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WHAT IS TYREWISE?



For those new to Tyrewise here's a quick rundown on what's happened so far...

In March 2012, the Ministry for the Environment awarded Waste Minimisation funding for the development of a stewardship programme for end of life tyres (ELTs). The project (Tyrewise) enables industry to work together to deliver a consistent nationwide approach to the responsible disposal of tyres.

A working group of ten industry stakeholders has come together to review and shape the product stewardship programme, giving expert direction to 3R Group who are contracted to manage and deliver the project milestones. The group reviews and gives input to documents produced as part of the project, provides regular feedback to and from their stakeholder groups and provides recommendations at various stages of the process.

Working group participants include: Bridgestone NZ Ltd, Dunlop NZ Ltd, Value Tyres, The Automobile Association, Fleetsmart, Imported Motor Vehicle Industry Association (IMVIA), Motor Industry Association (MIA), Motor Trade Association (MTA), Local Government New Zealand and New Zealand Tyre Recyclers and Collectors Association (NZTRACA). A Ministry for the Environment observer is also part of the project.

Project milestones: The project has seven milestones to complete by 15 June 2013, with the final deliverable including a full business plan and materials for a scheme launch. More on the project deliverables and the working group can be found on the project website www.tyrewise.co.nz



Tyrewise is industry supported and has received partial funding from the Waste Minimisation Fund, which is administered by the Ministry for the Environment. For more information about the programme and funding please visit www.tyrewise.co.nz

RECOMMENDED PRE-READING

Before coming to the public consultation session asked attendees to be familiar with the findings and recommendations made by the working group which are on the project website at www.tyrewise.co.nz/milestones

Specifically they should have read the scoping reports 1 - 4. A summary of each report follows.

BRIEF OVERVIEW OF THE SCOPING REPORTS

Collectively the scoping reports intend to provide the necessary information for developing a comprehensive and robust nationwide product stewardship programme for end of life tyres (ELTs). It is accepted that innovation and development in processing ELTs is rapidly changing and provision for evaluating these changes is part of the responsibility of the eventual product stewardship organisation.

SCOPING REPORT 1: INVESTIGATION INTO THE COLLECTION AND DISPOSAL OF USED TYRES IN NEW ZEALAND AND INTERNATIONALLY

PURPOSE

To document the current situation in New Zealand and internationally in regards to collection and disposal of used tyres

FINDINGS

Currently New Zealand has some of the systems that are required for a successful ELT product stewardship scheme, but is missing other key elements. The functional elements that are already in place include:

- The process of charging a disposal fee to new tyre purchasers. The charging of a disposal fee is well established and considered fair and reasonable by most consumers.
- There is an established network of tyre collectors operating in almost all regions in the country.
- There are a number of processors who can process the ELTs, with capacity to increase processing.
- There are a small number of companies producing new tyre derived products.
- There are some research and development projects underway for other end uses for ELTs.

Additionally there is support and engagement from the wider tyre industry as demonstrated by the formation of the Tyrewise Working Group. Government is also supportive of the process having financially contributed to the project and including a Ministry for the Environment observer on the working group.

These are some of the key elements missing in the current situation:

- Supporting legislation which would ban landfill of tyres and define roles and requirements for all parties involved in the ELT industry.
- A robust manifest system that tracks the movement of ELTs through the supply chain to end use.
- End use markets for tyre derived fuel in New Zealand.

The economic situation for ELT's in New Zealand has been described previously as a 'market failure'. This is defined as, when an unregulated market system has failed to achieve the optimal allocation of resource or social goals. As the current situation for ELTs in New Zealand does not recognise ELTs as a valuable resource it is reasonable to say that this is a fair analysis.

