

Report on the National Survey of the New Zealand Resource Recovery Industry – including Recycling, Solid Waste, Composting and Zero Waste Industries



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Executive Summary

Introduction

During December 2006, February, March and April 2007 the Extractive Industries Training Organisation (EXITO) national survey of the Resource Recovery, Solid Waste, Composting, and Zero Waste Industry (hereafter referred to as resource recovery 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 resource recovery industry.

A total of 226 people were surveyed in 20 sites. The organisations were in the regions of Auckland, Waikato, Bay of Plenty, Taranaki, Rotorua, Marlborough, Kaikoura, West Coast (South Island), 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; zero waste; Operators' responses to questions about training and training delivery; Managers' responses to questions about their professional development, recruitment and retention, training issues, predictions for the industry, and additional comments from site visits.

Demographic and General Data

- All surveyed businesses were involved in recycling, 58% in solid waste, 27% in zero waste education, and 15% in composting.
- Men made up 76% and women 24% 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.
- Eighty-one percent (81%) of participants identified as NZ European/Pakeha, 12% as Maori, with small percentages of other ethnicities. All Managers identified as NZ European/Pakeha.
- The average hours of work in the industry are 48 per week, although individual hours vary widely.
- The most common reason for Operators joining the industry is because a job is going. The most common reason for Managers joining the industry is because of interest in recycling or the particular area of work.
- Sixty percent (60%) of Managers and 28% of Operators had relevant experience or qualifications before entering the industry.
- Most respondents had worked in only one company in the industry, and no one had worked in more than three.
- The average period of time in the industry for Operators was 4.5 years and for Managers, 8.5 years.

- An overwhelming majority of people (94%) said they wanted to continue working in the industry.
- Wages are very low in the industry, with 45% of Operators reporting annual income below the new minimum adult wage. No Operators earned over \$50,000 per annum. Fifty-seven percent (57%) of Managers reported earning over \$60,000 per annum.

Zero Waste

- While 35% of businesses said they promoted the zero waste philosophy, only 4% of Operators were aware of the commitment.
- Zero waste is promoted in three main ways in businesses: through recycling within the business; education and information; sorting waste, reducing/diverting waste; and/or including re-selling as part of business operations.
- While 28% of managers said their businesses provide zero waste training, only 4% of Operators said they get formal training in zero waste. The remaining 96% said they do not get training and they learn it from doing it on the job and from their workmates and managers.
- The majority of Operators who receive zero waste training see a direct link to their work. All Managers similarly perceived the training to have practical value.
- Participants gave suggestions for zero waste training that could be provided in future.

Operators' Views: Training and Training Delivery

- Most training is provided on-the-job.
- There was overwhelming (97%) interest in training amongst participants.
- Some Operators report they have received no training.
- Ninety-seven percent (97%) of people expected training to improve workplace safety and improve skills in their current roles.
- Sixty (60%) of people were not consulted about their training needs.
- Seventy-five percent (75%) of respondents did not know how to register for training.
- An overwhelming majority of people wanted training organised within working hours.
- Most participants (75%) said they were trained in the use of new equipment after it arrived.
- On-site practice is vital for training in this industry.
- Participants were very clear that formal training needs to contain class discussions to help understanding and retention, and to keep interest and motivation high. Again, on-site practice, and plenty of it, is important for learning.
- Trainers must have many qualities, but especially they must be respectful and not make cultural jokes, be understandable and down-to-earth, and skilled as trainers. Very importantly, the trainer must have industry experience and credibility with trainees.
- Participants made numerous suggestions for training needs and improving the way training is delivered.
- Almost all participants (94%) said they use the skills within five days of the training.

Managers' Views: Professional Development

- Ninety-two percent (92%) of Managers said they were supported to develop professionally, but only 25% said they do enough professional development. Time, cost and other priorities were the major reasons for this. Managers believed professional development time they did spend added good value for them (68%), and it fitted with their own career direction (96%).

Managers' Views: Recruitment and Retention

- Some managers/professionals/technicians did not complete all of this section, suggesting that recruitment and retention issues may not have been considered prior to conducting this survey.
- Difficult to fill roles were believed to be Operators (88%), Managers (67%), Professionals (Engineers, Scientists, IT) (50%), Technicians (50%), and Support Staff (47%).
- Not all managers were prepared to commit views about whether predicted staffing shortages could be filled by non-traditional means, but those that did thought it was feasible to recruit staff from under-represented groups (80%), other industries (75%), people outside the labour force (67%) and/or overseas (67%).
- Sixty-five percent (65%) of Managers thought there was a clear career path for Operators, and 83% believed there should be. However, not all Managers completed these questions.
- Most respondents (80%) believed an apprenticeship system should be organised for the industry.
- While some workplaces have no trouble attracting staff, others do. Ideas for attracting people into the industry come into the categories of: tapping into industry passion, improving the image and education, changing the methods of working, improving the pay, and providing career paths.
- Managers thought women would be attracted to the industry by equal pay, childcare, flexible hours, and good working conditions and rewards. Positive role models were thought to be helpful, and careful advertisement wording has worked for one business.
- Ideas for improving staff retention included improving pay, flexibility, working conditions, and training and development opportunities.
- Half of respondents thought succession planning was adequately managed in their business, and half did not. Several managers did not complete this question.

Managers' Views: Training Issues

- The value of training employees was generally highly regarded by Managers. Value was seen through improved work methods and being able to work unsupervised, improved safety, improved productivity, improved customer service, improved profitability. Many Managers, though, did not complete a question asking whether training results were what they expected.
- Time and money were noted as the most common barriers to providing adequate professional development.
- Seventy-one percent (71%) of respondents thought enough professional development/training was being provided for those working in the industry.
- Managers overwhelmingly believed good trainers should come from within the industry.
- Eighty-six percent (86%) of respondents believed trainers will need training in how to interest and motivate staff.
- Respondents believed trainers could cater for unique workplace work processes by building good relationships with local sites/areas and getting to know their staff. In-house training of specific skills was a popular solution.
- Most respondents (89%) wanted training delivered in 1 or 2 days modules, rather than over longer periods of time.
- Participants agreed that management and supervisory training was necessary, and offered suggestions for priorities.

- Sixty-four percent (64%) of Managers thought higher education needs were not adequately provided to the industry.
- Only one business in this survey said they ran EXITO training. Non-EXITO training is mainly run by the organisations' staff (average of 85%), rather than outside consultants (average of 15%).
- Fifty percent (50%) of respondents thought external facilitators needed to keep up-to-date with new industry standards.
- Participants agreed that both environmental management training, and health and safety training would be important in the future. Environmental management training was thought to be of more importance, though, as many participants thought there were currently plenty of training offerings to fill health and safety needs.
- Staff literacy was believed to be an issue in 70% of the workplaces in this survey.

Managers' Views: Industry Predictions

- Sixty-three percent (63%) of respondents predicted industry growth of between 10 and 50% over the next five to ten years. The remaining 37% predicted growth of more than 100%.
- Technological advances were predicted to impact the business in several ways over the next five years: through government and community impacts, education and knowledge, automated processes, waste output, and workforce impacts.
- To ensure training keeps up with technological advances, Managers made several suggestions for adapting under the headings of: industry relationships, government and local government involvement, training itself, recruitment and retention, and supplier responsibility.
- While EXITO's role by 2012 was thought to depend on the direction of the industry, important roles for EXITO were suggested: promoting the industry, promoting training, offering training, and delivering training results. EXITO was also believed to have a role to play in the Zero Waste philosophy.
- When specifically asked the future changes to the role of the ITO, its structure, capabilities and resources to support industry stakeholders, respondents saw the roles as deliverers of training, industry information seekers and providers, and even industry advocates. The need to keep pace with change was commonly cited.

Managers' Views: Training Comments from Site Visits

- During site visits, managers offered many perspectives on training that were not specifically queried in their survey. The main report covers comments about the solid waste industry, composting, driving, transfer station training, general training needs, and other comments.

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, most participants in this exercise were very clear that training has a substantial contribution to make in this growing industry.

Report on the National Survey of the New Zealand Resource Recovery, Recycling, Solid Waste, Composting, Zero Waste Industry

1. Introduction

During late 2006 and February, March and April 2007 the Extractive Industries Training Organisation (EXITO) national survey of the Resource Recovery, Recycling, Solid Waste, Composting, and Zero Waste Industry (hereafter referred to as resource recovery 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 resource recovery industry.

Survey sites were chosen from a cross-section of the types of businesses industry experts asked to be included. A total of 20 different organisations were surveyed. Those organisations were in the regions of Auckland, Waikato, Bay of Plenty, Taranaki, Rotorua, Marlborough, Kaikoura, West Coast (South Island), and Canterbury.

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 another language.

Managers completed the questionnaires separately with the surveyor and generally offered additional information and comments about training within their organisation and the industry. These comments are included throughout the report.

In total, 200 operators and 26 managers participated in this survey. Most 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 and (future) training for the industry.

This report considers the views of the 226 industry members from 20 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 226 respondents, who so willingly participated. All participating companies will receive a copy of the final project report.

2. Methodology

The EXITO CEO and Board 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 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.

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. All of the businesses asked to participate in the surveys, except one, 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 20 organisations resulted in 226 people participating in the survey. This is believed to represent 12 % of the industry as advised by industry experts. The 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 eight parts.

Part One considers Demographic and General Data.

Part Two covers Zero Waste.

Part Three covers Operators' responses to questions about training and training delivery.

Part Four covers Managers' responses to questions about their professional development.

Part Five covers Managers' responses to questions about recruitment and retention.

Part Six covers Managers' responses to questions about training issues.

Part Seven covers Managers' responses to questions about predictions for the industry.

Part Eight covers Managers' additional comments from site visits.

3.1 Demographic and General Data

3.1.1 Participation

<u>Total number of Resource Recovery Industry businesses</u>	<u>20</u>
Total number of Operators	200
<u>Total number of Managers</u>	<u>26</u>
<u>Total number of individual respondents</u>	<u>226</u>

3.1.2 Gender

Gender	Operators	Managers	Total
Male	75%	85%	76%
Female	25%	15%	24%
Totals	100%	100%	100%

3.1.3 Age Distribution

Age	Operators	Managers	Total
15 – 19 years	6%	0%	5%
20 – 29 years	12%	8%	12%
30 – 39 years	30%	19%	29%
40 – 49 years	26%	38%	27%
50 – 59 years	21.5%	27%	22%
60 – 69 years	3%	8%	4%
70 plus years	1.5%	0%	1%
Totals	100%	100%	100%

3.1.4 Ethnicity

Ethnicity	Operators	Managers	Total
NZ European/Pakeha	78%	100%	81%
NZ Maori	13.5%	0%	12%
Maori/Pakeha	2%	0%	1.5%
Samoan	2%	0%	1.5%
Samoan/Maori	1%	0%	1%
Chinese/Pakeha	0.5%	0%	0.5%
Latin American/Hispanic	0.5%	0%	0.5%
Other European	2.5%	0%	2%
Totals	100%	100%	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	Operators	Managers
Average	48 hours	48 hours
Range for full time work	40 – 70+ hours	40 – 80 hours

Managers' weekly hours were most consistently in the 50 hour range. However, Operators' survey responses indicated their hours of work varied enormously between organisations. For example, some businesses have all staff working 55 hours a week, and others no more than 40 hours a week. Interestingly, one Operator commented, "It's better to pay more and work less. You get good productivity and input." The following table specifies the breakdown in weekly hours of work for Operators.

Weekly Hours of Work	Operators
Part time or voluntary work	12%
40 – 49 hours per week	53%
50 – 59 hours per week	30%
60 – 69 hours per week	4%
70 plus hours per week	1%
Total	100%

3.1.6 Job Choice

Operators were asked why they chose their job, and Managers were asked why they started working in the Recycling/Solid Waste/Composting industry. Answers were similar, but the emphasis was different. Operators were most likely to take the job that was going (26% of responses), whereas Managers were most likely to be interested in the industry, recycling and/or sustainability (45% of responses). Similarly, while Operators cited shift work and being able to spend more family time

with shift and/or part time work, the Manager response to hours of work centred on having a Monday to Friday role. One Operator was attracted to the job by a previous boss, and another because the work was “easier on my back.” Otherwise responses to each questionnaire fitted into the categories summarised in the following table.

