PET RECYCLING COMPANY NPC T/A PETCO

(Registration Number: **2004/032347/08)**

PET Industry Waste Management Plan

Draft v1.4

15 July 2018

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Draft for comment

Plastic bottles are not trash.

Call for public comment on PETCO Industry Waste Management Plan

The National Department of Environmental Affairs (DEA) issued the Section 28 Call for Industry Waste Management Plans on 6th December 2017. In response, PETCO has drafted an Industry Waste Management Plan for the PET packaging sector to shape the PET waste management industry of the future. PETCO will be submitting the Plan to DEA by 05 September 2018.

Representation by all stakeholders, members and non-members is integral to the transparency and participative nature of such a process. We invite interested parties to submit written representations or objections within the 30-day consultation period culminating on **14 August 2018**.

To view the Plan online: http://petco.co.za/petplan .

You may also contact Oscar Baruffa on petplan@petco.co.za to obtain a copy of the Plan.

Written representations, support and/or objections must be sent to: petplan@petco.co.za .

Telephonic queries can be made to 0860 147 738 (0860 1 is PET).

PETCO is submitting this Industry Waste Management Plan as part of the **Federation of Plans** submission under PackagingSA, being compiled by JG Afrika. Please also view and comment on the Federation of Plans.

Please refer to these links after 20th July 2018 for more detail.

http://www.jgafrika.com/projects/#public-participation

https://www.packagingsa.co.za/wastemanagement-plan/

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Executive Summary

The PET Recycling Company NPC T/A PETCO, is pleased to present this Industry Waste Management Plan for the PET Sector, as part of the Federation of Plans submission under PackagingSA.

Our Plan proposes the following:

1. That PETCO continues to be **governed** by a Board of Directors comprising the full value chain of the obliged industry.
2. We propose several measures to ensure ongoing engagement with the **Department of Environmental Affairs** and the **Waste Management Bureau**, including regular reporting and the establishment of an Advisory Board on which they will sit.
3. Our **product scope** covers PET Bottles and proposes extending this to Edible Oils and Thermoforms. We are willing to include PET Strapping if necessary.
4. As part of the **Federation of Plans**, PETCO will fund and conduct PET-specific activities and will fund and where appropriate, also conduct, multi-material activities e.g. equipping and training buyback centre SMMEs.
5. Our tonnage-based **targets** are to increase Bottle, Edible Oil and Thermoform rates from 65%-72%, 0%-39%, and 0%-35% respectively; and spend approx. R400m on transformation.
6. **Job creation** is a key component that results from increased recycling tonnages.
7. Our **budget** is approximately R1.5bn over 5 years.
8. We are proposing that we continue with our successful **self-funded EPR Fee model** which on average is projected to be approximately R1000/tonne of raw material. This presents the lowest risk to all stakeholders, negates the need for PET EPR funding becoming a drain on the National Fiscus, and is the most cost- efficient solution for society.
9. **Members will be required** to undertake measures to improve recyclability of their products.
10. Our **Transformation** Strategy addresses all elements of the recycling value chain and supporting environment. This includes targeting the establishment of a Black Industrialist.
11. A comprehensive **National Awareness** programme is based on our 14-year history of successfully improving awareness of PET recycling, sustainability, and the circular economy.
12. We will continue to support the PET recycling chain via our **Market Demand** programme, assisting it to weather economic downturns.
13. We will continue with supporting **Collectors** with multiple interventions including training and equipment.
14. Our **Municipal Support** programme includes budget for Material Recovery facilities, training, and skills development, and proposes establishing a framework for longer-term separation at source rollout.
15. We're proposing comprehensive **Waste Picker and Informal Sector Support** and integration.
16. We have budgeted for a **Separation at Source** funding, accessible by municipalities, collectors, waste picker groups/co-ops and other entities.
17. Ongoing formal river and beach **clean-ups** are included in this Plan.
18. Our **Industry Best Practice** programme addresses the waste hierarchy, industry and stakeholder collaboration, research & development, and design for recycling, amongst others.
19. The **regional secondary resources economy** is addressed.
20. Our plan sets out the **Roles and Responsibilities** of all stakeholders.

We look forward to engaging with stakeholders on these proposals.

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Who is PETCO?

PETCO is the trading name of the PET Recycling Company NPC South Africa. A not-for-profit company incorporated in 2004 as the PET Industry's joint-effort to self-regulate post-consumer polyethylene terephthalate (PET) recycling.

We are an industry-driven and industry-financed environmental solution for post-consumer PET. Funded by a voluntary EPR Fee paid by our members who purchase PET resin, we're proud to say that since our inception in 2004, we've helped make a truly positive impact in South Africa.

PETCO is Extended Producer Responsibility (EPR) in action. Producers of PET Bottles have voluntarily taken responsibility for their products and ensured their impact on the environment is minimised, whilst creating jobs and positively contributing to the South African economy.

Our track record to deliver results

To date, South Africa has one of the highest audited PET Bottle recycling rates in the world. We grew purchases of bottles for recycling from 9 800 tonnes in 2005, to 93 235 tonnes in 2017. This corresponds to bottle recycling rates of 16% and 65% respectively. We've grown the local beneficiation of postconsumer bottles with only a small percentage (approx. just 4% in 2017) being exported for processing elsewhere. This is a valuable driver of local job creation.

We've supported the growth of the recycling industry from 1 recycler in 2005, to 6 in 2017, resulting in approximately R1bn of infrastructure investment in PET recycling to date. We have trained thousands of entrepreneurs and supported hundreds of SMMEs with personal protective equipment, scales, cages, trailers and baling machines.

We've worked with countless municipalities, schools, local NGOs, international organisations and South African government officials, as well as other Producer Responsibility Organisations, to make interventions across the value chain and the length and breadth of South Africa.

We have achieved these results through partnerships with all these entities and many individuals. This has made a tangible positive impact on the lives of South Africans, contributed significantly to the economy, and minimised the impact of post-consumer PET on the environment.

PETCO is well-placed to continue delivering results in this next stage of South Africa's environmental legislation i.e. mandatory Extended Producer Responsibility for packaging products.

What lies ahead

The task ahead of us is framed by the requirements of the Section 28 notice for Paper & Packaging, published by the Minister of the Department of Environmental Affairs on 6th December 2017[1].

These requirements are broad and, make no doubt about it, challenging. PETCO has been dealing with many of these issues since our inception, and we believe our record of accomplishment and experience gives us a firm foundation and the expertise to tackle these challenges with the renewed commitment of stakeholders and the backing of Section 28 EPR legislation.

[1] https://www.gov.za/documents/national-environmental-management-call-prepare-and-submit-industry-waste-management-plans

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The problem of tackling waste and entrenching economic transformation is a societal issue requiring all stakeholders to do their part. In this proposed Industry Waste Management Plan for the PET Sector, we set out our plans for meeting the requirements of the Section 28 notice.

Format

We begin by setting out the proposed governance structure of PETCO NPC, the scope of products the Plan will cover, the targets we aim to achieve and budget and funding proposals.

We then present our approach to Transformation. A pivotal requirement in the South African context.

The "nuts and bolts" of the Plan are contained within several programmes which are intended to run for the duration of the Plan and are presented here.

The remainder of the Plan sets out our Regional Economy approach, Stakeholder Roles and Responsibilities and our Key Assumptions.

The final part of the Plan sets out the reference to specific items as listed in the Section 28 Call for Industry Waste Management Plans and lists the Parties to this Plan.

Approach

Our approach in this Plan is to support the entire ecosystem of recycling, represented by the schematic below and detailed in this Industry Waste Management Plan.

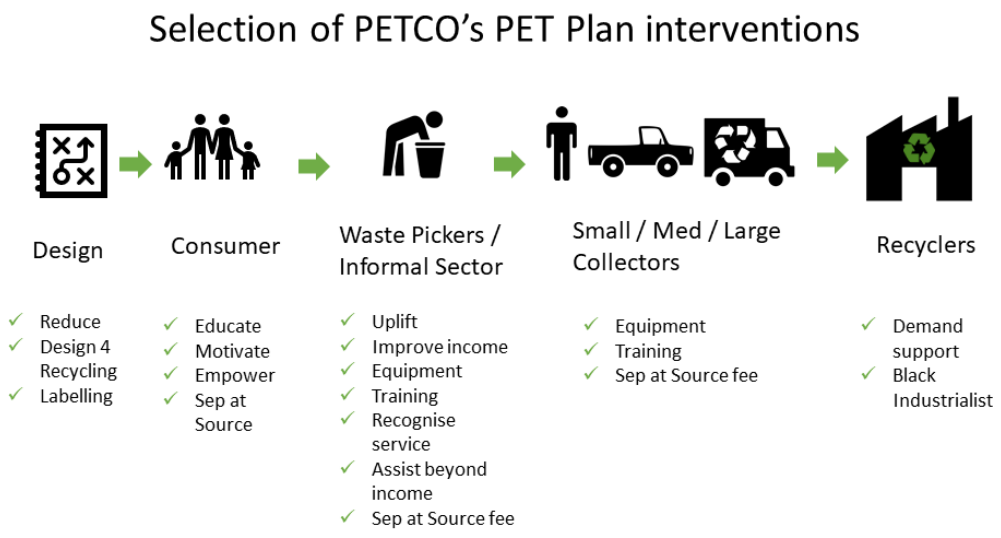


Figure 1: Activities across the product/recycling chain

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We have developed interventions for each point in the value chain. Some of these are continuations of what we have already been doing, some expand upon our existing work, and others are largely new proposals.

We address the full waste hierarchy in this document, however PETCO's focus on end-of-life solutions for PET products is recycling. In our experience, this provides the best results in terms of landfill diversion and job creation, at the lowest cost to business and broader society.

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Governance

Board of Directors

Our proposal for governance is similar to what we have currently, and that PETCO should remain as a non-profit entity.

The Board comprises producer members of the obliged industry, which also includes brand owners and retailers. This ensures that the performance of the EPR organisation is overseen by those with whom the Extended Producer Responsibility lies.

