge as it is a charge that compensates for the unplanned or unanticipated adverse effects of development. The principle of these payments is not a 'payment for fair share of usage' as with user charges, but rather is a payment based on the 'polluter pays' principle. Under the 'polluter pays' principle, the 'polluting' proponent is responsible for 100% of cost of mitigating the impacts. Impact mitigation fees or payments are generally included as a condition of approval, and can also be instigated where social and/or economic impact assessments indicate that a development must mitigate the expected impacts associated with their approval.

2.4.6. Betterment Capture

Where there are significant increases in land/property values associated with efforts other than the actions of land holders, betterment is appropriate.

Betterment Capture (often called value uplift, planning gain or tax increment funding) is a different system of charges to user charges and impact fees. Betterment is not related to paying for infrastructure, but rather to capturing a proportion of any value increase associated with the land due to the wider community's efforts rather than by the efforts of the development proponent or land holder per se. In this sense, betterment captures a proportion of the 'unearned' value uplift of land. Once captured, it is reinvested into the community for further society gain.

Betterment is used in Canberra, Queensland (in certain areas only) and many overseas jurisdictions to fund strategic projects / infrastructure that are in the interest of the wider community. For example, the City of Chicago utilises tax increment financing to encourage the revitalisation of designated parts of the City in decline. Where zoning is 'up lifted' to give the developer further use rights and/or increase the intensity of uses, then part of the 'windfall' gain associated with the increased use rights are taxed. The revenue generated from the tax is used for redevelopment projects, transport and other essential services. For every dollar invested by the public sector in an area designated for tax increment financing the private sector invests five dollars⁴³.

⁴² It is noted that the NSW Planning System is currently under review, including the infrastructure charges regime but at the time of writing the new system was not published and the timeframe for releasing this information was not known.

⁴³ MRCagney, unpublished information, 2011

Australian examples of betterment (or value uplift) can be seen in the some of the Economic Development Queensland's (EDQ) Priority Development Areas (PDAs). Areas such as Ripley Valley, Greater Flagstone and Yarrabilba have been targeted as areas to facilitate major growth in Queensland over the next 20 years. As these areas are all greenfield and in some cases somewhat isolated from existing infrastructure, the provision of infrastructure and how to fund it were major areas of focus. EDQ has a funding framework to include fair and equitable contributions from developers. As well as up front user pays systems from developers and annual charges via a special rate collected through Council, a 'value uplift' charge has also been included. Value uplift charges differ in that they are a direct charge on land owners to assist in meeting the additional costs of infrastructure, while at the same time retaining an incentive for the landowner to develop (i.e. to facilitate economic development). This was included when development rights were 'brought forward' for residential developers and therefore when the zoning effectively changed from its current base (generally rural) to residential. Where there are private land holdings within PDAs, and the PDA infrastructure and/or higher development yield will result in a windfall gain to land owners. It is noted that state and local governments benefit indirectly from increases in stamp duty, rates, land tax and other property related charges that flow from an increase in land value. Thus, the presence of these systems can not only secure additional funds for infrastructure, but can also offer local government another means for securing additional finance⁴⁴. This is discussed further in Section 2.4.

It is likely that legislative amendments would be needed to support the introduction of betterment in the Upper Hunter sub-region. The system and the efforts that might be required to get the system in place may be considered worthwhile in the sub-region at a time where growth rates and property prices are high.

2.4.7. Inclusionary Zoning Provisions

Where developments are required to provide certain infrastructure to maintain or enhance environmental values in a community, inclusionary zoning is appropriate.

Inclusionary zoning (IZ) provisions are also utilised in the planning field to assist in delivering desired environmental outcomes for an area⁴⁵. One example of inclusionary zoning is where proponents are required to incorporate car parking in their development, or pay the equivalent cost such that Council can provide parking elsewhere. The requirement for car parking is to ensure that the community is not unduly burdened by the development and can therefore maintain its desired environmental outcomes. Types of infrastructure or other developments (such as affordable housing where it is considered a part of the environmental values of the area) can also be introduced using this system.

Two clear examples of using inclusionary zoning for affordable housing can be shown. The first is in England, which has used inclusionary zoning since the 1990s to great

⁴⁴ pers comm. EDQ, Feb 2014

⁴⁵ the planning term 'environmental outcomes' is used as inclusionary zoning provisions should only be used in the planning system for planning reasons. That is, inclusionary zoning should not be used for providing broad social infrastructure, which is generally the domain of rates and taxes.

effect⁴⁶. As noted by Murphy and Rehm (2012) "*The Town and Country Planning Act (1990) introduced new powers for local planning authorities to implement affordable housing policies. Under Section 106 of the Act, the provision of affordable housing became a material consideration for granting planning permission for all residential development. Under Section 106 all local authorities, that can show the need for affordable housing, can require that affordable housing units be provided at the level of individual sites. Affordable housing is either rental housing units owned by a registered social landlord or low-cost home ownership that receives some form of state subsidy and is allocated by a housing association. Under the scheme it is envisaged that that developer's contributions will primarily consist of the provision of on-site affordable housing units. However, the scheme also allows for the option of developers providing alternative sites for affordable housing or making a financial contribution in lieu of developing affordable units (Monk et al 2008)*".

