

Report on the National Survey of the New Zealand Construction and Demolition Waste Industry



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Executive Summary

Introduction

During December 2006, February and March 2007 the Extractive Industries Training Organisation (EXITO) national survey of the Construction and Demolition Waste Industry was conducted throughout New Zealand. The purpose of the survey was to obtain data and information to facilitate future EXITO policy decision-making and enable accurate planning for the training needs of those people entering or involved in the New Zealand construction and demolition waste industry.

A total of 74 people were surveyed in seven companies. These were medium to large construction and demolition waste companies from the regions of Auckland, Manawatu, Bay of Plenty and Canterbury.

Methodology

Firstly two draft questionnaires were designed and circulated to the EXITO personnel and industry experts for their comment – one questionnaire for Operators, and one for Managers/Professionals/Technicians. Amendments were made based on their feedback. A pilot test was conducted, and amendments made before applying the questionnaires with Operators and Managers.

The Survey Results

Survey results cover demographic and general data about respondents; responses to questions about training; responses to questions about training delivery; and Managers' views on training and professional development, recruitment and retention, training issues, and predictions for the industry.

Demographic and General Data

- Men made up 93% and women 7% of the surveyed population.
- Forty-six percent (46%) of respondents were under 40 years of age, with the remaining 54% being 40 years of age or older.
- Forty-four percent (44%) of participants identified as NZ Maori, 30% as NZ European/Pakeha, with small percentages of other ethnicities.
- Eighty-one percent (81%) of respondents worked for 50 or more hours per week, and the average hours of work in the industry were 53 per week for full time respondents. Individual hours varied widely.
- Fifty-nine percent (59%) of respondents joined the industry because they were interested in the work or the industry, or liked to operate machines and equipment.
- Forty-five percent (45%) of participants had relevant experience or qualifications before entering the industry, and most people (72%) had worked in another industry prior to working in this one.
- Most respondents had worked in only one company in the industry, and only 22% had worked in more than two companies.
- The average period of time in the industry for respondents was 9 years.
- A large majority of people (88%) said they wanted to continue working in the industry.

- Seventy-two percent (72%) of respondents reported earning less than \$40,000 per annum. Fourteen percent (14%) reported annual full time income below the new minimum adult wage rate.

Training

- Most respondents said their companies provided training.
- There was high (77%) interest in training amongst participants.
- Participants expected training to improve workplace safety and improve skills in their current roles. Some people also expected promotion as a result of training.
- Fifty-three percent (53%) of people were consulted about their training needs.
- Sixty percent (60%) of respondents did not know how to register for training.
- Most people (76%) wanted training organised within working hours.

Training Delivery

- On-site practice is important for training in this industry, and it is the most preferred training method (72%). Distance learning was not a popular option.
- Most participants (77%) thought training offered the right mix between theory and practice.
- Trainers must be experienced (required by 87% of participants), knowledgeable (57%) and supportive (52%). It is also helpful if trainers are patient (40%) and go at the right pace for participants (35%).
- Participants made many suggestions for training needs and improving the way training is delivered.
- Forty-four percent (44%) of participants said they were trained in the use of new equipment before it arrived.
- Most participants (81%) said they use the new skills within five days of the training.

Managers' Views

- Most managers completed the operator questionnaires, so management views on professional development, recruitment and retention, company training issues, and industry predictions may not be representative of the industry.
- Training and professional development comments centred on developing people's confidence and earning respect with others, learning how to learn, and ensuring training relevance. The difficulty of taking time out for training was noted.
- Managers and supervisors are perceived to be difficult roles to fill, but labourers and plant operators are also perceived to be likely to be under-supplied.
- The industry seemed to be open to recruiting from under-represented groups, but ideas for attracting women were not forthcoming.
- Formal qualifications were thought to be part of the way of the future for the industry and that increasing training synergy with other industries may assist with forecast skill shortages. There was some support for the idea of an apprenticeship system.
- It was believed that unit standards for the harvesting of asbestos may be useful, and information was given regarding existing industry work with OSH to develop guidelines for working with asbestos.
- Recycling is believed to be a major consideration for the future.
- EXITO-based training was not high, according to respondents. The New Zealand Demolition Association has worked with another ITO and OSH to develop a unit-standards-based training programme.

- By 2012, participants thought EXITO industry training and skills development needed to be about “training people, constructing relevant industry endorsed training standards that are world class” and “looking ahead to recycling.”

Considerations for the Future

As with most surveys, results raise several more questions, and some of these are included for EXITO’s consideration at the end of the survey results. It is expected that these questions will stimulate and direct the Board in their thinking, decision-making and future planning. Importantly, training appears to be highly regarded and has a substantial contribution to make in this industry.

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1. Introduction

During December 2006, February, and March 2007 the Extractive Industries Training Organisation (EXITO) national survey of the Construction and Demolition Waste Industry was conducted throughout New Zealand. The purpose of the survey was to obtain data and information to facilitate future EXITO policy decision-making and enable accurate planning for the training needs of those people entering or involved in the New Zealand construction and demolition waste industry.

Survey sites were chosen from a cross-section of the types of businesses industry experts asked to be included. A total of seven medium to large construction and demolition waste companies from the regions of Auckland, Manawatu, Bay of Plenty and Canterbury were surveyed.

Surveys were completed and discussions were held with personnel mainly in group situations at the start of work or at scheduled break times. People could either fill in the questionnaire themselves, or the person conducting the survey could ask questions and complete respondents' survey forms. This meant that timeframes for completing the questionnaire and attending to work productivity expectations were managed, as well as discretely accommodating people with concerns about literacy or English as a second language.

Workloads in this industry meant site managers tended to want to discuss their industry training issues separately with the surveyor. Managers usually opted to complete the Operator questionnaire, rather than the Manager one. This was an interesting trend, and may be related to the relatively small size of the industry and unwillingness to present information which may be exposing for their business or its managers. In interviews, though, site managers were forthcoming, and the comments and views they offered in these settings are included in this report.

In total, 74 people participated in this survey by the time of compiling the report, including 14 managers. Many respondents were interested in the purpose of the exercise and were pleased to have their views sought. People were individually thanked for taking the time to assist with this project on (future) training for the industry.

