

A NATIONAL REVIEW OF
EDUCATION AND TRAINING IN
LOCAL GOVERNMENT SKILLS
SHORTAGE AREAS

Australian Centre of Excellence for Local
Government

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Sydney NSW

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About the Learning in Local Government Project

The 'Learning in Local Government' project explores the often unique and complex needs of education and professional development in Australian local government. It aims to inform and facilitate the development of education and training programs through the Australian Centre for Excellence in Local Government (ACELG). ACELG has committed funds to the project through its Workforce Development Program with a view to coordinating, commissioning or (in rare instances) delivering training programs to address priority needs.

Work and discussions continue to explore gaps in the content and availability of education and professional development specifically tailored to local government's needs. ACELG is advocating an integrated national approach that:

- is forward looking and reflects the changing environment and role of local government;
- addresses sector needs for essential skills now and into the future;
- focuses equally on people working in the sector and meets their personal needs to enhance their skills and develop their careers; and
- offers seamless pathways between vocational and higher education and ongoing professional development.

Abbreviations

ACELG	Australian Centre of Excellence for Local Government
AIBS	Australian Institute of Building Surveyors
AQF	Australian Qualification Framework
AQUA	Australian University Qualities Agency
BP Act	Building Professional Act
BPB	Building Professional's Board
CPSISC	Construction Property Services Industry Skills Council
CPD	Continuing Professional Development
EBPPP	Enterprise Based Productivity Places Program
EHA	Environmental Health Australia
EP&A Act	Environmental Planning and Assessment Act
GSA	Government Skills Australia
HE	Higher Education
IAC	Industry Advisory Committee
IPWEA	Institute for Public Works Engineers
LGA	Local Government Association
LGTI	Local Government Training Institute
MSA	Manufacturing Skills Australia
NCVER	National Centre for Vocational Education Research
OTEN	Open Training and Education
RTOs	Registered Training Organisations
TAFE	Technical and Further Education
TEQSA	Tertiary Education Quality Standards Agency
TGA	Training.gov.au
VET	Vocational Education and Training

Table of Contents

Introduction	5
Background	5
Methodology.....	5
The National Context	7
Skills Shortages in Local Government	7
Education and Training	8
Engineering in Local Government	10
Supporting Para-professional Development.....	12
Improving Degree Completion Rates.....	12
Building Surveying in Local Government	13
Accreditation Levels and the Implications for Education	13
VET and Higher Education – Articulation and Pathways	14
Specialist Short Courses	15
Combined Health and Building Officers in Small Councils.....	15
Environmental Health in Local Government.....	17
Competition from Other Sectors	18
Cadetships.....	18
Town Planning in Local Government.....	19
Graduates into Local Government.....	19
Regional Availability of Courses	20
Suggesting Improvements	21
Mapping Qualifications to Roles in Local Government	21
Workforce data	23
The Promise of Distance Learning	23
Work Placements and Cadetships	23
Transitioning from VET to Higher Education	24
Tailored Local Government Content.....	24
Gaps in Course Provision	24
References.....	25

Introduction

Background

The preliminary *Learning in Local Government*¹ program inventory prepared by ACELG in 2010 included a profile of existing vocational and higher education courses relevant to some of the key skills shortage areas in local government. The identified skills shortage areas were civil engineering, urban planning, building surveying and environmental health. Post-graduate university courses that contained a specific focus and tailored content for local government were also identified and profiled, both within Australian and also internationally. In addition, the inventory included a sample of innovative professional development initiatives that utilise content and modes of delivery tailored to the needs of local government more generally.

A practitioner survey was then undertaken in 2010 to explore experiences with education and professional development, as well as practitioner perspectives on their own and the sector's future needs and opportunities.

This report builds on these two bodies of work to explore opportunities and gaps in education and training in the same four areas of skills shortage, while also drawing some broader lessons.

Clearly, the four identified areas do not cover all those sectors of the local government workforce where skills shortages are being experienced. It is well known, for example, that many councils are having difficulty recruiting and retaining semi-skilled staff such as plant operators, especially where they are competing in the same market as the mining industry. However, a more comprehensive investigation was beyond the scope of the project at this stage.

In examining further the education and training needs involved in addressing skills shortages in local government, the following questions focused the research:

- What kind of education and training is available in the most pressing local government skill shortage areas?
- What are the gaps in training?
- Is the currently available training sufficiently flexible to meet the needs of the local government workforce?
- Who is best placed to deliver each of the components? Universities or Vocational Education and Training (VET) providers? How well are these components connecting to deliver pathways for individuals?

Methodology

A review of the inventory contained in the *Learning in Local Government* report of September 2010 provided an overview of training information and how it can be accessed. This was updated and expanded with data from the following websites:

¹ ACELG (2010) *Learning in Local Government: A Preliminary Inventory and Gap Analysis of Education and Professional Development for Local Government in Australia*

- Universities
- TAFE networks
- Registered Training Organisations
- Training.gov.au - the database on Vocational Education and Training in Australia
- Tertiary Education Quality Standards Agency
- Australian Universities Quality Agency
- Government Skills Australia (GSA)
- Construction and Property Services Industry Skills Council (CPSISC)
- Innovation and Business Skills Australia (IBSA)
- Manufacturing Skills Australia (MSA)
- Skills Australia.

