

ORGANISATIONAL CAPACITY IN INTEGRATED URBAN WATER MANAGEMENT: THE ART OF BEING UNDISCIPLINED

Harvey, L., Comley, J., Marshall, A., and Edwards, P, Melbourne Water

Abstract

The introduction of Clause 56.07, as an amendment to Victorian Planning Provision, has challenged the capacity of local government to deliver traditional services to the community and the development industry. This paper reports findings from a social research report (the report) on the subject of Integrated Urban Water Management (IUWM) policy and local government organisational capacity. The purpose of the report was to assess councils' management of responsibilities under new policy, and make specific recommendations to improve organisational capacity. This paper considers the report findings and reviews them against current academic literature on organisational capacity and IUWM. It provides an example of what a capacity intervention might look like, within an existing council planning process, and proposes a methodology for initiating sustainable, organisational capacity building initiatives.

Introduction

Clause 56.07 was introduced into the Victoria Planning Provisions in October 2006, and requires new residential subdivisions to achieve best practice stormwater management. This is typically achieved through providing Water Sensitive Urban Design or Integrated Urban Water Management (WSUD/IUWM) systems within the subdivision. The introduction of this new policy requirement has presented as a challenge to local government who is now required to deliver beyond traditional development-related services to the community and the development industry.

Clause 56.07 refers to the Urban Stormwater Best Practice Environmental Management Guidelines, which defines best practice stormwater management in subdivisions as treatment which removes 80% of Total Suspended Solids, 45% of Total Nitrogen, 45% Total Phosphorous, 70% of gross pollutants and attenuates flows to ensure the

1:1.5 year ARI discharge from the site does not exceed pre development levels. The amendment applies only to residential subdivision, with industrial and commercial subdivisions currently being exempt from the requirements of the Clause.

Councils' responsibility under the new planning provisions is to manage the development approvals process to ensure the requirements of the Clause are met. This involves assessing the proposed IUWM system, as part of the larger subdivision planning application assessment, and stipulating appropriate planning conditions. Council is then required to ensure these conditions are enforced during the construction phase. Commonly, as most IUWM assets are constructed within streetscapes, councils inherit these assets for ongoing maintenance following a defects liability period. A typical council planning and approvals process is described in Figure 1.