The second example is in the Ultimo / Pyrmont precinct of Sydney. Using a three-way funding arrangement the area aims to provide 600 units of affordable housing by 2026 (6%-7% of total stock). Around 200 of the affordable housing units are expected to be provided through Inclusionary Zoning – either as works or cash-in-lieu developer contributions. The Consent Authority prefers the provision of affordable housing within each proposed development (on-site contribution). However, money in-lieu of units can be provided⁴⁷.

It is stressed that inclusionary zoning provisions should only be used in the planning system for planning reasons. That is, inclusionary zoning should not be used for providing wider social infrastructure or developments, which is generally the domain of rates and taxes. There may be the need for legislative amendments, or at least definitive guidance in Local Environment Plans, to support the introduction of inclusionary zoning components.

2.4.8. Linkage Fees and other Developer Infrastructure Contributions

Where there is clear evidence that employment growth is placing upward pressure on housing markets, linkage fees might be considered.

Councils and mining proponents could choose to negotiate infrastructure contributions for affordable housing through a voluntary planning agreement.

A related, but different field to inclusionary zoning, are 'linkage' fees. A linkage fee is where there is a link between commercial/industrial/major development and the need to provide infrastructure or other developments (such as affordable housing) to minimise impacts associated with the major development. Linkage fees require commercial developers to contribute to the cost of the infrastructure (or affordable housing) on the basis that employment growth in an identified area places upward pressure on housing markets. This approach has been adopted with considerable success in cities with strong commercial property markets and rising affordability problems, and could equally be adopted in resource communities. These fees can be a system embedded into the local

⁴⁶ Monk, 2010; Monk et al 2008; Monk and Whitehead, 2010; Monk et al 2006; Monk et al 2005 in Murphy L & Rehm M (2013) *Inclusionary Zoning and Greenfield Residential Development: A Feasibility Study Report prepared for Auckland Council*, June 2013

⁴⁷ SGS Economics and Planning (2006) *Affordable Housing Levers*, Northern Territory Shelter

government's development assessments for commercial/industrial development and/or be embedded into a social and economic impact assessment process.

An example of a linkage fee can be seen in San Diego's "workforce housing offset fee"⁴⁸. The fee was originally adopted in 1990 to assist the delivery of affordable housing. It was based on the theory that new development means more workers and a need for more low-cost housing. Revenues from the fee are leveraged with other funding sources to build affordable housing that is necessary for the City's key workers (such as service, health-care, and hospitality workers). San Diego City indicated that in addition to building affordable housing, jobs and new economic activity both during and after construction were made.

Linkage fees can be controversial with some parts of the community. While affordable housing advocates indicate the fee is required to assist the extreme shortage of low-cost housing available to working families, some business leaders and small business owners in San Diego indicate that it is economically unsustainable⁴⁹.

The NSW planning legislation provides the mechanisms for developers to pay developers contributions towards the cost of infrastructure. There are three mechanism provided by the legislation:

- Section 94 contributions - where there must be a nexus between the payment and the impacts of the development
- Section 94A payments - this is a levy of up to 1% of the costs of the development
- Voluntary Planning Agreements (VPAs)- the legislation provides that these payments do not have to have a nexus with the impacts of the project. They can only be made voluntarily.

Discussions regarding Section 94 payments have already been provided.

For a variety of reasons the NSW mining industry tends to make payments to local councils for impacts on infrastructure via a VPA. How these contributions are calculated varies widely throughout the state and there is very little guidance about what should be paid, which has been noted as a cause of frustration for both industry and councils. VPAs are negotiated with councils where the project is located, but in some cases also with adjoining councils. Mining proponents generally use a Social Impact Assessment to decide what their additional impact on council infrastructure and services will be and what compensation will be paid. Apportioning responsibility for non-direct impacts is problematic as the State government, Commonwealth government and other developers are often seen as responsible for many of the indirect impacts of mining development.

It is unlikely that affordable housing would meet the section 94 test with regard to nexus. VPAs are, however, voluntary, and therefore it would be a matter for both the council and the developer to agree that it was appropriate on that particular project to include contributions for affordable housing.

⁴⁸ <http://www.utsandiego.com/news/2014/jan/16/linkage-fee-debate-hurts-business/>

⁴⁹ <http://www.utsandiego.com/news/2014/jan/16/linkage-fee-debate-hurts-business/>

Where VPA payment has been agreed on some type of levy or otherwise untied basis councils could choose to apply those funds to affordable housing.

2.4.9. Contributions via Joint Ventures

Agreements as part of joint ventures can also provide funding for infrastructure (among other elements). There have been many successful examples of where joint ventures have contributed significant gains to all players involved. Examples include instances where surplus land owned by the Council or State is used in tandem with private developers to build priority community projects. This has mutual benefit to developers and the community: the joint venture benefits the developer by not requiring the developer to factor in the land holding costs associated with purchase and development of land over an extended period; the benefits for the community include the delivery of a strategic need (for example affordable housing, or better housing affordability for the general public), plus the community is often provided with infrastructure upgrades that can also service ongoing growth.