In addition, interviews have been undertaken with representatives of:

- Local Government Associations in South Australia, Tasmania, Queensland and Western Australia
- Australian Institute of Building Surveyors
- Planning Institute of Australia
- Environmental Health Association
- NSW Public Sector Industry Training Advisory Board
- LGAQ
- LGAQ RTO
- LGAWA
- IPWEA Queensland
- LGSA NSW
- LGMA NSW
- Government Skills Australia
- NSW Building Professionals Board
- TAFE NSW
- Local Government Training Institute (Hunter Councils, NSW) LGTI

The National Context

Skills Shortages in Local Government

In 2007 LGMA National released its National Skills Shortage Strategy for Local Government – *New ways of Thinking: Doing Business Differently*. This Strategy aimed to ‘work collaboratively with key stakeholders, including peak professional bodies, State, Territory and Commonwealth Governments, to fund and implement a range of innovative programs to address the workforce needs of Local Government today and into the future.’²

Another important initiative was the Local Government Career Taskforce (Qld 2007) which successfully actioned a series of outcomes in the skill shortage areas of Town Planning, Building Certification (Surveying) and Environmental Health, the top three professional skill shortage areas identified by the LGMA strategy.³ The actions from this Task Force were successful in working collaboratively with a range of stakeholders in the sector and the outcomes have impacted positively on the skill shortage sectors.

One critical factor in this was that the taskforce focused on what is driving skill shortages for particular professions. This enabled specific drivers of skill shortage for each profession to be unearthed. The result was a broader range of targeted initiatives for action. Having a package of initiatives increases the chance of success as it approaches the issue on a number of fronts and provides more opportunities to harness the interest and energy of a wider range of people in bringing the actions to fruition.

The federal government regularly identifies areas of skill shortages. DEEWR monitors the labour market and provides data on skill shortages at: <http://www.deewr.gov.au/Employment/LMI/SkillShortages/Pages/Overview.aspx>. Occupations relevant to local government such as Civil Engineers, Engineering Technicians, Urban Planners, and Environmental Health Officers are captured in these lists. As these lists are used to determine funding, the local government sector needs data and evidence to ensure that its identified skill shortage occupations are included. Building Associates rather than Building Certifiers / Surveyors are listed. In December 2011 the DEEWR Skill Shortage lists identified the following:

- **In NSW** there is a shortage of Civil Engineers and Building Associates; Urban and Regional Planners are difficult to recruit in regional areas; and engineering draftspersons are difficult to recruit.
- **In Queensland** there is recruitment difficulties for Urban and regional Planners and a shortage of Civil Engineers and draftspersons;
- **In Victoria** Urban Planners are listed as a shortage; Civil Engineers are listed as difficult to recruit; Environmental Health Officers and Building Certifiers are not listed. There is a shortage and it is difficult to recruit draftspersons;
- **In Tasmania** Urban Planners are listed as a shortage while Civil Engineers are listed as difficult to recruit. Environmental Health Officers and Building Certifiers are not listed. Building associates are listed as a shortage. There is a shortage of draftspersons;

² National Skills Shortage Strategy 2007 p9

³ ibid p3

- **In SA** there is a shortage of Civil Engineers and draftspersons;
- **In WA** there is a shortage of Civil Engineers and draftspersons are difficult to recruit. The others are not listed; and
- **In NT** there is a shortage of Civil Engineers but other skill shortage areas are not listed.

There are state variations in the occupations listed, and the list describes whether there is a shortage or whether skills are hard to recruit for specific reasons such as regional locations. Federal funding is available to employers who enrol workers in accredited training related to the listed skill shortage areas.

Education and Training

ACELG is aiming to support the development of a more consistent and coordinated national approach. Education and training models that can be applied nationally will provide wider access to training and consistency of material delivered. The local government workforce covers numerous professionals and other skilled employees, requiring a range of qualifications, training and professional development. Thus the training needs of local government are delivered within a complex education and training environment that is also undergoing change.

The federal government introduced changes in 2010 to the education and training framework in an effort to improve confidence in the quality of qualifications, free up university places, and smooth the path between vocational (VET) and higher education (HE). The two sectors are to be aligned by 2014, and moving towards a more flexible education model for students. Courses will be demand driven as determined by the university and no longer based on quotas. The COAG agreement also provides for demand driven VET courses

Funding incentives are provided to encourage universities to deliver particular outcomes such as an increase in places for students from lower-socio economic backgrounds to 20% of students. These changes will impact on the way educational institutions make decisions about the range of courses they offer and the number of students they attract.

In order to address the skills shortages in local government, more students need to be attracted to study for relevant qualifications, and courses need to be more relevant to the needs of the sector. Clarifying the role of VET and HE sectors could provide greater synergies between them and strengthen collaboration in addressing student and industry needs. This would provide increased satisfaction for training delivery and better outcomes for the education dollar. This is particularly relevant to the delivery of practical courses such as Building Surveying and Engineering.

Universities accredit their own courses and make their own decisions with regards to the form and content of learning, whereas VET providers, including TAFE institutes offer competency-based, nationally accredited courses. Private providers include registered training organisations (RTOs) delivering VET training, and some local government organisations such as professional associations maintain RTO status.