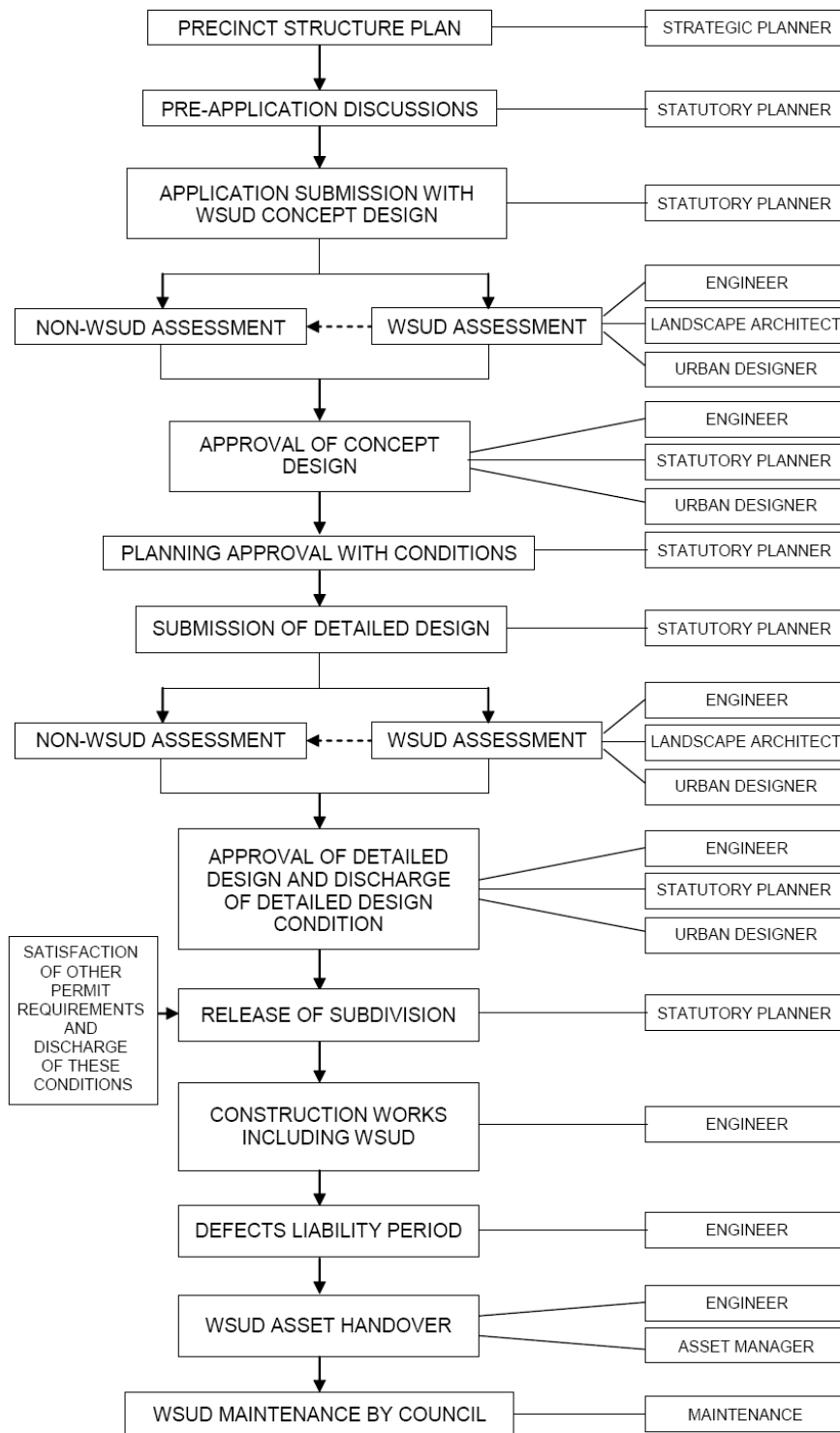


Figure 1. Local Government role in a typical planning and approvals process

Figure 1 describes a relatively linear process specific to Clause 56 planning and approvals processes, as typically described by study respondents. The process relies upon a series of tasks to be undertaken by specialist individuals such as Planners, Landscape Architects, Engineers and Urban Designers.

These specialist individuals represent many disciplines within the organisation. The role of each specialist is to assess the planning application based upon a set of standard state and municipally based criteria or development guidance notes. The task of each specialist is to make any specific

comments and provide their response to the statutory planner co-ordinating the application assessment. It is usually the responsibility of the Statutory Planner to manage applications and compile all comments and requirements in a response to the developer or applicant. The Statutory Planner will ultimately make recommendation to Council for the approval or refusal of the planning application.

There have been a range of challenges for local government to manage the responsibilities required within the amendment to Clause 56. Impediments to responding to these responsibilities typically include institutional fragmentation, undefined organisational responsibilities, limited political incentives and disincentives, poor organisational commitment, technological path dependency, poor community capacity to meaningfully participate, and an overall lack of experiential knowledge with facilitating more sustainable urban water management approaches (Brown, 2008). These challenges have impacted across organisational functions such as budgeting, planning, designing, assessing, constructing and managing public spaces. Organisational capacity, which is the ability of the whole organisation to undertake responsibilities such as specific task or function, will remain one of the many hurdles to overcome these impediments.

A recent unpublished report titled 'Water Sensitive Urban Design Asset Management', commissioned by local government and a water authority on the challenges faced by local government, uncovers a range of issues specific to Clause 56.07. The report draws on issues raised by interview respondents from several local government organisations, to inform a series of recommendations, which were made to address key opportunities for councils to improve their organisational capacity to manage Clause 56.07.