Reason	Operators	Managers	Total
‘It’s a job’, ‘no particular reason’	26%	27%	26%
Interesting work, interested in recycling	18%	45%	22%
Money / pay	8%	5%	8%
Like to drive / operate machines	9%	0%	8%
Fitness / working outside / hands on work	10%	0%	8%
Variety / experience / career experience	8%	0%	7%
Live close / location	5%	5%	5%
Change / do something different	5%	5%	5%
Work mates, the team, meeting people	4%	0%	4%
Hours of work / shifts	3%	5%	3%
Previous experience in the industry	3%	0%	2%
The role	0%	9%	1%
Other	1%	0%	1%
Totals	100%	101%	100%

3.1.7 Relevant Experience/Qualifications Before Entering the Industry

Participants were asked if they had relevant experience or qualifications before working in the resource recovery industry. The table below summarises responses.

Relevant Experience or Qualifications	Operators	Managers	Total
Yes	28%	60%	32%
No	72%	40%	68%
Total	100%	100%	100%

Experience and qualifications noted included:

- Masters degree, Bachelors degree, Certificate in Maori Studies, Permaculture Design Certificate, Permaculture Teachers Certificate
- Business management, finance, health and safety, environmental, human resources, social change, auditing
- Driving, loading, mechanical/machine operation
- Contracting and transport

Most Operators (75%) had worked in another industry before working in this one. (Managers were not asked this question.)

3.1.8 Number of Resource Recovery Companies Worked In

Participants were asked the number of recycling or solid waste companies they had worked in. Most people had worked in just one company, and no one had worked in more than three companies.

Number of Industry Companies	Operators	Managers	Total
Worked in 1 (this one)	85%	62%	83%
Worked in 2	15%	33%	16%
Worked in 3	0%	5%	1%
Total	100%	100%	100%

The answers to this question and the following one concerning the length of time in the industry suggest the newness of the industry and the relative stability of the workforce. People also indicated a strong intention to continue working in the industry (see 3.1.11).

3.1.9 Time Spent in Industry

Most Operators had been working in the industry for 1 – 2 years, while others had been involved for 15 – 20 years. Just over half of the Managers, though, had been involved for more than five years. The following table shows participant’s average time in the industry.

Time Spent in Industry	Operators	Managers	Total
Average time	4.5 years	8.5 years	4.9 years

3.1.10 Career Progression

Twenty-nine percent of Operators said they had been encouraged to take on supervisor roles; the remaining 71% had not. This is perhaps an emerging issue for the industry. A large majority want to continue working in the industry (see 3.1.11) and are very keen to receive training (see 3.3.2). However, there were also many comments suggesting succession planning was not done in their companies (see 3.5.10).

3.1.11 Intention to Continue Working in the Industry

An overwhelming majority of people said they wanted to continue working in the industry:

Desire to Continue Working in the Industry	Operators	Managers	Total
Yes	94%	96%	94%
No	5%	0%	5%
Maybe / Don't know	1%	4%	1%
Total	100%	100%	100%

3.1.12 Wages

Most operators noted annual wage rates that are below the new minimum adult wage rate of \$11.25 per hour¹. 45% of operators reported receiving \$15,000 to \$19,999 - 9% of this group were working part time. Given that 95% of participants were of adult wage rate age, and average hours of work are over 40 per week, these wage figures suggest a significant increase in costs for businesses in this industry as a result of the 1 April 2007 increase in the minimum adult wage.

Wages	Operators	Managers
\$15,000 - \$19,999	45%	0%
\$20,000 - \$29,999	27%	4.5%*
\$30,000 - \$39,999	27%	4.5%
\$40,000 - \$49,999	1%	4.5%
\$50,000 - \$59,999	0%	29%
\$60,000 - \$69,999	0%	24%
\$70,000 - \$79,999	0%	19%
\$80,000 - \$89,999	0%	4.5%
\$90,000 - \$99,999	0%	0%
\$100,000 or above	0%	10%
Total	100%	100%

* One manager worked part time, 20 hours per week

3.1.13 Business Activity

Managers were asked the types of work their business undertook. Most businesses do a combination of Resource Recovery (recycling) and Solid Waste work.

Activity	Business Undertaking
Resource Recovery (recycling)	100%
Solid Waste	58%
Zero Waste Educator	27%
Composting	15%

¹ The annual salary of \$15,000 to \$19,999 noted by a large proportion of Operators is also below the 2006 minimum adult wage rate of \$10.25 per hour. This suggests either people are unaware of their annual wages, there is less weekly hours of work than indicated in earlier questions, or employers are unaware of minimum adult wage rates.)

3.2 Zero Waste

3.2.1 Promotion of the Zero Waste Philosophy

Participants were asked whether their company promoted the Zero Waste philosophy. Answers reflect disagreement between Operators and Managers views. Analysis of Managers responses indicate 7 of the 20 businesses promote this philosophy. As the table below shows, employees do not seem to be aware of the commitment.

Committed to Zero Waste Philosophy	Operators	Businesses
Yes	4%	35%
No	96%	65%
Total	100%	100%

Those whose businesses promoted the zero waste philosophy were asked to complete a specific section asking for more detail about this part of their work. Their answers are outlined here. Again, they indicate there is not consensus of understanding within workplaces on these issues.

3.2.2 How Zero Waste is Promoted in the Workplace

Zero waste is promoted in three main ways in businesses: through recycling within the business; education and information; sorting waste, reducing/diverting waste; and/or including re-selling as part of business operations. A few operators took the opportunity to suggest training did not occur, information flow is poor, and zero waste “doesn’t really apply at the tip face.” One person also noted it is “very hard to get to zero waste.” Other more positive comments about how zero waste is promoted included:

- *We are encouraged verbally to work towards zero waste and to encourage the public.*
- *Through induction process - staff meetings. Being shown all materials to be recycled and explanations of uses for recyclables rather than into landfill.*
- *It is encouraged - we encourage each other - it is the kaupapa of the place to recycle.*
- *Talk about it in staff meetings.*
- *Encouraging community to use common sense when putting out recyclables, eg separate different parts of waste (milk cartons, tins, paper etc) .*
- *By trying to remove everything that is recyclable from the waste stream. Encourage people from community to recycle when they come up.*
- *We have pit recycling to minimise waste going into the landfill and a recycling centre to take recycling in.*
- *Education.*
- *Knowledge given in respect to what is expected in workplace and safety component operating within workplace, communicate with those around us.*
- *Advert in local papers of recycling runs.*
- *We phase it.*

- *Separating of green waste, hard fill and plastics.*
- *Recognise what kind of waste you carry.*
- *All waste ends up as saleable items.*
- *It is encouraged through our recycling, education in schools and the re-use shop.*
- *Offer waste reduction initiatives to customer as part of our service proposition.*
- *Zero Waste is the journey which makes us go further. We promote zero waste as the "working together partnership with Councils, schools, businesses and community."*
- *Zero waste / environmental policy and action programme.*
- *We live it! It is our target for our community. We are currently diverting over 70% of our community's total solid waste.*
- *Constant dialogue between management and operators.*
- *Staff induction, recycling throughout organisation, staff newsletter.*
- *We support the concept, practice it in our workplace and help other businesses work towards zero waste.*

3.2.3 Zero Waste Training for Staff

While 28% of managers said their businesses provide zero waste training, only 4% of Operators said they get formal training in zero waste. The remaining 96% said they do not get training and they learn it from doing it on the job and from their workmates and managers.

These results and comments from respondents suggest there could be confusion about training the businesses do with the community and customers, versus training they do with their own staff.

Operators made these comments to explain the training they receive:

- *It's about what you pick up yourself.*
- *I put em out on side of road every Thursday!*
- *Schools come here to learn about it.*
- *User friendly, more time for PR.*
- *Compost green waste.*
- *We are instructed what to do.*
- *Covers plastic bottles, glass, aluminium, tin, paper, cardboard, steel, tyres, concrete, green waste.*
- *How to teach it in schools and the work place.*
- *We live it.*

Managers made these comments about the training they provide:

- *Not to customer, only to sales staff, on-the-job training and it is more focused on winning a contract by providing waste minimisation initiatives.*
- *In-house teaching only.*
- *Zero Waste unit for schools. Need to do more with staff. Businesses - working towards zero waste / waste exchange. Community presentations.*
- *Only informally. In the past we organised the zero waste managers' courses*

via IWK, but this has been suspended awaiting the development of the NZQA industry training system.

- *All aspects from education to implementation.*
- *This is for the public that use our facilities. Monthly articles in local newspaper, radio time on local station. Staff attend weekly meetings discussing operations.*
- *Induction process, staff meetings - nothing more formal.*
- *Wider education of community would certainly assist.*
- *Training may loosely be termed here, I provide the relevant information and demonstrate best practice - this is currently being reviewed so that it is a compulsory part of staff induction days.*
- *It's the main focus of everything we do.*

3.2.4 Relevance of Zero Waste Training

The majority of Operators who receive zero waste training see a direct link to their work. All Managers similarly perceived the training to have practical value.

3.2.5 Future Zero Waste Training

Participants were asked to outline zero waste training that should be provided (because it is not currently being done). Only two people said “nil”, and more formal training was generally supported. These were the suggestions:

Operators

- *We do none so some training would be good.*
- *Something formal, but also aimed at educating the public.*
- *Everything - we have had none of this or very minimal.*
- *Seeing how people do it in other places with good schemes, so we could do it ourselves, lift our own participation and enthusiasm. All of it should get training in - I really don't know much about it.*
- *There are lots of opportunities here to salvage materials eg engines and motors - there's a lot to salvage but it's not happening.*
- *More personnel.*
- *First aid training, using correct equipment for the job.*
- *Move training to community.*
- *To show everyone what and what not to recycle.*
- *Leaflets to public about what we take and criteria.*
- *Plastic bottles - big problem nationwide - should go back to glass.*

Managers

- *Zero Waste - staff training - hard to fit in with increased workload.*
- *There needs to be a programme of zero waste training which matches the relevant unit standards and qualifications.*
- *Appropriate technology, convincing politicians, zero waste philosophy.*
- *4-6 sessions per annum, by video etc of the global problems concerning refuse and pollution.*
- *More philosophy, what can be recycled.*

- *We would like to see Zero Waste NZ Trust being given more financial resources by the government or industry so they can continue to lead the way and inform / deliver workshops.*

3.3 Operators' Views: Training and Training Delivery

3.3.1 Provision of Training

Most respondents said their companies did provide them with training. Mainly training happened on-the-job and they rarely received formal training. Formal training was largely for health and safety purposes, to make sure they had the skills to ensure accidents didn't occur. Ninety-seven percent of participants said "safety" and "improving skills" were the two main reasons companies provided training. This includes first aid, forklift licenses, machinery operation, driver programmes, learning how to cook and keep at room temperature (compost). Operators believed other reasons companies provided training were:

- *Induction training [to get people started]*
- *To gain further knowledge within the industry*
- *Knowledge of landfill waste and the area that surrounds it*
- *Spill management*
- *Make you more interested in the job*
- *There could be other skills brought into the work place*
- *To build a team, improve communication between the other area of the community that we work with*
- *To create/promote team feeling*
- *Team work*
- *To take into account the importance of the Maori aspect within employment*
- *Customer service training*
- *Upgrade qualifications*

3.3.2 Interest in Training

There was overwhelming interest in training amongst participants. Of those receiving training, 52% were encouraged to do it by the company. Respondents had a very positive reaction to this. The following table summarises the degree of interest in training.