Pathways from VET to HE are negotiated through a number of different arrangements, including formal articulation, recognition of prior learning and credit recognition. The integrity of qualifications and training is critical to this negotiation. The Tertiary Education Quality Standards Agency (TEQSA) has been recently established to achieve consistency of course quality and

regulation across the two sectors. TEQSA assumed its full regulatory functions in January 2012. The operations of Australian University Qualities Agency (AUQA) have been integrated into TEQSA, and TEQSA and the Australian Skills Quality Agency (ASQA) have signed a Memorandum of understanding detailing how the two regulators will work together towards a streamlined national regulatory approach for 'dual sector providers'—providers offering both vocational education and training and higher education.⁴

The Australian Qualifications Framework (AQF) is the national policy for regulated qualifications in Australian education and training. It incorporates the qualifications from each education and training sector into a single comprehensive national qualifications framework. The AQF sets the standard for qualifications in both the VET and HE sector⁵

Eleven Industry Skills Councils (ISCs) monitor skills training needs, with Government Skills Australia (GSA) responsible for much of local government. However, some sections of the local government workforce fall under other skills councils including Construction and Property Services Industry Skills Council (CPSISC), Innovations and Business Skills Australia (IBSA), Service Skills Australia, Community Services and Health Industry (CS&H) Skills Council, Manufacturing Skills Australia (MSA), indicating a need for coordination of industry needs in the formulation of appropriate training packages. Also, NSW, WA and Tasmania each have an Industry Training Advisory Body (ITAB) which monitors the needs of the government sector including local government.

GSA and other skills councils develop VET competencies, qualifications and training packages. TAFE and private RTO's develop programs that meet the competencies for the qualifications and deliver the training.

Jobs are changing at an increasingly fast pace so skills are becoming obsolete more quickly. Education at all levels is challenged to be able to respond to rapid changes within the local government sector and provide continuous learning for staff over their working life. In order to respond to skills shortages the pathways between VET and HE need to be streamlined, an outcome which is particularly difficult in the context of a complicated program delivery framework.

⁴ <http://www.asqa.gov.au/about-asqa/regulatory-approach/asqa--and-teqsa.html> AQUA website viewed 12.03.12

⁵ <http://www.aqf.edu.au/> AQF website viewed 12.03.12

Engineering in Local Government

The shortage of qualified engineers was considered so significant that the Australian National Engineering Taskforce (ANET) was established to broker a higher education and industry partnership promoting the needs of the engineering profession. This partnership produced two detailed reports in April 2011. The first, *Scaling up: Building Engineering workforce capacity through education and training* looks at supply and demand for qualified professionals and paraprofessionals to identify ways in which education and training policy can be harnessed to improve national engineering skills supply and capacity. The second, *Pathways from VET Awards to Engineering Degrees: a higher Education perspective* provides an analysis of the provision and effectiveness of pathways to engineering degrees from award programs operated by the VET sector as a strategy to increasing engineering graduate numbers. Both reports are located at <http://www.anet.org.au/>

These reports reflect the perspective of the engineering faculties and schools in the higher education sector and indicate the conversations that are needed within the education sector to more closely align the VET and HE area and bring them together nationally by 2014 as required by the Federal Government. Possible application of this approach to other professions is discussed later in this report.

The national shortage of engineers coupled with the demand for engineers in the private sector are impacting on local government. In the current climate it is difficult for councils to retain and attract qualified and experienced engineers, and local government has to find new ways to attract and develop its engineering workforce in a highly competitive environment.

The local government engineering sector has been active in responding to the skill shortage needs and is well supported by IPWEA, the professional body particularly focused on those working in public sector engineering, especially local government. The engineering sector has been successful in initiating a Senate Inquiry focussed on the nexus between the delivery of infrastructure and the shortage of professional engineers and related employment skills. IPWEA made a submission to this Inquiry which is due to report by June 2012. This submission supports and adds to the ANET report outcomes.

Civil Engineering and Engineering technician's courses provide the training and skills most relevant for engineers working in local government. University Courses (37) are available in all states but with distance components only available in Queensland. TAFE offers an Associate Degree in Civil Engineering (2 TAFEs listed), qualifications in Civil and Construction Engineering, Civil Construction Design and Engineering drafting. These courses are listed under the Construction Skills Council. GSA lists a Certificate 1 through to Advanced Diploma of Local Government Operational Works which is offered by nearly 30 private RTO's and TAFE's in all states and not in the Northern Territory. The distribution of these courses is shown in the following table:

Engineering	Post Graduate*	Under graduate*	TAFE	Private RTO's
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Queensland	1 1	7	1 AdvDip 2 Assoc Degree 1 Cert IV LGOW** 1CertII LGOW 1CertI LGOW	1 AdvDip LGOW 1 Dip LGOW 1CertIV LGOW 2 Cert II LGOW
SA		5	1CertIVL GOW	1 Cert IV LGOW
Victoria	1	9	3 AdvDip 3 Dip	1 Dip LGOW 1 Cert IV LGOW 2 Cert III LGOW 1 Cert II LGOW
NSW	1	5	4 Dip 3CertIV LGOW 4CertIII LGOW 3CertII LGOW	1 Dip LGOW 3 Cert IV LGOW 7 Cert III LGOW 5 Cert II LGOW
Tasmania		1	3 Dip 3 AdvDip	1 Cert II LGOW
Northern Territory		2		
WA	1	3	2 AdvDip 3 Dip Dip (Public Works)	2Dip LGOW

*Courses accredited by Engineers Australia; **LGOW Local Government Operational Works; NOTE: Certificate II to Advanced Diplomas in Civil Construction offered by VET sector.

