



# Occupational Profile of the Water Industry Workforce in NSW Local Government

Prepared for the Water Directorate by the  
NSW Public Sector Industry Training  
Advisory Body (ITAB)

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## Executive Summary

This report presents the findings and recommendations from research conducted for the Water Directorate on the occupational profile and training needs of employees in Local Water Utilities (LWUs) in NSW. The research was undertaken in conjunction with a national project initiated by Government Skills Australia to count the number of employees in each of 28 water occupations defined by the recently developed Australian Water Occupations Framework. The purpose of the national research was to provide evidence to the Australian Bureau of Statistics of the size of the water industry workforce so that employees can be appropriately coded and accurately counted in future censuses.

The Water Directorate contracted the NSW Public Sector Industry Training Advisory Body (ITAB) to undertake more detailed research with its members to ensure the NSW local government water sector was well represented in the national survey and to generate additional information from councils about their training needs. Of particular interest to the Directorate was the extent of member support for a training brokerage service to facilitate access to training for water employees.

### Key Finding from the Survey

-  Responses were received from 88 of the 104 organisations surveyed (85% response rate); Completion rate was 70%.
-  As a result of additional consultation with non-respondent councils after the close of the survey, employment is estimated to be 1,957 in the 28 occupations across 102 NSW Local Water Utilities, Essential Water and Hawkesbury City Council. This represents 28% of the national workforce, based on data collected by Government Skills Australia.
-  The main occupation of water employees in NSW LWUs can be categorised as follows: NETWORKS - 49% (960 employees); WATER TREATMENT (includes water and wastewater) - 39% (757 employees); SOURCE - 4% (81 employees); TRADE WASTE - 4% (71 employees); OTHER - 3% (67 employees). Employment in HYDROGRAPHY is negligible (3 employees).
-  Council regions with the largest number of water employees are the South West Region (352), Mid North Coast (337) and North Coast region (247).
-  The Australian Water Occupations Framework (AWOF) is considered important and useful by the majority (73%) of councils although the single-function classification structure does not accommodate cross-stream multi-skilling.
-  Councils identified significant demand for training in 2015 with 1,467 training places sought in vocational education and training, NSW Office of Water courses and other technical, management and leadership programs.

-  There was interest in utilising a training brokerage service from two-thirds of councils as “the location of courses and subsequent travel costs” was identified as the major barrier to sending staff to training.
  
-  71.4% of councils supported funding a brokerage service on a fee-for-service basis with priority being vocational education and training and NOW courses.

## **Recommendations**

1. The Executive Committee consider the findings from this report and determine whether to proceed with establishing a training co-ordination or brokerage function for its members.
  
2. Consideration be given to developing a funding model and piloting a brokerage service for a particular region or cluster of courses, to test the financial viability and success of such a model.

## 1. Background

In 2014 the national Industry Skills Council for water, Government Skills Australia (GSA), initiated a major piece of research, collecting data on the number of workers in each of 28 water occupations defined in the Australian Water Occupations Framework (AWOF)<sup>1</sup>. The purpose of this research was to provide evidence to the Australian Bureau of Statistics of the size of the water industry workforce so that employees can be appropriately coded and accurately counted in future censuses. Given the water industry has been traditionally under-counted, the collection of more accurate employment data was seen as an important step towards strengthening the industry's ability to monitor workforce trends and to develop appropriate policy responses in areas such as employment and training, immigration and infrastructure development.

The Water Directorate is an industry association for councils and county councils that provide water supply and/or sewerage services to local government areas in NSW. Its 97 members are significant contributors to employment in the water industry in NSW and as such, it was important that members of the Water Directorate contribute to this research. As there is also scope for the Water Directorate to have a more active role in the advocacy and coordination of water industry training for NSW local government, it was timely for the Directorate to extend its consultations with NSW local water utilities to include advice on the training requirements of members.

To this end, the Water Directorate contracted the NSW Public Sector Industry Training Advisory Body (ITAB) to work with Government Skills Australia to develop a customised survey for NSW councils that would identify:

- An occupational profile of water employees in NSW local government, based on the 28 occupational titles defined in the AWOF
- The training needs of employees in these roles
- Member interest in using a training brokerage service, if offered by the Water Directorate

This report presents the findings and recommendations from the research with NSW councils.

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<sup>1</sup> The Australian Water Occupations Framework (AWOF) was developed by Government Skills Australia in consultation with the water industry. It defines 28 occupations across five streams – source, networks, treatment, hydrography and trade waste. The Framework includes a description of workplace tasks, skills and knowledge requirements and links to the appropriate qualification. More information is at <http://governmentskills.com.au/awof>

## 2. Methodology

A questionnaire designed specifically for NSW local water utilities (LWUs) was developed by the Public Sector ITAB, capturing all questions in the national survey of water employers (targeted to state government water authorities, councils in Queensland and private sector companies). An additional seven questions were added to the Water Directorate survey to explore training needs, training barriers and member views on potential brokerage services.

The questionnaire was distributed as an on-line survey and emailed to the Manager of Water and Wastewater Services of each council in late October 2014. Up to three follow-up emails were sent to non-respondent councils during November and early December 2014.

Eighty-eight (88) councils commenced the questionnaire from a total of 104 organisations surveyed (85% response rate). The 104 organisations were drawn from 102 member and non-member LWUs and two other organisations that service local government (Essential Water and Hawkesbury City Council). Respondent and non-respondent organisations are listed in Appendix 1. However as only 73 organisations answered the majority of survey questions, the completion rate reduced to 70%.

Following the presentation of the survey's draft findings to the Executive Committee of the Water Directorate in March 2015, the Committee agreed to support a final phase of the project involving the collection or estimation of employment data from the 31 councils that did not provide employment figures in the survey. This action was taken to produce a more accurate picture of employment in the 28 occupations across all LWUs in NSW.

To ensure employment data from all 104 organisations was included in the final report, telephone calls were made to all 31 councils, 28 of whom provided employment data verbally. Estimates of employment size were made for the remaining councils, based on previous workforce planning research conducted in 2011<sup>2</sup> and 2012<sup>3</sup>.