Method

The research for the report was guided by a Steering Group (SG) which made up of a local government representative and the local water authority, Melbourne Water, who acted as a funding partner through the Living Rivers Stormwater Program. The aim of the funding was to build capacity of local government to

deliver IUWM. The purpose of the SG was to guide decision making and ensure project goals and timelines were met. The SG was suitably placed to advise names of appropriate interviewees to act as respondents from local governments, based upon their many years of experience dealing with council.

Respondents were selected due to their known experience in managing aspects of IUWM and Clause 56. These respondents were identified by the SG and contacted to gauge interest in participating in interviews. Of the ten contacted, all ten agreed to participate as respondents in the interviews. The interviews were held at the respective council's offices and were conducted as semi-formal, one-on-one discussions. The interview was initiated with some set questions to direct the discussion; however responses were used to direct and interrogate information offered to provide a more thorough assessment.

Interviews were typically conducted within a one, to one and a half hour time frame. This flexibility was seen to be necessary to facilitate in depth responses and ensure exhaustion of the subject matter. Responses were recorded as written notes taken during the interview with a review undertaken immediately after each interview to ensure comments were recorded accurately.

The report findings identified 'issues' which affected the majority of areas within and external to, the organisation, and made a series of 'recommendations' which were developed as mechanisms to overcome the issues. The issues and recommendations were categorised into the broad topics of 'External Influences' including; 'Clause 56 Policy', the 'Community', 'Construction' and 'Developer' and, 'Internal Influences' including; 'Planning Process', 'Maintenance', 'Resources', 'Financial', and 'Organisational Commitment'. This categorisation was employed to assist logical and clear separation between areas and their functions within each organisation.

Discussion on Findings

The report findings indicate that the ability of individuals to change processes or systems, to deal with new policy for example, is

impeded by complexities of the organisations' structures and governance. Some of the more common issues raised were focussed on the interaction between the various individuals such as; physical separation, where the engineering department operate from civic building and landscape architects operate from the open space planning depot; tight time frames, where council are obliged to respond within a set period, and; lack of communication, where organisational culture created reduced contact between the various departments.

The issues and recommendations raised in the report were categorised across the range of areas and functions of the organisation. Occasionally several issues raised within the report could be 'resolved' by making only one recommendation, conversely on some occasions, one issue required that several recommendations be made to be 'resolved'. Further analysis of the recommendations indicates that the action of carrying out the recommendation was not necessarily undertaken by the area that would ultimately benefit from it, as demonstrated in the following example:

One issue raised regarded the difficulty of physically maintaining IUWM infrastructure, which resulted in some assets not being maintained at all. A capacity intervention that focuses on single individuals might have recommended that the designer or contractor attend a maintenance skills course. The report recommended that council "establish a clear design referrals and approvals process" to incorporate input from maintenance contractors to assist in improved design of assets. The report identified the issue at the core of the problem was a lack of input into the design from the maintenance department which had lead to infrastructure that was impossible or difficult to maintain. Therefore it was concluded that a process, which allows for maintenance staff to have input as part of the design process, was to be established.

Local government planning and development review process is by its nature organisationally complex. The IUWM provisions of Clause 56 require management and coordination of recommendations from across numerous council departments. The

subject of IUWM and the procedures and tasks it required council to undertake was identified as source of much of the frustration conveyed by respondents. A report titled '*Changing Behaviour: A Public Policy Perspective*' (Australian Public Service Commission, 2007) refers to urban stormwater management as a 'wicked problem', a term which attempts to relate the complexity of managing a diffuse, dynamic and highly variable problem. The Australian Government report states wicked problems "require thinking that is capable of grasping the big picture, including the interrelationships among the full range of causal factors underlying them. They often require broader, more collaborative and innovative approaches. This may result in the occasional failure or need for policy change or adjustment"

The term 'institutional wickedness,' has been used to describe the organisational complexities within local government. The organisational structure of local government is often based on conventional, hierarchical and bureaucratic systems. The rigid, traditional structure means that by its very nature, local government is inhibited in its ability to deal with wicked problems (Morison, 2007).