The GSA Local Government Training Package Report released in July 2011 looks at the take-up of local government qualifications and includes a suggestion to discontinue the Advanced Diploma level qualification in Operational Works as it is being rarely used. It goes on to suggest 'developing this into a generalist Advanced Diploma qualification that would likely be well utilised.'⁶

In November 2011 TAFE released a report called *Rethinking Skills in Vocational Training and Education and Training: From Competencies to Capabilities*. This later report could provide valuable fresh insights for GSA to consider in developing outcomes from the July 2011 report.

Some of the issues in relation to training for engineers which emerge from these reports include:

- Attracting more students to study engineering
- Improving access to training outside larger urban areas
- Flexibility of the delivery of training
- Improving completion rates
- Improving interest in and levels of high school maths and science

⁶ GSA report p46

- Supporting VET sector students to transition into undergraduate engineering degrees.

Supporting Para-professional Development

A gap has been also identified by IPWEA in the utilisation of the skills of qualified engineers in local government. IPWEA has proposed the role of a para-professional ‘engineering administration’ position that works alongside professional engineers⁷. This is in response to the ‘loudest complaint of engineering staff concerns the time they spend on administration rather than exercising their technical ability as engineers’.⁸ Such a position would free qualified engineers to perform the tasks that require qualifications and oversee para-professionals to complete other work. This would increase the job satisfaction of engineers while mentoring other local government staff into roles in the engineering sector.

If a qualification were to be developed to prepare people who could work in such a position, then the level of maths required would be less than that required for a traditional undergraduate degree. This could well appeal to people who have an interest in engineering, and after sufficient work experience in this role may well be ready to progress to higher levels of qualification.

This para-professional qualification could be at the level of Associate Diploma. The 2011 TAFE report⁹ suggests ideas for supporting articulated pathways including the exploration of the Associate Diploma as a pathway to university. These ideas support the proposal that IPWEA is putting forward to develop such training for a para-professional qualification.

IPWEA has suggested the Diploma in Public Works, which the Institute developed in collaboration with the Central Institute of Technology WA, as a model course for such a position. This is a nationally accredited Diploma Course recognised throughout Australia. The current take up of this WA course and the process required to deliver this course content nationally are being discussed with IPWEA WA.

Currently the Local Government Training Package offers qualifications in ‘Local Government Operational Works.’ This qualification was developed to respond to the engineering needs of the local government sector. GSA is currently undertaking a review of the Operational Works qualifications. As part of this review consideration could be given to developing VET units to support the para-professional position as a pathway to a Civil Engineering degree.

Improving Degree Completion Rates

Information compiled by ACELG from ABS data shows that over the last 10 years enrolments in engineering have grown from 1,000 in 2001, rising gradually to 1,500 in 2008, and steeply to 2,500 in 2010. However, completions have not kept pace, declining from 900 in 2001 to 700 in 2006, before increasing to 1,100 in 2010. The completion gap appears to be widening.

The number of qualified engineers could be markedly increased if the current retention rate was improved. One of the reasons suggested for the high drop-out rate relates to inadequate capacity in

⁷ Scaling Up Building Engineering workforce capacity through education and training Final Report April 2011 (ANET)

⁸ Model for Creating a Diploma Qualification for a new engineering support occupation IPWEA 2010

⁹ Rethinking Skills in Vocational Training and Education and Training: From Competencies to Capabilities

maths and science to manage the course content. Pathways into university through school and the VET sector have the capacity to improve skill levels, particularly foundation skills that can bring students to the level required to commence University courses.

Building Surveying in Local Government

A shortage of Building Surveyors is anticipated with 80% of Building Surveyors in NSW and 90% of Building Surveyors in Queensland eligible for retirement in 2014.¹⁰ The following issues were highlighted in research for this review:

- The need to attract young people, particularly women, into the profession
- Constant changes to regulatory requirements and specialist knowledge required
- A trend towards specialisation which takes Building Certifiers down specific paths
- The training needs of Accredited Certifiers to move through accreditation system levels
- Issues arising in relation to the quality of certification work undertaken
- The current review in NSW of the Planning Act and the Building Professionals Act which could result in changes to certification requirements
- A review of the certification process in Queensland; and
- Support required for local government Building Surveyors and Certifiers within the accreditation system.

These issues present opportunities for the local government sector to promote moves that could support an increase in the supply of skilled Building Surveyors. The education requirements of Building Surveyors and Accredited Certifiers within local government need to be monitored and addressed.

Nationally, the training of the Building Surveying profession is supported by the Australian Institute of Building Surveyors (AIBS). The Institute negotiates with universities to ensure that building courses can be professionally recognised and accredited. From this position the Institute suggests that existing training courses do have capacity to cater for current demand, but that universities are reluctant to invest in course development without demonstrated increased demand.