The data presented in this report on employment by occupational category and region includes data on or from all 104 organisations. However information presented in the report on training needs and views about a brokerage service reflects the responses of the smaller number of councils who answered these questions in the survey.

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<sup>2</sup> Centroc Water Utility Alliance (2011). **Training, Mentoring and Regional Resource Sharing Strategy**, October and

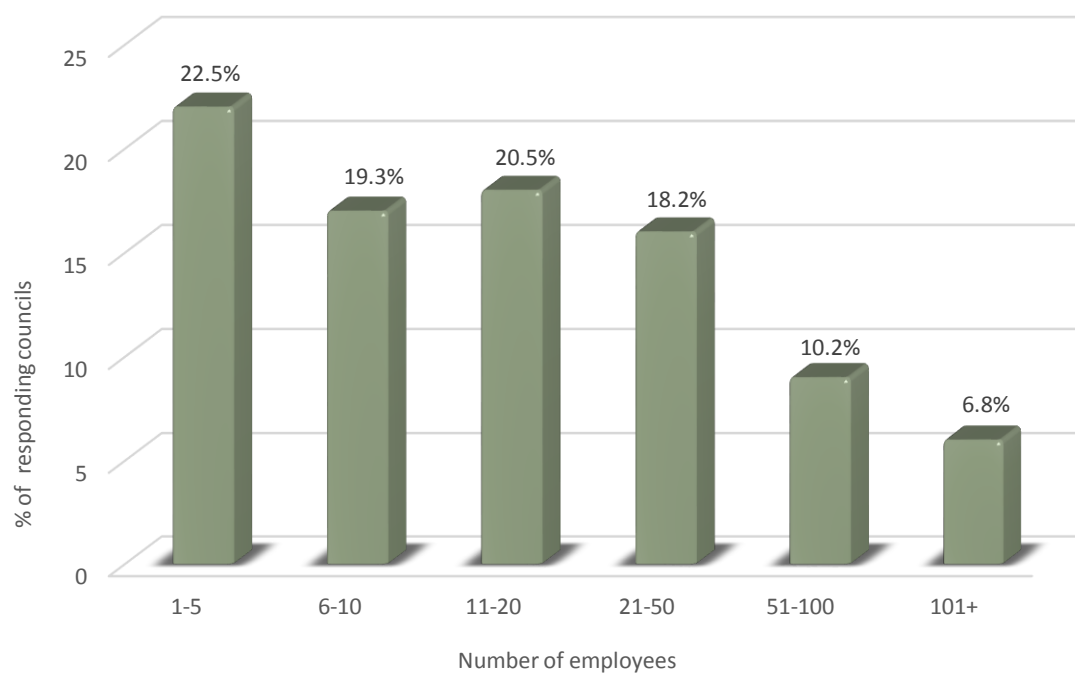
<sup>3</sup> NSW Public Sector ITAB (2012) **Training Needs of Local Government Water Industry Employees in the New England Region of NSW**, Report to the NSW Water Training and Assessment Network, June.

### 3. Findings

#### Workforce Size of NSW Local Water Utilities

Local government water utilities in NSW range significantly in the size of their water workforce, as shown in Figure 1. Approximately 42% employ 10 or fewer water employees whilst 7% have over 100 staff.

**Figure 1: Proportion of Councils by Employment Size**  
(Number of respondents = 88)



## Occupational Profile of NSW Local Water Utilities

The following data presented on the main occupation of employees is based on responses or estimates of employment in all 104 organisations surveyed. A detailed breakdown of the number of employees by occupation and region is shown in Table 1. A comparison with data collected from the national GSA survey (covering other organisations in NSW and interstate) is shown in Table 2.

It should be noted that this workforce data does not include the following employees:

- Managers
- Engineers – design, asset, civil etc
- Electrical trades who might service water & wastewater
- Technical officers (e.g. predominately indoor support staff)
- Administrative, marketing, finance staff
- Other staff whose training requirements are not met by the Water Training Package

The key points to note from Table 1 are that:

- Local water utilities (plus Essential Water and Hawkesbury City Council) employ an estimated 1,957 people across the 28 occupations defined by the Australian Water Occupations Framework.
- The main occupation of employees can be categorised as follows:
  - NETWORKS - 49% (960 employees)
  - WATER TREATMENT (includes water and wastewater treatment) - 39% (757 employees)
  - SOURCE - 4% (81 employees)
  - TRADE WASTE - 4% (71 employees)
  - OTHER roles of Essential Services Officer, Water Sampler and Field Operators - 3% (67 employees)
  - HYDROGRAPHY (3 employees)
- Based on the regional classification used by IPWEA, council regions with the largest water workforce are the South West region (352 employees), the Mid North Coast (337) and North Coast (247).

Table 2 shows that NSW local water utilities made up 28% of the total headcount of water employees nationally (6,872), based on data from organisations that responded to the GSA national survey. However it should be noted that the national data does not include organisations such as Hunter Water in NSW, a large proportion of Queensland councils, some private sector organisations such as Thiess and Trility and mining companies that employ staff in many of the 28 AWOF occupations. Consequently, the true contribution of NSW local government to total water industry employment will be less than 28%.



**Table 1: Profile of the Local Government Water Workforce by Region<sup>4</sup>**

Occupations	Central West <sup>5</sup>	Hunter <sup>6</sup>	Illawarra <sup>7</sup>	Mid North Coast <sup>8</sup>	New England <sup>9</sup>	North Coast <sup>10</sup>	Orana <sup>11</sup>	South East <sup>12</sup>	South West <sup>13</sup>	TOTAL
Assistant Water Operator	13	11	10	7	21	9	13	8	28	120
Water Operator	43	29	10	112	46	32	43	59	77	451
Water Treatment Supervisor	11	9	1	10	15	15	12	10	16	99
Water Treatment Coordinator	5	4	3	9	5	10	6	3	14	59
Water Treatment Technologist	0	5	0	8	1	3	3	0	8	28
<b>Total Water Treatment</b>	<b>72</b>	<b>58</b>	<b>24</b>	<b>146</b>	<b>88</b>	<b>69</b>	<b>77</b>	<b>80</b>	<b>143</b>	<b>757</b>
Assistant Networks Operator	6	57	24	72	7	30	21	31	42	290
Networks Operator	52	57	8	82	41	79	51	46	84	500
Networks Supervisor	16	10	2	11	13	23	18	13	22	128
Work Planner	1	4	0	2	4	9	6	3	13	42
<b>Total Networks</b>	<b>75</b>	<b>128</b>	<b>34</b>	<b>167</b>	<b>65</b>	<b>141</b>	<b>96</b>	<b>93</b>	<b>161</b>	<b>960</b>
Assistant Hydrographer	0	0	0	0	0	0	0	0	1	1
Hydrographer	1	0	0	0	0	0	0	0	1	2
Senior Hydrographer	0	0	0	0	0	0	0	0	0	0
<b>Total Hydrography</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>3</b>