Each member of the Board is an elected representative of the sector and represents their sector (not their individual companies). Board positions are on a 3 year rotational basis, with existing and previous members able to stand for re-election.

There are two further Board-appointed positions available. These positions are made available to bring the expertise of select individuals as the need arises, dependant on the need and challenges faced by the organisation at the time. These may be representatives from the private sector, academia, government, consumer groups etc.

All Board positions (13 in total) are non-executive positions and non-remunerated. Board positions carry with them fiduciary responsibility as contained within relevant Company Act legislation, and Board members are not rewarded for their fulfilment of their Extended Producer Responsibility.

We will continue to encourage the nomination and voting of Previously Disadvantaged Individual candidates to the Board.

Advisory Board

We propose the formation of an Advisory Board. These positions will be non-remunerated but will not carry fiduciary responsibility of the Board Members.

The Advisory Board will consist of the CEO of PETCO, the Chairperson of the Board of Directors of PETCO, a senior representative from the Waste Bureau, and a senior representative of the Department of Environmental Affairs.

The Board will meet twice a year to ascertain progress of PETCO, provide advice to the PETCO Board of Directors and other activities as may be required.

Appointment of Management team

The PETCO Board of Directors are responsible for appointing the Chief Executive Officer (CEO) who is accountable to the Board, as per relevant Company Act legislation. The CEO in turn appoints the management team of PETCO.

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Appointment of External Financial Auditors

We will continue to appoint external financial auditors on an annual basis as per Company Act legislation.

Appointment of Internal Auditors

We will continue to procure the services of internal auditors for our financial support of recycler tonnages.

Reporting to the Waste Management Bureau

We propose reporting on a 6-monthly basis to the Waste Management Bureau (WMB) regarding progress for the first two years, and then once per year thereafter.

Detailed in the Industry Best Practice Section, we propose more frequent quarterly working group engagements with the WMB to co-originate and address issues facing recycling on a broader basis e.g. collection infrastructure and national awareness.

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Product Scope

Product scope to date

Since 2004, PETCO's membership has consisted solely of PET Bottle producers i.e. those who voluntary fund our activities have produced products in PET Bottle form, and we have consistently sought to recruit broader membership.

In the past, PETCO's membership consisted of those in the beverage sector only, and as more and more products are being bottled in PET, the scope of our members' products has changed to include various products in the food, household, and personal care sectors. Hence we refer to PET Bottles rather than PET Beverage Bottles, as was the case in the past.

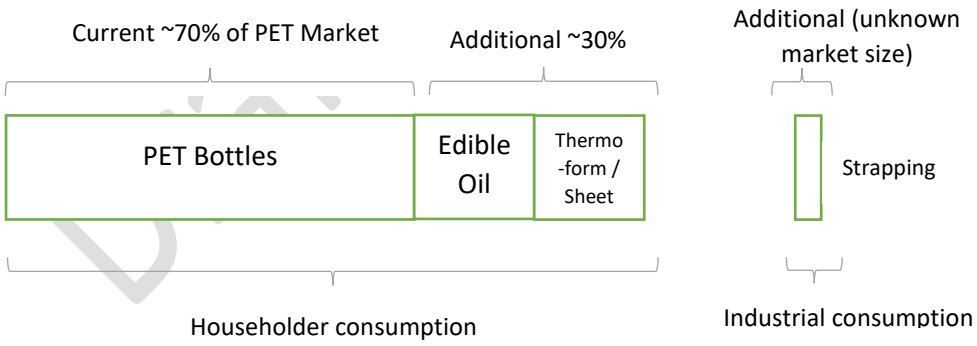
PET Bottles make up approximately 70% of the total PET market. Our recycling statistics to date have reflected PET Bottles, but from time to time we have reported on figures for the entire PET market, because we have that information and it is often requested of us.

Proposed product scope

Our Plan proposes that PETCO be responsible for all packaging products made of PET. This includes our existing product scope of PET Bottles i.e. soft drinks, water bottles, foodstuffs, household and personal care. Our current membership comprises approximately 90% of the tonnage of this sector in South Africa.

We also are proposing inclusion of edible oil products (e.g. cooking oil) and the thermoform and sheet sectors (trays, blister packs etc). These sectors have not currently elected to be part of the voluntary PETCO model.

For selected producers of PET strapping (used for tying bales, stacks of bricks, poles and other such items), we are willing to include them in our Plan. We have had a request from a strapping producer to be included in the PETCO Plan.



The solution for recycling of these additional products will lie with the current PET Bottle recycling chain. In many cases they also form an end use for PET Bottle recycling and provide a closed-loop solution.

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Integration with the PackagingSA Federation of Plans

PETCO is submitting this Industry Waste Management Plan as part of the Federation of Plans under PackagingSA.

PETCO's activities outlined in this Plan form our contribution to the Federation of Plans. There are PET-specific activities, as well as multi-material activities proposed.

PETCO will fund and manage the **PET Specific Activities** listed here, namely the Demand Support programme, Black Industrialist and PETCO's own Admin and Operating costs.

PETCO will further fund, and where appropriate may also solely or jointly manage the multi-material activities listed here. These will be referred to as "**Federation Activitie**s" in this Plan.

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Targets

Targets are presented here for ease of reference, although these are highly dependent on several factors listed in Key Assumptions – most notable being access to funding.

We recognise that:

Through PETCO's efforts since 2004, we have PET Bottle Recycling rates that are already substantial for the PET Bottle Sector. The recycling rates for Edible Oils, Thermoforms and Sheet and other items are starting off a low or near-zero base.

As for Job creation figures, we have been using calculated figures up to this point. Targets and progress will be measured via a mix of calculation, estimates and actuals as reported.

Transformation, participation in the economy and moving individuals up the value chain have been known to us, but not formally tracked for reporting purposes.

Targets all assume a 1 January 2019 start date pending DEA approval of this Plan.

Tonnages

Calculation of market tonnages consist of tonnages of raw material and preforms purchased and imported. We will need to estimate and rely on declarations for the tonnage of imported finished goods until such time as systems are in place at member organisations to record this.

Recycling tonnages processed are based on independently audited figures of post-consumer PET purchases at the gate of recyclers. We also include the exports of PET waste obtained from the South African Revenue Service (SARS) statistics services.

PET Bottles (in kilotonnes)

	2019	**2020**	**2021**	**2022**	**2023**
Waste Generated	169	183	197	213	230
Waste recycled	117	128	140	153	166
Waste Disposed	52	55	57	60	64
Recycling %	69%	70%	71%	72%	72%

Table 1: PET Bottle tonnage targets

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PET Edible Oil (in in kilotonnes)

	2019	2020	2021	2022	2023
Waste Generated	37	40	43	47	51
Waste recycled	3	6	10	16	20
Waste Disposed	34	34	33	31	31
Recycling %	8%	15%	23%	34%	39%

Table 2: PET Edible OIl tonnage targets

PET Thermoform (in kilotonnes)

	2019	2020	2021	2022	2023
Waste Generated*	53	57	61	66	72
Waste recycled	3	6	10	16	25
Waste Disposed	50	51	51	50	47
Recycling %	6%	10%	16%	24%	35%

Table 3: PET Thermoforms tonnage targets

*Note that volumes of imported finished goods may be significantly different from our estimates, thus changing market size.

Job Creation

Over 5 years, we estimate that the number of jobs in the PETCO-supported projects will grow from approximately 2400 jobs, to 3110 jobs, thus creating approximately 710 new jobs. Income opportunities are estimated to grow by 75 000.

Job creation in the wider recycling economy is notoriously difficult figure to measure, especially in the informal sector.

We are proposing to use 2018 as the baseline year, pending DEA approval of this Plan, and measure progress against this baseline. Please note methodology for each entry. There are many thousands of jobs sustained at collector level in MRFs, buyback centres, and waste management companies that are not listed in this Plan, as the numbers are unknown. We will continue working with researchers, PROs and other stakeholders to better survey and calculate the number of jobs sustained by recycling across material streams.

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Jobs from PETCO activities	Method	PETCO 2018 Baseline	Number at 2023
Recyclers	Estimated/Surveyed	1 400	1 700
Collectors (PETCO Projects)	Estimated/Calculated	1 000	1 300
Material recovery facilities	Estimated	0	80
River and beach clean-ups (formal programme)	Estimated	0	30
Total		2400	3110

Table 4: Job creation targets over 5 years

Income Opportunities - wider sector		2018 Baseline	Number at 2023
Collectors / Waste pickers (see calc below)	Calculated	70 000	145 000

Table 5: Income opportunities created over 5 years

Recyclers

Recyclers employ a mixture of full- time, permanent, contract, part-time staff and casual labour.

Our conservative estimate based on surveyed data is that FTE equivalent jobs amount to approximately 1400 at present, growing to 1700 by year 5.

Collectors – PETCO specific projects

We estimate that of our 60 or so current supported projects, that they employ 1000 FTE staff between them. Again this is a mixture of employment types. Our spend on Collectors focuses on SMMEs, and we estimate that a R500 000 spend generates approximately 20 jobs. These jobs are, however, sustained by multiple material streams, with PET often as the key stream that provides a large portion of gross profit. Of these 20 jobs, PETCO proposes to claim 5 of them as sustained jobs. Note we are excluding training spend, Separation at Source funding, formal clean-up contract and ongoing business support from this calculation.

Therefore, for every R500 000 of spend on collection businesses, PETCO calculates 5 FTE jobs will be created by PET recycling.

Material Recovery Facilities

We are proposing the funding of an equivalent of two Material Recovery Facilities, each employing 40 FTE staff, thus totalling 80 FTE jobs.

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River and beach clean-ups

We are proposing a total of 8 ongoing clean-up contracts, which between them should be able to support 32 FTE jobs.

Income opportunities: Waste Pickers and the wider collection sector

To date we have consistently used an "income opportunity" calculation figure based on the growth of PET tonnages recycled. Collectors and waste pickers handle multiple materials, and their income stems from multiple sources.