This report considers the views of the 74 industry members from seven businesses throughout New Zealand. Grateful thanks and appreciation is extended to all those involved, especially those managers and supervisors who generously gave their time and prepared their staff for the survey visit, and the 74 respondents, who willingly participated. Participating companies will receive a copy of the final project report.

2. Methodology

EXITO personnel and industry experts directed the contractor to research specific information required for the future planning needs of the industry. Firstly two draft questionnaires were designed and circulated to industry experts for their comment – one questionnaire for Operators, and one for Managers/Professionals/Technicians. Amendments were made based on their feedback.

In addition a pilot test was conducted. The questionnaires were modified slightly as a result of feedback. Rather than getting the company to participate again, the results from the pilot site are included in this report.

As with other surveys completed for EXITO, we decided to conduct the surveys on site, on-the-spot and collect questionnaires immediately after completion. By doing this we achieved a 100% yield of those available to complete the questionnaires at the time of the visit. Often in these circumstances, the surveyors were asked to leave additional questionnaires for personnel to complete – especially managers. Not all of these surveys were returned in time to be included in these results. In one business, hours and places of work made the on-site method difficult, and this business requested surveys to be left for completion. Several follow up calls were made to collect surveys, and posting was also offered. The surveys were not returned in time for inclusion, but a very full manager discussion was held, and those views are included in this report. All of the businesses asked to participate in the surveys agreed to do so.

The surveys were conducted anonymously. Respondents were informed of the purpose of collecting the information (i.e. the questionnaire) and that the use and disclosure of the information would be limited to what is necessary to fulfil the survey purpose. We did not ask for people's names. Survey responses cannot be used to identify an individual because no personal information has been used that would enable identification of the survey respondent.

As noted in the introduction, visits to the seven companies resulted in 74 people participating in the exercise. During the project, surveyors were advised of the wide variation in industry size, depending on contracts. For example, one company talked of regularly going from 40 people to 95 people, and another from 10 to 45. Therefore, this survey is estimated to cover 16% of the industry when employment numbers are high and 40% of the industry when employment numbers are low. Participating sites mostly had medium staffing levels at the time the survey was conducted. Information from the survey can therefore provide a sound basis for future planning.

3. Results of the Survey

This part of the report is divided into four parts.

Part One considers Demographic and General Data.

Part Two covers responses to questions about training.

Part Three covers responses to questions about training delivery.

Part Four covers Managers' views on training and professional development, business/industry recruitment and retention, company training issues, and predictions for the industry.

3.1 Demographic and General Data

3.1.1 Participation

Total number of Construction and Demolition Waste Industry businesses	6
Total number of Operators involved	60
Total number of Managers involved	14
Total number of individual respondents	74

3.1.2 Gender

Gender	Participants
Male	93%
Female	7%
Totals	100%

3.1.3 Age Distribution

Age	Participants
15 – 19 years	2%
20 – 29 years	22%
30 – 39 years	22%
40 – 49 years	41%
50 – 59 years	13%
60 plus years	0%
Totals	100%

3.1.4 Ethnicity

Ethnicity	Participants
NZ European/Pakeha	30%
NZ Maori	43%
Tongan	8%
Samoan	7%
Maori/Pakeha	2%
Cook Island Maori	2%
Niuean	2%
Latin American/Hispanic	2%
African	2%
Other European	2%
Totals	100%

3.1.5 Average Hours of Work

The following table outlines the averages and ranges for weekly hours of work for full time employees.

Weekly Hours of Work	Participants
Average	53 hours
Range for full time work	40 – 70 hours

The following table specifies the breakdown in weekly hours of work.

Weekly Hours of Work	Participants
Part time or voluntary work	3%
40 – 49 hours per week	16%
50 – 59 hours per week	58%
60 – 69 hours per week	18%
70 plus hours per week	5%
Total	100%

3.1.6 Job Choice

Participants were asked why they chose their job. Responses fitted into the categories summarised in the following table.

Reason	Total
Interest in the work / the industry	21%
Like to operate machines and equipment / drive	21%
'It's a job', 'no particular reason'	12%
Variety / challenging work	11%
Friendly environment	7%
Money	5%
Change / do something different	5%
Previous experience in the industry	4%
Hands on work / working outside	4%
Live close / location	4%
Tried it and liked it	2%
Family/personal	2%
"The rats!!"	2%
Total	100%

Importantly, 59% of responses reflected participants' interest in the industry or the particular work (interest in the work, like working with machinery, experience in the industry, variety/challenging work, tried it and liked it). This bodes well for industry retention. Some of the comments relating to interest in machinery and the work included:

- *Operating different plant and equipment.*
- *All sorts of machinery you can operate.*
- *Deconstruction of a building – the bigger the better.*
- *I like working at heights.*
- *Break and wreck things.*
- *It was interesting, challenging, thrills (pre current OSH). Sense of achievement, total building gone – how much we could recover and sell.*

3.1.7 Relevant Experience/Qualifications Before Entering the Industry

Participants were asked if they had relevant experience or qualifications before working in the construction and demolition industry. Forty-five percent (45%) of participants said they did, and 55% said they did not.

Experience and qualifications noted included:

- *Working in building and construction industry*
- *Other trades or machine operation experience (eg gas cutting, basic engineering, powder coating and spray painting, engineering, automation, CNC machine operation, concrete cutting, driving)*

- *Work and life experience (eg previous experience in the industry, 40 years in the bush, taxi driving, security, meat works, life long experience, “just general common sense”)*
- *First aid, safety supervisors certificate, licences for operating (4 responses), purchasing management*
- *Qualified architect*
- *Timber mill work*
- *Truck driving*

Most people (72%) had worked in another industry before working in this one. The following table summarises the industries mentioned.

Industry	Total
Building and construction (including road working)	15%
Forestry and related sectors	15%
Farming and related work, including shearing, fencing, sales	13%
Automotive industries (including paint and panel, coach building, driving)	13%
Freight and distribution (including stores)	9%
Meat works and butchery	8%
Food	6%
Machine operation	4%
House and furniture removal	4%
Other (demolition, entertainment, manufacturing, hire equipment, mills, fishing, hydraulics, wool classing)	13%
Total	100%

3.1.8 Number of Construction and Demolition Waste Firms Worked In

Participants were asked the number of construction and demolition waste companies they had worked in. Some people said they had not worked in any such companies. Clearly they do now, in order to be involved in the survey, so perhaps these people were interpreting the question as companies other than their current one. It is likely this group of respondents can be added to the “1” category. Regardless, most people had worked in just one company, and only 22% have worked in more than two.