<sup>4</sup> Regions are based on the groupings used by IPWEA and have been adopted by the Water Directorate

<sup>5</sup> Central West – employment data provided by Bathurst, Blayney, Cabonne, Central Tablelands, Cowra, Forbes, Lithgow City, Oberon, Orange, Parkes, Weddin and Young Shire Councils and estimated for Lachlan

<sup>6</sup> Hunter – employment data provided by Gosford, Hawkesbury, Muswellbrook, Singleton, Upper Hunter and Wyong

<sup>7</sup> Illawarra – employment data provided by Shoalhaven and Wingecarribee

<sup>8</sup> Mid North Coast – employment data provided by Bellingen, Coffs Harbour, Kempsey, MidCoast Water, Nambucca and Port Macquarie-Hastings

<sup>9</sup> New England – employment data provided by Armidale, Glen Innes Severn, Gunnedah, Guyra, Gwydir, Inverell, Liverpool Plains, Moree Plains, Narrabri, Tamworth, Tenterfield and estimated for Uralla and Walcha

<sup>10</sup> North Coast – employment data provided by Ballina, Byron, Clarence Valley, Kyogle, Lismore, Richmond Valley, Rous County Council and Tweed

<sup>11</sup> Orana - employment data provided by Bogan, Bourke, Brewarrina, Central Darling, Cobar, Coonamble, Dubbo, Gilgandra, Mid Western, Narromine, Walgett, Warren, Warrumbungle, Wellington and Essential Water

<sup>12</sup> South East – employment data provided by Bega Valley, Bombala, Boorowa, Cooma-Monaro, Eurobodalla, Goulburn Mulwaree, Harden, Palerang, Snowy River, Queanbeyan, Upper Lachlan and Yass

<sup>13</sup> South West – employment data provided by Albury, Balranald, Berrigan, Bland, Carrathool, Coolamon, Cootamundra, Corowa, Deniliquin, Greater Hume, Griffith, Gundagai, Hay, Jerilderie, Junee, Leeton, Lockhart, Murray, Murrumbidgee, Narrandera, Riverina Water, Temora, Tumbarumba, Tumut, Urana, Wagga Wagga, Wakool, Wellington and Goldenfields Water.

Occupations	Central West	Hunter	Illawarra	Mid North Coast	New England	North Coast	Orana	South East	South West	TOTAL
Bore Fields Operator	2	2	0	0	0	0	1	0	1	6
Bulkwater Operator	0	9	1	0	0	9	2	3	5	29
Catchment Operator (Compliance)	0	1	0	2	0	0	0	0	2	5
Catchment Operator (Land Management)	1	1	0	0	0	5	0	0	1	8
Catchment Operator (Technical)	0	0	0	0	1	0	0	0	1	2
Dams Operator	3	3	0	7	1	3	4	1	0	22
River Operator	0	0	0	0	0	0	0	0	0	0
Supervisor (Source)	2	0	0	2	0	1	1	1	0	7
Diversions Officer	0	0	0	0	0	0	0	0	0	0
Dam Safety Instrumentation Specialist	0	1	0	0	0	0	0	0	0	1
Salinity Interception Officer	0	0	0	0	0	0	0	0	1	1
<b>Total Source</b>	<b>8</b>	<b>17</b>	<b>1</b>	<b>11</b>	<b>2</b>	<b>18</b>	<b>8</b>	<b>5</b>	<b>11</b>	<b>81</b>
Trade Water Officer	4	6	4	6	4	9	9	5	8	55
Trade Waste Supervisor	1	3	1	1	1	2	3	0	4	16
<b>Total Trade Waste</b>	<b>5</b>	<b>9</b>	<b>5</b>	<b>7</b>	<b>5</b>	<b>11</b>	<b>12</b>	<b>5</b>	<b>12</b>	<b>71</b>
Essential Services Officer	0	0	0	0	0	2	0	0	4	6
Water Sampler	1	4	1	3	3	6	8	6	11	43
Field Operator	0	0	1	3	0	0	6	0	8	18
<b>Total Other</b>	<b>1</b>	<b>4</b>	<b>2</b>	<b>6</b>	<b>3</b>	<b>8</b>	<b>14</b>	<b>6</b>	<b>23</b>	<b>67</b>
Miscellaneous (occupation not classified)	9				9					18
<b>GRAND TOTAL</b>	<b>171</b>	<b>216</b>	<b>66</b>	<b>337</b>	<b>172</b>	<b>247</b>	<b>207</b>	<b>189</b>	<b>352</b>	<b>1,957</b>