Our calculation assumes that one waste picker collects 200 bottles per day, for 240 days per year (and collects other materials). This equates to 1.45 tonnes per year of PET bottles per year (at 33 000 bottles per tonne) and is one "income opportunity". We propose continuing to use this methodology as a basis for collection of all PET products, however we recognise that a better method of job creation should be pursued.

Promotion of Small Business, Training & Development, and participation of HDIs

These targets as called for in the Section 28 notice are tightly integrated and are best reflected in the spend targets.

For promotion of Small Business, of the approximate R48m for Collection projects, 80% will be spent on small businesses over 5 years.

Our Training and Development spend across Collectors, Waste Pickers and Municipalities is approximately R10m over 5 years.

Participation of Historically Disadvantaged Individuals. Throughout our plan, we highlight transformation opportunities as part of our Transformation Strategy.

1. We are targeting approximately 26% of the PETCO Budget on Transformation spend.
2. Target the establishment of a Black Industrialist / black-owned recycler or other value-added activity.
3. Our Collector projects target is 90% spend on black-owned companies / co-ops.
4. Waste Picker spend is almost exclusively on HDIs, although we will not exclude non-South Africans.
5. Contracted River and Beach clean-ups will prioritise employment of HDIs.
6. HDI researchers prioritised for our research spend, particularly at Master's level.
7. Encourage PETCO's obliged industry members to nominate HDI's to represent them on the Board of Directors.
8. And other measures as highlighted through this Plan.

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Budget

The cost of administering the PET Industry Waste Management Plan is presented below.

We recognise that it is important to keep the administrative cost as low as possible, and that PETCO maintain a not-for-profit status. This ensures that the maximum amount of funding made available for recycling flows to the recycling value chain and achieves the desired results.

Note that this budget assumes a start date of 1st January 2019 pending DEA approval of this Plan.

Our budget comprises the funding of our PET-specific programmes and of funding and execution of multi-material programmes as part of the Federation of Plans.

Please see the *Integration with PackagingSA Federation of Plans* section for info regarding PET Activities and Federation Activities.

All in Millions ZAR		2019		2020		2021		2022		2023
Income / Revenue	**R**	**193.2**	**R**	**276.0**	**R**	**303.7**	**R**	**358.8**	**R**	**379.9**
Expenses	**R**	**193.2**	**R**	**276.0**	**R**	**303.7**	**R**	**358.8**	**R**	**379.9**
PET Specific Activites (subtotal)	R	128.1	R	171.4	R	224.9	R	236.2	R	283.4
Demand Support	*R*	*107.6*	*R*	*149.6*	*R*	*172.7*	*R*	*212.5*	*R*	*258.1*
Black Industrialist	*R*	*1.0*	*R*	*1.0*	*R*	*30.0*	*R*	-	*R*	-
Admin and operating	*R*	*19.5*	*R*	*20.8*	*R*	*22.2*	*R*	*23.7*	*R*	*25.3*
Federation Activities (subtotal)	R	65.1	R	104.6	R	78.8	R	122.6	R	96.5
National Awareness	*R*	*25.0*	*R*	*26.5*	*R*	*28.1*	*R*	*29.8*	*R*	*31.6*
Collection (Collectors, Waste Pickers, Municipalities, Sep at Source)	*R*	*34.1*	*R*	*71.6*	*R*	*43.9*	*R*	*85.4*	*R*	*57.0*
Other projects incl R&D	*R*	*6.0*	*R*	*6.5*	*R*	*6.9*	*R*	*7.4*	*R*	*7.9*

Table 6: PETCO 5-year budget

Transformation Spend

The total transformation spend of the PETCO plan is approximately R394m, or 26% of the budget.

The Demand Support programme underpins the entire recycling value chain and is required in order for all other activities to be sustainable. When considering the Transformation spend as a percentage of the PETCO budget (not including the Demand Support programme budget), then the proportion of Transformation spend rises to approximately 60% of this portion of the budget.

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Financing

It is understood that adequate, long-term, secure and timely financing of PETCO is crucial to the organisation fulfilling its obligation of behalf of producers, fulfilling the mandate of the Department of Environmental Affairs, and sustaining thousands of existing and new jobs.

We recognise that:

1. Producers should fund activities which are carried out to fulfil their Extended Producer Responsibility obligations.
2. Most producers do wish to fund these activities (as evidenced by PETCO's history). A minority do not.
3. The mandate of the Department of Environmental Affairs to maintain and improve the state of the environment is pressing, whilst creating jobs and transforming the economy.
4. The financing mechanism chosen can have a major negative financial impact on producers themselves, consumers of the products in question, and society who may be left with the problems associated with waste.
5. PETCO is already self-sufficient in terms of raising funding – and to date has not required any Government assistance.
6. PETCO does not wish to become a drain on the national fiscus and to be reliant on state resources for its operation.
7. National Treasury does not ring-fence funding.
8. Any taxes imposed on the basis of the Section 28 EPR legislation would be collected via the South African Revenue Service, then be disbursed by National Treasury. Funds may then be passed on to the Department of Environmental Affairs, who may then pass it onto the Waste Management Bureau, who may then fund organisations such as PETCO.
9. National Treasury has indicated that with existing obligations (i.e. not considering the funding of PETCO), there is an estimated revenue shortfall of many billions of rands over the foreseeable future, and it is irresponsible to ignore the risk that funds flowing into National Treasury will be diverted to existing national expenditure obligations, rather than find its way back to Producer Responsibility Organisations (PROs) via DEA and the Waste Bureau.
10. National Treasury is actively seeking additional revenue streams to fund the current deficit.
11. To date, there have already been 2 recycling schemes (Buyisa-e-bag and REDISA) which were neither run nor self-managed by the obliged industry and both have failed.

For these reasons, we believe it is a considerable risk to the DEA's and PETCO's mandate should PETCO lose access to its funding mechanisms and be required to rely on state funding for operation. The risk of substantial negative effect of additional taxes on producers and consumers, with consummate risk in PETCO not realising its funding requirements, is also very high. The risk to disruption and reduced income and job losses within the collection and recycling value chain is also high.

PETCO proposes to continue raising an EPR Fee directly from its members. This amount is applied to the raw material and pre-form purchases, both locally produced and imported. PETCO has been able to do this successfully since inception in 2004.

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With regards to finished imported goods, importers will pay the equivalent EPR fee to PETCO based on the material composition of the product. Importers of finished goods may opt to pay the full fee to the Federation of Plans, who in turn will pay the PET EPR over to PETCO.

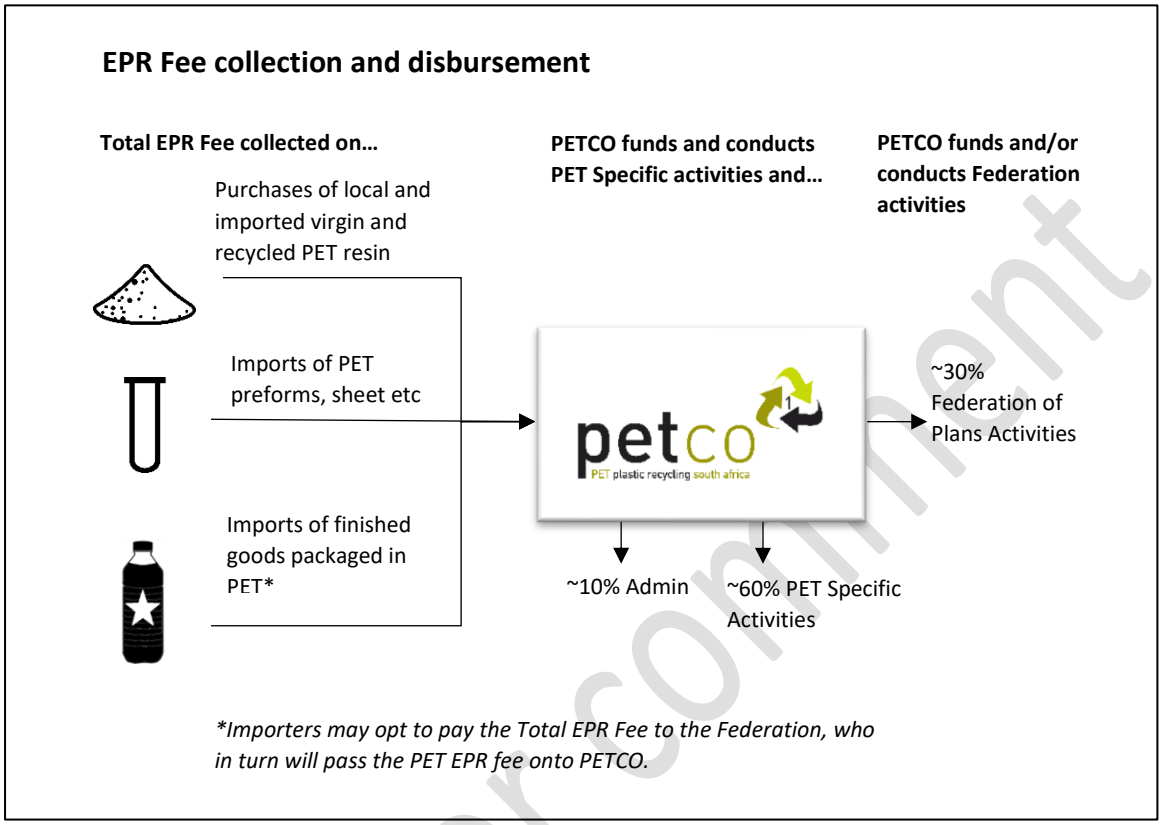


Figure 2: Funding flow of collected fees

	2019	2020	2021	2022	2023
Total EPR Fee Bottles	R 901	R 1 189	R1 169	R 1 185	R 1 071
Total EPR Fee Edible Oil	R604	R830	R 989	R 1 250	R1 255
Total EPR Fee Thermoforms	R 740	R 966	R 1 019	R 1 295	R1 538

Table 7: Differentiated Fees based on product category

Note that these fees assume a start date of 1st January 2019 pending DEA approval of this Plan.