Accreditation Levels and the Implications for Education

A National Accreditation Framework (NAF) for Certifiers has been established by the Australasian Building Certification Forum (ABCF). This sets standards and levels of accreditation. There is variation between the states in relation to the levels of accreditation recognised within State accreditation system while working towards achieving National agreement. At the moment NSW has 4 levels with level A4 created to capture Council officers entering the Accreditation System through experience or with an Environmental Health and Building qualification, as well as students.

In NSW many local government Building Surveyors/Certifiers with substantial professional experience have been supported by the Building Professional Board (BPB) over the last few years to become accredited as A4 certifiers. Of particular relevance for local government is the up-skilling of A4 accredited level Building Surveyors. A4 accredited officers have until August 2013 to improve

¹⁰ Local Government Skills Formation Strategy Report p5

their accreditation levels under special arrangements for local government. After this date all Accredited Certifiers will be subject to the same standards and training requirements.

Accreditation levels are determined based on qualifications as well as demonstrated experience. There is a concentration of A1 and A2 level certifiers in urban areas. In smaller councils and rural and regional areas with less applications for high rise and large commercial and industrial developments it is difficult for officers to obtain the required experience to move through the levels of accreditation. To address this issue in NSW, options for simulated training are being considered. These could have national applicability and support training in regional and remote councils.

VET and Higher Education – Articulation and Pathways

The AIBS is promoting degree-trained officers as the national standard. The Queensland Skills Needs Report identified ‘changes to state and federal legislation [that] continually raise the bar for regulatory standards and professional accountability’¹¹ as an emerging issue impacting on future skills needs. Risk management can similarly strengthen the need to employ fully qualified staff. These factors require professionals to match industry experience with increased academic knowledge. Over time this may well raise the status of the profession and its capacity to attract and retain workers, which is central to resolving the skill shortage. This review found the following courses available:

Building Surveying	Post Graduate	Undergraduate	Assoc Degree	TAFE	Private RTO Adv Dip	Private RTO Dip
Queensland	3*	2*	1*			
SA	1*	2*	1*			
Victoria		1*		2AdvDip 3 Dip	6	4 & 1LGH&B
NSW	1*	2*				1 (OTEN)* 1 and 1LGH&B
Tasmania				1AdvDip* & 1Dip*		
Northern Territory						
WA		1*		1AdvDip* & 1Dip*	1	1

*Courses accredited by AIBS National; courses vary in the qualification level they provide for graduates and some courses have provisional accreditation.

Currently there are 20 university and VET courses with AIBS recognised accreditation levels offered in VIC, WA, QLD, SA and NSW. Queensland and Victoria offer Distance Learning. Depending on the building regulation content of courses they are recognised at level A3 which restricts certification to

¹¹ Current and Future Skills Needs of Queensland Local Government Sector LGAQ August 2011 p41

Class 1 and 10 buildings (dwellings and garages); through to A2 to A1 which permits accreditation of Class 2-9 Buildings.

The ABS data for course commencement and completion shows completion of Building Surveying steadily rising since 2001 after a slight dip in 2003-2005. The numbers are only small rising from 15 to 22 completions in 2010 when only 10 were enrolled.

The profession of Building Surveying comes under the Construction & Property Industry Services Skills Council (CPSISC) rather than GSA. CPSISC is reviewing all its training packages and is about to commence the review of the Building Surveying Diploma and Advanced Diploma qualification. The changing needs of the sector and the particular needs of local government can be addressed as part of this process. All relevant stakeholders need to have input into in this review.

Specialist Short Courses

In NSW the BPB completed consultation meetings in March to collate suggestions on changes to the NSW planning system and the Building Professional Act 2005 (BP Act) of the Certification system. To facilitate entry into the profession for more workers, consideration is being given to ways to package the required Building Surveying material as a supplementary qualification linked to a range of building and project management courses and other building professional qualifications. Some new resources and programs would be needed to facilitate this process.

For example, the specific needs of local government building professionals are being supported by the UTS Centre for Local Government (CLG) through its Building Regulations and Advanced Building Regulations short courses that form part of a Graduate Certificate in Development Assessment. UTS also offers a Certification Short Course developed in consultation with the BPB. This approach may be applicable in other states and territories.

Combined Health and Building Officers in Small Councils

The Diploma of Local Government (Environmental Health and Building Assessment) has been accredited by TAFE NSW. The role of Environmental Health and Building Officer still exists in small and remote councils in NSW where the workload does not warrant specialist officers in each profession and there is difficulty recruiting staff. This dual position requires officers to have an extensive range of knowledge and skills to perform their duties effectively.

A VET qualification in Environmental Health and Building is currently provided in the Local Government Package. The demand for this qualification is limited to NSW, with training currently delivered through the Local Government Training Institute (LGTI), which considers it a useful qualification. Other states have moved away from this combined position. In NSW this course has A3 accreditation from the NSW BPB for students commencing the qualification by September 2013.

The role of Environmental Health and Building Officer still exists in small and remote councils in NSW where the workload does not warrant specialist officers in each profession and there is difficulty recruiting staff. This dual position requires officers to have extensive knowledge and skills to perform their duties effectively.