Joint Ventures are not always private public partnerships. Examples of government-to-government partnerships also exist as can be seen with UrbanGrowth NSW. As noted on their website, "*UrbanGrowth NSW was established to address the barriers to private sector investment in development projects in NSW. The organisation will drive investment in NSW and help underpin the future prosperity of urban and regional centres. As a 'development champion', UrbanGrowth NSW will focus on urban renewal projects that will provide greater housing choice and affordability. It will unlock private land holdings and access surplus Government land for development opportunities for the private sector as well as assist in the delivery of important infrastructure*"⁵⁰. At the time of writing specific examples of how UrbanGrowth NSW might work with the Upper Hunter sub-region could not be provided as the charter for the organisation was undergoing review. Discussions with UrbanGrowth NSW indicated that clear objectives and frameworks for future priorities and works were being developed.

Further examples of joint ventures that have directly delivered affordable housing were provided in the paper *Potential to Pool Existing Resources For Affordable Housing* also prepared as part of this study. It is noted that at the time of writing a joint venture proposal in Singleton between the Council and UrbanGrowth NSW had been halted⁵¹.

2.5. Financing Options

As noted at the outset, financing relates to how the infrastructure item will be paid for over time. So while financing can support funding options, the users, beneficiaries and the general or specific parts of the public will always ultimately pay for the infrastructure.

Nonetheless, additional finance can assist in delivering individual projects or programs in a more timely manner where funding is constrained. For example, debt finance can enable councils to deliver infrastructure earlier than they otherwise would have been able to in the absence of finance. In addition, given that debt funding requires payments over

⁵⁰ <http://www.urbangrowthnsw.com.au/>

⁵¹ UrbanGrowth NSW indicate that discussions are still ongoing.

time, when directed at long term infrastructure or investments, debt funding also has the benefit of spreading the costs over future generations in line with intergenerational equity, as generations into the future will also enjoy the benefit of the investments (and therefore should also contribute to infrastructure costs).

Ernst and Young indicate that Councils generally have strong balance sheets with low reliance on debt, and although debt financing could be used more frequently there is a general reluctance to do so⁵². Reasons cited for resistance to increases to debt financing include the following:

- **The fear of debt.** During consultations undertaken by Ernst and Young it was noted that many Councils associated a low debt environment with sound fiscal management. In reality, given the extended life of infrastructure, a debt free environment actually means that current populations are paying for infrastructure that future generations will also use. As noted earlier, there is a strong argument to increase borrowings to ensure intergenerational equity.
- **The cost of debt.** As with any borrowings, there will always be a cost associated with debt, and the Ernst and Young report showed that many Councils were reluctant to add to what they considered to be an already high financial burden. However, often the costs of not proceeding with infrastructure projects detracts from suitability and productivity, and can therefore diminish, albeit indirectly, the economy in an area. Where the debt can be justified by other income producing assets, and/or a need to ensure the ongoing nature of productivity and economic activity, the cost of debt should be neutralised at worst or considered good leverage at best.

It is noted that in NSW the lack of direct borrowings from State Government and the lack of guarantees over debt is likely to play a part in why Councils are reluctant to borrow. However *"the New South Wales Government ... has recently established the Local Infrastructure Renewal Scheme (LIRS) which offers a 4% subsidy towards interest payments as "an incentive to councils to make greater use of debt funding to accelerate investment in infrastructure backlogs"*⁵³.

- **The lack of assets that have associated returns against which debt facilities can be secured.** Although some local governments do have income producing assets such as car parks, airports and some recreation facilities, in regional and remote areas these can be minimal. Where there are minimal income producing assets there is often the reluctance on the part of the lender to provide finance. This is particularly so post the Global Financial Crisis. In addition, some Councils have restrictions against borrowing on non-income bearing assets. One way of overcoming these issues is by having a betterment regime in place, and securing funds off the expected revenue likely to be gained through the system. However, as betterment is predicated on value uplift in properties, there is an inherent risk associated with the forecast revenues, which is likely to be reflected in the rates offered when obtaining finance.
- **The absence of a structured debt product suitable for institutional investors such as superannuation funds.** While conventional lenders may be open to local government borrowings, local government has not been as successful in the institutional investors arena. As noted in a report completed in 2011, *"Local infrastructure projects are generally not of sufficient size for superannuation funds to*

⁵² Ernst & Young, Strong foundations for sustainable local infrastructure Connecting communities, projects, finance and funds, 2012

⁵³ *ibid*

take equity holdings. A recent survey of superannuation firms concluded that for projects that involve an investment of less than \$100m, the cost of investing does not generally reduce in proportion to project size, meaning that the net return is insufficient to justify further consideration⁵⁴.

In addition to debt financing, there are other models whereby one party can agree to 'go banker'. An example of this can be where a level of government, agency or private developer finances all major infrastructure upfront to ensure that development can proceed as and when required. Costs for infrastructure would then be recouped as and when the parcels of land sold through a prearranged agreement⁵⁵. Another example can be seen with 'ground leasing', where a developer can lease land rather than buy it outright, while developing. Upon sales, the land cost can then be returned to the original land owner.

The Strategic Regional Land Use Plan, Upper Hunter includes an action that indicates that UrbanGrowth NSW will work with the housing and development industry to develop models and demonstration projects for the delivery of more housing in the sub-region⁵⁶. The focus would be on a more diverse range of housing types, centred on the main towns of Singleton and Muswellbrook.

2.6. Financing Issues for the Developer

As well as funding issues for local governments, consultation with key stakeholders in the Upper Hunter sub-region has suggested that given tight fiscal environments, developers, and particularly smaller developers, are finding it difficult to finance their own developments, let alone pay for an increasing share of infrastructure. This situation has intensified since the Global Financial Crisis.