We are proposing differentiated fees based on product category, broadly divided into Bottles, Edible Oil and Thermoforms. The reason for differentiated fees is that the Demand Support required to support recycling of these products varies, and the recycling rate for each category varies as well. The recycling of Edible Oil bottles and Thermoforms is costlier than of bottles, however their recycling rates start from effectively zero tonnes, steadily growing to include a greater proportion of the total tonnage placed on the market. As their recycling rates approach those of PET Bottles, their higher cost of recycling starts to reflect in later years.

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The EPR Fees collected on all products are jointly and evenly used to fund all programmes outside of the Demand Support Programme. It is only for the Demand Support programme where costs are apportioned to reflect the differentiated cost of providing support to the PET recycling value chain for the product category. This will incentivise designers of those products to improve the recyclability of those products, in order to reduce the Demand Support required and thus reduce the EPR fee for their products.

As noted in the Member Requirements section, where designs of specific product lines prove to be consistently difficult to recycle, then PETCO may raise the fee on those products within a category to compensate for the additional Demand Support they require. An example may be bottles that are highly pigmented, or that have labels that are difficult to remove etc. In all instances, we will seek to provide producers with the opportunity to improve recyclability prior to implementing higher EPR fees. It must be stressed that PETCO's overarching mandate is to ensure the success of the PET Industry Waste Management Plan for the benefit of all its obliged industry members, broader society and the environment.

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Membership Requirements

The role of members is crucial in an EPR scheme, and having members engaged is a key element in an EPR scheme's success. This is another factor why we believe a self-funded EPR fee collection is so important. Members are more likely to be engaged where they see a direct link between their actions, the performance of the PRO and the fees that they pay. This also results in products that are better designed to meet recycling criteria and sustainability considerations.

Payment of the EPR fee

This is also described under the *Budget* section.

Those companies who purchase PET Resin (both virgin and recycled) or preforms will pay the EPR fee to PETCO on a rand/tonne basis, as has already been happening since 2004 from our voluntary members which represent approximately 90% of the volume of the PET Bottle market in South Africa.

Those who import finished goods (such as retailers) will pay the equivalent fee on those products on a rand/tonne basis of the weight of the packaging portion of that product. We understand that many who import finished goods may not have the systems in place currently to accurately track or measure the PET content of goods. We propose that for the first 3 years of the PET Plan's implementation, that importers of finished goods declare to us the number of products and weight of PET packaging imported and pay the EPR fee on this declaration. Importers may also opt to pay these fees to the Federation of Plans, who in turn will pass the relevant funding to PETCO. This will allow for systems to be put in place to record the packaging composition and payment to PROs more accurately for the remaining 2 years of the Plan, and the years thereafter.

Differentiated fees will apply to more difficult to recycle products i.e. thermoform and sheet products, edible oils and bottles which have pigment, difficult to remove labels and so forth.

Product Design

This is further described in the *Industry Best Practice* section.

Members who have difficult to recycle products, or whose products, by the nature of their design, are deemed to undermine the success of the PET Plan, will be required to provide PETCO with a plan of how the design of these products will improve in terms of their recyclability. This plan will include timeframes and milestones. Failure to improve products may result in higher EPR fees applied to those products to ensure they receive the necessary financial support to be recycled.

Members who regularly introduce new products which are difficult to recycle, may have higher EPR fees applied to all their products to ensure that the necessary financial resources to recycle those products are raised.

Product labelling

In some cases, such as with thermoforms, there is not an existing recycling economy in place, and one will need to be developed. This will require differentiation of recyclable vs non-recyclable

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products. Recyclable thermoform products will need to carry a logo or other marking that is easily identifiable by consumers and collectors to ensure they enter the recycling stream, and that currently non-recyclable products do not. This labelling requirement will also carry an additional accreditation process and carry a license fee – the latter to cover the costs of the auditing and accreditation process. PETCO will develop this labelling together will its members and other PROs under the Federation of Plans.

For other products, we will work with our members to adopt on-pack recycling information, such as the On Pack Recycling Logo (OPRL), or similar systems such as is being carried on some South African products. This labelling system informs consumers about whether to recycle an item or not and how to do so. Such information is more useful than having consumers remember Polymer Identification codes or other such systems which don't necessarily reflect recyclability. Below is an example of such labelling by one of PETCO's current retail members, Woolworths.

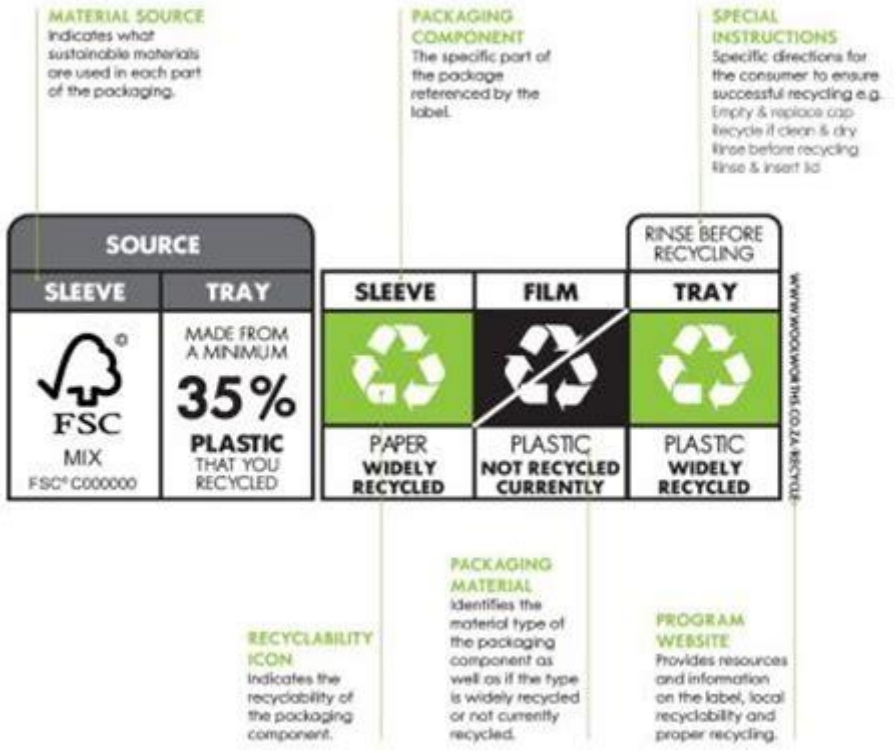


Figure 3: Example of on pack labelling

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Member plans and targets

Under the PET Plan, producers who are members of our Plan may need to produce 5-year plans detailing efforts with regards to reduction, design for recycling, use of consumer labelling and use of recycled material. This application of such a requirement will be determined by the impact of a product's design on the recycling sector.

These plans will have targets and will be periodically reviewed by PETCO to ensure members are contributing to the overall success of the PETCO Industry Waste Management Plan.

Consistent failure to meet objectives or show significant improvement may result in a number of corrective measures to be undertaken by PETCO.

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Transformation

Transformation is an imperative in the South African economy. PETCO's approach is promote transformation across the recycling value chain, and into the wider EPR scope of work.

We recognise that a diverse range of people have value to add to the collective development of South Africa, and all should have equal opportunity to participate in its development. It will ensure robust and sustainable growth of the recycling economy and will serve to support a broader cross section of South Africa, benefitting all who call it home, particularly for the previously disadvantaged and is in line with the National Development Plan.

Transformation Strategy

Our Transformation strategy is to look at every component of the recycling value chain and the implementation of our Plan, and to ask the question: "How can we drive Transformation here?"

You will see throughout the plan that we highlight where additional Transformation opportunities exist.

Recycling

A key aspect of Transformation in this PET plan is to target the introduction of a new, black-owned recycler. The nature of PET recycling is that they are often large-scale, capital-intensive businesses and the most successful have come from a long line of recycling expertise built up over generations.

To maximise the chance of success of a new, black-owned (at least 51%) recycler, we will seek a partnership with the DTI's Black Industrialist programme with PETCO as the Subject Matter Expert to secure the necessary capital outlay for such a company. We envisage providing the black-owned recycler with an additional financial support, over and above the applicable financial end-use support that they would receive as a recycler. This may be for specific time period, or for a certain tonnage, or as a once off contribution depending on the needs of the business. This will further de-risk the business and assist it in the crucial early stages.

We must acknowledge that setting up companies, including new recycling companies, is extremely difficult, even when the economy is good. With this noted, we will also explore the establishment of black-owned, value added companies within other parts of the value chain should the establishment of a Black Industrialist in recycling provide to be unviable or not be able to attract investors. A key driver of recycling is demand throughout the chain, and we believe opportunity exists to establish a Black Industrialist even further up the value chain i.e. a producer who uses recycled material as input to make strapping, textiles etc.

Further to driving the establishment of a black-owned company, we will require all existing recyclers to put forward a transformation plan of their own.

Collectors

We will continue to support the efforts of new and existing collection businesses and buy back centres. Our approach is to provide training and equipment, as well as business support. We have a package of interventions depending on the size of the collector, with each intervention designed to move the business up a level – from small, to medium to large in terms of monthly tonnage. We

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also ensure that collection businesses have a market to sell to, by supporting their customers to purchase their material via our Demand Support programme. Steady and continued growth of demand underpins the sustainability and growth of collection businesses.

For this five-year period, we will concentrate most of our Collection Funding on small and medium businesses and will target a of spend of 90% on black-owned businesses.

Waste Pickers

Waste pickers form a link in the value chain as crucial as any other. Their needs are varied and urgent. No set of interventions can be crafted without their input. We recognise that PETCO has a crucial role to play in their Transformation to be more successfully integrated into the recycling value chain.

Firstly, we ensure continued growth of the PET recycling market and demand for waste pickers' products via our Demand Support programme. Without this continued demand, all other interventions are at high risk of failing.