Number of Industry Firms	Participants
Worked in 0	9%
Worked in 1 (this one)	52%
Worked in 2	17%
Worked in 3	6%
Worked in 4	7%
Worked in 5	5%
Worked in 7	2%
Worked in 10	2%

Total	100%
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The answers to this question and the following one concerning the length of time in the industry suggest relative stability of the workforce. People also indicated a strong intention to continue working in the industry (see 3.1.10).

3.1.9 Time Spent in Industry

Average time spent in the industry is 9 years. As the following table shows, while there are a significant number of people with lower years of industry service, 51% of participants had been in the industry for six or more years. Combine this with the age results from section 3.1.3, showing 46% of participants are under 40 years of age, and results from section 3.1.10 indicating most people want to continue working in the industry, and this industry is faring better than many in terms of balance of age and reduced risk of depletion with retirement of older staff.

Time Spent in Industry	Participants
Less than 1 year	18 %
1 – 2 years	10%
3 – 5 years	21%
6 – 10 years	17%
11 – 19 years	17%
20 plus years	17%
Total	100%

3.1.10 Career Progression and Intention to Continue Working in the Industry

Forty-three percent (43%) of participants said they had been encouraged to take on supervisor roles; the remaining 57% had not. Most of the roles people had been encouraged to take on were for supervision/leading hand/foreman work, and some involved contracts supervision, site supervision, heading projects, and operations management. These results are reassuring, given the overwhelming intentions of many participants to continue working in the industry, as shown in the following table.

Desire to Continue Working in the Industry	Participants
Yes	88%
No	4%
Don't know	5%
Depends on the pay	3%
Total	100%

3.1.11 Wages

Some people (14%) noted annual wage rates that are below the new minimum adult wage rate of \$11.25 per hour¹. Given that 98% of participants were of adult wage rate age, and only 3% said they were involved in part time or voluntary work, these wage figures suggest a significant increase in costs for (at least some) businesses in this industry as a result of the 1 April 2007 increase in the minimum adult wage.

Wages	Participants
\$15,000 - \$20,000	14%
\$20,000 - \$30,000	32%
\$30,000 - \$40,000	26%
\$40,000 - \$50,000	12%
\$50,000 - \$60,000	14%
\$60,000 - \$70,000	2%
Over \$70,000	0%
Total	100%

¹ The annual salary of \$15,000 to \$19,999 noted by 14% of participants is also below the 2006 minimum adult wage rate of \$10.25 per hour. This suggests either people are unaware of their annual wages or they have mentioned net rates, rather than gross rates of pay; there is less weekly hours of work than indicated in earlier questions; or employers are unaware of minimum adult wage rates.

3.2 Training

3.2.1 Provision of Training

Most respondents (77%) said their companies did provide them with training. Participants believed training was provided largely for health and safety purposes (55% of responses). Improving skills was the other most commonly cited purpose (42% of responses). Only 3% of responses concerned other reasons, which related to “productivity, commodity awareness, competition, good faith, loyalty, investment”.

3.2.2 Interest in Training

There was high interest in training amongst survey participants, as summarised in the following table. However, only 32% of respondents said they were required or encouraged to do training.

Interest in Training	Total
Interested in training	77%
Not interested in training	8%
Required to do it	15%
Encouraged to do it	17%

A few people ticked an “other” category in response to this question, and made the following comments:

- *Trained by guys who know what they're doing, doing it for years.*
- *Willing to.*
- *We only get trained when we're asked.*
- *Have got everything.*

3.2.3 Expected Result of Training

Participants were asked what they would expect to get out of training. Most participants expected training to improve workplace safety (78%) and improve skills (78%) in their immediate role. Twelve percent (12%) of survey participants specified “promotion” as something they expected to get out of training, and 5% of people noted other things they would expect:

- *Know what to do: getting what need to feel safe – put it that way.*
- *Assistance.*
- *So long as pay goes up when skills go up.*

3.2.4 Necessary Skills, But No Training

Participants were asked if there were skills they needed, but which were not being trained for. Only thirty-five percent (35%) said there were, and gave the following examples:

Examples of Training Needed	Number of times mentioned
Gas cutting – structural gas cutting, structural technical cutting – if you cut here, what happens to the rest of the building?	5
Concrete cutting	3
Machine operation, working in confined spaces with machinery	4
Computer training	3
Beams and weights: “calculating weights/volume, so can measure up a beam, work out how heavy it is”	2
Other. One person mentioned each of: contracts supervision; fork hoist and bobcat driving; environmental issues / dust / noise, especially when working in cities, constantly working around the public; understanding when working on top of buildings and what could happen if you overload a floor; and demolition based.	5

Another comment was “communicate with the crane driver – are you up for that?”

Sixty five percent (65%) of respondents said thought they were getting the training that was needed. However, these results can be considered in line with those in the sections 3.2.5 and 3.2.6, which reveal that many people are not consulted about their training needs, and most do not know how to register for training. Combined, these results may indicate a lack of awareness of training options, including what it might be possible to have training assistance with.

3.2.5 Training Needs

Respondents were asked if they were consulted about their training needs. Fifty-three percent (53%) said they were, leaving 47% who said they were not.

3.2.6 Registering for Training

Most respondents (60%) did not know how to register for training. This reply could relate to registering for training within their companies, or for unit standard training offered as part of the National Framework.

3.2.7 Organising Training to Fit in With Work

The following table shows the responses when participants were asked how training should be organised to best fit in with their work.

Timing of Training	Participants
During work hours	76%
Weekends	15%
Evenings	9%

3.3 Training Delivery

3.3.1 Preferred Type of Training Delivery

Participants were asked the type of training delivery that works best for them. Several people noted more than one “best” for them, so percentages in the table below relate to the total number of respondents in the survey who gave this answer.