While it is unlikely that the major credit institutions will lessen the requirements for developers in securing finance, the introduction of a community bank within the sub-region may lend some support to local circumstances. Both Bendigo Bank and Adelaide Bank are examples of community banks. If located within the sub-region, their general banking services may be more informed of local circumstances and be more flexible in their approach to lending. In addition, these community banks have specific sections dedicated to *Community Sector Banking*, which provide specialist services for the not-for-profit sector, which may also include local government. The *Community Sector Banking* at Bendigo Bank and Adelaide Bank develops and implements financial solutions to strengthen the not-for-profit sector and help create social change and community wellbeing, including the provision of finance for working capital, renovation and construction.

Other initiatives that would assist small developers that have already been discussed include where there is the possibility of 'ground leasing' (perhaps where Council owns land, or is willing to purchase land for the duration of development), or joint ventures

⁵⁴ Ernst & Young, Financing Australia's infrastructure needs: Superannuation investment in infrastructure, October, 2011

⁵⁵ This is similar to the State Government loan situation being utilised by Muswellbrook Council, but it is noted that this type of arrangement does not need to have Government as the 'banker', it could have developers as 'bankers'.

⁵⁶ Action 6.2, pg54 in http://www.nsw.gov.au/sites/default/files/upperhunterslup_sd_v01.pdf

with entities such as UrbanGrowth NSW. Upon finalisation of UrbanGrowth NSW's charter, expected in the first quarter of 2014, it would be useful to determine the parameters required for UrbanGrowth NSW's involvement in joint ventures.

3. POTENTIAL OPTIONS TO ASSIST IN INFRASTRUCTURE DELIVERY IN THE UPPER HUNTER SUB-REGION

As noted at the outset of this paper, there is a suite of funding and financing mechanisms (primarily directed towards Local government) that are potentially available to the Upper Hunter sub-region to assist in the provision of infrastructure, albeit through the redistribution of income from one or more sources of funds already in place, and/or through adopting new types of funding or financing mechanisms. It is noted that various local political, financial and administrative contexts will ultimately determine which of the mechanisms are most appropriate for individual Councils.

Recall that the three main problematic areas for infrastructure provision in the Upper Hunter sub-region included: the cost of infrastructure; local government's recovery of infrastructure and the ability to finance the infrastructure in a timely manner; and the ability for smaller developers to access finance and/or develop at lower costs.

An initial review of the mechanisms noted herewith has been undertaken, and the following options are suggested for further investigation. As most of the measures noted herewith are in the domain of Local government, it is recommended that the paper be discussed with Council officers, plus representatives of UrbanGrowth NSW, to assess each option in the first instance. Once the options have been discussed by Local government, it would then be appropriate for a wider audience to determine the most appropriate way forward:

1. The cost of infrastructure

With the cost of infrastructure in mind, Councils could consider the following options:

- Option 1.1: Councils within the Upper Hunter sub-region continue to be active in the development of the sub-regional Infrastructure Plan for the Upper Hunter. As outlined in Action 4.1 in the Strategic Regional Land Use Plan, Upper Hunter "a fully costed infrastructure plan for the Upper Hunter region, in liaison with Local, State and Federal governments, business and the community to address key regional and subregional needs" will be prepared. Methods used in other jurisdictions, such as NSW's GIPs and Queensland's PIP's may be useful resources to Councils wishing to increase their knowledge on how other jurisdictions determine infrastructure efficiencies.
- Option 1.2: Where infrastructure provision is pivotal to future growth, develop business cases to expose the cost of not providing infrastructure in a timely manner. The strategic prioritisation of infrastructure should be used secure funds from grants wherever appropriate.
- Option 1.3: Frequently reviewing Councils' procurement methods associated with the provision of infrastructure to ensure they are providing the best value for money.

- Option 1.4: Monitor infrastructure costs relative to growth areas to assist in providing strategic advice into the next review of the Strategic Regional Land Use Plan, Upper Hunter.

2. Local government's recovery of infrastructure and the ability to finance the infrastructure in a timely manner

In consideration of recovering infrastructure costs and utilising financing mechanisms, Councils could consider the following options:

- Option 2.1: Review the funding mechanisms noted herewith. At the minimum:
 - Continue to review their DCPs to ensure that as much of the infrastructure costs can be recovered (in line with legislative requirements). Where caps are required to be introduced, a case could be made to IPART to recover costs in line with the Housing Acceleration Fund.
 - Check to ensure that where appropriate Impact Mitigation Payments can be conditioned.
 - Facilitate discussions with key players regarding whether systems including betterment capture, inclusionary zoning mechanisms and linkage fees/payments would be worthwhile to pursue in the sub-region.
 - Review whether a component of the VPAs could be allocated to funding infrastructure backlogs and/or infrastructure facilitating growth.
- Option 2.2: Upon finalisation of UrbanGrowth NSW's Charter, request clear and transparent parameters for when they would consider partnering arrangements with Councils and/or larger developers. Where considered appropriate, joint ventures and demonstration projects with UrbanGrowth NSW could be pursued.
- Option 2.3: Discuss each Council's appetite and ability for increasing borrowing. A business case for why borrowing would be a good investment in the area could be developed and discussed with Councillors. Upon completion of the business case and discussions, if there is an appetite to utilise borrowing to further assist infrastructure provision, then Councils could consider also applying for the 4% discount from Treasury for funding the infrastructure backlogs, and/or try to ascertain interest-free loans with the State Government to assist with the timely provision of infrastructure. The loans would be paid back by development as it arrived in the Council area.