Interest in Training	Operators
Interested in training	97%
Not interested in training	3%
Required to do it	7%
Encouraged to do it	52%

A few people ticked an "other" category and made the following comments:

- *When it's available.*
- *I've already done it.*
- *Have trained people on the press.*
- *I'm unaware of the training options.*
- *I learn by myself, nobody tells you about it, things don't get done, training is zero.*
- *Depends what the training is.*
- *Depends what it is.*

- *Depends what it is, must be related to the job.*
- *End result.*
- *Attractive trainers and as many licences as I can get.*
- *First aid and machinery training.*
- *A bit of knowledge, need more training in Hazardous.*
- *Future skills.*

3.3.3 Expected Result of Training

Participants were asked what they would expect to get out of training. Results mirrored those in section 3.3.1 – namely, 97% of people expected training to improve workplace safety and improve skills in their immediate role. Some people noted other things they would expect. They fitted into three main categories: building industry knowledge, awareness and contribution; enjoyment of learning, work and satisfaction; and career development. These were the comments:

Industry knowledge, awareness and contribution

- *A better understanding of the industry*
- *Wider knowledge of industry*
- *Communication skills between staff, management and others in the industry*
- *Looking at ways of recovering stuff so it doesn't go down the hole, so things get reused*
- *Understanding of what can go wrong. The main hazard is customers*
- *Finding new and better ways to reduce waste*

Enjoyment, satisfaction and learning

- *To understand why I'm being trained*
- *Interest*
- *Enjoyment*
- *Job satisfaction*
- *Satisfaction you are doing the job properly*
- *Feel like I'm learning new things*
- *Learn more about how to do it better*
- *Learn how to do it quicker and better*
- *Knowledge*
- *Better knowledge, hopefully better money*

Career development

- *Pay increase*
- *More variety in work*
- *Different jobs in the workplace*
- *We try to multi-skill people*
- *Would like to do digger training and dozer licences. Would be good to do more on recycling*
- *Get better jobs skills for other roles in the company*
- *A good CV and my licences*
- *Very important to have a prolonged career*
- *Chance to move up in my job*
- *Moving forward in the industry – i.e. into management roles*

3.3.4 Necessary Skills, But No Training

Operators were asked if there were skills they needed, but which were not being trained for. Forty-three percent said there were, and gave the following examples:

Examples of Training Needed	Number of times mentioned
Driving and associated activities, including trucks, diggers, dozers and forklifts. Hoist training was also mentioned once. One person noted, “if the driver licensing training was paid for there wouldn't be a shortage of drivers. When you are on low wages it's too expensive to pay nearly \$2000 to get the licences.” Another specific skill requested was training for handling diggers on uneven ground.	11
Hazardous waste – recognising and dealing with hazardous chemicals, toxic waste, batteries, asbestos, needle sticks, poisons, PCBs, herbicides.... Also pit recovery safety...	8
Recycling knowledge – benefits, what can be recycled, do's and don'ts, re-use of 'waste'. One person commented that it was necessary “to learn more about recycling and recovery internationally, so we can catch up.”	7
Sorting – metal and card were commonly mentioned	7
Improved safety and/or first aid	7
Specialist training. The six specialist areas mentioned by one person each were: weighbridge operation, understanding the greenery operation, how to make compost, decommissioning/discarding fire extinguishers, overhead power line training, industrial forestry	6
Customer service, people skills, team building	5
Management, supervision	2
Computer skills	2
Other. One person mentioned each of kerbside, wheelie bins, gantry; fitness training; new skills	3

A couple of Operators suggested visiting other sites for regular updates and sharing knowledge. This would also include those sites visiting their workplace.

One person noted the need to acknowledge “individuals doing the hard yards day in and day out.” Perhaps it is important this acknowledgement is accounted for in the approach used for management, supervision, customer service, people and team building skills.

While these results relate to the 43% of Operators who said they did need skills which are not being trained for, it must be remembered that 57% of people said there were none; it could be assumed they were already being trained in what was required. However, this result needs to be considered further, because as the next section shows, the majority of respondents said they were not consulted about their training needs, and many people were unsure whether there was a match between their own view of their training requirements and their companies' view. It could be inferred from this that they are not aware of what further skills they could be trained in (see

section 3.3.5). Further, during site visits, some people expressed interest in learning about other aspects of the industry, such as “identifying and handling hazardous waste” and “waste minimisation.” (See section 3.8 for managers’ views on current training gaps.)

3.3.5 Training Needs

Operators were asked if they were consulted about their training needs. Sixty percent (60%) said they were not, leaving 40% who said they were. Forty-five percent (45%) of people thought there was a match between their actual training needs and their company’s perception of their training needs. However, 30% thought there was not a match, and 25% didn’t know. Dialogue between Operators and Managers could help promote better understanding of both options and needs.

Operators who believed there was not a match between their training needs and what the company thinks are the training needs were asked to comment. Most comments related to a lack of training for Operators, although a couple of comments reflect individuals’ views of the roles and skills they have, and another few cover the way in which training occurs:

- *Had no intention of being a "recycler". More interested in construction, demolition, excavations.*
- *I've done all the jobs here apart from manager's office.*
- *Training is non-existent.*
- *Don't get training.*
- *On a number of occasions we, the staff, have asked for training and we have been told that it's not necessary. We deal with hazardous waste but only management have had training.*
- *No follow through.*
- *Only trained for basic skills.*
- *We are told x course is available this Saturday; you are required to attend – that’s all we are told.*
- *It needs to be one-on-one training with simple tasks not straight into the complicated ones.*
- *Poor commitment from management for training.*

3.3.6 Registering for Training

Most respondents (75%) did not know how to register for training. This reply could relate to registering for training with their own companies, or for unit standard training offered as part of the National Framework.

3.3.7 Organising Training to Fit in With Work

An overwhelming majority of people want training organised during work hours. The main reason for this is the very physical nature of the work meaning people are too tired to do training at the end of the day, and weekends – if people are not already

working on at least Saturday – are needed to recuperate. One person said, “It’s really hard to send staff away for training. We work 7 days a week and mostly flat out.”

These were comments from the Operators:

- *Accommodate the whole lot (type of training and time of training to suit workers).*
- *Send us on courses on our day off. Not weekends - we don't get those off.*
- *Days when I work in yard – could do training on Thursdays.*
- *Weekends - sometimes it’s not busy [in the workplace].*
- *At slack periods.*
- *Evenings and weekends – for drivers.*
- *Best to train people when there aren't many customers around e.g. 6 am or 6 pm.*
- *During work time, but off the job.*
- *Organising training will be difficult as customers come intermittently – sometimes lots of people at once and then it slows down. 7am till 8.30am is usually quiet so it would be a good training time. Then it picks up – lunchtime slows down and after 3pm it gets very busy.*
- *The staff are on their feet the whole time, so afternoon and evening training is no good as they are too tired – you might as well talk to a bowl of cat food then. Morning training would be best.*
- *Best training is on-the-job, having the knowledge of the area, getting familiar with the area, looking for landmarks.*
- *Learn hands-on during work hours.*

3.3.8 Preferred Type of Training Delivery

Operators were asked the type of training delivery that works best for them. The table below shows their preferences.

Training Delivery Method	Operators
On-site practice	56%
Classroom presentations	24.5%
Videos	15%
Self-paced (learning from a training booklet at your own pace)	3%
Distance learning (learning by correspondence/internet)	1.5%

Participants were very clear that formal training needs to contain class discussions to help understanding and retention, and to keep interest and motivation high.

Operators offered these particular comments in their surveys:

Hands on

- *Must have hands-on experience*
- *Visual and hands-on in the workplace, I like a range of ways the training is delivered.*
- *Because of location, some are impractical. On the job is practical.*
- *Should be hands-on so we get practice.*

- *On-the-job, learning it as I go.*
- *Hands-on, on site, with safety.*
- *Out doing it hands-on, on site.*
- *Practical.*
- *Training needs to happen out on the truck – on- on-one, so it takes much longer.*

On-the-job

- *Our job is more learning about the dangers on-the-job - people can be guided - can't train them in everything they need to know.*
- *Classroom training won't work - needs to be on-the-job so you can show the hazards of that particular site.*

On site

- *More on-site training.*
- *On-site is the only way to do it here.*
- *On-site.*
- *On-site training would be good.*

Classroom training

- *In a group environment with someone explaining it.*
- *Group training in a classroom, open discussion groups.*

Other

- *Depends on what it is, a mixture of classroom and on site.*
- *Training would have to start one-on-one first – get them to identify the product - use discussion and answering questions – then later get people working in small groups.*
- *It is really important not to have training while you are on the job at work – so you are not bombarded with phone calls. Training should be off-site. When training is on-site you get constantly interrupted.*
- *Distance learning can increase knowledge in a chosen field.*
- *Can't read or write – working beside someone is best.*
- *Someone who speaks clearly and is hands-on i.e. intimate.*
- *Do it in modules.*
- *Do training out of work times.*
- *2 days of training would be good on a weekend but would depend on how many people there were to train.*
- *Any training is good.*

3.3.9 Mix Between Theory and Practice

The vast majority of respondents thought training did not offer the right mix between theory and practice. Mostly they commented they needed more time to practice, although some people again commented they were not getting any training at all, or not enough of it. One person commented that “new staff need to not be drunk or on dope. Get young people interested in the industry.” Another suggested he “could use my training to help others, so younger people can get the knowledge I have.”

3.3.10 Important Qualities in a Trainer

One survey participant said, “I’ve had some shocking trainers and some good ones.” Overall, Operators said “knowledge” and “experience” were the two most important qualities in trainers. Without these, trainer credibility was at stake. Being “supportive” was the next most important quality, followed by “goes at the right pace.” Being “patient” was also important.

Many Maori respondents on many sites noted that sometimes trainers made racist comments to trainees, or made jokes at their culture’s expense. The consistency of these comments is cause for concern and cannot be ignored.

In general, Operators added that trainers needed to be respectful, appropriate for the trainees learning needs, and skilled as a trainer. These were the specific comments they offered:

Respect

- *Respectful, culturally sensitive*
- *Respect the people you are training and go at their level – everyone learns on a different wave-length.*
- *Not racist*
- *Not make jokes about my culture*
- *Not make hostile jokes about my culture*
- *Trainers need to be culturally sensitive and not make hostile jokes*
- *Culturally sensitive*
- *Shows respect*
- *Respectful to trainees*
- *Someone who doesn't put people down or get sarcastic*
- *Someone who doesn't talk down or make you feel stupid*
- *Tolerance*
- *Tolerant*
- *Not up themselves*
- *Some trainers blow their own trumpet and they lose the guys*
- *Not arrogant*
- *Trainers need to let people know when they are doing well*
- *A trainer doesn't have all the answers – they shouldn't pretend they do*

Understandable

- *Compatible with people being taught*
- *Someone with a tolerance of foul odour, outgoing, who doesn't hold back if they need to advise you*
- *Speaks so we understand*
- *Speaks at my level so I can "get it"*
- *Patience, know how to talk, not rushed*
- *Easy going, easy to understand, doesn't talk too fast*
- *Approachable, go at the person's speed*
- *Approachable, down to earth*
- *Straightforward*
- *Down to earth*
- *People who talk easily to others*

- *Trainers need to be able to mix with the people they train*
- *Trainers need to relate to diverse groups of people and explain in a way that everyone can understand – they need to be sensitive about people if they have difficulty reading or writing – a lot of us don't understand big fancy words*
- *Talks in language I can understand*
- *Shows common sense*
- *Common sense, people who know what they're talking about*
- *Someone who doesn't snow you with too much information*

Skilled as a Trainer for the Industry

- *Skilled at training*
- *Trainer needs to match delivery of the training to the person's needs, not leave people sitting on their hands*
- *Makes us feel good about how we learn things*
- *A trainer that can answer and ask questions*
- *Not necessarily qualified*
- *Passion for the work*
- *Someone who knows what they're talking about, who has been in the industry*
- *Trainer needs to have done the job, not do it from a book. Trainers will have mana this way*
- *Someone who knows what they're doing - don't get someone who's read the book - need people who've done the job before*
- *Trainers need to have loaded trucks or have driven a forklift – have hands on experience. This way trainers get credibility*
- *Must know what they are talking about*
- *Make sure trainer knows his stuff*
- *Good trainers know what they're talking about*
- *Trainers should be assessed*

3.3.11 Ideas for Improving the Way Training is Delivered

Operators offered these suggestions for improving training delivery:

Timing

- *Get some training – having some training would be good.*
- *Have some! Get no training at all - zilch!*
- *Would be good to have training. I'd like to learn more but we just get ignored, treated poorly.*
- *Young people won't put up with bad treatment.*
- *More time spent training people.*
- *Just more time set aside for it.*
- *Training needs to be short, sharp and applicable.*
- *I've been to training 4 hours long with no break – you are not listening then.*
- *The biggest thing in training is to discuss it with staff beforehand – they are the ones with the knowledge – ask them - what are the major things that need to be incorporated into the training?*

One-on-One

- *One-on-one training works well.*

- *More one-on-one.*
- *Make it one-on-one.*
- *One-on-one out on the truck. Show them how it's done and have them train with me for a week. Let them touch the controls by 3rd day. On 4th day put them in driver's seat and put them on controls. Let them make mistakes and then correct them, then let them practice by themselves. With scheduling they would tick off job sheets of the run, get them to take a block at a time and mark them off. See the name of the job rather than address.*