Training Delivery Method	Total
On-site practice	72%
Classroom presentations	33%
Videos	22%
Self-paced (learning from a training booklet at your own pace)	22%
Distance learning (learning by correspondence)	3%

Participants were very clear that on-site practice is their preferred learning method, followed by classroom presentations. Videos being included in classroom presentations might improve understanding and retention, given the relatively high number of people who liked this type of training delivery. Self-paced learning was also relatively high in respondents’ preferences, although perhaps somewhat at odds with the low result for distance learning.

3.3.2 Mix Between Theory and Practice

More than three-quarters of respondents (77%) thought training offered the right mix between theory and practice. Twenty-three percent (23%) did not. Comments from this 23% indicated a need for “more practice,” “more hands on,” and “on site with me.” There was a call for “no theory” and a comment that the “last training I was involved in was more theory than practice.” It was also noted that “training should be matched to one’s capabilities” and “there is very little training here.”

3.3.3 Important Qualities in a Trainer

Overall, respondents thought “experienced” was the most important quality in trainers. However, other qualities were also important to most participants, as shown in the following table.

Important Qualities in a Trainer	Total
Experienced	87%
Knowledgeable	57%
Supportive	52%
Patient	40%
Goes at the right pace	35%

Other comments related to being “culturally aware,” “culturally sensitive, not arrogant,” and several “not racist.” One person commented “just hands on.” There is a wide range of views from “any body,” to “They must know how to present themselves.”

It is a concern that a number of respondents make the comment about trainers that are racist and not culturally aware. If trainees experience racism and disrespect from trainers this will mean learning is disrupted, trainees will resist training and the company will not benefit from solid learning outcomes. It needs to be a factor when deciding on appropriate trainers.

3.3.4 Ideas for Improving the Way Training is Delivered

Respondents offered these suggestions for improving training delivery:

Take it as it comes

- *Not sure*
- *Not up to me – as long as I learn what I'm there for.*

Training volume

- *Have some training*
- *Get trained*
- *More of it*
- *More training, as much as possible*
- *More money*
- *I'm interested in learning more.*

Practical

- *More hands on*
- *A bit more hands on*
- *More practical*
- *More hands on than theory. People find it useful to learn by getting out there and experiencing it rather than listening.*
- *Hands on*
- *More practice (2)*
- *Get hands-on experience*
- *More one-on-one*

On-site

- *On-site training*
- *On sites, need more work situations*
- *More on-site training.*

Timing and pace

- *More time to train to understand training*
- *If training will be lengthy, allow sufficient time for those for whom English is their second language*

- *So long as everybody can understand*
- *Slowly*
- *Don't have long days; we get tired.*

Trainer and delivery

- *One trainer only*
- *Better trainer*
- *Not being racist or arrogant*
- *Have discussions about our work*
- *Not being racist*
- *Think in the process always*
- *Teachers with common sense*
- *Get rid of the arrogance*
- *Must be delivered safely – sometimes it is not and it sets a bad example.*

Content

- *Relevant to your particular job area eg demolition, site works*
- *Safe practice.*

Positive feedback

- *It's pretty good as it is*
- *Our company is a good company to work for.*

3.3.5 Training on New Equipment

Ten percent (10%) of participants declared that this question did not relate to them. The following table outlines the responses from the people for whom the question was relevant.

Timing of Training on New Equipment	Participants
Before it arrives	44%
After it is delivered	52%
Both before and after it arrives	2%
When it starts causing problems or faulting	2%

3.3.6 Transfer of Learning

Respondents were asked the length of time between completing training and using the new skill. Most respondents (81%) said they used the training within the first five days. This is a very good result, as trainees will retain the learning when practice is immediate.

The following table outlines the full range of answers to this question. Explanations of time periods from those who indicated “other” were:

- *6 months*
- *When time permits and production /business is quiet - which is never!*

- *As quick as possible*
- *As long as it takes.*

Time Period from Training to Using the Skill	Participants
1 – 5 days	81%
A fortnight	2%
A month	2%
More than a month	11%
Other	4%
Total	100%

3.3.7 Distance Learning

Participants were asked if they had experienced distance learning (learning by correspondence/internet). Only 12 people answered this question, and of those people, only a few had experience of distance learning. This is fewer than those who noted distance learning as the type of training delivery that works best for them and considerably different from the proportion of people who said self-paced learning was a training delivery method they rated as best (see section 3.3.1). Nobody commented about why distance or self-paced learning was deemed useful.

3.4 Managers' Views

As noted at the beginning of this report, most managers completed the Operators questionnaire. However, they did offer additional comments. This section summarises those views. Overall, small numbers giving views on professional development, recruitment and retention, company training issues, and industry predictions mean these may not be representative of industry thinking.

3.4.1 Professional Development

While managers felt encouraged by their employers to participate in professional development, the primary barriers seemed to be having “enough hours in the day.” Goals tended to be set with participants and largely matched what they expected from professional development. As such, it is no surprise that managers perceived professional development added value.

Noted gaps in professional development related to learning about “management and financial aspects.”

Managers had these things to say about training and professional development:

Confidence and earning respect dealing with others

- *I'd like all the boys trained so they can do their own calcs on site to let engineer know – they do underestimate the weight.*
- *Some engineers are very arrogant and don't ask us our ideas or opinions. I've been on the job for 15 years, it's what I do and I know a lot about it. They tell us a weight we can use, don't ask our opinion and then the floor might collapse. They don't respect our knowledge and expertise.*
- *Need communication training between parties. A lot of engineers and surveyors talk down to you or, worse, relay the message through someone else when they are standing in front of us. We get looked down on.*
- *The crane operator knows what to do. His role is crucial in the relationship with the workers. We have a meeting before any major lifts.*
- *Doesn't treat demolition with the respect it deserves. "Our company" is upping the image – it's a very professional trade.*
- *A good crew needs to get on well, respect authority, respect each other. The subbies need to respect us – punctuality is so important - it's a team thing. Once you are down a man you are forced to take shortcuts – and that's a risk.*
- *When it started it was pretty much a cowboy type industry with lots of dangerous practices. It has improved over time but there are still some shonky operators out there - people are at risk.*

Learning to learn

- *I enjoy working with younger guys and hearing their ideas. In demolition, its unknown, you have to figure it out. I love this job – my brain is working as hard as my body. When you are in a good crew, it makes the job easier.*
- *Experience comes from balls-ups, and you learn not to do it again.*