3. The ability for smaller developers to access finance and/or develop at lower costs.

With regard to financing infrastructure and/or providing infrastructure at a lower cost, Councils could consider the following options:

- Option 3.1: Determine whether UrbanGrowth NSW's parameters include small developers and smaller parcels of land. If they do, develop information sheets to show how private developers can benefit from joint ventures.
- Option 3.2: Determine whether Councils have land that could be leased. If Councils are willing to utilise land in innovative ways, call for tenders from private developers regarding the development of land within the sub-region.
- Option 3.3: Hold discussions with Bendigo Bank and Adelaide Bank to determine the likelihood of their presence in the community, and their ability to assist with development in the area, both with Developers and also directly with Councils.

Notwithstanding the above options, it is stressed that all key players would need to take active ownership of the actions required to put in place any of the recommendations suggested and as such will need to complete their own assessment. As such, and should key players wish to undertake their own assessment of the appropriateness of each of the measures, a suggested framework is shown in the table overleaf. The way measures would be rated would be based on the following criterion⁵⁷:

- ***Demonstrated effectiveness and practicality.*** A mechanism would be rated highly on this front if there are existing examples of its successful implementation in Australia.
- ***Implementation readiness.*** This relates to the institutional, legislative, administrative resources and skills required to put the mechanism into practice. If all requirements were in place, then the measure would rate highly on this front.
- ***Significant benefits obtained by instigating measures that are not yet institutionalised.*** A mechanism would rate highly on this component if it could be shown that the benefits in implementing the measure significantly outweighed the costs, even if there were efforts required in setting up of the measure.
- ***Likelihood of broad stakeholder support.*** Measures would rate highly on this front if there were likely to be support from the political and community environments. A mechanism would attract a lower rating if key stakeholder groups were on the record as being strongly opposed to the measures in question.

⁵⁷ This framework has been adapted from SGS Economics and Planning's framework utilised to assess Affordable Housing Levers as noted in NT Affordable Housing Study, 2006.

	Measure Already in Place?		Measure Not Yet in Place				Actions required to implement measure	
	<i>If yes, does implementation of measure need reviewing?</i>	<i>Requirement /s to ensure effective</i>	<i>Demonstrated effectiveness and practicality</i>	<i>Implementation readiness</i>	<i>Significant benefits to institutionalising measure</i>	<i>Likelihood of Broad Stakeholder Support</i>	<i>Implement measure? & Actions Required</i>	<i>Key Stakeholders to be involved</i>
Efficient Settlement Patterns								
Development of a Sub-Regional Infrastructure Plan								
Review of Procurement Models								
Funding Mechanisms								
- Rates and Taxes								
- Other Charges								
- Grants								
- User Pays								
- Impact Mitigation Payments								
- Betterment Capture								
- Inclusionary Zoning Provisions								
- Linkage Fees								
- Contributions via Joint Ventures								
Financing Mechanisms								
- Borrowing								
- Pursue Community Banks								
- Potential for Council and/or Urban Growth NSW to 'go banker' for land with smaller developers								

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APPENDIX 1 Traditional and Non-Traditional Procurement Practices

Sourced directly from: Ernst & Young (2012) *Strong foundations for sustainable local infrastructure Connecting communities, projects, finance and funds*

Appendix 6 - Procurement models

An integral part of the procurement strategy is the selection of a procurement or project delivery model. A procurement model is a structure governing the relationship of the project participants in the delivery of a project.

The procurement model forms the basis of a contractual framework for the project which broadly defines the risk allocation and over-arching commercial principles of the procurement. To a large extent, it will determine the nature and duration of the relationship between the project sponsor and the contractors.

This section presents an overview of some of the “traditional” and alternative project procurement models which may be appropriate for local government infrastructure projects. It by no means covers all of the procurement models available nor does it include a discussion of the relative benefits of each model. Each model can be adapted to the specific needs of an individual project or program.

The project delivery models covered in this section are:

Figure 45: Traditional and alternative/non-traditional delivery models

Traditional	Alternative/non-traditional
1. Construct only	6. Development Agreement
2. Design and Construct	7. Alliancing
3. Design, Construct and Novate	8. Design, Build, Operate and Maintain (DBOM)
4. Contract Management	9. Design, Build, Finance, and Operate (DBFO) /
5. Managing Contractor	Design, Build, Finance and Maintain (DBFM)/
	Build, Own, Operate, Transfer (BOOT)

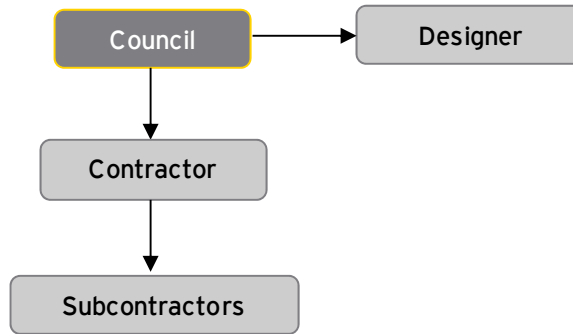
“Traditional” procurement models such as construct only and design and construct have been historically favoured by councils, owing to the existence of precedents for such models, and the familiarity suppliers and contractors have with such forms of project delivery.