Practical

- *On-the-job.*
- *Have on-site practice.*
- *Onsite training. Talking about do's and don'ts.*
- *More hands-on.*
- *Being more practical.*
- *Practical, hands-on, a little bit of theory.*
- *Make it understandable.*
- *Put it across so I can understand.*
- *Has got to be able to work on our level. Show people how to do things by standing beside them.*

Delivery and Follow-Up

- *Don't make it in a huge arena of people – maximum of 10 people; no more than that.*
- *At training, supply water and mints, and do not have a room that is too hot or cold or terrible air conditioning.*
- *Participation is the most important thing. When training begins its important to get everyone to introduce themselves – it puts people at ease.*
- *Having someone who knows what they are talking about – delivery subjects.*
- *Need for more knowledge.*
- *To be shown the right way.*
- *Training should have a mix of videos too and use visuals, diagrams to get the message across*
- *When doing computer training need to use diagrams of screens to make learning easier*
- *Follow-up checks on operators.*
- *Important to have outside auditors to check that safety training's being followed.*

Pace and Style

- *Easy pace with the basic approach to learn and move to the training once they have shown it.*
- *Go at the trainees' pace.*
- *As long as it's ongoing and being kept informed.*
- *Use the people's knowledge, as they have a lot of knowledge and this is where the respect comes.*
- *Asking questions will help trainers understand what people already know.*
- *Making it fun and exciting and be enthusiastic.*
- *Keep it relevant – make training interesting and a good place to be.*
- *Don't do lots of tell, tell, tell. You don't learn well like that – you need to discuss the ideas, understand the pros and cons.*

- *More personal approach from tutors – easier to ask for help if needed.*
- *Communication.*
- *Communication.*
- *Lots of discussion is important to learn well.*
- *Discussion in training is a really helpful way of learning – the best actually.*
- *When you do training as the trainer get them to tell you back what they have learnt so you can see whether they understand or not. Be watching them to see if they are bored or don't understand.*
- *Not be racist.*
- *Truck driver who trains us – needs to show some consideration for new employees who are learning.*
- *Help staff understand why it's important and what would happen if they didn't do it that way or took a short cut – it can cause huge implications. Trainers need to encourage people to think.*
- *Be a happy go lucky person and easy going – not uptight and impatient.*
- *Attractive trainers.*

Distance Learning

- *Like distance learning as you have a certain time to do it.*
- *Distance learning was good – easy access.*

Good news

- *Our training's pretty good.*

3.3.12 Training on New Equipment

Most participants (75%) said they were trained in the use of new equipment after it arrived. The remaining 25% were trained on the equipment before delivery. A few people commented that training happened both before and after the equipment's arrival. Some commented that it depended on what the equipment was when the training occurred. Others commented that they taught themselves. One commented that they had used the gear before receiving training on it.

3.3.13 Transfer of Learning

Operators were asked the length of time between completing training and using the new skill. An overwhelming 94% of respondents said they use the training within the first five days – some commenting that they were using it immediately or within ten minutes! This comment especially related to on-the-job training. Certainly this is a great result, as trainees will retain the learning when practice is immediate.

The remainder of Operators said they made use of the new skill between two and four weeks following the training. Some participants commented that the period of time before use of the skill depended on the job people do and the type of training.

3.3.14 Other Comments from Operators

At the end of the survey, participants were asked to make any other comments they wanted to about training. It is unusual to get a lot of comments in this final question. A few people, though, do use the opportunity to note things they feel particularly strongly about and which they have not had the chance to emphasise elsewhere in the survey.

This is what the Operators said:

- *Public needs to be trained in what they do with waste.*
- *One thing I enjoy about the company – they leave us to get on with work, they trust us. If they know we are capable, they don't hassle us.*
- *We are never thanked for what we do. One guy worked here for 17 years and got no farewell, nothing, not even a \$10.00 petrol voucher.*
- *Shifts are organised in 3.5 days (41 hours). This is much better than a 5 day shift – I get to spend more time with my kids.*
- *Design of building is important, so staff don't get bad smells (from operation) while at work.*
- *300-400 customers a day: Staff mustn't swear at customers. Every day you get a rude customer – worse in summer when it's hot – and they don't want to listen. I did a customer service course. It helped me a lot to stay calm.*
- *Staff need a knowledge of trucks so when they breakdown they know what to do.*
- *Health and safety training and environmental training is important. I'd like to learn about this.*
- *I came into recycling with no knowledge and was employed as a leading hand. I was watching and listening and asking lots of questions to learn about the different types of machinery and the different grades of metals.*
- *As a supervisor I would like training in:*
 - *How to do rosters*
 - *How to keep a good diary/how to record things*
 - *Communication skills*
 - *People skills*
 - *How to grade plastics and metals – knowing what is in the material and what you can do with it*
- *I need to know what materials go with what combinations of product – I can only get this from experienced people and if that person is away, there's the problem.*
- *Accounting, HR, tenders, health and safety. There is a need for experts in the business, otherwise the business will fail.*

3.4 Managers' Views: Professional Development

3.4.1 Professional Development Needs

Participants were asked if they were supported to participate in professional development. Ninety-two percent (92%) said they were supported to develop professionally, and 82% undertook such opportunities because they chose to do it rather than being told to (18%).

Eighty-three percent (83%) of respondents thought there was a match between what they believed to be their own development needs and those the company perceived to be their needs. Those who thought there was not a match between organisational views and their own were asked to comment. Two noted that they had no training, one noted his skills as mainly administrative, and another noted they respected the directors' views of needs. One comment related to there being no industry training and few professional short courses. Another comment recorded the value of overseas experience, global research and fellowships.

3.4.2 Time on Professional Development

Interestingly, 75% of respondents said they did not do enough professional development. Three quarters of respondents noted "time" as the reason for this, and 33% noted "cost." "Other priorities" were the third most commonly noted reason (25%), followed by "lack of training availability" (17%). Lack of staff planning was noted by one person as a reason for stopping him getting sufficient professional development, and "my own initiative" was the honest reply recorded by another.

3.4.3 Value and Career Relevance

When asked if professional development adds value for Managers, 68% of respondents said it did. No one denied its value; the remaining 32% of respondents did not answer the question. When asked if the professional development fitted with their own career direction, 96% of respondents agreed that it did.

These were the gaps Managers suggested in professional development areas – areas where skill need is not being addressed:

- *Identifying markets (ongoing).*
- *Small business operational issues.*
- *Leadership management and specialised technical training.*
- *More people management / human resources training. Also training in technology and innovation.*
- *Upper waste management skills.*
- *Industrial chemistry.*
- *Unsure - this is a new industry and we are pioneers - important to edge forward in accordance with budgets, staffing etc.*
- *I would need to go to university to learn many more skills and increase my knowledge of the industry.*

3.5 Managers' Views: Recruitment and Retention

3.5.1 Difficult to Fill Roles

Managers were asked which positions in the industry were difficult to fill. The following table summarises their views.

Position	% of Respondents Believing It Is Difficult to Fill
Operators	88%
Managers	67%
Professionals (Engineers, Scientists, IT)	50%
Technicians	50%
Support Staff	47%
Other	25%

The following reasons were given for the difficulty filling the roles:

Training/Awareness

- *No training on the full range of hazardous waste.*

Unattractive Perception of the Industry

- *People/drivers have always thought of the waste industry as a dodgy place to work.*
- *People are not attracted to waste.*

Skills and the Economy

- *Methodology of the job. Having people physically pick up the waste.*
- *Methodology – it should be totally automated.*
- *Nature of the work and the pay.*
- *Low skill, low pay.*
- *Buoyant economy and salary wage level.*
- *Low unemployment, buoyant economy, high level of demand for good people.*
- *Lower unemployment levels.*
- *Total lack of skills around – not enough people to fill so many positions. – I am currently trying to fill a position for Sector Group Support and have had two applications, neither of which are suitable at all.*
- *Hard to get staff who are honest and reliable.*
- *Staff as a whole are not hard to find; good staff are hard to find.*
- *Young people have no work ethic – education system failure.*
- *New industry and there's not much experience in NZ. Engineering background not as useful as social background.*

Lack of Difficulty

- *To date it has not been difficult for us to fill positions.*
- *A smaller company in a community generally supportive of zero waste has helped this.*

- *There was until 2004 no ITO for the resource recovery sector so relevant systems weren't developed*

3.5.2 Under-Supplied Roles

Managers were asked to list the types of skills or occupations likely to be most significantly under-supplied in the future, and why they believed that.

“Manual workers” and “semi-skilled labour” were the most commonly noted gaps. Reasons noted for this were: lack of people wanting to do the job in the hands-on way it is done now, its hard work, low pay, and low progression opportunities. One comment recorded difficulty with filling recent operator vacancies, with the standard of candidate not being high.

“Skilled drivers” were also noted by a few respondents as being difficult to come by. Other people noted the need for “technicians,” “engineers,” “persons capable of hands-on work with chemicals,” and people with “some mechanical knowledge and respect for others.” “Social change” was another noted area of under-supply, as well as those having “knowledge specific to this industry, especially new areas, e-waste, hazardous waste and safety etc”. One person observed that “there are constant job vacancies in city and district councils in the educational and environmental areas.”

3.5.3 Over-Supplied Roles

Managers most commonly noted “nil” roles as being potentially over-supplied in the future. A couple of people suggested “managers” would be over-supplied. Other noted areas were at odds with the answers given in the previous section on predicted under-supply. Namely, mention was made of “truck drivers,” “engineering,” and “transferable” general skills, such as fork lift and machine operations.”

3.5.4 Filling Staffing Gaps

Participants were asked whether it would be feasible to fill staffing gaps in non-traditional ways. Eleven managers did not complete this question, perhaps indicating that they have not thought about these issues before. The following table summarises the views of the people who completed the question.

Method of Filling Staffing Gap	% of Respondents Believing It Is a Feasible Method
Recruit staff from under-represented groups (e.g. gender, ethnicity, age)	80%
Recruit staff from other industries	75%
Recruit staff from people out of the labour force	67%
Recruit staff from overseas	67%

The following comments were offered regarding what can be done to remedy the expected skill shortages:

Generally

- *The primary issue isn't skill shortage; it is a shortage of anyone willing to work and be reliable. Skill shortages, such as drivers and operators, are secondary but still important. We already recruit from the broader pool such as ethnic, gender and age pools. We are also using a mothers returning to work programme, but these people are available in limited quantities and for limited roles, generally not truck drivers and labourers. The physical aspect of the job limits the aged workforce and often these people limit to part-time, which is difficult to manage. We have recruited from overseas; however new immigrants have given bad experience as they seem to move on quickly.*

Government Assistance

- *More promotion and monetary input from the government to increase teaching skills at both university and technical colleges.*
- *Engage the government, should have the sorting facilities for recycling at the prisons.*
- *The government should have the sorting facilities for waste at the prisons.*

Industry Promotion/Image

- *By promoting the waste industry as a career.*
- *Keep lifting the image of our industry as doing more than just work - caring for our environment.*
- *Improve the image of the type of work undertaken, includes automation of the processing.*

Training, Development, and Career Progression

- *Our pay rates are likely to be lower than competing industries. Because this is not a wealthy industry, we need good training and qualification structures comparable with other industries.*
- *Encourage people from many skill bases to join the industry to build a solid platform for the future. A lot of the training required can be provided at a work place. Skill shortages will affect each community differently depending on their needs (reuse shop, full on recycle centre, collections etc) and their skill base (education, management, research etc).*
- *More training and more apprentices with bonus systems in place to credit the ones who want to work hard and obtain good results.*
- *Provide progression opportunity within the industry, training.*

3.5.5 Apprenticeship System

Managers were asked their views on whether an apprenticeship system should be organised for the industry. Eighty percent (80%) of respondents said “yes”, 4% said “possibly (it’s not a large industry)”, and 16% said “no.”