In continuous improvement changes proposed to the Local Government Training Package in 2012, the new Diploma of Local Government will include a Building Surveyor Support specialist stream which will allow for mulitskilling in environmental health units if chosen as an elective.

Environmental Health in Local Government

The profession of Environmental Health requires promoting generally to foster a greater understanding of the essential role that officers play in maintaining the health of communities. At the same time, continual changes to state and federal legislation are raising the bar for regulatory standards and professional accountability,¹² and risk management requirements tend to increase the need to employ fully qualified staff. Another issue for local government is the capacity to employ a separate EHO. In larger Council's EHOs are employed to undertake discrete duties. As outlined previously in this report, in smaller city councils as well as regional and remote councils of NSW the combined Environmental Health and Building position still exists.

Historically Environmental Health positions in Local Government were linked with Building Officer positions – a combined position requiring a VET qualification and practical experience. The Environmental Health Association (EHA) is advocating for the profession to become degree qualified. This is supported by the level of knowledge that officers require as well as the high level of responsibility that can come when difficult issues arise.

EHA is developing a modelling tool with LGAQ that will allow councils to predict the number of Environmental Health Officers required in the future. Three large councils are initial participants, with medium and small councils to follow.

This review found the following courses on offer:

Environmental Health	Post Graduate*	Undergraduate*	TAFE	Private RTO
Queensland	1	1		1 CertIII 2 Cert IV 1 Diploma EnvironHealth
SA	1			
Victoria		2		
NSW		2	1 Dip EnvHealthBuilding 3 AdvDip	2 CertIII 1 CertIV
Tasmania		1	1 CertIII-DipHealthEnv BachHealthScience	1 Cert IV 1 CertIII
Northern Territory		1		
WA	1	2	1 DipHealthEnv	

*Courses accredited by EHA National

Information compiled by ACELG from ABS data shows that over the last 10 years enrolments in Environmental Health degree courses have dropped from a peak of 250 in 2003 to around 65 in 2010. Completions crept up to 130 in 2003 but then declined to 75 in 2010.

¹² LGAQ August 2011 p41

The Diploma of Local Government (Health & Environment) provides Environmental Health technicians to work within local government. There is also a Diploma in Environmental Health offered through Tasmanian Polytechnic, and the combined Local Government Health and Building diploma offered through the LGTI in NSW. There are currently no Environmental Health qualifications offered in South Australia.

Degree trained Environmental Health Officers working in smaller and remote councils are often required to perform building surveying /accreditation functions in addition to Environmental Health functions and require additional training for this purpose. A3 accredited VET Building Surveying qualifications support the level of skills required. There are no combined *degrees* in Environmental Health and Building, and given the level of skills required for each position a double degree would be very demanding. There is unlikely to be significant demand for such a program. EHA does not recognise the VET Local Government Health and Building diploma.

Competition from Other Sectors

The availability of EHOs fluctuates, and currently there is a surplus in some states and popular locations. However, local government is experiencing recruitment difficulties in states with the resources boom, in regional areas and in smaller councils. The local government shortage is also triggered by councils advertising EHO jobs below parity with other positions and attracting few or no applicants. Thus the problem for local government is now mainly one of location and competition from other sectors for this kind of professional. On the other hand, the variety of work involved in the role of EHO in local government, including hands-on as well as policy work,¹³ is well regarded compared to the more limited range offered by state government positions.

Postgraduate degrees have provided a pathway into the profession in addition to undergraduate degrees. There has been an influx of British and Irish EHOs migrating to Australia that has also boosted the numbers. But this has not alleviated the shortage in regional areas as these migrants are seeking jobs in cities and major centres.

Cadetships

As part of the *Local Government Skills Formation Strategy Report* the Environmental Health Sub Group surveyed Queensland Health practitioners and identified issues affecting attraction and retention, defining the role of a para-professional and promoting cadetship arrangements. This group's task was to encourage councils to 'grow their own' through the adoption of cadetship arrangements.¹⁴ Cadetships are now promoted on the EHA website. The findings and resources from this work have been circulated to state EHA bodies.

As with Building Surveyors, degree trained Environmental Health Officers working in smaller and remote councils are often required to perform building surveying/accreditation functions and require additional training for this purpose. The VET qualification facilitates A3 qualification for these officers. As mentioned above the Local Government Training Institute in NSW offers a combined Health and Building Diploma which it has found to be a useful qualification. EHA does not recognise this qualification.

¹³ Conversation LGAT

¹⁴ Local Government Skills Formation Strategy Report p7

Town Planning in Local Government

The DEEWR statistics refer to a shortage of Urban and Regional Planners in Western Australia and Victoria and regional recruitment difficulties in NSW for local government in inland towns. There is also a shortage of *experienced*, qualified planners. This relates in part to a high attrition rate amongst female planners. The Harrison Report undertaken by PIA SA division (June 2010)¹⁵ on the Built Environment Workforce identified that the numbers of male and female graduands from planning courses are equal, yet after five years there are approximately 50% more males in the profession. The report provides good insight into retention issues generally and includes an eight page guide for managers.