Difficulty doing training

- *We are under contract, so just can't take 2 days out for training. Demolition is one of the hardest areas to get training*

- *We wont get training – no-one will pay enough to make it worthwhile*
- *Not learning the things I need to learn to become the boss*

Relevance

- *Training emphasis is on safety and not on the job. Courses are always based on construction, not demolition. I've yet to do a course which is relevant to what we do. Wheels, tracks, rollers – all based on WTR roading, not what we do – eg demolition - 20 ton digger on 7 storey building. There are cavities and all sorts of things to watch. We crane machinery up or build a ramp and drive it up, but not up 20 storeys.*
- *I've been in the game for 22 years with the same company. Height work training is relevant but rest is irrelevant – it's a formality we have to go through. Engineer told us last year – machinery, no practical knowledge of how a building performs.*

3.4.2 Recruitment and Retention

Some managers reported very specifically about the ways they retain staff.

- *We multi-skill our staff – this helps with retention but also staff get runabouts when they are properly trained as a reward incentive.*
- *Retention is about getting good pay – vehicles to use – good motels to put them up in – back at home on a Friday afternoon when the work is out of town and having good gear*
- *Communication is the biggest thing.*

Difficult to fill roles were perceived to be “managers” and “supervisors”, because “the demolition industry is still immature in terms of professionalism. It is difficult to economically integrate a construction industry trained engineer.”

Labourers and plant operators were perceived as being occupations likely to be most significantly under-supplied, “as Australia and other industries prove more desirable.”

- *It's difficult to find educated labourers – we need people who know how to think*
- *It is still hard to find all of the staff we need – drivers, operators, labourers, experienced people right through – there seems to be a lack of interest to learn*

There were no stated areas of over-supply because “the industry is extremely specialist.” One person suggested “going forward it will be more difficult to retain staff.” Another commented “At times we are oversupplied with people who think they know it all.”

It was thought it would be “fairly straight forward” to fill short-term skill shortages by recruiting staff from under-represented groups (eg gender, ethnicity, age), other industries, people currently out of the labour force, or from overseas while people receive formal training to take up future vacancies. It was noted that “in the less skilled areas, this is already very common through labour hire.” But another commented “Not in this dangerous work.”

While respondents thought an apprenticeship system should be organised for the industry, respondent numbers were so small that it would be unwise to say this was representative of managerial participant views.

It was thought that there was a clear career path for operators and that there should be. One manager gave the following information about the career path that employees take in his company.

“The usual career path works like this – new employees start at number 1 and move through over time to higher level skills until they get to the most difficult skills at number 11.

- 1. Begin as labourer*
- 2. Move to bob cats*
- 3. Chain saws and Cut Off saws and then cutting steel*
- 4. Next is Gas cutting*
- 5. Asbestos work*
- 6. Diggers – half to 12 ton*
- 7. Then from 12 ton to 48 ton*
- 8. Some then do river work and stop banks*
- 9. Crane driver work*
- 10. Crane and ball training*
- 11. Lastly rigging work”*

One suggestion for standardising training levels for the industry was “generalise the practice of deconstructing elements of structures, and separate the types of work that goes on a demo contract.”

It was believed that the industry has good trainers available, but they are “very busy” and their “time is expensive.” Another was adamant that good trainers would be found “In the companies that exist.” There was a view that a ‘Train the Trainers’ programme was not necessary to help industry trainers know how to motivate training participants. Instead, it was thought “it’s not about motivation. It’s about knowledge and respect.”

It was noted that the unique requirements of sites will impact on training delivery “as a demolition worker will encounter numerous aspects of other industries main works – eg asbestos removal, earthworks, scaffolding, heights, electrical, plumbing etc.” Other comments were:

- *Experience hands on is the only way*
- *Must have on site training because of the unique sites*

One person had an interesting perspective on how to attract people into the industry: “Horizontal integration of the key suppliers to the industry.”

People found it difficult to suggest how women might be attracted to the operator side of the industry as there was a perception that “there are no barriers besides physical demand and desire from women.”

When asked what could be done to improve staff retention, it was noted that there need to be “attractive incentives that work and a real belief that there is a clear career path for workers.” However, there was no clarification on what “attractive incentives” might comprise.

Succession planning was done in the companies that responded to this question.

3.4.3 Training Issues for the Company

The main value of training employees was believed to be “health and safety.” The value arises through “trained staff being knowledgeable on the correct procedures and feeling an obligation to execute tasks correctly without constant supervision.”

- *Safety in work – improve the ability to do more*
- *Less accidents – more efficiency*
- *Increased productivity – better working environment*

Managers believed they were getting what they wanted to from staff being trained.

Barriers to adequate provision of professional development/training were perceived to be “time constraints” and “old heads.” Other comments included:

- *Time and money*
- *Finding the people who can train others*
- *Time*

A critical factor to the successful delivery of professional development/technical training was noted as “utilising respected trainers to execute the full potential of the training within the staff range.” Plus:

- *People with experience to teach others as people who have done the work not as people who only teach book knowledge*
- *Experienced people teaching people who want to learn!*
- *We could use the older experienced guys in the industry to do the training once they are too old for the physical work or even retired people*
- *The trainers must be learners too.*

It was thought that training should be done in modules longer than 1 or 2 days.

Skills relating to managing people, work relationships and leadership necessary for those in supervisory and management positions in the industry were noted as: “experience of the many facets of demolition, health and safety, HR skills, technical capabilities.” One manager noted training needs, but did not specify the target audience: “operations management, contract management, and health and safety linked to demolition.”

- *Life and work skills plus a knowledge of the usual safety rules*
- *A lot of experience in the industry.*

Comments relating to how to attract staff into training included “added requirement for work” and “accredited NZQA qualification, as many do not have formal quals and now would like one.”

- *Order them to - also discuss it with them*
- *Compulsory.*

It was noted that literacy was a problem for 5% to 10% of staff.

3.4.4 Industry Training Issues and Predictions

The increasing importance of environmental management, and health and safety was noted in the survey, and participants were asked to say what they thought was needed for future training in these areas. In relation to *environmental management*, replies included: “formal qualifications – eg BEngTech (Env) – plus knowledge of the industry’s practices that have potential to, or do, impact on the environment and solid commitment to practices.” In relation to *health and safety*, it was suggested future training would need “instilled commitment to health and safety, workshops, and knowledge of the industry’s requirements.”