These comments were made by people during site visits:

- *Because there is such a variety of jobs and a lot of tasks involved – e.g. financial operations, machinery, environment work, and health and safety – there is no one specialist area, so we would have a multi skilled apprenticeship. They would still have to understand what is steel and non-ferrous – to identify the types of cardboard and paper categories.*
- *We need to train staff on the value of recycling to save money and make money. I.e. Taking steel out might put a hole in the trailer and we can't keep doing the job till it's fixed.*
- *They need to know what recycling is and why we do it.*
- *Good idea to have resource recovery as a career – an apprenticeship – you can never have too many qualifications. I'm learning constantly – learning what to do with products.*
- *Yes, we do need an apprenticeship for composting, which would require both the mechanical and biological learning.*

3.5.6 Career Paths for Operators

Several (9) managers did not answer the question on career paths for Operators, again suggesting the possibility that no prior thought had been given to this issue. Of those who did respond, 65% thought there was a clear career path for Operators, and 83% that there should be. One person commented that there should be a clear career path because it was believed important “to encourage and support them to stay in the industry.” Another “would like a clear career path as to what can be achieved in terms of qualification – this needs formal recognition.” Another respondent suggested that the career path was now “developing with NZQA and the Zero Waste Academy at Massey providing skills for progression through to management.” As further help, one person said he would like to see “recognition of prior learning replicated in the waste management industry.”

One participant noted, in relation to his belief that there should not be a clear career path for Operators, “I don't think so – it's pretty hit and miss.”

3.5.7 Ideas for Attracting People into the Industry

When Managers were asked to give their ideas for how to attract people to the industry, one commented “we have no problems getting staff. We get lots of applications for jobs; we are well known.” Some businesses may be faring better than others in this regard.

A few participants did not have ideas for how to attract people to the industry as a whole. For instance, one person offered, “‘Stop working with rubbish and recyclables; it's dirty, unhygienic and smells bad.’ Seriously, I don't know. If I did, we'd already be doing it.”

Most participants, though, did have ideas to offer. They fell into five main categories: tapping into the industry passion, improving the image and education, changing the method of working, improving the pay, and providing career paths. These were the Manager's specific comments:

Tapping into the passion

- *To have passion for recycling.*
- *Find people who believe in it.*
- *Make it interesting.*

Improve the image and education

- *By increasing the profile of the industry so people know about it.*
- *Clean up industry image – assumption that recycling is "rubbish".*
- *Get people believing in waste diversion rather than waste generation so we distance ourselves from the current waste industry. This also helps to get more finances into the sector as it's a new sector and shouldn't be compared with waste sector wages / contracts. Build an industry based on quality product to market rather than waste to landfill.*
- *Promote the positive environmental and community aspects alongside the skill, diversity of work and future importance of the industry's work.*
- *Provide 'life skills' not related to the industry – health/diet and mind skills. Create knowledge that to work in this industry is to recycle from the rubbish and baggage we carry that which is of value.*
- *Enviro-education at all levels, zero waste taught in school - promoted as more than a job, good pay, working conditions.*
- *Promotion through schools and universities.*
- *It's important to educate children in waste management.*
- *Knowledge of the industry.*

Change the method of working

- *Work with the Department of Corrections or change the way we work at the moment.*
- *Go to the Department of Corrections or mechanise the industry totally.*

Improve the pay

- *Paying good money to attract professional drivers.*
- *Good wages with good safety and rewards.*
- *Pay rates and distinct benefits (company paid).*
- *Improve pay, conditions and opportunities.*
- *Improve pay and conditions.*
- *Pay.*

Provide career paths

- *Clear career path by providing NZQA registered unit standards.*
- *Having a career path associated with the industry so that people can see past being an operator only!*

3.5.8 Attracting Women to be Operators

Those Managers who worked in organisations where there were fewer female operators than male operators were asked how more women could be attracted into the operator side of the industry. A couple of people acknowledged the difficulty and wondered what the answers were. Others made comments about difficulties they had

had with women employees in the past. They seemed to “not last” and there was a perception that “the job is too physically demanding at present.”

The opposite view was also expressed with comments including: “There are more women here. They work harder than the men – suits me fine,” and “I employed a woman last year and she has proven to be fantastic. She has fitted in with the guys with no hassle at all and no additional requirement.” One person observed, “There’s slightly more women in our team than men. The ABC grouped our statistics from a bunch of community based recycling projects around the country and came up with a nearly even gender balance and a huge range of ages. Compare this with the waste sector that is nearly all men.”

The most commonly noted suggestion for attracting more women into the operator side of the industry was pay equality. It was also noted, “Generally they’re easier on the trucks and machines – the physical demands can be difficult. Promoting driving and operating as a woman's job might help.” It was similarly suggested “more specific targeting of the processing role” might help.

One manager said that if they changed their advertisements and the words used in them, they attracted either more male or female applicants. This workplace liked a 50:50 gender mix, so employed this tactic to balance their workforce when necessary.

Other suggestions for attracting more women into the operator side of the industry were: “good wages with good safety and rewards;” “better pay, child care and working conditions. Promote positive role models,” and “flexible hours.”

3.5.9 Improving Staff Retention

Managers were asked for their views on what can be done to improve staff retention. Three people noted “we don’t have a problem,” because “staff turnover is very low.” Another comment was “We have no problems keeping staff. We do a weekly meeting with staff and encourage them to think for themselves – this is important – to help staff work it out between themselves. The feedback about encouraging staff to do this is very positive.”

One person said retention solutions needed “to be in-house.” Overall, improved pay was the most common suggestion. Other suggestions included improving work flexibility, working conditions, and training and development opportunities. These were the specific replies:

- *Pay is normally a factor.*
- *Pay excessive money and improve the way the job is currently being done.*
- *Pay excessive money and link staff to superannuation schemes and bonus structures.*
- *Pay increases, flexible hours, flexible workforce (available to cover different areas of work), team work, empowerment, benefits packages, strong communication.*
- *Better pay and conditions.*
- *Pay and work conditions.*
- *Better pay, conditions, training, opportunity.*

- *Pay more and provide constant professional development.*
- *Adequate pay scale and career path.*
- *Better pay rates (better and longer contracts with Councils), separate activity from Waste sector, train people so they can move through this fast growing industry.*
- *Link pay to industry training qualifications - reduce work pressure from staff shortages and weekend work.*
- *Provide training.*
- *Regular meetings, people feeling valued, heard and appreciated and knowing more about the big picture of what is happening in our world.*

3.5.10 Succession Planning

Half of the respondents thought succession planning was done adequately in their business and half did not. There were several non-responses, again suggesting this issue may not have been given any consideration prior to the survey.

Those who thought succession planning was not done adequately were asked to make suggestions for change. These were their responses:

- *Partially done, we're still improving, further training and development to be done.*
- *Higher priority needs to be given.*
- *A bit ad hoc but it's working. Previous 2IC for a year now site manager etc.*
- *Additional support, supervision and resourcing. Train people and provide stable economy for organisation that guarantees movement/growth in organisation.*
- *Difficult structure with Operations Manager in place – pretty much a flat line structure.*
- *Starting to be addressed seriously and currently looking at new staff to train so that no shortfall occurs when covering leave and illness.*
- *Very small business – take on part time staff when required.*

3.6 Managers' Views: Training Issues

3.6.1 Training Value

Managers were asked the value of training their employees. Some responses were general, commenting on the 'volume' of value being very high to low, and the value being seen "on-the-job." The other responses could be categorised as improving health and safety, improving skills, and workplace benefits. A few people made general observations. These were the specific comments:

General

- *Huge*
- *Very high*
- *Very high*
- *Very high*
- *Low-medium*
- *On-the-job*

Health and safety

- *Health and safety, making people aware of the right way of doing things.*
- *Safe work place, safe work practice.*
- *Health and safety.*
- *Safety, knowledge and ability to carry out work.*
- *Improves safety and environmental aspect.*
- *Safety, self esteem.*

Improved skills

- *Makes them better at the job.*
- *More skills.*
- *Improves skill, accuracy and reliability that work will be done correctly.*
- *More efficient operators and operators that look after the vehicles.*
- *They feel responsible for their positions and work unsupervised.*
- *Improves commitment, understanding, skill level in team.*
- *They become more competent and can work smarter.*

Workplace benefits

- *They can function at higher levels – be more of an asset.*
- *We like as many people to do as many jobs as possible.*
- *Improve profitability.*
- *Staff retention, better product, more profit.*
- *Improves quality for customer, improves retention.*
- *Staff retention, productivity, profitability, less stress, increased ability to undertake new tasks and work unsupervised, better communication and staff relations.*

Other Comments

- *We are working on increasing training and have participated fully in developing NZQA for our industry.*
- *Without reasonable pay, trained staff move on to other jobs.*

There were varied views on where the value of training was shown most, but there were several recurring themes. Feedback is summarised in the following table.

Most Value of Training	% of Responses
Improved work method/ethic/ability to work unsupervised and take initiative	26%
Improved safety	20%
Increased productivity	20%
Improved customer service	20%
Profitability / ability to charge more for services	6%
Retention	3%
Putting people into area they excel in and encouraging them to train others	3%
All round skills development for most staff has been huge. You could equate it to greater efficiency, self respect, motivation, kaitiakitanga, tiaki papatuanuku.	3%

3.6.2 Training Results

Managers were also asked if they were getting the results they wanted from their staff being trained. Ninety-four percent (94%) of respondents said they were, and six percent that they did not know. However, ten people did not answer this question. If that was because they too did not know, the overall result is not so positive. Two comments made in this section related to available training being very limited, and the observation that “limited training has shown improvements.”

Interestingly, these answers are somewhat at odds with the responses about the value of training.

3.6.3 Barriers to Adequate Provision of Professional Development

“Time,” including staff shortages and work coverage, and “money” were the most frequently mentioned barriers to providing adequate professional development. Other barriers mentioned were “correctly identifying opportunities,” especially seeing as there was a view “no one has enough knowledge in the industry to provide training”. “Unit standards not registered yet” was also noted, along with the “availability [or lack of availability] of an external assessment system.” One person said “perceived past educational failure” was a barrier, and another the “wide range of activities carried out by the company.”

Seventy-one percent (71%) of respondents thought enough professional development/training was being provided for those working in the industry.

3.6.4 Attracting Staff Into Training

Five people said they had no difficulty attracting staff to training; they were keen to take part. One said “our staff want more training than we can offer – but it is expensive to send them to workshops/conferences.”

Three people said payment to attend training was sufficient incentive, or encouraging staff with pay increases.

The other respondents talked of discussing the benefits and value with individuals, linking the training to appraisals, explaining the big picture and future opportunities. One person said “word of mouth,” another suggested a “training session barbecue” worked well. One person noted “normally they have no choice.” It was observed that some people like training and some don’t, and one person argued “why attract staff who are unwilling and why not embrace those who are keen?”

3.6.5 Finding Good Trainers

One person thought good trainers would be found “by ITOs supporting people from within the industry to become trainers and assessors.” In fact, Managers overwhelmingly believed good trainers should come from within the industry. Only two suggestions were made that “they’ll have to pull them from other sectors” or “find persons experienced e.g. firemen.” Some respondents emphasised that the trainers would come from within their own organisation, as they trained staff themselves.

It was thought to be important to select people who have good people skills and can communicate clearly. One person suggested “they may have to develop a train the trainers programme first.”

Eighty-six percent (86%) of respondents believed trainers will need training in how to interest and motivate staff.

During site visits, managers made these comments about trainers and training:

- *Training is done on a buddy system – we need to do this before staff go on the floor.*
- *Managers also get trained here and we coach and train our own staff in the skills they need. But we aren’t trainers so we are not always training in quality ways. Some training should therefore come from a specialist team.*
- *We are very interested in train the trainer programmes for our own staff who do on-site training. It would be advantageous for our own training staff. – Would EXITO fund this? We are very keen for this type of training.*
- *Specialised trainers will be required for the training in the waste and will come from the industry. We will need a combination of industry people and a pool of registered assessors.*
- *Trainers must use language that people understand and be culturally sensitive.*

- *Trainers need to be practical and down-to-earth. They need to be hands-on – the type of person who can demonstrate actions and activities.*
- *We need trainers who know the industry to train our guys.*
- *We know that the drivers know their job better than the trainers.*
- *We need trainers who are easy going. – It is hard to get out guys together in one spot.*
- *Trainers need a sense of humour to help trainees relax, not put people down, they must be approachable and make the training interesting and fun.*
- *Organising training is about the desire to have well trained staff.*
- *We need frequent shorter courses on-site, as it is too difficult to work with limited crews.*

3.6.6 Catering for Unique Workplace Work Processes

Sites have different work processes unique to the individual business. Managers were asked to comment on how trainers needed to cope with this.

Some respondents believed industry knowledge and experience would assist. Others distinguished between what training needed to be specific and what general industry learning was. In-house training of specifics appeared to be a popular consideration. Mostly, though, respondents believed trainers would deal with this issue best by building good relationships with local sites/areas and getting to know their practices.