Secondly, our interventions are aimed at increasing waste pickers volumes whilst operating in a safer environment. Apart from increasing incomes by supplying training and equipment, we need to address several additional challenges that waste pickers face. To this end, we are proposing that funding is spent on providing access to market information, establishing more Waste Picker Associations, providing a platform to access Social Services and health care such as mobile clinics.

Our interventions are designed to allow waste pickers to grow their tonnages and start accessing the interventions we have identified in our Collectors programme, and thus start fully integrating into the economy. We feel this is the best way to uplift this sector of the economy.

Separation at Source Funding

In our budget, we are setting aside a substantial portion of funding to contribute to separation at source programmes. These funds will be open to municipalities, waste management companies, collectors, and organised waste picker entities (e.g. in co-op's) who are running separation at source programmes. It must be noted that our approach is to get waste pickers organised to the point where they can be considered Collectors as per our above programme, who can then be developed to the point of being "tender-ready" and are able to render separation at source services to residents. A good example of this is the Vaalpark Separation at Source pilot project in Sasolburg, Free State. We will target a 90% spend on black-owned businesses.

Skills Development

We believe transformation incorporates skills development as a key element to equipping South Africans with the necessary tools to empower themselves whilst enabling the recycling sector to grow.

Further to the training proposed in the Collections and Waste Picker programmes, and the Subject Matter Expert support that PETCO will provide to the Black Industrialist, we propose several internship programmes to broaden the pool of skills available to the recycling and EPR industry.

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PETCO will have its own internship programme to expose young professionals to the work that we do and our method of carrying our programmes with high impact and integrity. We will also facilitate internships with our recycling partners and collector beneficiaries to give people hand-on experience on the sorting and processing side of the recycling value chain.

We're also proposing several skills development initiatives with municipal officials, further detailed in the relevant section of this plan.

PETCO's internal transformation

PETCO currently has a level 8 BBBEE score, and we will target an improvement to level 4 by the end of the 5 year period.

PETCO's BBBEE score was verified in 2017 by Empowerdex. Where we score exceptionally well is in Enterprise & Supplier Development, and Socio-Economic Development. Our Skills Development Scoring could do with much improvement and we are already targeting improvements in this area. This is where a bulk of our improvement will practically come from. Management & Control (a smaller contributor to the overall score) can also be improved, although we look to maintain low staff levels and low staff turnover within PETCO to reduce overheads and maximise funding that flows to the recycling value chain. We will target improvements in this area and have been steadily doing so for some time. We will continue to encourage our members to nominate Historically Disadvantaged Individuals to represent them on the PETCO Board of Directors. Our Ownership score is not applicable.

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National Awareness

PETCO aims to increase consumer participation in recycling activities, litter collection and awareness initiatives in order to increase support for the current and future collection and recycling of bottles and ultimately the number of new collectors.

Aware consumers can also help drive responsible and sustainable behaviour up the value chain, e.g. by demanding products containing increasing percentages of rPET and by demanding products that have been designed with recycling in mind.

PETCO's vision is that capacitated, empowered consumers know about PET and know that it is recyclable and safe to use; they understand the potential and value of PET and recycled PET (rPET); they use their influence and buying power to drive positive recycling behaviour through demanding products containing recycled content.

PETCO's Theory of Change (ToC) to achieve this vision is as follows: By having more consumers aware of recycling initiatives and opportunities for their participation, they will create an enabling environment for collectors (e.g. investing in collection bins; engaging in separation-at-source; supporting existing collections programmes), as well as potentially becoming collectors themselves. A ToC is important as it assists with monitoring and evaluation through articulating expected processes and outcomes that can be reviewed over time.

Thus, PETCO's primary focus will be to increase consumers' access to accurate information about PET recycling, both within the South African context and internationally, and increasing their knowledge of recycling and the mechanisms by which they can participate in the recycling process. By increasing their access to knowledge and information, PETCO aims to motivate increasing numbers of consumers to participate in collection and recycling behaviour.

PETCO recognises the importance of building national awareness for the long-term sustainability (socio-economically and environmentally) of the South African PET industry. Growing awareness and consumer education makes it possible to move from a throwaway culture to a recycling culture.

We will continue our support for the #Thuma Mina Green Deeds campaign in partnership with the Department of Environmental Affair to combat illegal dumping and littering and promote a clean and beautiful South Africa.

School and University engagement

PETCO will actively encourage, support and contribute to the education of learners (both secondary and tertiary) through national schools' recycling competitions and schools' collection projects undertaken with our partners. Furthermore, as part of a cohesive overarching outreach strategy, PETCO will visit tertiary educational institutes, schools, communities and environmental organisations to create awareness around the proper handling of plastics and PET recycling.

Programmes and competitions will be run at schools and universities, through our recycling and sustainability partners, to instil in youths and adolescents the importance of the sustainable utilisation of environmental resources, which is critical for efficient and effective long-term waste management.

Furthermore, PETCO will organise exhibitions and workshops that promote awareness of PET recycling. PETCO will also develop resource materials, such as fact sheets, videos, presentations and digital media for download and general consumption.

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Providing Awareness Materials and Toolkits

Utilising an assortment of communication tools and platforms, PETCO will promote awareness of PET recycling and the sustainable utilisation of environmental resources. This will be done both independently and in partnership with other organisations.

Fact sheets to support consumers and partners will be produced covering a range of topics (from a Basic Collector's Guide to a University Guide to a Guide to start your own Swop Shop). We will also work to support those involved in the development, design, marketing and procurement of PET packaging with specific guidelines on design to facilitate recycling.

Clean-up campaigns

PETCO will organise and support existing clean up and litter awareness throughout South Africa. Through key partnerships with Plastics|SA as well as other NGOs, local business, government agencies and municipalities, specific clean up campaigns will be organised and promoted in targeted areas across the country. PETCO will provide funding towards necessary equipment and supplies for these clean up campaigns, such as bags, to support the recycling activities. We will also, through our partners, support the collection of the waste materials once these clean up campaigns have been completed.

Note these campaigns are in addition to the formal, ongoing clean-up efforts listed in the Cleaning Up section.

Consumer Incentives

PETCO will investigate invectives to encourage further participation in clean-ups and other community activities, such as using airtime and other reward-based systems.

National Consumer Awareness Strategy

Ultimately, the PETCO National Awareness Strategy needs to result in shifting the behaviour of the South African consumers towards embracing more sustainable practices. Awareness and motivation must be coupled with an easy pathway to bring about the desired change.

Our National Awareness programme lends itself to collaboration with other PROs and the Waste Management Bureau via the PackagingSA Federation of Plans as well as initiatives from other private and public-sector organisations.

By creating awareness and unlocking collections, this improves the supply of PET (and other materials) into the secondary resource system.

Awareness campaigns are carefully designed, planned and executed to achieve the greatest impact and achieve specific objectives. In the case of our awareness programme – it has also been designed to leverage the work being done in our other programmes.

PETCO has extensive experience in running awareness campaigns for the last 14 years with much success, consistently achieving multiplier effects on our advertising spend. Our Awareness programme will build on this success and covers the following channels:

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- Publicity – via Digital, Print, Radio and TV exposure
- Newsletters to our ever-growing database
- Dissemination of Facts Sheet and How To Guides
- Running competitions across various platforms
- Traditional advertising campaigns
- Promotional events
- Clean-up campaigns
- Implementation of Reverse vending machines

Various Schools programmes form an integral part in the education spectrum of the National Awareness programme.

The programmes and initiatives can be broadly grouped into one of 3 areas, each supporting the other and linking overall to PETCOs EPR and ED objectives.

Responsible Disposal

This thematic area addresses two distinct concepts: that of Recycling and the Anti-littering message.

Recycling is nuanced and requires a good mix of messages for “at home” and “out of home” responsible disposal – largely with the end-goal of recycling in mind, however recovery will grow in significance in the future.

Anti-littering refers to more than just Packaging and is a societal issue. However, PETCO acknowledges that packaging littering is an issue and PET products remain more visible than most and there are many benefits to be gained when delivering the anti-littering message.

Responsible Action

This thematic area addresses another key concept: that of engaging action within communities. Information resources will be leveraged here to deepen the impact of activates focussing mainly around clean-up campaigns.

Clean up campaigns and other Responsible Action items will be used to monitor littering and other information to improve the data-driven decision making at Industry, national and Policy levels.

We will also closely tie this into our work with the Marine Waste Network.

Responsible consumption

Education consumers on responsible consumption of products is often left out of many awareness campaigns, however it is the keystone of the circular economy. The main driver of these campaigns is to inform consumer to buy materials which are not only recycled, but also contain recycled content. Driver consumer demand for recycled content in turn drives the entire recycling value chain.

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An additional element to this is providing awareness and education regarding over-packaging (although this is less of a problem in South Africa) and the drive to purchase less (although again, there is less of a need among many of our population to purchase less).

The On Pack Recycling Label system is a key component is the responsible purchasing agenda. See the member Requirements section for more information.

This thematic area is best described as “make informed purchasing decisions”.

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Market Demand

Introduction

For any recycling economy to function, there must be market demand for the materials collected.

This fundamentally underpins all other efforts.

Without a demand for the material, it will not matter how much separation at source takes place, how high the participation rates are, how recyclable the products are, or what our transformation strategy is.

Ensuring market demand is the key component of our Plan. The key stakeholder in our Plan must therefore be the PET Recyclers i.e. those companies who take post-consumer material and re-process it to make new products, of which we currently have 6 in South Africa.

The problem recyclers face

Recycling is a commodities-based business. Recyclers of PET sell products whose price is ultimately governed by global commodity prices. As such, there are periods when it becomes uneconomical to recycle, and recyclers are forced to lower prices for their raw material (e.g. post-consumer bottles) to such a point that collectors may stop collecting them.