The following planning courses were found to be on offer during this review:

Town Planning	Post Graduate*	Undergraduate*	TAFE	Private RTO
Queensland	7	8		1Dip
SA	3	1	1Dip 1Cert IV	1Dip
Victoria	6	5	1Cert IV 1Dip	1Dip 1CertIV
NSW	7	3	1Introduction toPlanning	1Dip 1CertIV
Tasmania	2		1Dip	
WA	2	4	2Cert IV	
Northern Territory				

*Courses accredited by PIA National

Undergraduate tertiary courses are available in all states except Tasmania, and VET courses are also offered in each state through either TAFEs or private RTOs. As with EHO's, the availability of Post Graduate courses provide opportunities for pathways into the profession from a range of undergraduate degrees. Information compiled by ACELG from ABS data on education shows that over the last 10 years enrolments grew from 460 in 2001 to 830 in 2010. Completions crept up from 250 in 2001 to 450 in 2010. While student numbers are growing the completion gap is also growing.

Graduates into Local Government

Opinions gleaned in preparing this report suggest that graduates who enter local government are not 'job ready'. Working as a planner in local government requires on the job experience to be blended with academic training. Opinion is divided on whether there should be specific local government units included in university qualifications and how well these would prepare professionals for work in local government.

VET qualifications or specialised postgraduate programs such as the UTS Graduate Certificate in Development Assessment currently offer a structured framework to provide professionals with a pathway to combine on-the-job training with applied knowledge to achieve a qualification. LGAQ

¹⁵ Workforce and Retention Study Harrison Research June 2010

have developed strong links between training and the workplace through requiring Local Government students undertaking VET courses to have the signed agreement of council's CEO, their manager as a mentor, and to undertake agreed work-place projects that benefit council.

Alternatively, professionals may be better prepared for their work through mentoring which also supports the culture of the council and local government as an employer of choice. To some extent the idea of 'job ready' graduates seems to relate to an unrealistic and counterproductive desire of employers to employ staff that can 'hit the ground running'. Managers may no longer consider mentoring staff into positions as an important part of their job.

PIA national have partnered with Queensland University to develop experiential training over two years for planning lecturers and students. The goal is to provide students with realistic experience that will support their future entry into the work force. The outcomes of this project could address some of the 'job ready' concerns raised by local government.

Regional Availability of Courses

Urban and regional planners can enter the profession through an undergraduate Planning Degree, or through a range of undergraduate courses in Environmental Science, Geography, Urban Design, Economic, Architecture, etc combined with a post graduate qualification in planning. The Planning Institute of Australia (PIA) accredits university courses in all states except Tasmania and Northern Territory. The courses tend to be offered in major cities but there are also well regarded distance education options available. Rural and remote students have limited choices.

As suggested for Building Qualifications, the development of core planning units could be developed and completed as part of a range of degrees offered nationally to widen access to planning qualifications. The demand for these units needs to be tested as post graduate qualifications are filling this gap at the moment. At present, the current courses have capacity for additional students should more be attracted to study planning.

The Local Government package includes Certificate IV to Advanced Diploma in Local Government (Planning). Tasmania Polytechnic offers this Diploma via distance and this is also a highly regarded course. The VET planning qualification appears to work well as a pathway to HE training in Urban and Regional Planning.

Suggesting Improvements

Mapping Qualifications to Roles in Local Government

There is a need to streamline the education sector to more closely align the VET and HE areas and bring them together nationally by 2014 as required by the Federal Government and to support the Local Government sector. The recognised AQF qualification levels are listed in Table 1.

Table 1: Qualification levels under the strengthened AQF¹⁶

Level	Traditional vocational education and training (VET) qualifications	Traditional higher education (HE) qualifications
1	Certificate I	
2	Certificate II	
3	Certificate III	
4	Certificate IV	
5	Diploma	
6	Advanced Diploma	Associate Degree
7		Bachelor Degree
		Bachelor Honours Degree
8	Vocational Graduate Certificate / Graduate Certificate Vocational Graduate Diploma / Graduate Diploma	
9		Masters Degree (Research)
		Masters Degree (Coursework)
10		Doctoral Degree (Research)
		Doctoral Degree (Professional)

The AQF Council argues that the descriptor for these two different streams ‘allows for either an academic or vocational focus depending on the purpose of the qualification accredited’¹⁷. The levels are designed to support the flexibility between the sectors being promoted by the federal government.

At the heart of each of the skilled professions which are the subject of this report is the need to balance practical knowledge and experience. Consideration needs to be given to education and

¹⁶ AQFC 2010d; Evans 2010

¹⁷ Scaling Up Building Engineering workforce capacity through education and training Louise Watson and John McIntyre Final Report April 2011 (ANET) p68

training that maintains this balance. An integrated approach needs to be fostered that creates pathways for professionals with detailed practical knowledge to acquire higher academic qualifications, and at the same time ensures that university students graduating into the professions can gain supporting practical knowledge.

The ANET reports (July 2010)¹⁸ provide analysis of the provision and effectiveness of pathways to engineering degrees from award programs operated by the VET sector as a strategy to increasing engineering graduate numbers. The emphasis is on the pathways from engineering related VET Diplomas and Advanced Diplomas into Bachelor of Engineering degrees. The ANET report also maps the qualification pathways available for the engineering profession and examples of related occupations. There is potential to replicate this hierarchy for other professions within local government.