These were the specific suggestions:

Industry knowledge

- *By doing their homework on the industry that they are to train.*
- *Time among the different conditions.*
- *Yes - the variations can be pointed out by skilled trainers, eg different way grades sorted etc.*
- *By being flexible.*

General and site specific training

- *I think sites could handle the site specific info and trainer could handle general info.*
- *Generic training for forklifts, compactors, trucks etc. Specific training for zero waste needs further work. Regional/national training may still be possible for most aspects. Site specific training can be conducted by roving trainers/ assessors.*
- *Trainer will need to learn the different sites and give generic training.*
- *Training based on product identification is probably a starting point.*

Site analysis and relationship building

- *Need to teach assessment of site before work commences.*
- *We have to learn site preferences and activities by training.*
- *They need to look at each site first to analyse what's needed.*
- *Develop long-term relational understanding of each organisation, plus start with lots of experience.*
- *Transfer stations, landfill, recycling depots are pretty generic in operation,*

although individual tasks may vary slightly. Trainers coming to an area should talk to management to see what processes are in place prior to the visit to enable the training to be geared at a local level.

- *By reviewing company procedures and spending time looking at the role. Best to use workplace instructors and senior staff that can meet the assessment requirements. Unit standards should allow for variance in the assessment.*

In-house training

- *We already have successful training in-house. External trainers will find assimilation of process at a variety of different companies difficult.*
- *Through staff being promoted internally - an awareness is there and can be passed on through training.*

3.6.7 Training Time

Managers were asked if training should be delivered in 1 or 2 day modules, or in longer modules. Eighty-nine percent (89%) of respondents said 1 or 2 days, with only 11% saying longer. Some people did not answer this question, though, saying “it depends.” One such comment was more explicit: “it depends on what you’re training. An important question is what time of year. Summer is busy season for most recycling activity in areas affected by tourism. Winter training for all but the ski towns (Wanaka etc).”

Another few conflicting comments were made: “1 day max, ideally shorter for staff,” and “2 days or longer, as 1 day is not always taken seriously.”

3.6.8 Supervisory and Management Skills

Managers were asked what skills related to managing people, work relationships and leadership were needed for those in supervisory and management positions. One person noted “as with any labour intensive industry this aspect is very important.” It was observed that “a large proportion of managers are promoted through time on job and attrition rather than management skills.” Two other people noted that people in these positions had worked their way up through the industry and tended to be experienced in all aspects of it.

Managers suggested the following skills were necessary:

- Personality.
- Extremely good patience and interest in the job with plenty of support from management.
- Need to be able to listen to staff.
- Being able to listen, as well as lead.
- Communication skills, motivating staff, driving performance.
- Empathy, consistency, reliability, honesty, communication skills.
- Supervision, communication.
- Communication, time keeping, project management, understanding, personable.
- Modern leadership and motivation, safety and environmental management,

and HR flexible awareness of the importance of staff maintaining a sense of autonomy and group unity.

All respondents believed training was needed for supervisors and managers in how to organise a site so that jobs hold the interest of operators.

During site visits, managers suggested they needed training in “computing, accounting, scheduling.” Innovation was also believed to be important: “innovation is an important skill for managers to look for truck improvement – e.g. an automatic system to close the lids on truck bins.” Another comment was “Managers need training in financial skills – maintaining revenue, setting budgets, accounting skills – customer service skills, identifying mechanical problems e.g. hydraulics, electrical or mechanical problems.” As noted in section 3.3.14, a supervisor mentioned he would like assistance with “how to do rosters, how to keep a good diary/how to record things, communication skills, people skills, and how to grade plastics and metals – knowing what is in the material and what you can do with it.”

3.6.9 Higher Education Needs

Managers were asked if higher education needs were adequately provided to the industry. Sixty-four percent (64%) thought they were not adequately provided. It was noted “probably generic education is, but specific education in zero waste is not.” As noted earlier, (see section 3.5.5), one person said he “would like a clear career path as to what can be achieved in terms of qualification – this needs formal recognition.”

3.6.10 Proportion of EXITO and Non-EXITO Training

Managers were asked to indicate the percentage of their training that was EXITO training, non-EXITO training run by their own staff, and non-EXITO training run by outside training consultants. Almost all training is non-EXITO. Only one business recorded any EXITO based training, saying they were “working towards 95% EXITO.”

Some respondents did not specify the mix between the non-EXITO training delivered by their own staff and that delivered by outside consultants. For those that did specify, the average was 85% run by their own staff, with 15% run by external consultants.

Not all people answered a question seeking opinion about whether outside trainers/consultants do keep up-to-date with new industry standards, perhaps because relatively little training is currently being delivered by them. Of those that answered, 50% thought that the external facilitators need to keep more up-to-date with the new standards.

3.6.11 The Future of Environmental Management Training

Managers were asked what they thought was needed for future training in environmental management. Many comments related to the importance and need for training in this area, as “this is the main reason behind our existence and needs to be appreciated by those in the industry.” Others took the opportunity to say they do this within their company (“we currently have training modules for EMS,” “we take care within the company,” and “ongoing within our business”).

Being “relevant” was noted, as well as the importance of training promoting a “coordinated approach across industry to be familiar with and adhere to legislation”. It was noted as important to “keep up with new information” and it was suggested “regulation updates” should be included in new training. The importance of being able to “train trainers within our organisation” was again raised.

Other suggestions for training centred round developing a solid understanding of the legislation and environmental management ramifications and issues for businesses:

- *A solid understanding of the Environment Act and practical awareness (twice).*
- *Understanding of why it's important to minimise waste production, divert everything from landfill, seek alternative non wasteful approaches.*
- *Understanding risk mitigation measures for off-site impacts particularly odour, dust, noise, and surface water.*

3.6.12 The Future of Health and Safety Training

Managers were asked what they thought was needed for future training in health and safety. Again, many people took the opportunity to note the importance of health and safety, and a few noted that they “currently have training modules,” it is “already a priority” and “plenty” of training is available. It was noted as important “to continually develop staff until it becomes a culture,” and “take care within the company.” To this end there was a call for “regular, ongoing” training and “once again training the trainers” was noted as important, as well as “what we have done to date with the Chamber of Commerce has been largely useless.” Providing “relevant” and “interesting” training was therefore considered important, as well having “more staff sent on training and more consultation on health and safety.”

Making “sure everyone has the HandS gear and understands hazards” was noted, as well as the general requirements of “identifying and controlling hazards, reporting incidents, addressing specific hazards in the waste industry such as manual handling, lacerations and cuts, infection, dust inhalation.” “Regulation updates “being included in new training was suggested. Finally, it was believed that training in the future needed to include “understanding the long term dangers of land filling on neighbouring and downstream communities. Development of appropriate training for new technology - Bio hazards like needle stick injuries, legionnaires disease from current waste stream.”

3.6.13 Staff Literacy

Managers were asked for what percentage of staff literacy was a problem. The table below summarises responses.

Percentage for Whom Literacy is a Problem	% of Responses
Nil	20%
Some / Small % of the workplace	10%
1 – 5% of the workplace	40%
6 – 10 % of the workplace	5%
More than 10% of the workplace	10%
Lots of the workplace	5%
Don't know	10%
Total	100%

Overall, then, literacy is believed to be an issue in 70% of the workplaces in this survey. Comments were also made by managers that “we have some special needs supported employees” and “we have provided literacy and numeracy for a couple of workers.”

3.7 Managers' Views: Industry Predictions

3.7.1 Industry Growth

Managers were asked to predict percentage growth in their industry over the next 5 to 10 years. Predictions were generally high, with one comment being “significant following the development of the Waste Minimisation Solids Bill approx 2007, plus greater environmental awareness re climate change and the Kyoto Protocol.” Replies are summarised in the following table.

Industry Growth Prediction for the Next 5 – 10 Years	% of Responses
10 – 50% growth	63%
100%	5%
200%	11%
500%	11%
Significant/huge	10%
Total	100%

3.7.2 Technological Advances

Managers were also asked what major technological advances they thought would impact on the industry over the next 5 years. Responses are listed below, categorised as government and community impact, education and knowledge, automated processes, waste output, and workforce impacts.

Government and community impacts

- *Legislation may have the biggest impact resulting in a greater number of recovery facilities.*
- *Major changes in how we process for both the international market but more importantly for our domestic market. As oil diminishes we will see fewer plastics available and prohibitive transport costs for exporting product. Mining of existing landfills will follow.*
- *More economic ways of recycling to reduce amount of waste going to landfills.*
- *Less waste.*

Education and knowledge

- *A growing "lower class" of under educated lost in the quickness of new change.*
- *Big development in soil sciences and understanding of organics.*
- *Learning about the science of hazardous waste.*

Automated processes

- *Collection methodology will change and health and safety will improve dramatically.*
- *Collection methodologies will change and health and safety will improve.*
- *More automation such as the use of wheelie bins rather than bags - mechanised sorting stations.*

- *Mechanisation and automated processes.*
- *Sorting will become mechanised.*
- *More equipment / machinery to process materials. People / manual sorting will remain as high quality solution.*
- *Better machinery for recycling.*
- *More work will be done with the aid of computers (which is a worry) but I still think there is a huge need for human control (does that make sense!).*
- *More high tech infrastructure, new commodities and greater volumes.*

Waste output

- *Incinerator – waste to energy.*
- *Disposal methods.*
- *Processing waste products into useable items locally.*

Workforce impacts

- *Multi skilling and minimising work force.*

3.7.3 Ensuring Training Keeps Up

Managers were asked what needed to be done to ensure training is up-to-date with the technological advances. One person simply stated training “needs to adapt – not sure what I can say.” These were other, more specific suggestions:

Industry relationships

- *Develop good relationships with industry and have good RRSAG representation.*
- *Good systems for industry to feed into training and good visioning for the future.*

Government and local government involvement

- *More central government involvement.*
- *Companies and councils need to work together with NGOs.*

Training itself

- *Information to all.*
- *More training.*
- *People need constant monitoring.*
- *Regular reviews unit standards and qualifications.*
- *As new processing developed, additional units added.*

Recruitment and retention

- *Personal development strategies to empower and support the persons most likely to work in recycling and landfill places.*

Supplier responsibility

- *The supplier would be responsible.*
- *Ensure training is relevant to any emerging technology or trends.*
- *Probably available at universities. Don't know about other training providers.*

3.7.4 EXITO's Role by 2012

Managers were asked what EXITO industry training needed to be doing by 2012. One person commented that this was “highly dependent on the direction of the industry – currently a high percentage of materials are exported.” Others suggested important roles for EXITO in promoting the industry, promoting training, offering training, and delivering training results. EXITO was also believed to have a role to play in the Zero Waste philosophy. These were the specific suggestions from Managers:

Context

- *We need a suite of top trainers using a set of excellent educational resources to support unit standard qualifications. EXITO needs to keep up with rapid change in industry. EXITO needs greater financial resourcing from government to utilise the full potential of industry training to benefit NZ communities and businesses, i.e. the big picture beyond just workers.*

Promoting the industry

- *Always endeavouring to remove the stigma attached to those employed (operators) in the industry.*
- *Supplying staff who understand the waste industry - enabling those staff to climb a potential career ladder.*

Promoting training

- *Communicating with all relevant staff and managers and ensuring the training with new technology, not the old ones revamped.*
- *More hands-on training and internal staff promotions.*

Offering training

- *Selective training, not attempting to be comprehensive.*
- *Offer regular workshops and training - we don't hear of any.*
- *More training within this industry.*
- *More hands-on training with companies and internal staff promotions.*

Training results

- *Achieving 50% of industry trained and qualified.*

Zero Waste

- *More Zero Waste units? More dismantling and processing onshore.*
- *Working closely with the zero waste industry to maximise opportunity for this fast growing industry.*

When specifically asked about the future changes to the role of the ITO, its structure, capabilities and resources to support industry stakeholders, respondents saw roles as deliverers of training, industry information seekers and providers, and even industry advocates. The need to keep pace with change was commonly cited. One person commented on their own business' philosophy of training: “We see training and development as a key strategy for our future success and so we are pushing hard in this area. Whether that involves certification to unit standard national certificates and diplomas is yet to be seen.”