Participants were asked how industry output was expected to grow over the next five years. Horizontal integration was mentioned: “Horizontal integration of key supply industries – eg tipping, recycling, services, hazardous remediation etc.” Another reported personnel will need training in “Long reach demolition excavators.”

Further, major technological advances were expected to impact on the industry over the next five years, including “increased integration of recycling technology.” Upon being asked what will need to be done to ensure training is up to date with technological advances, it was believed that “mostly it will be the task of separate branches of the industry to ensure correct knowledge is integrated in their operations to come together for a common goal of increased recycling rates.” Others commented:

- *Sack all old employers and employ young intelligent willing to learn types*
- *Open up the world to demolition as a skilled industry using money and advertising – change the image.*
- *We are involved in building roads using recycled, crushed concrete and glass. This industry will grow enormously. There needs to be a specialist training component which concentrates on specifications and high awareness of Transit NZ specs for base course product – e.g. amount of contamination, moisture content in crushed concrete and other standard conditions i.e. broken faces, sizing and strength. The reduction of contamination is paramount. The training needs to focus on determining the percentage of materials in a material.*
- *Training in glass crushing – size of granules and contamination*
- *Metalslag from Glenbrook is a waste product – ash can be added to base course to strengthen it. Training is needed is all of this too*
- *In future will need handling and stockpiling training as run-off affects PF balances in creeks and streams*
- *Need training in testing of foreign materials.*
- *We need to learn about using crushed concrete in high value use - mostly we use it for low value use but there are others out there who use it in high value use.*

Participants were also asked what should be done to remedy any forecast skill shortages. It was thought that “increased training synergy with other industries” would help. It was also recorded that NZ Unit Standards did not need to be accepted by the Australian industry. Another said “better training at schools – increase wages and benefits.”

Unit Standards for Harvesting Asbestos

Participants were asked if Unit Standards were needed for Harvesting Asbestos. While it was suggested that these were needed, one manager informed surveyors that the work of the New Zealand Demolition Association (NZDCA) (in the process of changing its name to NADA – National Asbestos and Demolition Association) was underway with Guidelines for working with asbestos. These guidelines use information from all of Australian, American and British codes, as well as New Zealand, so should be very comprehensive. The Association has been working collaboratively with OSH since mid 2006 on this process. They are also collaborating on other guideline and training matters to improve industry health and safety, as outlined in section 3.4.5.

3.4.5 The Role of EXITO

Managers were asked the percentage of their total training that is EXITO training, and non-EXITO training that is delivered by the company’s own training staff and non-EXITO training delivered by outside consultants. Very small numbers of people completing this question means that numbers are not industry-reliable. One percent (1%) of training was reported as EXITO training, with non-EXITO training making up the remainder. It was thought that 10-15% of the non-EXITO training was run by company staff, and 80-90% by outside consultants.

One Manager queried the role of EXITO. A description was given of a working party that was formed about four years ago by the Government to mobilise the demolition industry to improve its safety record and outcomes. One result has been a training course and specifications, with levels from labouring to site supervision. The New Zealand Demolition Association worked with Infracore and OSH to do this. They have gone through everything with the industry. The unit standards are in place and they have started teaching them. Upon further discussion, it seemed that this training did not relate to the waste side of the industry, but this needs to be checked. As already noted, the Association has been working with OSH to develop Guidelines for asbestos. It is also currently working with them to develop Guidelines for demolition, “using the ACOP as a basis, but updating to include new methods and equipment etc utilising Australian codes.” OSH is also keen on and has been working with the Association on “implementing [an] industry wide training regime using the NZQA national demolition certification.”

Because of the amount of work done to date, this manager expressed the importance of EXITO working with the Demolition Association in order for its work to be accepted by industry.

Participants were asked what they thought EXITO industry training and skills development needed to be doing by 2012. Replies included:

- *Training people, constructing relevant industry endorsed training standards that are world class.*
- *Looking ahead to recycling*
- *Market the industry so it is seen as skilled and an interesting profession.*
- *There are currently no qualifications for recycling products! – This industry will continue to grow and we need to recognise the importance of recycling. We need some qualifications.*
- *We need to have Environmental Unit Standards which describe best practice – there are some real cowboys out there.*

4. Considerations for the Future

From comments throughout this survey, it is clear participants believe training has an important contribution to make in this industry. However, as with most surveys, results from this training study raise several more questions from those that were asked. Some of these next level questions are included here for EXITO's consideration, in anticipation that they will stimulate and direct the Board and industry personnel in their thinking, decision-making and future planning for the construction and demolition waste industry.

4.1 Questions Arising From Demographic and General Data Results

4.1.1 Pay and Hours of Work

Issue:

- Most participants in this survey were paid below the average adult wage, and hours of work are high. While this does not appear to be having a significant impact currently, it may affect attractiveness of the industry as a career option in future.

Questions:

1. What can be done to make it easier for businesses to pay more highly?
2. If pay is higher, what will be in the impact on hours of work?
3. How can businesses maximise quality of working life for Staff?
4. How can businesses maximise quality of work-life balance for Staff?

4.1.2 Entering the Industry

Issues:

- This is a male dominated industry, which may continue to make it unattractive to women.
- Participants were attracted to this industry because of the work, the industry, and the ability to work with big machines. It is possible that these factors could be used more to increase interest in the industry.

Questions:

1. What can be done to give prospective Operators and Managers more information and learning about the industry?
2. What skills could be learned / unit standards taught in high schools to support careers in the industry?

4.1.3 Industry Career Opportunities

Issues:

- Once people are in the industry, it appears they remain keen to stay in it. Average industry involvement is relatively high at 9 years, and the spread of ages is relatively even. People do not appear to be involved in excessive “company hopping.” However, this survey involved people in medium to large businesses, and there are small companies in this industry. Small business’s views remain uncertain, including their approach to training, and career opportunities.
- Career paths will be a critical future issue, yet gaining training time for the next level of job may be problematic.
- Response to the idea of apprenticeships was positive (and numbers were small), yet there are still many unanswered questions on how this might work.