The most common barriers to success are:

- There is not a level playing field for all industry participants
- Lack of supporting legislation
- Lack of secure supply of ELTs

SCOPING REPORT 2: INVESTIGATION INTO ALTERNATIVE END USES FOR END OF LIFE TYRES IN NEW ZEALAND AND INTERNATIONALLY

PURPOSE

- A. Conduct an investigation into:
 - a. Alternative uses for collected tyres internationally (this informs what is possible in New Zealand in the future)
 - b. Alternative uses for collected tyres in New Zealand (what is possible now and informs what is possible in the future, showing any constraints including investment)
- B. Then with this data, show a ranking by:
 - a. Cost efficiency (eg economic, minimum feedstock required)
 - b. Resource recovery effectiveness (environmental, social, other)
- C. Then evaluate using key criteria

FINDINGS

The alternative uses for ELTs are wide and varied and can be as simple as using a whole passenger car tyre to grow potatoes in the back yard, to a set of more complicated chemical processes to break the tyre back down into its original components for use in further processing. The report grouped the alternative uses into the following categories:

- Whole tyres
- Fabricated/cut products
- Ambient and cryogenic material recovery
 - Further use – crumb as an end use functional product
 - Further use – crumb as an additive in a product
 - Further Use – crumb in a secondary process
 - Further Use – crumb in a destructive process
- Devulcanisation

These groupings were then assessed to see if they were viable in New Zealand and if so were scored against a set of predetermined questions to determine which grouping best met the environmental, economic, social and waste hierarchy requirements. The assessment of these groupings culminated in a hierarchy of end uses.

Best use: crumb as an additive in a product

At the point the report was compiled (31/7/2012), and based on the working group scoring, the alternative use that best met the environmental, economic, social and waste hierarchy requirements is reducing the ELT to crumb rubber and then using that crumb as an additive in a product. Whilst this use might have scored the highest ***it is accepted that there will be other sustainable uses for ELTs that will occur***, for example retreading truck tyres.

One of the uses for crumb rubber in a product is as an additive in hot mix asphalt for roading applications. Roading is an end use for crumb rubber that satisfies a key part of developing end use markets within the World Business Council for Sustainable Development's Framework for Effective Management Systems for ELTs. This is that establishing a large scale end use market such as crumb rubber in roading or tyre derived fuel satisfies several necessary conditions; they allow for a continual intake of ELTs and provide a base market upon which all other end use markets can be developed.

In the future, as new and emerging technologies are implemented and as an ELT market gains maturity, it would be expected that there would be growth and diversification in the end use markets for ELTs. The framework by the World Business Council also identified that the greater the number of recovery routes established, the better the true value of all end markets can be recognised.

SCOPING REPORT 3: FEASIBLE PRODUCT STEWARDSHIP OPTIONS FOR END OF LIFE TYRES IN NEW ZEALAND

PURPOSE

- Provide feasible options for a product stewardship programme for end of life tyres in New Zealand
- Investigate the likely costs and benefits of the options
- Report on the nature of any regulatory framework that might be required

FINDINGS

The report has evaluated the available options for the components of product stewardship scheme including the following:

- Management model
- Structure and participation
- Scope of tyres included
- Where the fee is charged
- What the fee is charged on
- Where the fee is paid to
- Where the tyres are collected
- Whether incentives are paid
- What else the scheme funds including legacy/orphan/research & development/education

Various options under each component were considered, and five possible scheme options developed. The working group reviewed these five options and identified option 1 as its preference with option 2, a retail model, also included as a comparison. The two options selected as feasible had the following characteristics:

Option 1: Brand owner first importer fee collection

- Mandatory participation with priority product status
- Fee on loose tyres collected from brand owners (preferred via Customs) and fee on fitted tyres collected via New Zealand Transport Authority (NZTA) on behalf of vehicle importers
- Fee paid to non-profit product stewardship organisation (PSO)
- Consumers take tyres to registered tyre collection locations
- Incentives paid to registered scheme participants

Option 2: Retail fee collection

- Mandatory participation with priority product status
- Fee collected on loose tyres at retail and fee collected on tyres fitted to vehicles via NZTA on behalf of vehicle importers
- Fee paid to non-profit product stewardship organisation (PSO)
- Consumers take tyres to registered retailers locations
- Incentives paid to registered scheme participants

The relative costs and benefits of these two options were identified and compared with option 2 costing more to deliver due to its higher numbers of programme participants. The retail model (option 2) was assumed to have 4,041 programme participants compared to 591 participants in the brand owner/first importer option (option 1).

SCOPING REPORT 3 FINDINGS (continued)

The working group clearly identified option 1 as its preferred model, based on the assumption it would deliver the same environmental and economic results by diverting end of life tyres to environmentally sound use but would be more cost effective to deliver.