**Table 2: Contribution of NSW councils to the national water industry workforce**

	<b>NSW council TOTAL</b>	<b>Other water employers<sup>14</sup></b>	<b>GRAND TOTAL</b>	<b>NSW councils as % of total</b>
Assistant Water Operator	120	156	276	43%
Water Operator	451	976	1,427	32%
Water Treatment Supervisor	99	198	297	33%
Water Treatment Coordinator	59	100	159	37%
Water Treatment Technologist	28	108	137	20%
<b>Total Water Treatment</b>	<b>757</b>	<b>1,538</b>	<b>2,296</b>	<b>33%</b>
Assistant Networks Operator	290	539	829	35%
Networks Operator	500	1,278	1,778	28%
Networks Supervisor	128	262	390	33%
Work Planner	42	99	141	30%
<b>Total Networks</b>	<b>960</b>	<b>2,178</b>	<b>3,138</b>	<b>31%</b>
Assistant Hydrographer	1	31	32	3%
Hydrographer	2	46	48	4%
Senior Hydrographer	0	36	36	0%
<b>Total Hydrography</b>	<b>3</b>	<b>113</b>	<b>116</b>	<b>3%</b>
Bore Fields Operator	6	7	13	46%
Bulkwater Operator	29	59	88	33%
Catchment Operator (Compliance)	5	75	80	6%
Catchment Operator (Land Manage)	8	80	88	9%
Catchment Operator (Technical)	2	8	10	20%
Dams Operator	22	138	160	14%
River Operator	0	25	25	0%
Supervisor (Source)	7	113	120	6%
Diversions Officer	0	42	42	0%
Dam Safety Instrumentation Specialist	1	16	17	6%
Salinity Interception Officer	1	10	11	9%
<b>Total Source</b>	<b>81</b>	<b>573</b>	<b>654</b>	<b>12%</b>
Trade Water Officer	55	127	182	30%
Trade Waste Supervisor	16	32	48	33%
<b>Total Trade Waste</b>	<b>71</b>	<b>159</b>	<b>230</b>	<b>31%</b>
Essential Services Officer	6	152	158	4%
Water Sampler	43	81	124	35%
Field Operator	18	120	138	13%
<b>Unclassified</b>	<b>18</b>		<b>18</b>	
<b>Total Other</b>	<b>85</b>	<b>353</b>	<b>438</b>	<b>20%</b>
<b>GRAND TOTAL</b>	<b>1,957</b>	<b>4,914</b>	<b>6,872</b>	<b>28%</b>

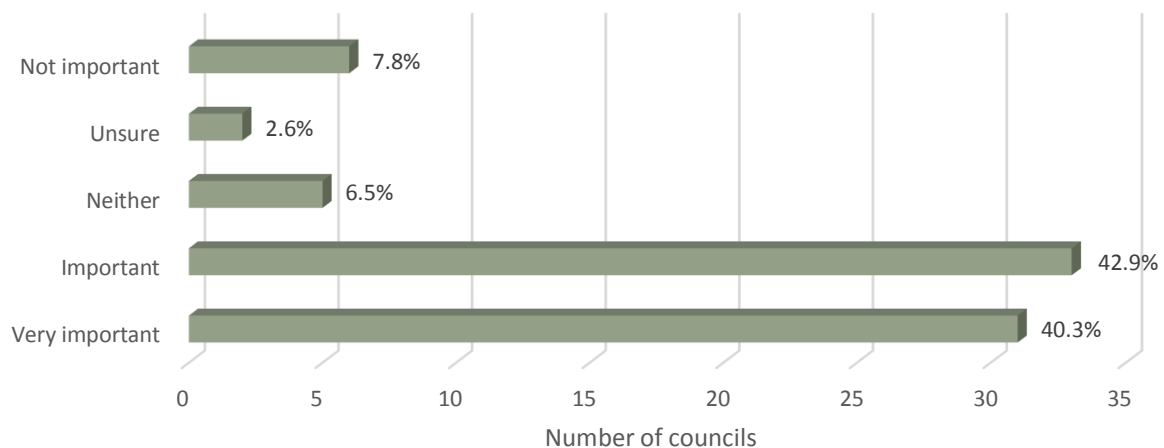
<sup>14</sup> Data gathered in Government Skills Australia's national survey of 37 organisations including state water authorities, private sector organisations and Queensland councils.

## Value of the Australian Water Occupations Framework (AWOF)

The AWOF was developed during 2013-2014 by Government Skills Australia (in consultation with industry) to provide consistency in terminology and understanding of the common set of skills and knowledge requirements for occupations linked to vocational education and training in the Water Training Package. Given the significant investment by the Commonwealth Government and the water industry in developing the AWOF, councils were asked about the importance of having a more consistent classifications of water occupations.

As illustrated in Figure 2 below, 83% of the 77 respondent councils believed it was “important” or “very important” to have a consistent classification.

**Figure 2:**  
**Importance of having a more consistent classification of water occupations**  
(Number of respondents = 77)



Reasons given for the AWOF’s importance were that it:

- Provided consistency throughout the industry for technical requirements and training requirements
- Clarified positions and roles in organisations
- Can be utilised for skill development, skill sharing and mentoring purposes
- Can be used for recruiting new staff
- Allows for better progression, succession and career opportunities for such occupations.
- Will assist with easier establishment of expectations in various water industry occupations
- Makes it easier for people to move within the industry
- Provides a benchmark for the industry

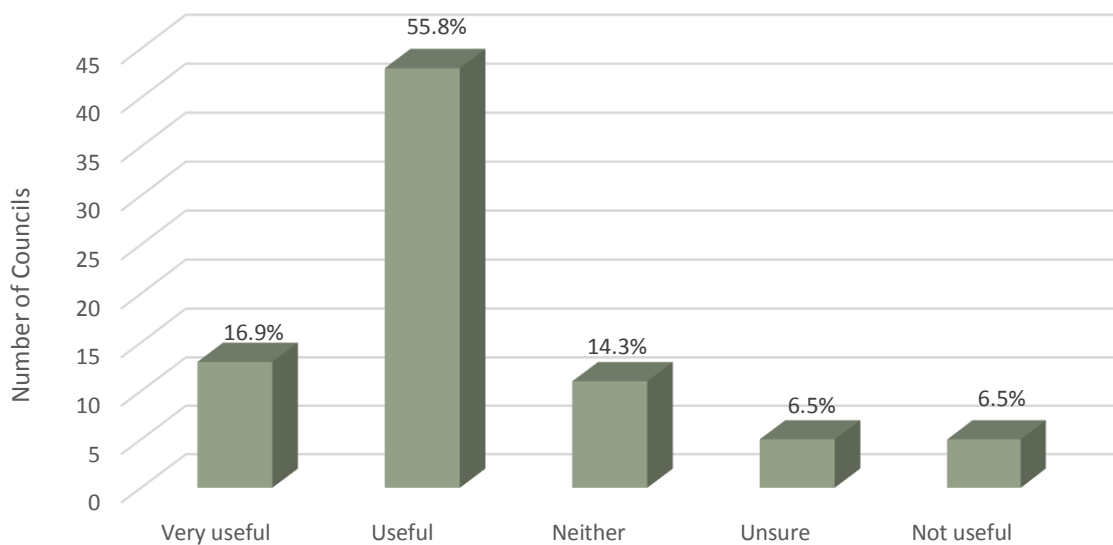
For those councils less supportive of the AWOF, there were consistent comments about its lack of application to smaller councils where employees are required to be multi-skilled across functional areas, e.g. Treatment and Networks. Single occupational titles are not relevant in these cases.