Traditional models tend to be limited to the design and construction of an asset, and generally do not contemplate any post-construction maintenance and operation activities. Traditional models are funded by council on balance sheet, and council remunerates a contractor or supplier whilst retaining ownership of the asset. They are generally suited to procurement with a relatively low risk profile and where the asset to be delivered can be defined with a high degree of certainty.

In many cases, for large complex or innovative projects, better value and project outcomes may be achieved by utilising a non-traditional procurement model. These alternative models do not have a common set of features. Some apply to the design and construction period of a project and some extend to the post-construction operation or maintenance of the asset. Some are financed by council and some are financed (partly or wholly) by the private sector.

They are linked by the fact that historically, local government in Australia has underutilised these models.

1. Construct only

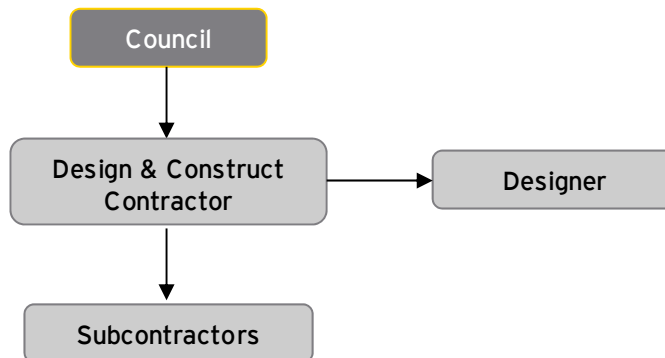


A construct only model may be alternatively described as a 'lump sum' or 'fixed price' model. It covers the construction of the asset solely and no post-construction services.

Council first engages a design team to fully develop the design documentation for the asset to be constructed. The complete design documentation is included in the tender documents for the works contractor. Council then separately engages the work contractor. The design documents form part of the construction contract, but council retains full responsibility (and liability) for the design.

The contractor is entitled to be paid the lump sum contract price for completing the works under the contract subject to contractually approved adjustments, and is entitled to this sum irrespective of the actual cost of the works. In practice, cost increases to the original sum are common, particularly due to variations, poor contract management and inadequate risk assessment.

2. Design and Construct

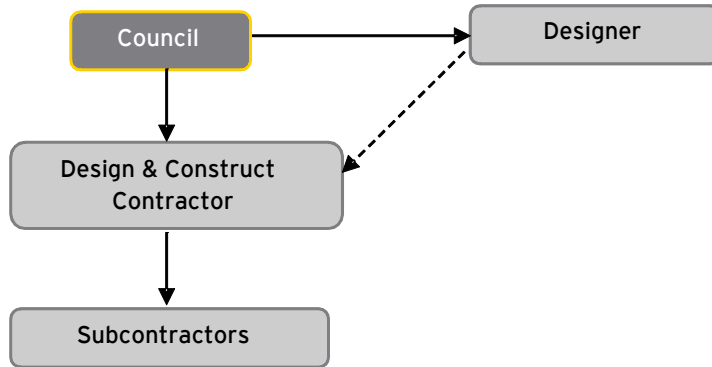


A design and construct model may be alternatively described as a 'design and build' contract.

Council prepares a design brief specifying performance and user requirements. This will often be quite a detailed document setting out council's requirements and may include some preliminary design. Council then seeks tenderers for the completion of the project in accordance with the design brief under a single lump sum contract.

The contractor will complete the design documentation and construct the works in accordance with the design documentation, relieving council of some of the administrative burden of the project. The contractor usually bears design and construction risks including fitness for purpose.

3. Design, Construct and Novate

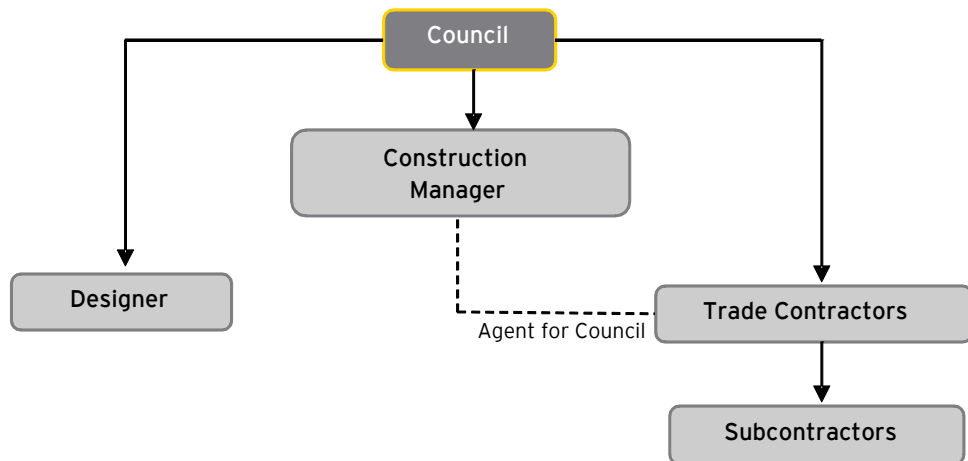


Under this model, council engages a designer to develop a preliminary or schematic design (as a minimum). Council then engages separately a contractor to design and construct the asset based on this design.