Issues presented in the report had been raised by specialist individuals performing set tasks, under complex structures, within a linear process on a wicked subject. The need for a co-ordinated approach to this problem is clearly evident; the individuals who operate within the responsibilities of Clause 56 need a methodology to address this level of complexity which is outside of the set tasks of the process, outlined in Figure 1. How do the report findings inform our understanding of institutional capacity within local government in this context?

Recent academic study proposes that long term change is only achievable by adopting a 'transformative approach'. The 'transformative' approach requires a deeper understanding of the organisational context to ensure that actions are taken to address gaps and consider the broader implications. (Brown, 2008). It has been documented that previous capacity initiatives have not been

effective in delivering long term change because they focussed on isolated actions and individuals, which failed to address the complexity or ‘wickedness’ of the issue. (Van de Meene, 2008)

A methodology to assess institutional capacity to facilitate interventions, by considering institutional ‘aspects’, was proposed by Brown et al (2006) (Figure 2). The methodology uses a diagram which explains the various aspects of individual capacity, intra-organisational, inter-

organisational and external rules and incentives. Brown et al (2006) suggest that focussing on one aspect alone is not sufficient to address sustainable organisational capacity. Brown et al (2006) propose that an overly simplistic response focussing solely on individuals and their knowledge to effect organisational capacity was not likely to be effective. Rather, capacity building initiatives should focus on a range of aspects utilising various types of intervention.

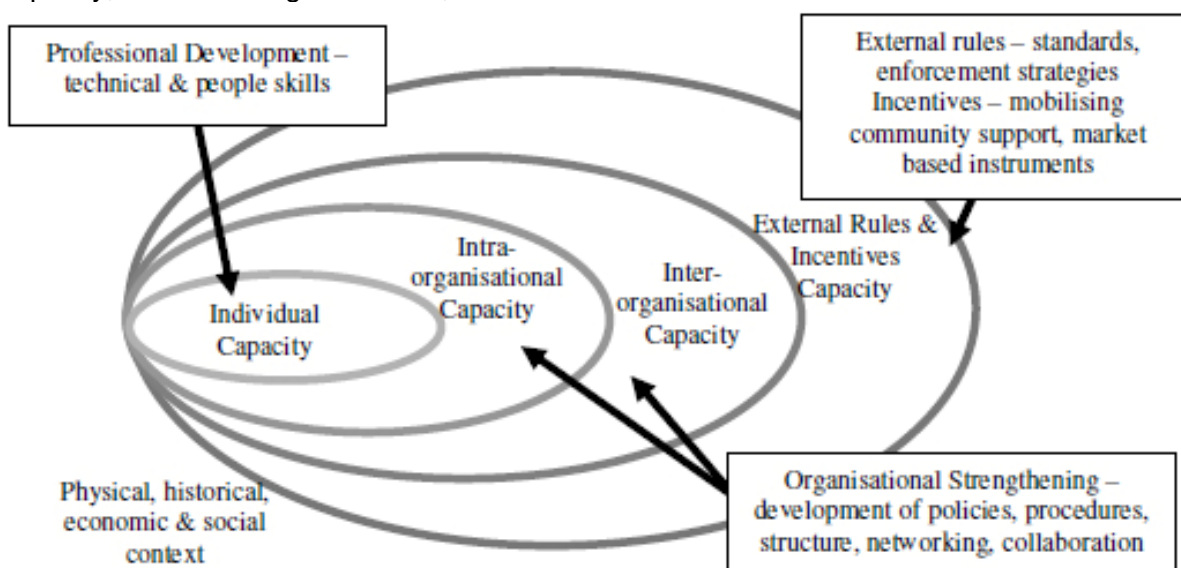


Figure 2 Aspects of organisational capacity (Brown et al, 2006)

The same capacity spheres were used by Van de Meene (2008) in another social research project to interpret research findings specific to IUWM. The paper reports that the most critical area to focus capacity building attention is the intra-organisational aspect. The intra-organisational aspect is responsible for the development of policies, procedures, structure, networking, collaboration; “the intra-organisational operating context was the key factor for determining the level of success with implementing IUWM, (Van de Meene, 2008).