Here is what the other people said about the ITO:

- *Its role is highly dependant on New Zealand's ability to reprocess materials locally.*
- *Offer workshops/training.*
- *Make sure its training is relearned continually.*
- *ITO needs to keep all workers/managers up to date, not when they think we need training. They also need to be flexible with their training and training hours – a four hour training session may have to be completed over 4 days or on the weekends. Rewards for training, certificates or some sort of recognition – ask the employees what they want, not what you want. A good trainer is a good listener, not a teacher.*
- *This pioneer industry is evolving and the ITO will have to move forward rapidly with the industry. We would not have guessed 5 years ago that we would be doing what we are now in terms of variety of products, site development and turnover. We no longer have a choice within this industry – our very future depends on how well we care for the earth. We all depend on the 600-800 vehicles per day that visit our site and an increasing number of people who want to be part of this. Together Everyone Achieves More.*
- *With the waste industry changing so fast and with new technologies, practices and potentially legislation emerging, ITO needs to ensure that it maintains pace and the training isn't outdated.*
- *ITO needs to listen to its clients and develop training with industry. We are not that happy to be in an ITO with miners and landfill operators, but see the need to stay there for now. It would be nice to have an ITO developed specifically for the recycling industry – this could well be EXITO but obviously needs a name change.*

3.8 Managers' Views: Training Comments from Site Visits

During site visits, managers offered many perspectives on training that were not specifically queried in their survey. This final section of the Resource Recovery, Solid Waste, Composting and Zero Waste Industry report summarises those comments.

3.8.1 Solid Waste Industry

Training we currently get through EXITO includes:

- *Gauges*
- *wheels, tracks, rollers*
- *Firefighting*
- *First aid*
- *Loader, excavator, dozer and roller operation*

Training required in our company is:

- *Construction procedures*
- *Daily operation of landfill*
- *Hazards*
- *Compaction*
- *Leachate control*
- *Gas control*
- *vermin control*
- *Water treatment*

- *Chemical application and sprays*
- *Polyethylene pipe welding*
- *Electro fusion welding and butt welding*
- *Liner construction*

- *Gas extraction*
- *Gas wells*
- *Gas drilling*
- *Construction of drains*

- *Operating pumps*
- *Valve control*
- *Methane detection*
- *Water quality monitoring*
- *Dust monitoring*
- *Noise monitoring*

- *Dealing with Special waste – e.g. liquids, asbestos*
- *Managing risks like flares*

- *Weighbridge operations*

- *Transfer station training*
- *Waste transport including Securing a load, overloading, difficult waste, emergency management, appropriate loads, unbalanced loads*
- *Truck licenses*
- *Landfill training and traffic control, plant and equipment*
- *There is no current course available for the solid waste compactor*
- *We train in manual lifting*
- *And lifting a range of loads*

3.8.2 Composting

- *Need to understand composting from a biological standpoint.*
- *We are only composting green waste, but maybe in the future we will be dealing with putrescibles (food Waste). It all comes down to education – contamination causes problems so we need Councils to kick this off.*
- *The environment is the number 1 benefit – this education needs to be done in schools to get kids teaching the parents.*
- *Resourcing educators in schools is very important.*
- *Mechanical needs of the VCU – some specific training is required for the unit but we mostly do it in-house.*
- *All training is on-the-job – the VCU is operated by computer – it has a hydraulic interface electrical system with a schematic diagram on screen.*
- *Would like EXITO to training VCU operators in computing skills and fault diagnostics.*
- *Trainers will need to come from the composting industry. However everyone does it differently with their own methods, own materials etc. This is important for our competitive advantage – but makes it a challenge for the trainer.*
- *The more waste we can use the better – the better the government incentives – the better we can process the waste – the incentives relate back to front-end charges.*
- *The recycling centres fall over because the profit can't be made if it's cheaper to import from China.*
- *At the end of the day we have to be able to process and sell it so therefore we need to train the public.*
- *If you ask 10 different experts around the world how to compost you will probably get 10 different answers.*

- *The different applications and reasons for composting and the different material to be used – e.g. green waste, bio solids, putrescibles, wooden pallets.*
- *A lot of composting involves machinery, so there is a lot of training, plus health and safety.*
- *Ideal training for composting would be:
To have staff do 95% of their training on-the-job. Offer apprenticeship which is broad and which includes: recycling, vermiculture and composting. If young people could be trained within the company that would be ideal. Our company is running lean so it's hard to make time to train staff. However young people must be trained.*
- *The training must be enjoyable: they have to know the subject – they must be good presenters – courses should not be too long – a day would be plenty but a short day say 9 am until 4 pm. – Training needs to have breaks and participation by trainees – they need time to discuss things - the class size should be 12 maximum.*
- *Training would need to be made up of:*
 1. *core training – e.g. health and safety, machinery use, work ethics*
 2. *specialised training e.g. recycling, vermiculture and composting*
- *It is going to be a huge challenge to provide training in this industry. It is not cut and dried – it is so widely variable in terms of what work is done at each site.*
- *You have to make compost so it's sellable. There are different screening materials for different markets – i.e. dairy farms or orchards. Training will have to take account of this – having a quality product to be able to sell is essential.*
- *The knowledge held within people needs to be written down. A trainer has to be competent and knowledgeable, and say if they don't know – not to bluff their way out of it.*
- *The industry is fragmented, so it's different whether it is recycling, vermiculture or composting.*

3.8.3 Driving

- *Driving, dispatch and warehousing are good pre requisites for the recycling and solid waste industry.*
- *We have very specialised gear here. The drivers start on the roadside collection and if they show potential they go onto a gantry truck. After that onto front load truck – it is a highly skilled operation – it is one of the most highly skilled truck driving jobs. And after that the hook truck – high skills are also required for this.*
- *Training a reload driver – they all get an induction and then are sent out with an experienced driver who can tell if they will be able to do the job adequately.*

- *We pay properly and we have monthly meetings to help staff get the big picture and so they know what is going on in the company.*
- *We have a no-blame policy – customer service is the key for our drivers.*
- *We find people with potential and try them out – for example the front loader guy would spend 2 weeks learning with an experienced operator.*
- *Get drivers assessed by an independent person, if they are having accidents and making mistakes.*
- *We use service providers for the maintenance of our trucks.*
- *Trucks get modified for the work they have to do in NZ.*

3.8.4 Transfer Station Training

- *Dealing with and recognising all recycling products – e.g. aluminum, green waste, tin, steel, gas bottles, white wear, plastic grades 1 to 7, cars, batteries, chemicals and hazardous waste disposal.*
- *Receiving and handling and loading municipal solid waste.*
- *Weighbridge control including computer skills, dealing with cases, customers, armed hold-ups and hazardous waste.*
- *Leachate, health and safety/ personal hygiene.*
- *Shift work and rosters.*
- *Vaccinations as part of hazard management.*

3.8.5 General Training Needs

These training needs were identified by managers during site visits:

- *Customer service on site is very important and how to deal with the public – especially those who try to hide nasty chemicals or other waste under loads – this happens frequently and our staff get verbally abused by some customers when they get found out.*
- *The staff are dealing with the public all the time so it's crucial they have customer service skills training.*
- *We need:*
 - *environmental spill training*
 - *induction site training*
 - *health and safety*
 - *environmental training*
 - *fire extinguisher training*

- *weighbridge skills*
- *computing and recording and customer service*
- *we need to be able to maintain the correct type of material coming into our site.*

- *We need health and safety training, and induction training.*

- *We need St Johns first aid training.*

- *Some staff need hazard handling certificates. Even though we don't accept hazardous waste, there are always customers who hide it in rubbish. ARC used to do it - now we don't get it.*

- *Training is needed in hazardous waste but in the domestic area – e.g. PCBs and DDT turn up plus chlorines, pesticides and herbicides – ARC was doing this training, but they aren't now.*

- *Preventative maintenance training would be ideal and should be made up of:*
 - *Items to check*
 - *Problematic areas*
 - *How to rectify faults*
 - *How to keep machinery at a good working level*
 - *Where to check*

3.8.6 Other Comments

- *We haven't got a training building on site – it would be really useful to have one.*

- *To get people with skills they need to be paid relatively – but they come with these skills and are low paid.*

- *If staff come with bad habits it's hard to change them. They are likely to have accidents – i.e. the need to keep their speed down etc. Sometimes you can feel like you are a cracked record. –It's good to have an external organisation to come in and hammer points home.*

- *Good to network with others in training to find out if we are having the same types of problems.*

- *Pre-skills required in operating heavy machinery and the endorsements.*

- *Operators should have an engineering background so they can do maintenance otherwise it becomes too expensive.*

- *We run log book training for machines and excavators for new recruits – it takes 80 hours of training – how to drive over rubbish etc.*

- *Staff will make suggestions themselves on how to make improvements.*

- *Some staff progress very quickly and others need more input – training needs to take this into account.*
- *The challenge is doing a course and then not frequently using the skills. Then they lose it.*
- *It's hard to recruit because there is a lack of people with licences, so we take them on from the bottom rung. The other problem is they go elsewhere once they get their licence.*
- ***Training Delivery done by:***
 - Tool box meetings*
 - Health and Safety training*
 - Internal training*
 - Internal assessment*
 - Buddy training in twos*
- ***Levels of Training***
 - Competent to operating under supervision*
 - Follow-ups to training assessments*
 - Supervision*
- *There is a huge lack of understanding from the public about how to sort rubbish. It's got to be in front of their faces so that it becomes obvious. – They need to be educated. We get lots of phone calls from the public about where they can take particular types of rubbish – they don't know.*

4. Future Considerations and Issues

Participants in this survey were very clear that training has a substantial contribution to make in this growing 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 in their thinking, decision-making and future planning in the resource recovery industry.

4.1 Questions Arising From Demographic and General Data Results

4.1.1 Pay and Hours of Work

Issue:

- For Operators, pay is relatively low and hours of work are generally high. This is perceived to be impacting on attractiveness of the industry as a career option.

Questions:

1. What can be done to make it easier for businesses to pay Operators 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:

- Operators are more likely to drift into the industry than managerial staff who are attracted by "recycling" or the particular work role. As recycling education and awareness improves, it is an ideal opportunity to work at attracting Operators into the industry.
- That Operators enter the industry with no prior experience is both an advantage and a disadvantage when there is a need for staff.
- Licences to operate machinery and trucks are considered expensive.

Questions:

1. Could specialist pre-employment programmes give prospective Operators more information and learning about the industry?
2. How could EXITO support more people to obtain the appropriate licences?
3. What skills could be learned / unit standards could be taught in high schools to support careers in the industry (as well as public education)?

4.1.3 Industry Career Opportunities

Issues:

- Once people are in the industry, it appears they remain keen to stay in it. Career paths will be a critical future issue, yet ‘time off’ for training for the next level of job is problematic. Response to the idea of apprenticeships was positive, but there are still many unanswered questions on how this might work.
- Succession planning may not be working well in many businesses.

Questions:

1. What can EXITO do to prioritise and actively assist with implementation of the ideas raised in this survey for attracting people into the industry?
2. How can the societal benefit reasons for being attracted into the industry be promoted to those who may be ideal candidates for working in the industry?
3. Given that many Operators want to have much greater access to training to develop their skills and improve health and safety, what could be done to facilitate such training provision?
4. How can career planning be introduced at the Operator level without undue disruption to productivity?
5. Will apprenticeships assist with career opportunities? What would be the expected career path?
6. What support would be necessary for apprenticeship training – for the apprentice and the workplace?
7. Over what time period would an apprentice system be sustainable – for individual businesses? And for the industry?
8. How can EXITO assist businesses with the skills they need for succession planning?

4.2 Questions Arising From Zero Waste Results

Issues:

- Zero waste does not appear to be a concept that is well understood, especially by Operators.
- Organisations do not appear to have been clear with their staff about their commitment to zero waste.
- There is little formal training in workplaces on zero waste.

Question:

1. How can EXITO facilitate greater information and learning about zero waste in workplaces?

4.3 Questions Arising from Views on Training and Training Delivery

4.3.1 The Training Environment

Issues:

- Workplaces appear to have variable approaches to training. While some have a positive approach, others appear to see it as an imposition on time.
- Most participants did not know how to register for training.
- Most participants were not consulted about their training needs.
- If training is done in work hours, which is the overwhelming preference of Operators, there is only limited time available during non-busy work periods.

Questions:

1. How can EXITO assist workplaces which appear to have low training cultures? What can be done to develop cultures where training is valued more highly?
2. How are accurate training needs established? What can be done to support Managers work 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?
7. How can EXITO meet the challenge of training in short bursts during non-busy work periods?