Various policy options were identified that could provide regulatory support ranging from a priority product declaration under the Waste Minimisation Act through to changes to government procurement policy. The working group agreed that a priority product declaration was desirable to ensure a level playing field and full participation. A priority product declaration by the Minister will make it mandatory for a scheme to be developed and accredited by the Ministry for the Environment.

"Previous reports have used the word 'levy' instead of 'fee'. We have replaced levy with fee in this report and in all subsequent material to ensure consistency with the Waste Minimisation Act 2008 terminology (section 23(1) (d))."

SCOPING REPORT 4: WHAT MIGHT A FUTURE PROGRAMME LOOK LIKE?

PURPOSE

To determine what a future scheme might look like by:

- Developing a set of guiding principles for the ELT product stewardship scheme
- Outlining the governance of the proposed scheme whilst in development
- Outlining the scheme coverage and limits, regulatory framework required for viability and the proposed indicative timelines

FINDINGS

A key part of the scheme both in its development and implementation phase is its strong governance structure. For Tyrewise this is by way of a product stewardship organisation (PSO) which will consist of a Board of Directors, with appointed directors or trustees that are likely to represent tyre brand owners, first importers and those with a responsibility for product stewardship of tyres as a minimum. The PSO is supported by an advisory group which will consist of individuals with unique knowledge and skills that complement the knowledge and skills of the formal PSO board members in order to more effectively govern the scheme. The cornerstone of maintaining good governance for the PSO will be the ability to implement the mission and ensure the guiding principles and scheme design options are met. This report has detailed how the scheme design options will be met.

The establishment PSO will be formed early in 2013. Their initial role will be to ensure that decision making around the quantum and placement of payments is a step removed from those who might benefit from funds distribution and will provide governance for the project managers and interactions with the working group stakeholders.

The scheme design options are noted in individual tables below:

Collaborative	<ol style="list-style-type: none">1. The scheme is governed by representatives on behalf of all stakeholders2. All stakeholders in the product life cycle are involved and have clear responsibilities3. Partnerships are encouraged4. Communities are engaged via education and/or participation5. Outcomes of the scheme are shared with wider society
Economically Effective	<ol style="list-style-type: none">1. Scheme is self funding with a fair fee applied, which minimises compliance costs to consumers2. ELTs are recognized as a valuable secondary resource with end uses that are incentivised to maximise positive outcomes3. Avoid costs of disposal (landfill or illegal dumping) by maximising waste reduction and waste diversion (reuse, recycling & recovery)4. Supports NZ's "clean" green reputation and access to trade opportunities

Environmentally Sound	<ol style="list-style-type: none"> 1. Minimise health, safety, environmental and social impacts throughout the tyre recovery "life cycle" 2. Reduce need for virgin raw materials by maximising waste reduction and waste diversion (reuse, recycling, & recovery) 3. Reduce environmental impacts of toxic air emissions and leachate caused by tyre fires, illegal dumping and incorrect storage of tyres 4. Recognise and certify processes that contribute to a reduction in NZ's green house gas emissions
Best Practice	<ol style="list-style-type: none"> 1. The scheme is designed for a New Zealand context while learning from international experience 2. The scheme is credible and auditable to relevant standards (eg ISO14001 and PS accreditation) 3. The structure and funding of the scheme is well defined and transparent 4. All processes are clearly documented and subject to periodic review and improvement 5. Programme participants are measured to agreed criteria: positive results are rewarded and non-sanctioned activity carries consequences 6. Investment is made in R&D to improve outcomes and efficiency

FORMAT OF PUBLIC CONSULTATION SESSION

Christchurch: Monday 25 March, 2013 at 10:00am – 12:00pm

ATCANZ Training Centre, 10 Dehaviland Way, Christchurch Airport, Christchurch

Auckland: Thursday 28 March, 2013 at 12:30pm – 2:30pm

Ministry for the Environment/MED, Level 6 of the Tower Centre, 45 Queen Street, Auckland

Independent facilitation by Maurice Batey who has over 25 years experience in both the private and public sectors.