*None of my staff fit neatly into any of these descriptors, being a small council staff are multi-skilled and perform a number of these roles each day*

*Too much emphasis on specific roles rather than multi skilled or more diverse mixed role types of positions*

In reflection of the councils' views of the AWO's importance, a similarly high proportion (73%) rated the AWO as "very useful" or "useful", as shown in Figure 3 below.

**Figure 3: Usefulness of the Australian Water Occupations Framework**  
(Number of respondents = 77)



### Training requirements of councils

Councils were given a predetermined list of courses commonly used by local government water utilities and were asked to nominate how many staff might require this training over the next 12 months. Seventy-three (73) of the 104 councils provided some response to this question, generating an estimate of demand for 1,467 training places over the next year.

Table 3 outlines the number of training places nominated in each region for each course, ranging from vocational education and training, to NSW Office of Water Courses, short courses and generic skills training in areas such as computer skills and management skills. The total of 1,467 is likely to under-estimate true demand, given that responses were not provided by 31 organisations and some councils indicated demand for a specific course but failed to estimate the number of employees requiring training.

As shown in Table 3, training demand was greatest for Working in Confined Spaces, Computer/IT training and Qualifications/units from the National Water Training Package. There was an average demand for 43 places in each of the NSW Office of Water courses, with numbers ranging from 15 for the Trade Waste course through to 70 for the Water Treatment Update course.

When analysed on a geographic basis, there is certainly scope for training providers to deliver many of these courses in regional areas. For example, delivery would be feasible for:

- The *Fluoridation* course and *NOW Wastewater Part 2 – Advanced* course in northern NSW for the Mid North Coast, New England and North Coast councils
- *NOW Water Treatment Update* course in the South West for its 26 councils
- *NOW Water Treatment Part 1 – Chemical Dosing* for the Central West/Orana councils
- *Confined Space* training in each region
- *Dam Safety Surveillance* in the South East region.
- *Computer/IT training* for water employees in most regions of NSW
- *National units of competency/qualifications* for the Central West and Orana councils

Further analysis is also required to determine which vocational education and training (VET) units of competency or qualifications are needed by employees from the Water Training Package and potentially, for computer/IT skills and management/leadership training.

As it is unlikely that councils would have the budget to fund all the training nominated for the next 12 months, more consultation would need to be done at a regional level to determine the various training priorities for each council and to give the opportunity for councils who did not respond to the survey to declare their interest in participating in locally co-ordinated training courses.

It is also important to note that due to the multi-skilled nature of many water employees in local government, there will be large numbers of employees who will require training from more than one stream, e.g. water treatment and networks. Consequently training places required by councils at any one time will well exceed the number of employees in this sector.

**Table 3: Number of Staff requiring Training by Region**

Type of Training	Central West <sup>15</sup>	Hunter <sup>16</sup>	Illawarra <sup>17</sup>	Mid North Coast <sup>18</sup>	New England <sup>19</sup>	North Coast <sup>20</sup>	Orana <sup>21</sup>	South East <sup>22</sup>	South West <sup>23</sup>	TOTAL
<b>Technical Water Skills and Knowledge</b>										
Qualifications or units from NWP07	9	11	9	24	12	12	13	13	27	<b>130</b>
NOW Wastewater Part 1	4	7	4	4	12	3	5	3	7	<b>49</b>
NOW Wastewater Part 2 - Advanced	7	4	4	6	9	6	4	7	6	<b>53</b>
NOW Water Treatment Part 1 _ Chemical Dosing	6	7	3	4	7	4	8	7	14	<b>60</b>
NOW Water Treatment Part 2	4	5	3	7	4	4	12	9	12	<b>60</b>
NOW Water Treatment Update (2 days)	8	6	3	5	7	4	9	6	22	<b>70</b>
NOW Water Treatment RPL (1 day)	7	5	2	3	0	0	3	1	8	<b>29</b>
NOW Overview of Liquid Trade Waste (2 days)	3	5	3	1	3	3	2	4	1	<b>25</b>
NSW Liquid Trade Waste Regulation (5 days)	1	4	1	1	4	1	1	2	0	<b>15</b>
NOW Trade Waste Regulation Update Seminar (2 days)	1	7	3	1	5	2	0	2	5	<b>26</b>
Fluoridation Course	5	10	2	3	10	14	11	4	4	<b>63</b>
Dam Safety Surveillance	7	3	3	4	6	5	1	10	1	<b>40</b>
Storage and Handling of Dangerous Goods	1	6	5	3	11	0	3	6	15	<b>50</b>
Working in Confined Spaces	5	31	52	22	36	32	26	22	53	<b>279</b>

<sup>15</sup> Central West – data includes Bathurst, Blayney, Cabonne, Central Tablelands, Cowra, Forbes, Oberon, Orange, Parkes but not Lachlan, Lithgow City, Weddin and Young Shire Councils

<sup>16</sup> Hunter – data includes Muswellbrook, Singleton, Upper Hunter, Wyong and Hawkesbury

<sup>17</sup> Illawarra – data includes Shoalhaven and Wingecarribee

<sup>18</sup> Mid North Coast – data includes Bellingen, Coffs Harbour, Kempsey, MidCoast Water, Nambucca and Port Macquarie-Hastings

<sup>19</sup> New England – data includes Armidale, Glen Innes Severn, Gunnedah, Guyra, Gwydir, Inverell, Moree Plains, Tamworth, Tenterfield but not Liverpool Plains, Narrabri, Uralla or Walcha

<sup>20</sup> North Coast – data includes Ballina, Byron, Clarence Valley, Kyogle, Lismore, Richmond Valley, Rous County Council and Tweed

<sup>21</sup> Orana - data includes Bogan, Bourke, Brewarrina, Central Darling, Cobar, Coonamble, Dubbo, Gilgandra, Mid Western, Narromine, Warren, Warrumbungle and Essential Water but not Walgett and Wellington Councils.