Financial support of the recycling value chain

Since PETCO's incorporation, we have supported the growth of the recycling value chain by channelling support for the chain via recyclers to enable it to weather economic downturns. We use a variety of support mechanisms, but all are premised on assisting the recycling more when times are bad, and less when times are good – thus ensuring we do not over or under-support recycling and our financial spend remains efficient and effective.

Support is also provided on a long-term basis of 5-year contracts with recyclers, and all products within the same end use market (e.g fibre, foodgrade etc) receive the same support across recyclers to ensure level playing fields. Support is provided on the basis of post-consumer PET purchased, and thus funds are only received by recyclers in arears and upon fulfilment of PETCO's mandate.

This "safety net" allows recyclers to plan ahead, build capacity and invest in collection networks, whilst still paying market-driven rates for collected material. This support is crucial to maintaining networks during periods of economic downturns, which recyclers often face. This support is what has helped collectors' market for their PET product grow from under 10 000 tonnes in 2005, to approximately 100 000 tonnes in 2018, whilst also fetching higher prices for their material.

Collection of PET products will continue to take place on a national basis.

We have currently contracted with all of South Africa's PET recyclers to provide recycling services and are in the process of renewing these contracts for the next 5-year period to coincide with the period of the Industry Waste Management Plan.

Transformation opportunity: We are targeting the introduction of a Black Industrialist into the PET Recycling system, likely either as a recycler or end user, by the end of the 5 year period. PET Recycling is characterised with high capital cost and skill requirements, and we will need to engage

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with organisations such as the Department of Trade and Industry's Black Industrialists Programme for capital and existing recyclers for skills development and technical partnership. As per our Transformation Strategy, we will not discontinue our efforts should the establishment of a recycler be unviable, as we will seek other opportunities in the value chain, including the extra value added end use markets such as strapping, textiles etc.

Development of end-use markets

A growing recycling economy benefits from increasing its mix of end-use markets. Since 2005 we have had a large end use market in the polyester fibre sector (used for making shirts, duvets, pillows, roof insulation etc). Since 2009 we have had a growing foodgrade and bottle-to-bottle sector which now accounts for almost half of all processed tonnage. South Africa now has two bottle-to-bottle grade factories, an outstanding achievement globally.

Foodgrade and bottle-to-bottle recycling allows for us to continue moving to a fully circular economy, however alternative end use markets still need to be developed to ensure a home for all PET products, as not all are suitable for closed-loop recycling.

It is worth noting that the production of thermoform packaging (e.g. trays and punnets) in South Africa has for a long time been an end use market for PET Bottle recycling and contains high levels of recycled content – thus reducing the need for virgin raw materials to begin with.

Alternative mechanical recycling developments

We are supporting an increasing number of PET strapping producers, as well as seeing recyclers producing PET tiles, hair extensions and other such products.

The production of pallets for the fruit export market is an exciting potential development, as it has the potential for fairly large volumes of recycling of more difficult to recycle bottles (such as heavily pigmented bottles), as well as thermoforms and sheeting which have not been recycled to date.

Energy Recovery

Utilising post-consumer PET for energy recovery does have its place in the waste hierarchy. Whilst we recognise that this is a solution of last resort, we must be aware that it may be necessary and may need to adopt it during the 5-year plan.

Our plan for all products is to drive their development to be recyclable (e.g. design for recycling) however some products, particularly with regards to imported finished good in thermoforms, sheets and blister packs may be more suitable for energy recovery than for recycling in the short term. Such a project will be done jointly with other plastic and packaging streams as the energy recovery facilities will use a range of input material.

For the first 5 years of the Industry Plan, we will avoid utilising waste to energy if at all possible, as it falls lower down the waste hierarchy and we will seek to achieve our targets without utilising it.

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Recycler numbers and registration

By our nature of supporting recyclers via service contracts, we have them registered as vendors.

There are currently 6 PET recyclers in South Africa, and we estimate that this will grow to between 7 and 9, depending on the size of recyclers that are established and by how much existing recyclers can expand.

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Collections, Sorting, Storage and Transport

PETCO's Collection, Sorting, Transport and Storage Programme builds on years of experience in a wide range of projects also known as our Visible Recycling projects.

Our Industry Waste Management Plan is to build on these successes, experiences and networks to amplify the work in this sector and provide a holistic approach to the full value chain.

Together with our public and private stakeholders, PETCO sees the role of training and mentorship of collectors as being critical, as well as supplying entrepreneurs with equipment-- specifically to improve their working conditions and assist them to grow and sustain their businesses.

These programmes focus on the development of PDI-eligible entrepreneurs and SMMEs but does not exclude non-PDI individuals and businesses. We recognise the value all businesses and the employment opportunities they create when their businesses grow.

The combination of training, provision of equipment & infrastructure and ongoing support allows us to assist entrepreneurs to move up the value chain and become sustainable businesses able to supply the growing demand for recyclable material.

Collector Training

PETCO'S Training vision is to make quantifiable and sustainable impact on the economy by promoting viable growth of small enterprises focusing on youth and women.

Together with our PRO partners and the International Labour Organisation, we've developed a training programme that takes entrepreneurs from the very basics of waste collection and sorting, through to more advanced concepts of business development and marketing.

The training occurs over 3 phases and entrepreneurs are taken through it over several years. We use and will continue to use accredited training providers, prioritising the appointment of transformed service providers.

Equipment & Infrastructure

The provision of equipment to entrepreneurs and SMMEs follows the same pattern as training. When collectors are processing small volumes, we provide them with basic equipment like Personal Protective Equipment, Scales, Trolleys and Cages.

As they grow, we provide them with trailers or small balers. As they grow further, we provide high-growth potential projects with weighbridges or large balers.

Ongoing support

Once we provide equipment, and in many cases the training alongside that, we monitor projects closely to track their volumes and determine whether or not they are growing. This helps us identify barriers to growth and we intervene where possible. Interventions range from providing further

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training or equipment, speaking to recyclers about off-take of material or working with local municipalities or other authorities where issues occur regarding land or waste access.

Material Recovery Facilities

Material Recovery facilities can be of the large, high capital-intensive variety (R250+), or of the medium sized capacity (~R30m) or small buyback centre with sorting facilities (R7m).

The range, scope and nature of interventions requires coordination with municipalities over the five-year period, including a legal framework for intervention in separation at Source (discussed in the Municipal Support section).

In the interim our Plan for MRFs consists of allocating funds for such interventions which will be used to fully support a few MRFs, or more likely partly fund multiple MRFs together with other PRO's under the Federation of Plans.

Integration of the informal sector

All of our interventions with collectors, SMMEs and establishment/growth of MRFs will require an assessment of the waste picker and informal sector activity in the area, and we will work with supported projects (if these aren't waste pickers themselves) to design their inclusion into the growth of the business. This may include direct employment or ensuring there is no negative impact on livelihoods as a minimum.

Where we don't fund projects directly, but are aware of projects being implemented, we will seek to do the same assessments to minimise the negative impacts on waste pickers and aim to improve their situation overall.

Measuring Progress

The nature of waste collections means that collectors often work with a range of materials to remain viable. We will collaborate extensively with other PROs to ensure measurement and reporting of job creation, transformation and upliftment of the informal sector is completed in a way that ensures double-counting across material streams does not occur.

Transporters and Storage facilities

Transport of post-consumer PET waste does not require specialised vehicles or other infrastructure, and we find that many transporters of PET waste transport many other types of waste and goods.

As such, we have no specific interventions for transporters, as the role they play falls within the space of national logistics and does not require special intervention or support from PETCO as an EPR organisation to fulfil its function or meet our mandate.

PETCO does not foresee that waste transporters or storage facilities will need to register with PETCO for the Plan do be effected, but they may do so if they wish.

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Number of collectors, sorters and storage requirements.

It is quite difficult, and largely unnecessary, to know how many of these are required. With regards to collectors, they often work in multiple material streams, and the numbers that can be accommodated depend on the size that are established and how they grow – both impossible to predict. As mentioned, transporters are not solely transporters of waste, and storage facilities are largely unnecessary beyond that of the collectors and recyclers themselves.

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Municipal Engagement and Support

Background and status quo

Municipalities face challenges on many fronts and many will argue that waste management has received relatively little attention and funding. The 2016 Community Survey from Statistics South Africa reveals that approximately 62% of households receive a weekly solid waste collection service. The remainder largely receive service via a central collection point or communal dump – or no service at all.

Basic waste management has a long way to go to ensure all South African residents and business are adequately serviced, and in the interim the issue of Separation at Source (i.e. the collection of separated recyclable material from households) must find its way alongside this.

An excerpt from DEA's Separation at Source Status quo report indicates that:

"The outcomes of the municipalities" state of readiness assessment indicate that all the eight metropolitan municipalities are ready to implement separation of waste at source. From the seventeen (17) returned questionnaires from secondary cities, eight were found to be ready to implement S@S and the remaining nine (9) are not ready. The reason for the nonreadiness of the nine municipalities in attributed to the fact that collection is still not provided to the whole municipality, there are no bylaws on waste, there is no human and financial resources allocated to waste management."

Very few homes currently receive a Separation at Source service of any kind, but it is recognised that separation at source can yield better quality recyclable material in greater quantities. The main barrier for municipalities and private industries alike (and indirectly, by citizens and consumers) is the cost to do so.

Besides the cost, another issue that must be addressed is the legal aspect of who owns the waste at the household level, and who is responsible for it. Municipalities have the constitutional mandate to ensure that waste is collected and disposed of. Producers, via the Section 28 Call for Industry Plans from the Department of Environmental Affairs, will now have a legal obligation for the end of life solutions for that same waste at household level. We recognise that there is potential conflict or overlapping of mandates in this regard.

Engagement and support interventions

We propose the following initiatives and interventions to adequately address municipal support and separation at source over the short term (5-year Plan period) and the medium to longer term (5-10 years and beyond).