Questions:

1. What can be done to more fully research and prioritise how to attract people into the industry?
2. What can be done to ensure industry retention remains relatively high and/or improves?
3. Will apprenticeships assist with career opportunities? What would be the expected career path?
4. What support would be necessary for apprenticeship training – for the apprentice and the workplace?
5. Over what time period would an apprentice system be sustainable – for individual businesses? And for the industry?
6. How can small (as well as other) businesses be engaged with notions of “training for careers” and/or “training for industry”?

4.2 Questions Arising from Views on Training

Issues:

- Industry participants are interested in training, and expect it to improve safety and skills. Some people expect training to increase promotion prospects.
- Most participants did not know how to register for training.
- Many participants were not consulted about their training needs.
- If training is done in work hours, which is the strong preference of participants, this creates pressure in teams running with lower staffing levels and impacts on short-term productivity.

Questions:

1. What can be done to make good use of people's enthusiasm for training?
2. How are accurate training needs be established? What can be done to support Managers working more closely with Operators on identifying training needs?
3. How can businesses be supported to provide more training?
4. What can be done to improve industry knowledge of the benefits and paybacks from training?
5. What factors need to be in place to enable (small) businesses to take advantage of training opportunities? How could these factors be realised?
6. What can be done to ensure Operators and others in the industry know how to register for training?

4.3 Questions Arising from Views on Training Delivery

4.3.1 Training and Trainers

Issues:

- On-site training is seen as the most useful training in this industry. It is positive that most people are applying their learning from training within five days.
- Industry experienced people are the ones who are likely to have the most credibility as trainers. Therefore they need to learn training skills.

Questions:

1. What can be done to assist with the on-site training required in this industry?
2. What can be done to attract (and train) good quality trainers and assessors in this industry?
3. Does anything need to be done to reinforce the timely application of learning to the job, or to ensure the current high standard does not slip?
4. What can be done to assist businesses with determining training effectiveness?

4.3.2 Identified Training Needs

Issue:

- Participants identified industry training needs.

Questions:

1. What training is already being provided that industry members may not be aware of?
2. What can be done to meet the training needs identified in this survey?
3. How long will it take?
4. What will it cost?
5. Is that feasible?
6. How can industry members be informed of training availability?
7. If some training cannot be provided, how will this be communicated? What can be done to manage future expectations?

4.4 Questions Arising from Managers' Views

Issues:

- Managers' views on many of the specific areas requested by EXITO are relatively sparse.
- The New Zealand Demolition Association is working with OSH and members to develop guidelines for demolition and working with asbestos. Another ITO has been involved in developing a unit-standards-based qualification framework that covers at least some of the work in this industry.
- EXITO's role may not be understood by those in the industry.

Questions:

1. What can be done to engage Managers more fully on giving specific feedback on training and training related matters? Will it be useful to work with the New Zealand Demolition Association on this?
2. What can be done to ensure information that improves industry safety, skills and training gets to all of the industry, not just medium to large sized organisations, and not just members of the NZ Demolition Association?
3. Is EXITO aware of the work the NZ Demolition Association has been doing with the industry, OSH and another ITO? What can be done to improve information flows and reduce confusion?
4. What can EXITO do to improve its profile with this industry?
5. What predictions does EXITO have for its own future in relation to this industry?
6. What can reasonably be delivered?
7. How can EXITO's business planning take these combined expectations into account?
8. How will plans be shared with the industry stakeholders?

Construction and Demolition Waste

Questionnaire for Operators

EXITO (The Extractive Industries Training Organisation) has developed this *confidential questionnaire* to gather information about the Construction and Demolition industry. Your answers will help us understand how to provide the kind of training you think the industry needs to meet the demands placed on it now and in the future.

Thank you very much for taking part in this *confidential survey*. We really appreciate your help.

Part 1 - General Questions

1. Name of Company _____

2. Job Title _____

3. Your Age: _____

4. Male Female

5. Ethnicity: (tick relevant box)

NZ European/Pakeha NZ Maori

Other European Samoan

Cook Island Maori Tongan

Niuean Tokelauan

Fijian Other Pacific Island

Indian South East Asian

Other Asian Chinese

Latin American/Hispanic American

African Middle Eastern

6. How many hours do you work per week? _____

7a. What attracted you into the Construction and Demolition industry? _____

7b. Did you have relevant experience or qualifications before you started working in Construction and Demolition?
Yes/No

If yes, please describe _____

7c. Did you work in other industries before working in the Construction and Demolition field?
Yes/No

If yes – what? _____

8. How many Construction and Demolition companies have you worked in? _____

9. What is the total time you have spent working in Construction and Demolition? _____

10. Have you been encouraged to take on a supervisor role?
Yes/No
If yes – what? _____

11. Wages - what are your wages in your current job? Tick box
\$20,000 to \$29,999 \$30,000 to \$39,000
\$40,000 to \$49,000 \$50,000 to \$59,000

12. Do you want to continue a career in this industry? **Yes/No**

Part 2 - Training Questions

1a. Does the company provide training for you? **Yes/No**

1b. If Yes what are the reasons your company provides training? Tick box

- Safety
- To improve skills
- Other

Please comment if you ticked Other _____

2a. Are you? - Tick box

- Interested in training
- Not interested in training
- Required to do it
- Encouraged to do it
- Other

Please comment if you ticked Other _____

2b. What would you expect to get out of training? Tick box

- Safer workplace
- Better skills
- Other

Please comment if you ticked Other _____

3. Are there skills you need which are not being trained for?

Yes/No

If yes, what are they? _____

4a. Do you know how to register for training?

Yes/No

4b. Are you consulted about your training needs?

Yes/No

5. How should training be organised to best fit in with your work? Tick box

- During work hours
- Evenings
- Weekends

Part 3 - Training Delivery Questions

1a. What type of training delivery works best for you? Tick box

- Self-paced (learning from a training booklet at your own pace)
- Classroom presentations
- On-site practice
- Videos
- Distance learning (learning by correspondence)

1b. In your training is there the right mix between practice and theory?