The contractor enters into the design and construct contract on the basis that it will accept a novation of the contract between council and the original designer. Through the novation, the designer becomes a subcontractor to the design and construct contractor, thereby creating a single line of responsibility between council and the contractor for the project.

After the novation, the contractor is responsible for the design produced by the designer, payment of the designer's fees and construction and design risk. The council no longer has a direct contractual relationship with the designer following the novation.

4. Contract Management



Under this model, the works are typically divided into discrete trade packages with designers and construction managers engaged separately.

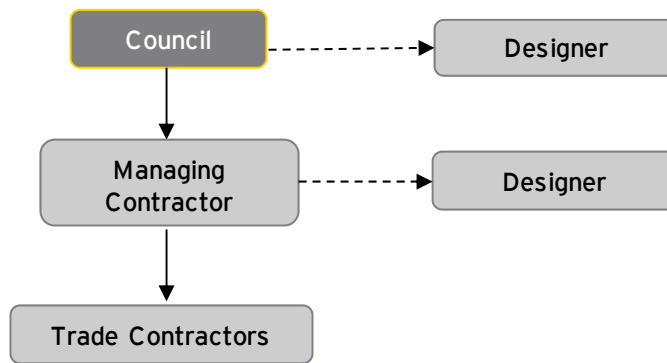
Council usually engages the designer directly and manages the design process. Council then engages a construction manager to manage the performance of the construction work.

The construction manager is essentially a project manager and this model is sometimes also referred to as a 'project management contract'. The construction manager conducts the tender process for the trade packages and enters into the contracts as agent for council. In a variation of this model, the construction manager sometimes also engages the designer as agent of council and is responsible for the design process as well.

The construction manager does not perform any works itself nor does it bear any delivery risk, including design, cost and delay risk. Council retains overall project delivery risk.

The construction manager is paid a fee for the services provided based on set rates (time) or a percentage of the value of the works (or a combination of both).

5. Managing Contractor



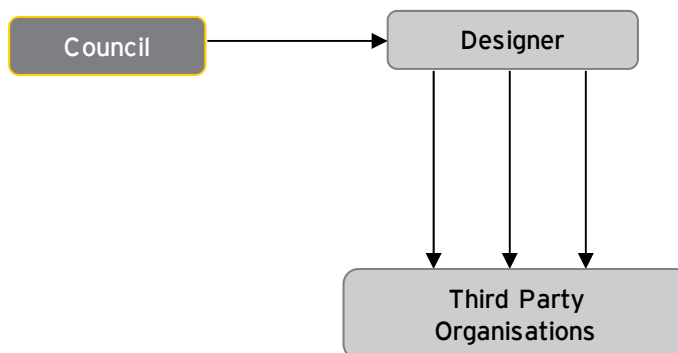
Council engages a managing contractor who contracts directly with the designer and subcontractors to deliver a project. Unlike the construction management model, the managing contractor acts in its own capacity and not as an agent of council. The managing contractor is appointed early in the project to monitor the project from tender to design to completion.

The model is flexible in that the contracting manager can be engaged to deliver a functional design brief prepared previously by council or is fully responsible for the design and delivery of the project.

The managing contractor, although collaborating with the council, is ultimately responsible for the preparation of trade package documentation and selection of tenderers and suppliers. The managing contractor assumes some documentation and quality risk and is responsible for ensuring completion of the works by the date for practical completion.

The managing contractor is remunerated by a lump sum management fee, and receives incentives for managing the project within time and cost targets.

6. Development Agreement



A Development Agreement involves Council engaging a contractor for the delivery of all aspects of the project, which may include the construction of the asset and provision of some services. Generally, the contractor is responsible for the overall delivery of the project, and the development agreement will contain all contractor responsibilities.

Development agreements act as a contractual 'one stop shop' providing for the development of the area, the nature and extent of the contractor's contribution to the development and the timeframes associated with these provisions.

Key aspects of the framework may include, amongst other key issues: land transfer, licenses and leases, development obligations, financial arrangements (rent, sales price), and miscellaneous items such as car parking and marketing.

The development agreement will form the overarching project document, however may contain obligations for the parties to enter into a number of other agreements, with each other or third parties, for the purposes of giving full effect to the development agreement. These agreements often deal with discrete property or planning issues such as land transfer or planning permit documentation.

7. Alliance



Alliance contracting is a form of procurement where council and other commercial participants (designers, contractors and key suppliers) collaborate to share in the risks and benefits of a program/project by entering into one contractual agreement.