Development of a Municipality-Industry Post Consumer Packaging Waste Framework

We propose that a framework be developed together with the Waste Management Bureau, the Departmental of Environmental Affairs, the South African Local Government Association, and municipalities to:

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- Clarify legal aspects of our legislated mandates, include roles, responsibilities, and ownership
- Set forth methodology for how and when Separation at Source is implemented
- Identify the selection procedure and timeframes for implementation

This framework must be completed by the end of the initial 5-year period to enable the next set of 5-year plans to incorporate it.

In the interim, we propose direct interventions, detailed below.

Provision of Material Recovery funding and/or infrastructure

As detailed in the Collection, Sorting, Transport and Storage section, PETCO will allocate funding for the provision of infrastructure and equipment for Material Recovery Facilities. The project funded will need to be co-ordinated with municipalities.

Transformation opportunity: MRFs to be run/staffed by PDIs.

Separation at Source Funding

In our budget, we are setting aside a substantial portion of funding to contribute to separation at source programmes. These funds will be open to municipalities, waste management companies, collectors, and organised waste picker entities (e.g. in co-op's) who are running separation at source programmes.

This fund will be pooled into a Federation of Plans Fund, or may be administered directly by PETCO.

Training

We have seen a large appetite for training on recycling from municipalities. PETCO has had many engagements over the years, and we will continue this valuable practice where the need is identified.

Our training of municipal officials equips them with knowledge of the industry, and how to better support collectors and the informal sector in their jurisdiction.

Transformation opportunity: Training to be completed by BBBEE accredited trainers.

Formal Education

In order to adequately deal with the challenges facing solid waste management, recycling and separation at source, we believe strongly in upskilling the individuals who are responsible for making informed decisions may be required. To this end, we propose to fund bursaries for post-graduate study of municipal managers or waste managers regarding waste management, recycling or the circular economy at recognised South African tertiary institutions.

Transformation opportunity: The bursary fund will give preference to PDIs.

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Municipal Support desk

Municipalities have many queries regarding recyclers, collectors, resources, training and direct interventions in their territories. To facilitate a smooth engagement with PROs, we will, together with PROs, fund a Municipal Sector Support desk to provide a first point of contact that will directly handle at the majority of all queries it receives.

Transformation opportunity: Hire PDIs to fill this role. 1 to 2 people.

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Waste Picker and Informal Sector Support

The role of the Informal Sector and Waste Pickers has been widely recognised as crucial for the recycling economy in developing nations, however at the same time we acknowledge that the working conditions that many in these sectors face is undesirable. Waste Pickers and the Informal Sector are sectors which need to be sensitively addressed, as these individuals who find themselves in these circumstances are likely to be there as the result of multiple societal challenges. The recycling sector provides an opportunity for these individuals to earn a living, however it is not the goal of PETCO or its members to perpetuate the situation of the Waste Picker. The growth of the PET recycling industry will lead to the growth in the opportunities for Waste Pickers to earn a living from collecting and selling waste. PETCO's programmes are aimed at allowing for opportunities for the Informal Sector to integrate into the formal economy, upskill and grow their businesses or improve their lives to the point where waste picking is no-longer necessary, or where they've grown to the point where they can choose to become formalised.

Of the existing and new work opportunities available in the Informal sector, PETCO's aim is to transform this work into Decent Work, as per the definition from the International Labour Organisation. In short, the principle of Decent Work is work that provides dignity, equality, fair income and a safe working environment. In the short to medium term, PETCO's aim is to provide opportunities for Decent Work above "just any work" which will likely reduce the number of jobs that we can report on as having been created, but these jobs will be of better quality and more sustainable than if PETCO were just to create thousands of jobs that are not categorised as Decent Work.

We also recognise the existing tensions that sometimes exist between street waste pickers and landfill waste pickers, particularly where the latter are given space away from landfill and the two groups start "intercepting" the material that each feel is theirs.

Many of these programmes interface with the Collections, Sorting, Storage and Transport interventions, as well as Municipal Support and Engagement sections of our Plan.

Recognition of service

Waste pickers and the informal sector the world over, including South Africa, make repeated calls for their work and service to be recognised.

Our Plan formally recognises the role and service of waste pickers. Beyond the interventions listed below, we will work with DEA and the WMB to have waste picking recognised in relevant national statistics and data alongside other parts of the value chain.

The role and service of waste pickers will also be integrated into our broader training and communication campaigns – the latter including Government, Business and Consumer campaigns.

A longer-term intervention with regards to recognition of service is to enable waste pickers to become "tender ready" and to service municipalities and the private sector for waste management services – thus deriving income both from the sale of material and the provision of service. The same applies to enabling waste pickers to access the Separation at Source Fund.

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Separation at Source Fund

In our budget, we are setting aside a substantial portion of funding to contribute to separation at source programmes. These funds will be open to municipalities, waste management companies, collectors, and organised waste picker entities (e.g. in co-op's) who are running separation at source programmes. It must be noted that our approach is to get waste pickers organised to the point where they can be considered Collectors as per our above programme, who can then be developed to the point of being "tender-ready" and are able to render separation at source services to residents. A good example of this is the Vaalpark Separation at Source pilot project in Sasolburg, Free State.

Provision of training and equipment

We have found a mix of requirements from a training perspective for waste pickers and will continue to offer varying degrees of training ranging from basic sorting and identification, through to entrepreneurship training. The provision of bulk bags, personal protective equipment and trolleys are some of the basic interventions which provide immediate relief and upliftment of waste pickers.

Access to social services

Waste pickers often face multiple issues related to their income, health and wellbeing physically, emotionally and mentally. The recovery of recyclables is often their main source of income and this provides a platform from which PETCO and other PROs can facilitate access to additional services such as social grants, medical attention and so forth.

Access to health services

In order to address many health concerns, we have set aside funding towards a mobile clinic to attend to first-line health needs.

Funding research

The recent Waste Pickers research forum held in Pretoria in February 2018 highlighted the research already conducted regarding waste pickers and buy-back centres. It is clear that more research into this area is needed. Many projects with waste pickers may be pilot projects and researching the impact of these will be an important step in designing longer term programmes.

Transformation opportunity: Priority given to PDI Masters students.

Access to information

The issue regarding recyclable pricing has been mentioned for some time. There have been calls from some for the price of recyclables to be fixed or regulated in some way. At PETCO we are strongly against such measures, as we believe they will be counterproductive and will harm the sound economic functioning of the recycling sector, ultimately to the detriment of all including waste pickers themselves.

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However, it is recognised that the root of the issue is that Waste Pickers and the Informal Sector feel disempowered with regards to pricing and in some cases (we believe the minority) that exploitation by unscrupulous operators may be occurring.

To counter this, and in addition to the upliftment measures implemented here and elsewhere in our Plan, we propose setting up an information sharing platform/desk, operated for and by waste pickers themselves. These measures will enable them to investigate international price drivers of local recycling, as well as sharing of advertised prices from waste pickers, who can then compare with each other what prices they are receiving based on their location, mix of materials, product type and so forth, allowing them to seek the best possible price from buyers of material.

The design of any such price information sharing will need to be done within the confines of competition law.

We also propose supporting the waste pickers with access to information by providing for limited free Wi-Fi at selected buyback centres and facilitate other buyback centres with the same.

Hosting conferences

We will assist with funding one Waste Picker Conference per year.

Establishment of associations

We recognise the South African Waste Pickers Association (SAWPA) is perhaps the most well organised and vocal association of waste pickers at this time. We are encouraged by their ability to raise the voice of their membership. We feel that more such associations should exist to enable better engagement with this sector, and we propose financially supporting organisations such as Groundworks and Wiego to continue their work in supporting waste pickers by establishing more such associations.

Ring-fencing Funding & Transparency

Transparency is a key factor of the PETCO PET Plan. We recognise the acute sensitivity associated with waste picker projects.

Firstly, we propose to ring-fence funding for waste picker projects. These funds will not be used for projects outside of the allocated budget line items without prior agreement from affected stakeholders. Note that ring fencing is proportional to PETCO's income i.e. if the PET market retracts, then PETCOs income retracts and all ring-fenced project budgets by necessity face retraction.

Secondly, we will regularly host forums with affected stakeholders detailing the project applications and requests we have received, how or why proposals were accepted or rejected, where money is spent and with whom, and for what purpose. We will also maintain records that can be inspected by known and established organisations that work with waste pickers such as WEIGO, ILO, Groundwork and academic researchers. This is over and above the access to such information available to the Waste Management Bureau and DEA.

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Cleaning up

The goal of Extended Producer Responsibility programmes is to ensure that there is minimal impact of products on the environment once consumers are done using them.

Well-functioning EPR schemes must go hand-in-hand with well-functioning and adequate provision of solid waste management services. We recognise that solid waste management services are sorely lacking for a large proportion of the population. Even where such waste management is occurring, the end-point is often a poorly managed dumpsite, and not a sanitary landfill.

The end goal of maintaining a clean and litter free environment is beyond the capability of any one stakeholder, and each needs to do their part to achieve this aim.

Cleaning up litter is an expensive process. The process of littering is both a failure of public education and of a lack of adequate solid waste management infrastructure. However, we recognise that neither will be fixed in the near future and litter poses significant challenges to our environment. Plastic litter in particular accumulates in the environment and so must be dealt with urgently.

PETCO's first aim is to negate the chance of litter occurring, by ensuring that products are responsibly disposed of and recycled. Where this does not occur, there is the chance that products will end up in the environment. This is often manifested either on roadsides (plastic bottles being a popular method of "on-the-go" refreshment and sustenance), as well as along rivers and on beaches. The latter usually occurs after heavy rainfall dislodges products further upstream in rivers. There is a responsibility for industry to deal with this litter as much as possible whilst working with stakeholders to improve waste management overall to eradicate the need for such interventions.

Clean-up campaigns staffed by volunteers are in important aspect of this effort, but these will be dealt with under the Awareness Campaigns section.

Formal River and Beach Clean-up activities

Our Plan proposes the ongoing funding of management and clean-up of rivers and beaches for the full 5-year period of the plan, focussing on hotspots where the issue has been identified as particularly troublesome. PETCO currently does provide funding to PlasticsSA for cleanup activities, however we are proposing a more formal programme for ongoing clean-ups with dedicated funding to do so.