- Sign in on arrival and housekeeping (**prompt start**)
- First 1.25 hrs
 - Introductions and brief project overview
 - What does the scheme mean for me? (Reference Scoping Report 4, Page 33)
 - Presentation: "What would the future supply chain look like within a product stewardship scheme?"
 - Interactive session involving attendees: "What will it take to get from the current situation to the future scenario?" where we will discuss each stage of the supply chain
- 15 minute tea/coffee/water break
- Final 30 minutes – summary of consultation and important learnings for the final milestone

WHAT WE CAN'T TALK ABOUT YET

We don't have all the answers at this point in the project. Some of the things we don't know yet are:

- The actual value of a fee placed on tyres (we can talk about a range, ref SR 4, page 38)
- Value of incentive payments (we can talk about purpose and demand pull through)
- The exact timing or enactment of regulatory support (not within the working groups control)
- If and when priority product will be declared (it is recommended but not within working group control)
- The start date for the product stewardship scheme (the project completes 15 June 2013 and the expectation is that the scheme will be ready for launch - we can talk about what might happen next)

PUBLIC CONSULTATION SUMMARY

The Tyrewise public consultation sessions were attended by approximately 50 people from a variety of industries, these industries ranged from the recycling industry, the retail automotive industry and territorial authorities to name a few.

Those attending said they supported regulatory changes that would declare tyres a priority product under the Waste Minimisation Act [2008] making the scheme mandatory and ensuring full industry participation and regulatory support. This mandatory approach would also create better security of supply for ELT transporters and processors, which had been a previous concern.

The workshop portion of the session was interactive and participants views were recorded. From these discussions the key points were summarised at the conclusion of the workshop and agreed upon by the attendees. Post the sessions participants were also invited to provide feedback by written submission. The key points from both the public consultation and written submissions follow;

Public Consultation Feedback

- Written submissions can be submitted via email to Gareth, Michelle or info@tyrewise.co.nz up until Friday 5th April, and will be included in the Workshop Feedback report.
- Support for increased fines and penalties for those who illegally dump tyres.
- There are lots of farms with stockpiles of tyres that are not being used. There needs to be some regulation on how tyres are used by farmers and incorrect disposal.
- Processing industry needs to be large scale to be economically viable. Should avoid fragmented approach with small scale fly by night operators who promise but can't deliver.
- Communication on what the process is for legacy tyres will be key.
- What is the timeline and process for business to register as a Collection site? Will it be a competitive tender process and if not what would the process be? What are the next steps for interested parties?
- Need clarification on where ELTs fit in the Hazardous waste categories in regards to storage. If they are considered hazardous then that will have implications for resource consents. If consents need to change there would be costs involved in this.
- The scheme needs to think from a national perspective with any guidelines or important criteria that can be consistent in relation to tyre storage and collection site activity.
- The scheme should consider the reverse logistics/networks that are already in place.
- The scheme should be careful of focusing only on distance in relation to transport incentives.
- The incentives are only to be available to NZ based businesses
- Security of supply is a big issue
- A scheme needs consistency at a national level in regards to approved end uses.
- It is vital to have support of central government to push local manufacture such as tyre derived aggregate and rubber roading.
- What is the definition of a product?
- There would need to be feedback reports from the recipients of Tyrewise R&D funding, to show what has happened to the money, outcomes from the research and development so others can also learn from that and build on it.
- Priority product must occur
- Under the WMA when a product has been declared as a priority product MfE have increased powers of investigation and enforcement.
- A key to success to reduce tyres in inorganic collections as well as the scheme overall would be communication and education with all interested parties eg consumers etc.
- Legacy Tyres, the key is not to flood the system with legacy tyres.