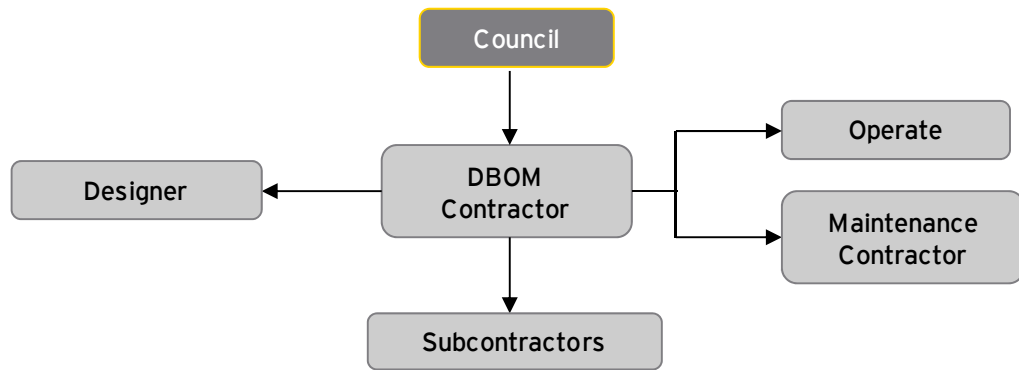
Under an alliance, the aim is to align the participants' objectives to maximise performance, proactively manage risk, reduce time and cost and achieve outstanding performance through innovative solutions. The alliance participants collaborate to develop time and cost targets during the pre-construction phase, and non-owner parties (participants other than council) receive open-book reimbursement of direct project costs. The gain share/pain share payment structure is linked to the "Target Out-turn Cost".

This approach allows for progressive design and construction of some elements before others.

There are various forms of alliances, including:

- ▶ **Project Alliances:** suitable for the construction or design and construction of a single project.
- ▶ **Program Alliances:** suitable for bundled projects where the specific number, scope, definition and budgets of the projects are unknown.
- ▶ **Services Alliances:** suitable for the long-term provision of service where council wishes to bring in external expertise. This might be relevant for operations and maintenance activities for an asset(s).
- ▶ **Sub alliances:** subordinate to an alliance and an alternative to a subcontract, sub consultancy agreement or a supply agreement. Sub alliances are appropriate where the circumstances dictate that an alliance methodology should be used rather than traditional methods of procurement.

8. Design, Build, Operate and Maintain (DBOM)



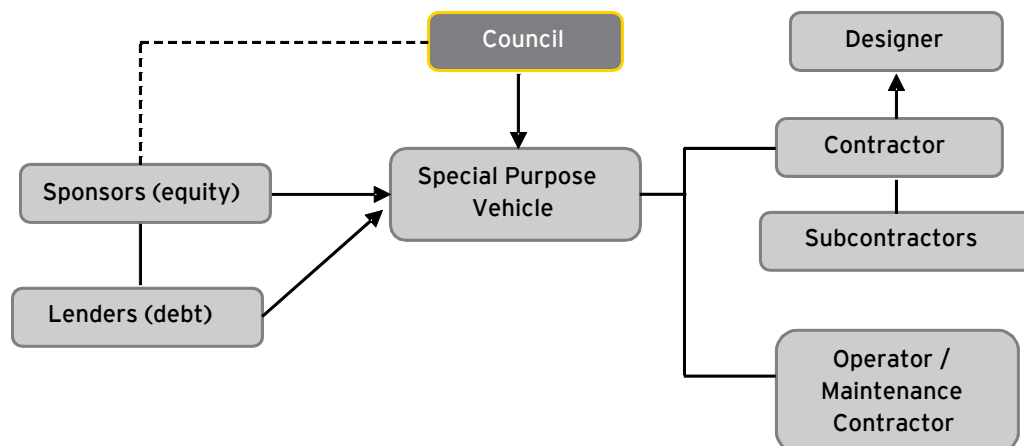
The DBOM model is like a design and construct model except, as the name suggests, it also includes operational and maintenance activities post completion of the construction phase. This method of procurement is also referred to as 'build, operate, transfer' as the operation of the asset is transferred back to council at the end of a specified operations and maintenance period.

Under this approach, Council prepares a detailed design brief and engages a single contractor to design, construct, operate and maintain the asset. The contractor is primarily responsible for associated design, construction and operation risks.

The DBOM contractor does not own the asset, but is contractually licensed to enter, operate and maintain it for a specified period. Typically, Council funds the project without a contribution from the DBOM contractor.

A variant of this model is the DBM (Design, Build Maintain) whereby the contractor does not operate the asset post-construction. The contractor does however, provide maintenance services for a specified period.

9. Design, Build, Finance, Operate (DBFO), Design, Build, Finance and Maintain (DBFM) and Build, Own, Operate and Transfer (BOOT)



Under the DBFM/DBFO model, Council defines its requirements in an output specification and then enters into a contract with a special purpose vehicle (SPV) to design and maintain and/or operate the asset for a specified period. A key differentiating factor of this model is that the private sector finances the project through sponsor equity and debt finance via the SPV.

Typically, council retains ownership of the asset and grants rights to the SPV under a long-term lease or licence arrangement. The operation/maintenance period may be as short as 10 years, but is generally much longer (say 15 - 40 years) to enable the SPV to repay any financing and return profits to the sponsors. At the end of the lease/licence period, Council takes over the operation/maintenance of the asset.

Under this arrangement, Council is usually not required to make any upfront payment for the design or construction of the asset, and the SPV recovers these costs through the operation of the asset (via the revenue stream generated by the asset such as usage charges), or by way of an availability charge or service fee payable by Council.

The BOOT model is similar to the DBFO model except that the SPV is to own the asset during the specified operating period and then must transfer the completed asset back to council. Like the DBFM/O models, the operating period is usually long-term (15 - 40 years). Accordingly, until the asset is transferred back to council at the end of the concession period, the SPV bears the risks associated with owning the asset.