To analyse the research findings from the report and to test Van de Meene’s theory about the importance of the intra-organisational aspect, the reports’ issues and recommendations, previously placed into the broad topics of Internal and External Influences, were placed across the organisational aspects proposed by Brown et al (2006). This is demonstrated in Figure 3, where the numbers of issues raised are placed within each in the aspect that they affect, and; Figure 4, where the numbers of recommendations to address each issue are placed in the aspect where they need to be actioned.

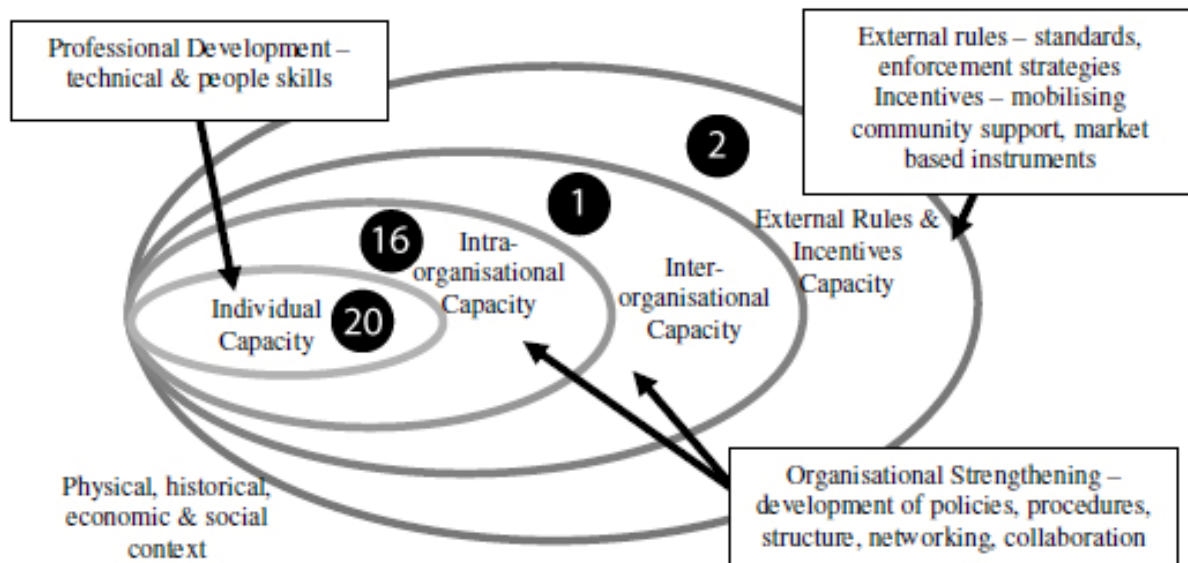


Figure 3. Aspects of organisational issues, adapted from Brown et al (2006)