Table 2 Hierarchy of Engineering-related Qualifications¹⁹

Qualification (sector)	Duration of f/t study	Brief general description of how knowledge and skills acquired through education and training and applied in workplace at this level	Examples of Engineering related Occupations
Certificates III (VET)	6 months – 1 year	Basic fundamental knowledge and technical skills to function in a supervised workplace	Trainee / Apprentice
Certificate III (VET)	1 – 3 years	Technical and procedural knowledge and communication skills to apply known solutions to predictable problems within a defined area	Plant Operator
Certificate IV (VET)	6 months – 2 years	Technical and procedural knowledge that can be applied to address non routine or unpredictable problems within a specialised area	Tradesperson (eg. Mechanic); Supervisor (of plants, works etc.)
Diploma of Engineering (VET/HE)	1– 2 years	Focus on practical applications, such as testing and installing equipment and systems, managing plant, and supervising plant operators, experts in interpreting Standards and Codes of Practice	Engineering Associate, Engineering Officer, Technical Officer, Project Coordinator, Technician
Advanced Diploma (VET)	12 years	Undertake functions and responsibilities within a welldefined technical environment, usually within a specialist field	
Assoc. Degree in Eng. (HE)	2 years	Undertake functions and responsibilities within a welldefined technical environment, with responsibility and accountability for further learning	
Bach. of Eng. Technology (HE)	3 years	Undertake functions and responsibilities within a welldefined technical environment, usually within a specialist field	Engineering Technologist with specialisation

¹⁸ Scaling Up and Pathways

¹⁹ Kaspura 2010; AQFC 2010; Manufacturing Skills Australia (2009) from ANET Scaling-Up report p41

Bach. of Eng. (HE)	4 years	Responsibility for engineering project management, drawing on theoretical and technical knowledge, using judgement and adaptability to diverse contexts	Professional Engineer with specialisation eg. Civil Engineer
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In 2011 GSA introduced an initiative called *QC Builder* which enables students to search the national competencies by occupation, sector, qualification or skill set. Currently there are 16 occupations listed under local government. GSA estimates that there are over 150 possible occupations in local government. The QC Builder offers the opportunity to broaden the appreciation of the scope of occupations in local government and strengthen links to available VET training. Again, there may be scope to extend this sort of mapping initiative to encompass HE programs as well, and identify pathways.

Workforce data

Better data is needed to profile local government skill areas and assist with monitoring changes in skill shortage areas over time. Local government needs to take responsibility for developing an accurate picture of its workforce situation. Improved data will be useful in a range of ways including supporting the case for highlighting areas of skill shortage and access to relevant funding. Current initiatives regarding the collection of workforce data by ACELG and also the information collected by professional associations will assist in describing and therefore improving the national picture, but more needs to be done.

The Promise of Distance Learning

Often the availability of formal training is limited to major cities. Access to face-to-face teaching for students in rural and remote areas is not available. Increased and improved distance learning options are essential and would also support the local government sector generally by providing greater flexibility for staff to choose times to undertake training.

Work Placements and Cadetships

Training through work experience is an opportunity to support students to complete degrees and gain valuable experience working within local government. For example local government continues to be a significant work placement option for undergraduate engineers, and can offer a broader range of work than many other employers.

Universities nationally place students within local councils to undertake work placements required as part of their courses. The IPWEA senate inquiry submission suggests increasing the opportunities for work placement of student engineers so councils can capture their skills while they are training and before they are employed by the private sector. This would seem a sensible approach to take in other skills shortage areas. Mentoring of these students is also necessary to encourage them to remain part of local government, and councils need to ensure that experienced staff act as mentors. Mentoring of new and emerging engineers could also be a part of a workforce retention strategy to retain engineers looking to retire from the workforce.

Transitioning from VET to Higher Education

The TAFE demographic appears to be shifting to younger students who have just missed out on getting into university and away from predominantly older part-time students balancing work and families. Pathways are needed to deliver more students who are ready to undertake university.

Promoting transition from VET to HE raises a number of issues: clarity of relationship of RPL to proposed degree; ensuring foundation subjects for the degree are covered; and supporting students to be more university ready. VET sector pathways may also help universities to improve degree completion rates.

Pathways are also needed to upskill workers with extensive experience in local government or a trade – for example students of building or carpentry could be offered an explicit pathway into Building Surveying.

Tailored Local Government Content

In all of the skills shortage areas there also appears to be a need to develop more local government-specific course material, as well as new delivery modes that address the needs of smaller and rural and remote councils. Professional associations and training providers could explore ways of adding material to existing degrees and trade qualifications to facilitate pathways to meet local government's needs.

Gaps in Course Provision

Preliminary analysis of data obtained thus far on provision of courses in skills shortage areas suggests that the following opportunities warrant further exploration:

- An Associate Diploma in Engineering to promote a para-professional pathway into university training;
- Specialist short courses in Building Surveying to be included in related degrees such as Building and Project Management and Building Professional qualifications;
- Extension of existing Environmental Health and Building qualifications;
- Environmental Health qualifications in South Australia;
- Specialist local government units offered in broader Town Planning qualifications; and
- The delivery of face-to-face training in regional locations needs to be considered to address skills shortages in the Northern Territory.

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