<sup>22</sup> South East – data includes Bega Valley, Bombala, Boorowa, Eurobodalla, Harden, Palerang, Snowy River, Yass but not Cooma-Monaro, Goulburn Mulwaree, Queanbeyan and Upper Lachlan Councils

<sup>23</sup> South West – data includes Albury, Bland, Carrathool, Cootamundra, Greater Hume, Griffith, Gundagai, Hay, Lockhart, Murray, Murrumbidgee, Narrandera, Riverina Water, Tumbarumba, Tumut, Wagga Wagga, Wakool and Goldenfields Water but not Balranald, Berrigan, Coolamon, Corowa, Deniliquin, Jerilderie, Junee, Leeton, Temora, Urana and Wentworth.

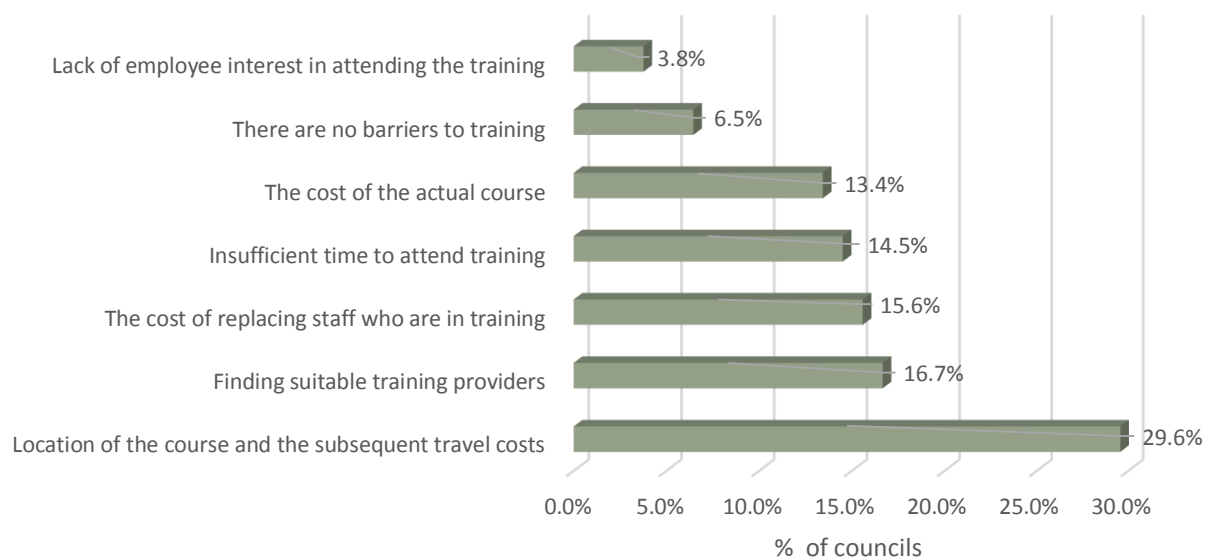
Type of Training	Central West	Hunter	Illawarra	Mid North Coast	New England	North Coast	Orana	South East	South West	TOTAL
<b>Generic Skills</b>										
Management, team leadership, supervisory training	4	14	3	1	8	8	4	3	16	61
Computer/IT training	15	13	12	13	4	9	3	2	71	142
Mentoring	6	10	5	0	0	0	0	2	6	29
<b>Other training needs</b>										
	10	25	20	13	8	133	4	50	23	286
<b>GRAND TOTAL</b>	<b>103</b>	<b>173</b>	<b>137</b>	<b>115</b>	<b>146</b>	<b>240</b>	<b>109</b>	<b>153</b>	<b>291</b>	<b>1,467</b>



## Barriers to Training

When councils were asked to nominate the top three barriers to sending water employees on training courses, the most commonly cited reasons were “location of the course and the subsequent travel costs”, followed by “finding suitable training providers” and “the cost of replacing staff who are on training”. The first two of these three barriers can be largely addressed through better regional collaboration and joint purchasing of training which can be negotiated with a preferred training provider and delivered locally.

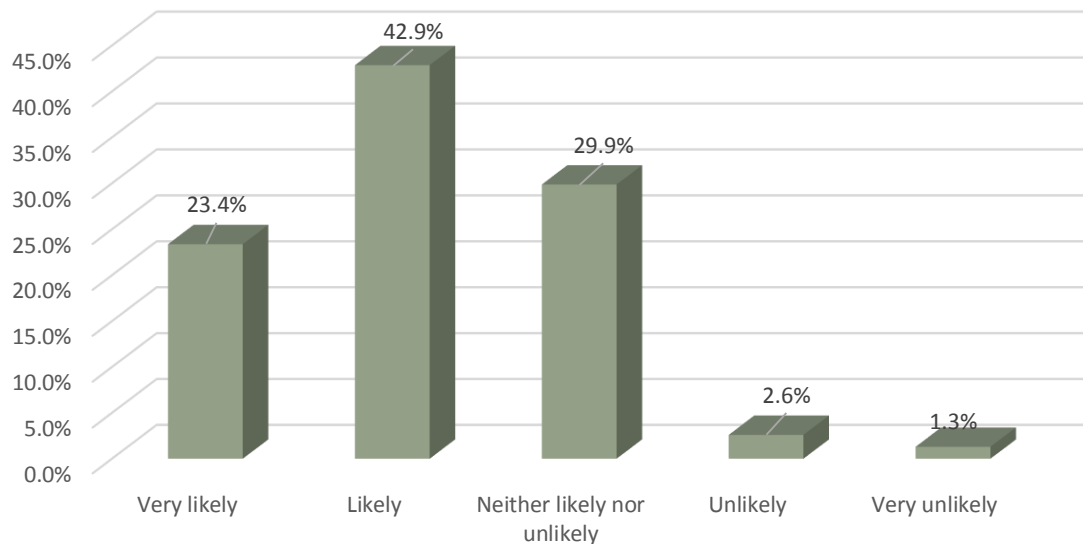
**Figure 4: Major barriers to sending water employees on training courses**  
(Number of respondents = 78)