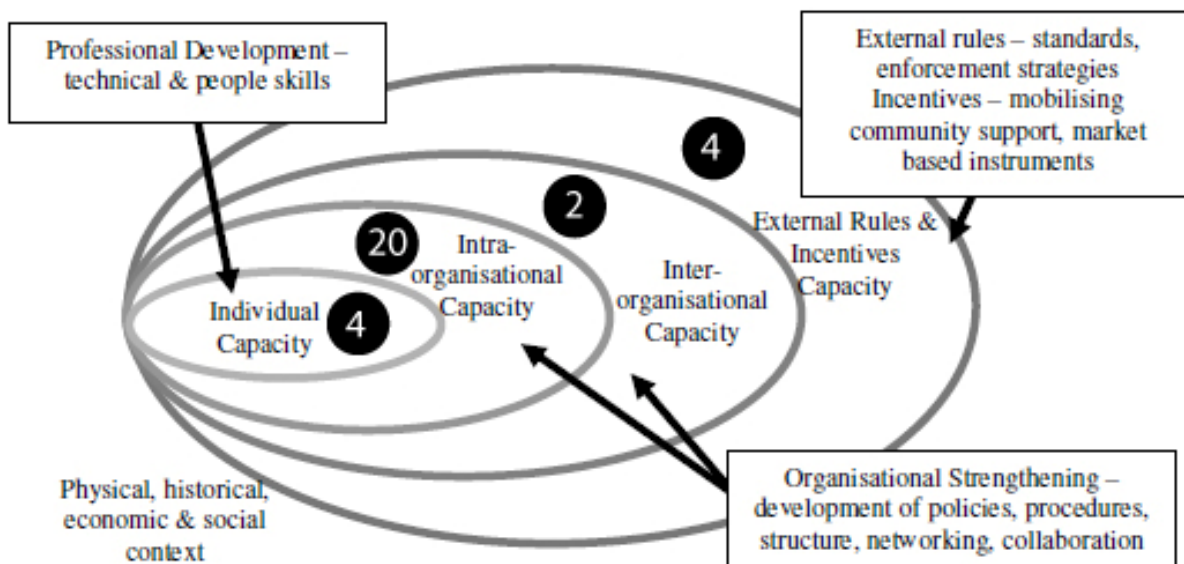


Figure 4. Aspects of organisational recommendations, adapted from Brown et al (2006)

The recommendations placed across the organisational aspects proposed by Brown et al (2006) made it apparent that the intra-organisational aspect will play a major role in dealing with the issues of Clause 56. Respondents reported they felt limited in their ability, as individuals within their respective disciplines and roles, to effect change in processes which require inter-departmental and inter-disciplinary involvement. In an organisation of task specific roles (Figure 1) how might the individual representing a specific discipline operate to transcend the structures of process?

The complexities of local government structures mean that those most affected by an issue, might not by limitation of their role

or discipline, be capable of influencing or aware of the systems and processes which surround them. The concept of transdisciplinarity promotes an environment that transcends the traditional responsibilities of formalised roles, such as disciplines. The systems and processes that would normally have been managed by individuals undertaking isolated tasks are informed, coordinated systems and processes. Transdisciplinarity creates an interrelationship of disciplines to ensure synthesis of tasks (Edwards et al, 2007).

In this papers' example of the maintenance contractor, organisational capacity is certainly not limited to the ability of the individual to understand how to maintain an asset, rather

it relies upon the systems and processes that surround the design and delivery of the infrastructure, to facilitate key inputs, comments and suggestions, to ensure the maintenance contractor can maintain the asset in the first instance. If a transdisciplinary model is used to facilitate synthesis of disciplines in the intra-organisational aspect, how might this manifest in councils' existing process?

Figure 5 demonstrates the existing council planning and referrals process taken from Figure 1. The intra-organisational aspect facilitates an interdisciplinary committee to

operate between and around the series of tasks within the process. The interdisciplinary committee, involving a range of individuals representing a range of disciplines, provides the critical feedback to those impacted by the tasks of others. Figure 5 demonstrates that the task is 'informed' by the interdisciplinary committee however; the responsibility for performing the task continues to rest with the individual. The methodology of informing the task could take the form of meetings, workshops, online chat, e-forums and so forth, the critical objective is simply to facilitate communication.