Yes/No

If no, please comment. _____

2. Think about the trainer. What factors are important in a trainer? Tick box

- Knowledgeable
- Experienced
- Supportive
- Goes at the right pace
- Patient

-
- Other – say what _____
-

3. What are your ideas for improving the way training is delivered? _____

4. When new equipment is delivered when are you trained on it? Tick box

- Before it is delivered?
- After it is delivered?
- Not applicable

5. After you complete training, what length of time is there between getting the training and using the new skill?
Tick box

- 1-5 days
- A fortnight
- A month
- More than a month
- Other

If you ticked Other, please say how long _____

Thank you for participating in this survey

Construction and Demolition Waste

Questionnaire for Managers, Owners, Professionals, Technicians

EXITO (The Extractive Industries Training Organisation) has developed this *confidential questionnaire* to gather information about the Construction and Demolition Waste Industry. Your answers will help us understand how to provide the kind of training you think the industry needs to meet the demands placed on it in the future.

**Thank you very much for taking part in this
confidential survey. We do appreciate your help.**

Part 1 - General Questions

1. Name of Company: _____ Job Title _____

2. Your Age: _____

3. Male Female

4. Ethnicity: (mark appropriate box

European/Pakeha NZ Maori

Other European Samoan

Cook Island Maori Tongan

Niuean Tokelauan

Fijian Other Pacific Island

Indian South East Asian

Other Asian Chinese

Latin American/Hispanic American

African Middle Eastern

5. How many hours do you work per week? _____

6. What attracted you to the Construction and Demolition Waste industry? _____

7. Did you have 'relevant' experience or qualifications before you began work in the Construction and Demolition Waste industry? **Yes/No**

If yes – what? _____

8a. How many Construction/Demolition companies have you worked in? _____

8b. How long have you spent working in the Construction/Demolition? _____

9. What is your current salary range?

\$20,000 - \$29,999 \$30,000 - \$39,999

\$40,000 - \$49,999 \$50,000 - \$59,999

\$60,000 - \$69,999 \$70,000 - \$79,999

\$80,000 - \$89,999 \$90,000 - \$99,999

\$100,000 or above

10. Do you want to keep working in this industry? **Yes/No**

Part 2 - Professional Development

1. Is there a match between your professional development needs and what the company perceives are your needs? **Yes/No**

If not please explain. _____

2a. How supported are you to participate in professional development?

▪ Encouraged?

▪ Not encouraged?

2b. What are the main barriers to getting professional development? _____

3a.) Are professional development goals set with you before you undertake it? **Yes/No**

-
- 3b.) Do the goals match what you actually want from professional development? **Yes/No**
- 4a.) Did the professional development add value? **Yes/No**
- 4b.) Did you elect to do it or did you do it because you were told to? Say which. _____
- 5.) Do you do enough professional development? **Yes/No**
- 6.) Does it fit with where you want to go in your career? **Yes/No**
7. What gaps are there in professional development areas – i.e. skills needed which are not being addressed?
-
-

Part 3 – Recruitment and Retention

1a.) What occupations within the industry are difficult to fill? Consider all levels i.e. operators, technicians, professionals, managers. _____

1b.) What is the reason for this? _____

2a. What types of skills/occupations are likely to be most significantly under or over-supplied in the future and why? a. Under-supplied _____

2 b.) Over-supplied _____

3. How easy will it be to fill short-term skill shortages by recruiting staff from under-represented groups, (e.g. gender, ethnicity, age) other industries, out of the labour force or from overseas to remedy short-term skill shortages while people are receiving the formal training they need to take up future vacancies?__

4.) Should an apprenticeship system be organised for the industry? **Yes/No**

5a) Is there a clear career path for operators in the industry? **Yes/No**

5b) Should there be? **Yes/No**

6. What needs to be done to provide standardised training levels for the industry?

7. How will the industry find good trainers? _____

8. Will industry trainers need a ‘Training the Trainers’ programme so they know how to motivate training participants? **Yes/No**

9. Because sites are unique in their requirements how will this impact on training delivery?

10. What are your ideas for attracting people into the industry? _____

11. How could more women be attracted into the operator side of the industry? _____

12. What can be done to improve staff retention? _____

13a.) Is succession planning done adequately in your company? **Yes/No**

13b.) If not what needs to be put in place? _____

Part 4 - Training Issues for the Company

1. Where do you see the main value of training employees? _____

2. Where does that value arise? (For example: increased productivity/taking initiative/
customer service etc?)

Please explain? _____

3. What are the barriers to adequate *provision* of professional development/ training? _____

4. What factors are critical to the successful *delivery* of professional development/technical training? _____

5. What skills related to managing people, work relationships and leadership are needed for those in
supervisory and management positions? _____

6. How do you attract staff into training? _____

7. Are you getting what you want from your staff being trained **Yes/No**

If not why not? _____

8. Should training be done in 1 or 2 day modules or in longer modules? -1 or 2 days /longer (circle)

9. Of your total training what percentage is:

▪ EXITO training _____

▪ Non-EXITO company training run by your own staff _____

▪ Non-EXITO training run by outside training consultants _____

10a. The importance of environmental management and health and safety is increasing. What is needed for
future training in these 2 areas? 15a.) Environmental Management

10b.) Health and Safety

11. For what % of staff is literacy a problem? _____

12. How is industry output expected to grow over the next five years? _____

13a.) What major technological advances do you expect to impact upon the industry over the next 5 years?

13b.) What will need to be done to ensure training is up to date with these technological advances? _____

14. Are Unit Standards needed for Harvesting Asbestos? **Yes/No**

15. Do the NZ Unit Standards need to be accepted by the Australian industry? **Yes/No**

16. What should be done to remedy any forecast skill shortages? _____

17. By 2012 what does EXITO industry training and skills development need to be doing? Please comment.

Questions in Italics for Managers Only

1. If you are a manager did you work your way up to management from the 'coal face' or did you get management qualification/professional qualification and start work in the Construction and Demolition Waste industry as a manager? _____

2. Total number of operators in your company? _____

3. Total number of supervisory positions in your company? _____

4. Total number of administration and support positions in your company? _____

Total number of management positions in your company? _____

6. What is the average age of your operators? _____

7. What future changes may need to be made to the role of the ITO, its structure, capabilities and resources to support you - the industry stakeholders? _____

Thank you for participating in this survey