## Interest in a Water Directorate training and mentoring brokerage service

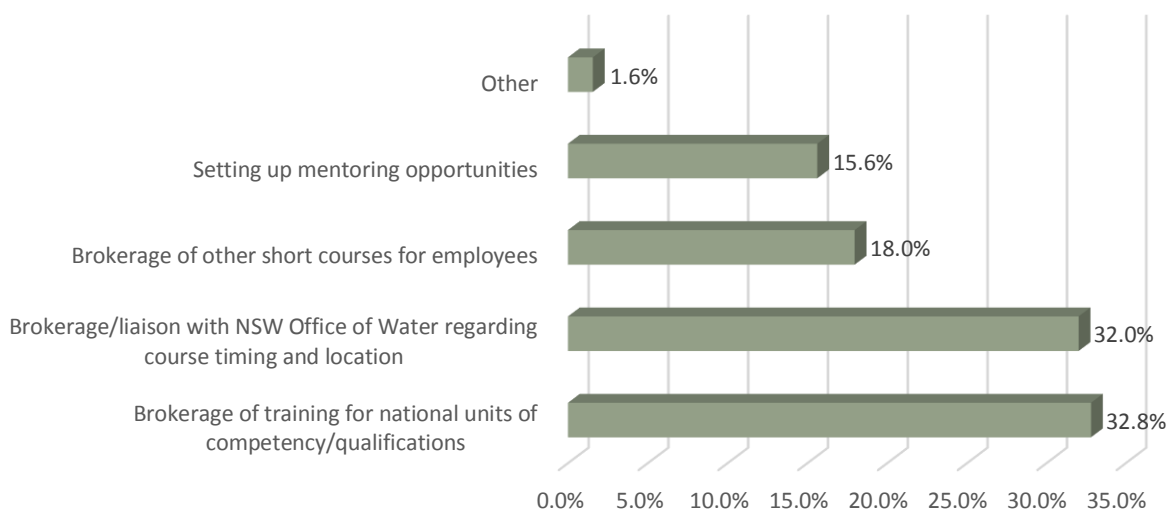
Amongst the 77 respondent councils, there was a large majority (66.3%) who said they would be “very likely” or “likely” to use the brokerage service. A further 30% remained neutral and only 3 councils (4%) reported to be “unlikely” or “very unlikely” to use such a service.

**Figure 5: Likelihood of using a Water Directorate brokerage service**  
(Number of respondents = 77)



Should a training and mentoring service be established by the Water Directorate, there was greatest interest in the brokerage of training for national VET units of competency or qualifications (nominated by 33.8% or 42 councils) and coordination with the NSW Office of Water regarding the timing and location of its courses (nominated by 41 councils). As shown in Figure 6, there was less interest in brokerage of other short courses and mentoring, although at least 20 councils reported each of these to be priority services.

**Figure 6: Priority services required under a brokerage arrangement**  
(Number of respondents = 75)



The majority of councils (71.4%) felt that a brokerage service should be funded on a fee-for-service basis, with only 24.3% supporting a member wide levy as the preferred option. One council reported that such a service should be funded by the State Government.

## Water Directorate's services in training and development

Many councils provided comments or suggestions about how the Water Directorate could increase its services to members in the area of training and development. These typically related to the type of training that could be offered or to the way in which training could be organised. Other suggestions concerned the development of standards, improving communication on issues related to training and addressing some of the perceived problems in the current system.

Council comments are listed below.

### Training Brokerage

*Arrange training in a cluster on regular basis with minimal or no cost.*

*Give guidance on relevant RTO and courses needed by staff to ensure the integrity of water and sewer systems are maintained. We are currently using an RTO for cert IV in water operations and its delivery is terrible. Water authorities should share this information.*

*Identifying training and development needs via research and consultation. Coordinate training programs. Source for funding*

*It would be helpful to have more readily available information about and access to training and development current or planned.*

*Update seminars similar to the dam safety seminar*

*Short course training for Managers and Engineers, particularly in water and sewage treatment and in telemetry systems.*

*Provision of specialised training i.e. water main flushing etc*

*More flexibility in location and increased frequency of course delivery would be beneficial. Courses currently held are very infrequent and in distant locations.*

*Coordinating training in regional areas to assist in 1) reducing attendance costs and time away from work, and 2) improving the frequency and breadth of courses available.*

*Help end the Office of Water conflict of interest on training delivery and regulation of qualifications and promote nationally recognised qualifications that can be delivered by any RTO using variable platforms and locations with a focus on workplace training and assessment, and recognition of prior knowledge.*

*Mimic the Victorian training system, broker a similar situation for wastewater, work with other states rather than re-invent.*

*Currently struggling to find an effective delivery method for Cert III and IV water industry operations. RTO's that deliver in this area provide assessment of on-the-job training. I do not believe that "on-the-job" training fits all situations however it is currently the only delivery method utilised. This may be where the Water Directorate or other can assist in mentoring/training opportunities that are difficult to gain in-house in small rural Councils.*

## **Other Related Services**

*Site visits*

*Regular communication either by letter, phone, email etc.*

*Linking training / qualifications more closely with position descriptions. Clearly defining minimum continuous development requirements for specific positions*

*If no brokerage service is arranged then communication is essential.*

*Some mandatory safety training standards.*

*Consider national approach similar to Proposed National Certification Framework (for water treatment operators) for all water related positions, rather than only being NSW focused.*

## **Other General Comments about Water Industry Training**

Within the mix of member councils there are differing views about the dual role of the NSW Office of Water as a training provider and regulator and the value of national VET qualifications and the Australian Water Occupations Framework. These various positions (illustrated by the comments below) need to be accommodated when considering any potential involvement in the provision of training brokerage services.