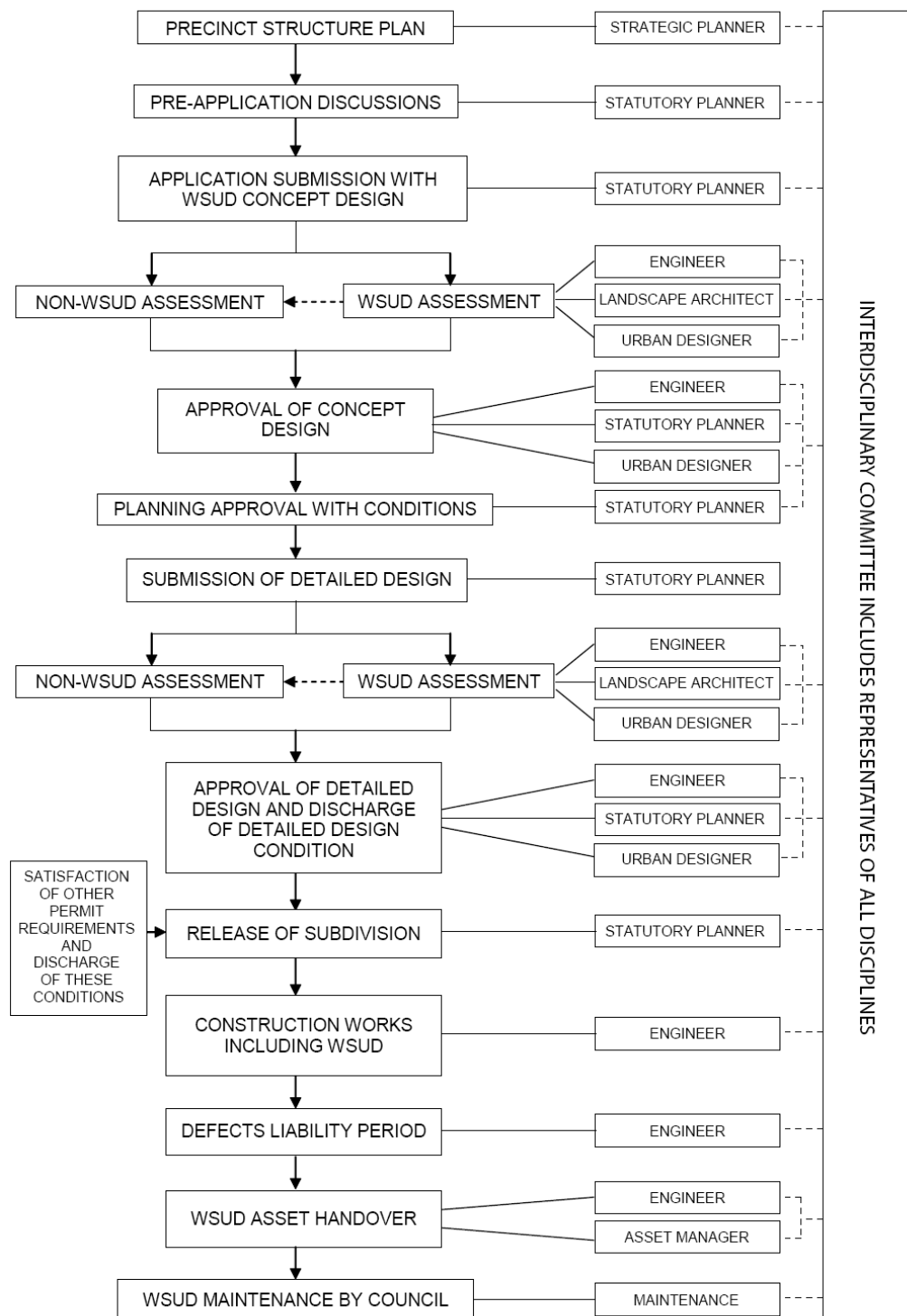


Figure 5. Role of interdisciplinary committee in a typical Local Government planning and approvals process

Conclusion

Whilst the actual mechanisms to deliver the outcomes are yet to be tested and proven, the report findings indicate that the ability of individuals to change their task or responsibility within processes or systems is

limited. The introduction of a new policy is impeded by a multitude of complexities within organisational structures and governance. It is clear that in order to improve organisational capacity, local government needs to consider the organisational aspects that exist.

A collection of individuals representing a range of disciplines make up an interdisciplinary committee, which operates at the intra-organisational level. The interdisciplinary committee will create a firm platform to inform ongoing decision making and ultimately transcend the traditional, linear, disciplined approach and create an adaptive, participatory and integrated organisation, where issues are discussed and solutions are challenged.

Sustainable organisational capacity will necessitate a range of interventions over time as the committee overcome obstacles together; the key role of the intra-organisational aspect in organisational capacity will be to continue to facilitate a feedback loop between the disciplines, improving systems and procedures for a range of issues through one critical mechanism; communication.

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