4.3.2 Training and Trainers

Issues:

- On-site one-on-one training is seen as the most useful training in this industry.
- Classroom training needs to be very interactive, hands-on and at the right level for participants who may have difficulty with reading and/or writing.
- Industry experienced people are the ones who are likely to have the most credibility as trainers. Therefore they need to learn training skills.
- Trainers were widely reported as needing to avoid making culturally insensitive or hostile remarks in training.
- Trainers need to be able to adapt to train in the processes used by particular workplaces.
- Training needs to be regular and effective.

Questions:

1. What can be done to ensure trainers are aware of the impact of culturally insensitive remarks and 'jokes'?
2. What can be done to assist with the relatively expensive on-site one-on-one training required in this industry?
3. What can be done to attract good quality trainers and assessors in this industry?
4. Can EXITO provide training for trainers?
5. What can be done to assist trainers with tailoring training for particular workplaces?
6. What can be done to assist businesses with determining training effectiveness?

4.3.3 Identified Training Needs

Issue:

Several industry training needs have been identified for both Operators and Managers.

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?

4.4 Questions Arising from Views on Professional Development

Issue:

- Managers believe they do not do enough professional development, despite being largely supported to do it.

Question:

1. What can be done to assist Managers with investing in their own professional development?

4.5 Questions Arising from Views on Recruitment and Retention

Issues:

- Not all Managers appear to be aware of these issues and their ramifications.
- Managers believe many industry roles are difficult to fill.
- Some businesses have had no trouble attracting staff to date, and others find it difficult.
- Respondents gave ways to attract women to the industry. They are currently under-represented in the industry, although not in all workplaces. Some workplaces believe the work is not suitable for women's strength levels.
- Ideas for improving retention are costly, seeing as they involve pay changes. (See 4.1.1.)

Questions:

1. What can be done to assist Managers with learning about recruitment, retention, and staff planning?
2. What can be done to assist businesses with recruiting staff from non-traditional methods? What can be done to assist them with the process, and with managing the new staff in the workplace?
3. What can be done to help implement some of the ideas for attracting more women into the industry?
4. How can businesses that find it easier to attract staff pass on some of their methods to those who are having difficulty? – Or how can those having difficulty be encouraged to learn from those who find it easier?

4.6 Questions Arising from Views on Industry Predictions

4.6.1 Forecasting

Issue:

- Industry predictions were somewhat vague. So were the suggested training solutions.

Questions:

1. What can be done to assist Managers with having enough knowledge or courage to inform others of their predictions for the industry?
2. How can EXITO find more information to enable more forecasting? How will it share this information with the industry stakeholders?

4.6.2 EXITO's Role in the Future

Issue:

- Broad and diverse roles are suggested for EXITO as the industry grows and moves into the future.

Questions:

1. Are industry's expectations of the ITO reasonable?
2. What predictions does EXITO have for its own future in relation to this industry?
3. What can reasonably be delivered?
4. How can EXITO's business planning take these combined expectations into account?
5. How will plans be shared with the industry stakeholders?

5. Appendix 1

Resource Recovery - Recycling, Solid Waste, Composting, Zero Waste

Questionnaire for Operators

EXITO (The Extractive Industries Training Organisation) has developed this *confidential questionnaire* to gather information about the Resource Recovery/Solid Waste/Composting/Zero 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 now and in the future.

Zero Waste

We want to find out if your organisation or company has committed to the Zero Waste philosophy. A section has been included for those who specifically work in this way.

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 _____

3. Your Age: _____

4. Male Female

5a. Ethnicity: (tick relevant box)

NZ European/Pakeha <input type="checkbox"/>	NZ Maori <input type="checkbox"/>	Samoan <input type="checkbox"/>
Cook Island Maori <input type="checkbox"/>	Tongan <input type="checkbox"/>	Niuean <input type="checkbox"/>
Tokelauan <input type="checkbox"/>	Fijian <input type="checkbox"/>	Other Pacific Island <input type="checkbox"/>
Indian <input type="checkbox"/>	South East Asian <input type="checkbox"/>	Other Asian <input type="checkbox"/>
Chinese <input type="checkbox"/>	American <input type="checkbox"/>	Latin American/Hispanic <input type="checkbox"/>
Other European <input type="checkbox"/>	African <input type="checkbox"/>	Middle Eastern <input type="checkbox"/>

5b. Which of the following do you do? Tick box

- Resource Recovery (recycling)
- Solid Waste
- Zero Waste Educator
- Composting
- Other? _____

5c. Does your organisation/company promote the Zero Waste philosophy? **Yes/No**

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

7. Why did you choose this job? _____

8. Did you have relevant experience/qualifications before you started working in recycling/solid waste/composting? **Yes/No**

If yes – what? _____

9. Did you work in other industries before working in this industry? **Yes/No**

If yes – what? _____

10. How many recycling/solid waste/composting companies have you worked in? _____

11. How long have you have spent working in this industry? _____

12. Have you been encouraged to take on supervisor roles? **Yes/No**

If yes – what? _____

13. Wages - what are your wages in your current job? Tick box

\$15,000 to \$19,999 <input type="checkbox"/>	\$20,000 to \$29,999 <input type="checkbox"/>
\$30,000 to \$39,999 <input type="checkbox"/>	\$40,000 to \$49,999 <input type="checkbox"/>
\$50,000 to \$59,999 <input type="checkbox"/>	

14. Do you want to continue working 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**

4c. Is there a match between your training needs and what the company thinks are your training needs? **Yes/No**

4d. If not please comment. _____

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

- During work hours
- Evenings
- Weekends

Part 3 – Zero Waste

If your organisation/company promotes Zero Waste please complete Part 3. If not go to Part 4.

1b. If Yes how is the Zero Waste approach promoted in your workplace? Please explain.

2. Do you get training in Zero Waste? **Yes/No**
 If yes, please describe _____

3. Is there a match between the training done and its use in the workplace? **Yes/No**

4. What zero waste training, (not currently being done), should be provided? _____

Part 4 - 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

5. Appendix 2

Resource Recovery - Recycling, Solid Waste, Composting, Zero Waste

Questionnaire for Managers, Professionals, Technicians

EXITO (The Extractive Industries Training Organisation) has developed this *confidential questionnaire* to gather information about the Resource Recovery/Solid Waste/Composting 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.

Zero Waste

We want to find out if your organisation or company has committed to the Zero Waste philosophy. A section has been included for those who specifically work in this way.

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

Part 1 - General Questions

1. Name of Company: _____ Job Title _____

2. Your Age: _____

3. Male Female

4a. Which of the following do you do?

- Resource Recovery (recycling)
- Solid Waste
- Zero Waste Educator
- Composting
- Consultants (private or public sector)

Other? _____

4b.) Does your organisation/company promote the Zero Waste philosophy? **Yes/No**

5. Ethnicity: (mark appropriate box)

NZ European/Pakeha <input type="checkbox"/>	NZ Maori <input type="checkbox"/>	Samoan <input type="checkbox"/>
Cook Island Maori <input type="checkbox"/>	Tongan <input type="checkbox"/>	Niuean <input type="checkbox"/>
Tokelauan <input type="checkbox"/>	Fijian <input type="checkbox"/>	Other Pacific Island <input type="checkbox"/>
Indian <input type="checkbox"/>	South East Asian <input type="checkbox"/>	Other Asian <input type="checkbox"/>
Chinese <input type="checkbox"/>	American <input type="checkbox"/>	Latin American/Hispanic <input type="checkbox"/>
Other European <input type="checkbox"/>	African <input type="checkbox"/>	Middle Eastern <input type="checkbox"/>

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

7. Why did you start working in the Recycling/Solid Waste/Composting industry? _____

8. Did you have relevant experience or qualifications before you began work in the Recycling or Solid Waste industry? **Yes /No**

If yes – what? _____

9a. How many recycling or solid waste companies have you worked in? _____

9b. What is the total time you've spent working in this industry? _____ (years)

10. What is your current salary range?

\$20,000 - \$29,999 <input type="checkbox"/>	\$30,000 - \$39,999 <input type="checkbox"/>	\$40,000 - \$49,999 <input type="checkbox"/>
\$50,000 - \$59,999 <input type="checkbox"/>	\$60,000 - \$69,999 <input type="checkbox"/>	\$70,000 - \$79,999 <input type="checkbox"/>
\$80,000 - \$89,999 <input type="checkbox"/>	\$90,000 - \$99,999 <input type="checkbox"/>	\$100,000 or above <input type="checkbox"/>

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

Part 2 - Professional Development

1. Is there a match between your professional/training development needs and what the company/organisation thinks you need? **Yes/No**

If no match, please comment _____

2a. Are you supported to participate in professional development? **Yes/No**

2b. Do you do enough professional development? **Yes/No**

2c. If no what stops you from getting enough professional development? _____

3a. Does professional development add value for you? **Yes/No**

3b. Did you choose to do it or because you were told to? **Chose** **Told**

5. Does it fit with where you want to go in your career? **Yes/No**

6. What gaps are there in professional development areas – i.e. skills needed which are not being addressed? _____

Part 3 – Zero Waste - If your organisation/company promotes Zero Waste please complete Part 3.

If not go to Part 4 Recruitment and Retention.

1. How is Zero Waste promoted in your workplace? Please comment.

2. Do you provide Zero Waste training? **Yes/No**

If yes, what? _____

3. Does the training have practical value? **Yes/No**

4. What other zero waste training, (not currently being done), should be provided? _____

Part 4 – Recruitment and Retention

1a. What positions within the industry are difficult to fill?

- Managers **Yes/No**
- Professionals (Engineers/ Scientists/ IT) **Yes/No**
- Technicians **Yes/No**
- Operators **Yes/No**
- Support staff **Yes/No**
- Other **Yes/No**

1b. What do you believe is the reason for this? _____

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

b. Over-supplied

3a. Will it be feasible to fill staffing gaps by recruiting people to fill skill shortages from the following groups?

- Recruit staff from under-represented groups, (e.g. gender, ethnicity, age) **Yes/No**
- Recruit staff from other industries **Yes/No**
- Recruit staff from people out of the labour force **Yes/No**
- Recruit staff from overseas **Yes/No**

3b. What should be done to remedy any expected skill shortages? _____

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

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

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

7. If there are not even numbers of men and women in your workplace how could more women be attracted into the operator side of the industry? _____

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

9a. Is succession planning done adequately in your company/organisation? **Yes/No**

9b. If not, what should be changed? _____

Part 5 - Training Issues for the Company

1a. What is the value of training your employees? _____

1b. Where is that value shown most? (For example: increased productivity/taking initiative/customer service, improved safety) Please comment _____

2. What are the barriers to adequate *provision* of professional development? _____

3. Is enough professional development/training being provided for those working in the industry? **Yes / No**

4. How do you attract staff into training? _____

5. Are you getting the results you want from your staff being trained? **Yes/No**
If not, why not? _____

6. How will the industry find good trainers? _____

7. Will trainers need training in how to interest & motivate staff? **Yes/No**

8. Sites have different work processes unique to the individual business. Please comment on how trainers will need to cope with this. _____

9. Should training be delivered in 1 or 2 day modules or in longer modules? **1 or 2 days/Longer**

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

11. Is training needed for supervisors and managers in how to organise a site so that jobs hold the interest of operators? **Yes/No**

12. Are higher education needs adequately provided to the industry? **Yes/No**

13. Of your total training what percentage is?

- EXITO training _____
- Non-EXITO training run by your own staff _____
- Non-EXITO training run by outside training consultants _____

14. Do outside trainers/consultants keep up to date with new industry standards? **Yes/No**

15. The importance of environmental management and health and safety is increasing. What is needed for future training in these 2 areas? Please comment.

a. Environmental Management training _____

b. Health and Safety training _____

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

17. What percentage growth do you predict in your industry over the next 5 to 10 years?

18. What major technological advances do you think will impact upon the industry over the next 5 years? _____

19. What needs to be done to ensure training is up to date with these technological advances? _____

20. By 2012 what does EXITO industry training 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 Resource Recovery Recycling or Solid Waste industry as a manager?

Worked up

Yes/No

Started as manager

Yes/No

2. Total number of operators in your company/organisation? _____

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

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

Total number of management positions in your company/organisation? _____

6. What is the average age of your operators?

Under 20

20-30

30-40

40-50

50-60

60-70

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? Please comment _____

Thank you for participating in this survey