- Any Product Stewardship scheme should not be funded from rates.
- The financial model in the business plan should include and cover all associated costs to the applicable stage in the supply chain.
- It was agreed that a demand pull model should be the long term eventuality
- As processing capability increases it is possible that some processors may take some tyres that there has not been a fee applied to
- The fee should be captured at Customs
- It is envisaged that using tyres on silage pits will continue to be an acceptable end use but over time as the tyres become more of a valuable resource for processors it is likely that there will be a transition to an alternative method of providing ballast.
- The scheme overall is good for consumers
- The group decided that the scheme should not manipulate consumer's decisions by imposing standards that may affect the viability of certain types of tyres.
- The biggest benefit for generators was the free collection
- Having a process that tracks tyres from stage to stage in the supply chain and a process that ultimately allows the PSO to audit participants was very important.
- The PSO is responsible for registration and ongoing monitoring and auditing of all scheme participants. MfE will also have the ability to enforce registrant requirements under the WMA. The PSO is also responsible for setting the standards. Some associations will set their own standards for members as well, NZTRACA are a good example of this as they will have their own standards which will be aimed at reflecting those of the PSO.
- The selection of collection sites would be market driven and would be dependent on all of the collection site criteria being met.
- The cost of land/property needs to be factored into any incentives to be paid.
- It is likely that transfer stations could act as collection sites as in most cases they can accommodate the volume of tyres that will be received.
- It was envisaged that there be a geographic area for a transporter, this would eliminate any duplication of effort and the generators would only have 1 entity to deal with.
- Weighing tyres from source would be by using an average weight per tyre so it would not be reliant on gaining a weight from a weigh bridge.
- It was important to have a tracking system in place for the tyres.
- The establishment of any processing facility or the extension to a current facility will likely be a 2-3 year exercise and requires large investment as well as an end market for the product produced. The government needs to play a role in driving demand.
- NZTA are seen as the key to driving specifications for roading.

Written Submissions

- Any stewardship requires representation by processors no smaller than the suppliers and retailers.
- Used tyre Importers should be represented on the board of the PSO
- More information about the cost, process and criteria for registration of generators is required
- What is the process for current stockpiles of legacy tyres on business land should landfill bans be enacted?
- Support the following
 - The Tyrewise model as a mandatory Extended Producer Responsibility programme
 - The naming of tyres as a priority product under the Waste Minimisation Act 2008
 - The proposed fee collection system of receiving the fee at Customs or at the point of first registration in order to effectively capture all vehicles and reduce the administrative costs.

- Mandatory registration for all participants
- Use of the sustainability mandate in the procurement process to specify use of recycled product e.g. addition of crumbed rubber to roading. This would assist in driving end-use markets required for the processed materials.
- Should pre-processing of tyres occur and if so who should be responsible for this and would there be an incentive payable for undertaking this?
- One of the key concerns would be how far would participants be expected to go in terms of ISO14001, as this could add considerably to overheads - a way to manage this may be to provide best practice templates.

A deliverable for this project milestone is to report on any **significant concerns** raised as a result of the public consultation sessions. The Tyrewise project managers determined that there were no significant concerns raised as a result of the consultation sessions and any general concerns raised were being addressed through the business planning process (final milestone). There was general consensus from both sessions on the structure of the proposed scheme especially in regards to enactment of tyres under the WMA 2008 as a Priority Product to occur for the scheme to be successful.

A number of points raised at the sessions required further work and these have been noted as tasks in the below table. The tasks in this table will be undertaken by their assigned Task Manager, these tasks have been assigned to either the Tyrewise Project Manager, the PSO or the Programme Manager. A timeline for these tasks would be dependent on the establishment of the PSO and engagement of a Programme Manager.

Task	Significant Concern	Assigned to Task Manager
Arrange with SMRANZ to have scrap metal recyclers surveyed to understand current stockpile volumes.	No	Project Manager
Create a process for how tyres can be procured by farmers for use on silage pits.	No	PSO
Create communication tools for consumers and collection sites.	No	Programme Manager
Investigate when the amnesty is being planned what community initiatives there are that may be able to help collect tyres.	No	Programme Manager
Create a process for the de-registration of participants.	No	PSO
Release the timeline and process for businesses to register as collection sites when expressions of interest are called for.	No	PSO
Provide the criteria to act as a collection site when expressions of interest are called for.	No	PSO
Confirm if tyres are considered Hazardous Waste in the guidelines for Collection Sites.	No	PSO
Provide Transporter requirements when expressions of interest are called for.	No	PSO

Assess viability of all end use markets as part of registration process.	No	Programme Manager
Define what a product is. Relates to incentive categories	No	PSO
Work with the Auckland council regarding the change to Inorganic collections and the impact this would have on tyres.	No	PSO
The business plan should take into account all expected costs that are to be incurred by the stages of the supply chain that receive an incentive.	No	Project Manager
Consumer education programme to include information about the fee being included in the purchase price and not being an optional fee.	No	Programme Manager
PSO to provide the storage requirements for collection sites when the expressions of interest process is undertaken.	No	PSO