*Singleton Council has already adopted the National Water Occupation Framework and is in the process of restructuring into the Water Treatment Operator and Network Operator staff units.*

*My experience of VET is that it provides no benefit of any kind. NSW Office of Water courses are excellent, having them accredited has only added meaningless additional tasks to the assessment process and necessitated the use of TAFE with additional administrative inefficiencies.*

*Many employees will not undertake some of the existing training courses due to the apparent high level knowledge in maths required. It appears that mathematical formulae should be replaced with look up tables, where possible.*

*Maybe a conflict of interest for NSW Office of Water being a regulator and training provider for NSW operators*

*Great work so far, keep it up please.*

## 4. Conclusions

Consultation with all NSW Local Water Utilities, Hawkesbury City Council and Essential Water which service local government, indicates there is a workforce of 1,957 in roles requiring technical training aligned to the Water Training Package. Demand for training over the next 12 months is substantial and is made up of a mix of vocational education and training, NSW Office of Water courses and other short course requirements.

There is also considerable interest from councils in utilising a training brokerage service, if established by the Water Directorate. The preference is for such a service to be funded on a fee-for-service basis, with priorities focussing on brokering VET training and the timing and location of NSW Office of Water courses. Whilst the data indicated no discernible differences in interest across regional areas, it should be acknowledged that some Regions of Councils or alliances of councils already have well-established networks through which training is co-ordinated.

There is certainly scope and member support for the Water Directorate to establish a training co-ordination function that could tailor its services to the various needs of each region. The advantages would include:

- Greater negotiation capacity with training providers if working across multiple regions, with the potential outcome being lower training costs and higher quality training at local sites.
- Ability to monitor changes in training requirements and emerging skill needs in the sector and communicate these needs to organisations responsible for skills standards and course development

However the funding of a brokerage service would require further investigation as it may not be possible for the function to be completely cost recovery. As most brokerage services charge a loading per course participant, it may make the costs of some fixed price courses (such as those offered by the NSW Office of Water) too expensive for councils. A pricing model would first require some testing with the market and with training providers.

## 5. Recommendations

- 5.1 The Executive Committee consider the findings from this report and determine whether to proceed with establishing a training co-ordination or brokerage function for its members.
- 5.2 Consideration be given to developing a funding model and piloting a brokerage service for a particular region or cluster of courses, to test the financial viability and success of such a model.

## APPENDIX 1

### Survey Respondent and Non-Respondent Organisations

*NB: Non-member organisations are in italics*

Water Directorate Regions	Respondent Councils	Non-Respondent Councils
Central West (13)	Bathurst Regional Council Blayney Shire Council Cabonne Shire Council Central Tablelands County Council Cowra Shire Council Forbes Shire Council Oberon Council Orange City Council Parkes Shire Council Young Shire Council  <b>10</b>	Lachlan Shire Council Lithgow City Council Weddin Shire Council          <b>3</b>
Hunter (6)	<i>Gosford City Council</i> <i>Hawkesbury City Council</i> Muswellbrook Shire Council Singleton Shire Council Upper Hunter Shire Council Wyong Shire Council  <b>6</b>	
Illawarra (2)	Shoalhaven City Council Wingecarribee Shire Council  <b>2</b>	
Mid North Coast (6)	Bellingen Shire Council Coffs Harbour City Council Kempsey Shire Council MidCoast Water Nambucca Shire Council Port Macquarie-Hastings Council  <b>6</b>	
New England (13)	Armidale Dumaresq Council Glen Innes Severn Council Gunnedah Shire Council Guyra Shire Council Gwydir Shire Council Inverell Shire Council Liverpool Plains Shire Council Moree Plains Shire Council Narrabri Shire Council Tamworth Regional Council Tenterfield Shire Council Walcha Shire Council  <b>12</b>	Uralla Shire Council          <b>1</b>

<b>Water Directorate Regions</b>	<b>Respondent Councils</b>	<b>Non-Respondent Councils</b>
North Coast (8)	Ballina Shire Council Byron Shire Council Clarence Valley Council Kyogle Council Lismore City Council Richmond Valley Council Rous County Council Tweed Shire Council  <b>8</b>	
Orana (15)	Bogan Shire Council Bourke Shire Council Brewarrina Shire Council Central Darling Council Cobar Shire Council Coonamble Shire Council Dubbo City Council <i>Essential Water</i> Gilgandra Shire Council Mid Western Regional Council Narromine Shire Council Walgett Shire Council Warren Shire Council Warrumbungle Shire Council  <b>14</b>	Wellington Council               <b>1</b>
South Eastern (12)	Bega Valley Shire Council Bombala Council Boorowa Shire Council Eurobodalla Shire Council Harden Shire Council Palerang Council Snowy River Shire Council Yass Shire Council  <b>8</b>	Cooma-Monaro Shire Council Goulburn Mulwaree Council Queanbeyan City Council Upper Lachlan Council       <b>4</b>

<b>Water Directorate Regions</b>	<b>Respondent Councils</b>	<b>Non-Respondent Councils</b>
South West (29)	Albury City Council Bland Shire Council Carrathool Shire Council Cootamundra Shire Council Deniliquin Shire Council <i>Goldenfields Water County Council</i> Greater Hume Council Griffith City Council Gundagai Shire Council Hay Shire Council Junee Shire Council Leeton Shire Council Lockhart Shire Council Murray Shire Council Murrumbidgee Shire Council Narrandera Shire Council Riverina Water County Council Temora Shire Council Tumbarumba Shire Council Tumut Shire Council Wagga Wagga City Council Wakool Shire Council	Balranald Shire Council Berrigan Shire Council <i>Coolamon Shire Council</i> Corowa Shire Council Jerilderie Shire Council <i>Urana Shire Council</i> <i>Wentworth Shire Council</i>
	<b>22</b>	<b>7</b>
<b>Total</b>	<b>88</b>	<b>16</b>