PlasticsSA has already identified 4 river catchment hotspots, and there are 4 areas along the KwaZulu Natal Coast which have also been identified.

These interventions require a mix of river boom placements and riverside and beach clean-ups. We will identify and contract partners to regularly maintain these systems and activities for the full five years, whilst capturing data for further research purposes.

This will be combined with consumer education targeted at households in these catchment areas believed to be the source of pollutants. We will combine these interventions with our Municipal Support and Collection interventions to set up facilities to divert waste from river catchments into waste management or recycling streams.

Transformation and job creation opportunity: Work to be carried out by employed members of the communities within catchment areas. Black-owned contracted companies to be prioritised.

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Industry Best Practice

PETCO's Industry Best Practice Programmes combined several new and existing initiatives that assist stakeholders with best practice and fosters technical excellence. The Industry Best Practice Programme is a platform which gives effect primarily to ensuring the priorities of the Waste Hierarchy are integrated into the generation, recycling and recovery of PET Waste, as well as furthering the Transformation Agenda.

This programme lends itself to collaboration in conjunction with other Packaging Waste Streams via the PackagingSA Federation of Plans.

The Waste Hierarchy describes that Waste should be dealt with in the following order: 1) Reduction of Waste in the first instance; 2) Re-use; 3) Recycling; 4) Recovery and finally; 4) Disposal to landfill

PETCO recognises that in some cases, the best Environmental Option may not be in line with the Waste Hierarchy. Packaging plays an important part in food preservation and carbon reduction. In some cases, it may be more environmentally sound to rather maintain a minimum pack weight to ensure it can be recycled, rather than to reduce it to the point that re-use or recycling creates more environmental harm than good. Similarly, it may be that it is better to reduce the recyclability of a pack to improve the shelf-life of the product it contains and in so doing reducing the environmental footprint. Such factors must be balanced on merit and the PETCO Plan accounts for the full range of options.

PET Internship Programme

This programme is another key component of our Transformation strategy. Increasing the pool of skilled individuals is necessary to reach long term transformation objectives. Interns designated as Previously Disadvantaged Individuals will receive priority placements.

PETCO Internship

PETCO internships offer us the opportunity to provide young graduates and new professionals with the opportunity of spending 9 – 12 months with us gaining working experience and valuable insight into the functions of an EPR organisation and the recycling sector in South Africa.

PET Recycler and Collector Internships

PETCO will work together with the projects we support to identify internship opportunities. These interns will gain valuable experience in the recycling value chain.

Reduce

Producers are inherently incentivised to reduce the weight of PET packaging (also known as light-weighting) as it saves on material and transport costs. PETCO will continue to engage with Producers on where light weighting may or may not impact the viability of measures further down the value chain. These engagements will continue both on an ad hoc basis and within technical working groups, detailed below.

PETCO will encourage Life Cycle Assessments on products to assist the industry to establish optimal lightweight whilst allow the recycling industry to remain viable.

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Re-use

In the context of PET packaging, re-use is generally on of the more limited options do on any large scale. Even when bottles or trays are re-used for another purpose it is often not long until the re-used item makes its way into the waste stream. Re-use awareness is detailed further in the Awareness programme. On a small commercial scale re-use may be possible and viable in rural areas where high transport costs and a high demand for end use products makes re-use viable. There is limited use of returnable PET beverage products n the Western Cape, and these will continue for the foreseeable future.

Recycle

The main thrust of PETCO's Industry Waste Management Plan is to build on the momentum and success of our Recycling Programme. We have already worked extensively on Design for Recycling Guidelines to assist the Industry in designing products that make them viable to recycle. We will continue to update and distribute these guidelines and include standing agenda items in the technical working groups to address issues as they arise and promote best practice and innovation in this area.

To further enhance the recyclability of products, we have already begun developing a Product Grading system for PET products which will be used to rate products based on the Design for Recycling Guidelines. This information will be tracked and shared with the Industry to facilitate greater strides in this crucial area. This grading system will also assist in setting future EPR fee rates and will allow us to charge members differentials if needed to ensure that costs are fairly distributed amongst producers.

Member plans and targets

Under the PET Plan, producers who are members of our Plan may need to produce 5-year plans detailing efforts with regards to reduction, design for recycling, use of consumer labelling and use of recycled material. This will be informed by the impact that a member's products have on the recycling value chain.

These plans will have targets and will be periodically reviewed by PETCO to ensure members are contributing to the overall success of the PETCO Industry Waste Management Plan.

Consistent failure to meet objectives or show significant improvement may result in corrective measures to be undertaken by PETCO e.g. payment of higher EPR fees.

Recovery

As mentioned preciously, this is a solution of last resort. Energy recovery from packaging waste is still in its infancy in South Africa with many obstacles to overcome, as detailed in our discussion document released in 2016[2]. The next logical step is to form a technical working group with other PROs under PackagingSA and in conjunction with industry bodies such as Plastics SA to define set

[2] http://petco.co.za/wp-content/uploads/2016/10/PETCO-Waste-to-Energy-Discussion-Document-rev03-October-2016.pdf

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projects, timelines and outcomes for introducing Energy Recovery to South Africa on a commercial Scale in a way that does not undermine any of the items higher up the Waste Hierarchy. This is to be read in conjunction with the Market Demand section of this plan.

Data Alliance

Credible and comparable data is a key component of PRO systems world-wide. PETCO, under PackagingSA, will establish the Data Alliance consisting of various chapter as pertains to the reporting requirements of the Industry and various Stakeholders. These chapters may include, but not necessarily limited to:

- Plastic Packaging Data Chapter
- Packaging Data Chapter
- Waste Management Bureau Industry Waste Management Plan Chapter in conjunction with DEA/WMB

The Data Alliance will be tasked with providing credible data for use within the industry, the South African public, DEA and to represent South African Packaging Waste Data at a Global level.

The Data Alliance will also establish reporting protocols with the Waste Management Bureau for consistent reporting across waste streams and to regular liaise with DEA and the WMB to provide a cross-pollination of expertise and collaboration in the fields of data management and reporting, full cost accounting, planning and forecasting, interpretation and data integrity.

Technical Working Groups – Overview

Working groups provide the platform for identifying common industry problems, finding solutions and promoting best practice. Furthermore, these platforms provide the opportunity to implement joint projects to achieve specific goals. Such projects will consist of smaller once-off engagements and pilot projects to provide the industry with the knowledge and expertise required to engage in more formal, long term joint-ventures and projects set forth in the other Programmes listed in this plan.

Working groups to be arranged under PackagingSA or where relevant directly via PETCO.

Technical Working Groups – Packaging Sector

Working groups to be arranged under PackagingSA or where relevant directly via PETCO, with members consistent primarily of the Producers of packaging. These working groups may be held bi-annually and should consist of:

- PET Packaging Design & Design for Recycling
- Implementation of necessary standards, such as the SANS 154 Food Contact Standard for Recycled Plastics: Part 1 PET that PETCO has already initiated with the South African Bureau of Standards (SABS)
- Re-use and Recovery Working Group

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- Research and Development

Technical Working Groups – Collection & End-of-Life Solutions

Working groups to be arranged under the Federation of Plans or where relevant directly via PETCO, with members consistent primarily of those in the Collection, Recycling and Recovery value chains as well as Municipal representatives and other PROs. These working groups will be held bi-annually and should consist of:

- Energy Recovery Forum
- National Awareness Working Group
- Collection & Sorting including MRFs, PRFs, Kerbside collection and Buyback Centres
- Informal sector & Reclaimer support

African Marine Waste Network

PETCO will continue its activities with the African Marine Waste Network. Crucial work is being done within this network to identify and address the issues of all types of Waste, include PET, from ending up in oceans. Continued co-ordination and joint action is required to raise awareness at a public, Government and Industry level.

PETCO are currently heading up the Networking component of the overarching strategy and are providing funding to the Marine Waste Network. We will continue to do so under the Plan.

Research and Development

PETCO proposes setting aside budget towards research and development to undertake studies such as:

- Waste Picker Integration
- Buyback Centre research
- Modelling packaging consumption
- Further development of the CSIR Separation at Source Costing Model
- Improving product recyclability e.g. adhesives, perforated labelling etc

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Regional Economy

We recognise that South Africa has an important role to play in the regional and circular economies of our Southern African neighbours and in some cases, further afield in Africa.

Recycling is a volumes-based endeavour, and many territories do not have enough packaging consumed or collected locally to make recycling viable. The long-term goal for each territory should be to have local beneficiation of products, but the interim will require solutions from established recycling economies such as South Africa's where volumes already support recycling.

Many South African producers have presence in other African markets and some are looking to PETCO South Africa for solutions to pressing problems faced in the continent. This is particularly an issue with PET and other plastics given the growing focus on plastic waste in marine environments. The recent closing of China's door to waste products has exacerbated this issue for many nations across the world – both in the developed and developing world.

Furthermore, we also recognise that local South African recyclers may from time to time require the import of particular feedstock to fill gaps in local supply – either due to it not being produced in enough quantities locally, or that collection networks are unable to capture and transport it at reasonable cost, even if subsidised. In such cases, it also makes sense to solve two problems at once.

Any regional intake of post-consumer PET must be done whilst being mindful of our own targets and national imperatives.

PETCO will maintain its role together with Plastics SA in reviewing permit applications for the import of waste and will continue working with regulators to ensure sound policy and regulation that neither inhibits our economy, nor burdens us with unwanted waste products.

PETCO's approach to a regional economy will require constant vigilance to assess markets and will seek to ensure local capacities and targets can be met, whilst making small allowances for imported PET waste. Working together with all stakeholders, the longer-term intervention will be to assist recyclers to expand capacities beyond what the South African market can provide, and thus provide additional capacity for more sustainable intake of material from beyond South Africa's borders.

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Roles and Responsibilities

The successful implementation of EPR programmes requires all stakeholders to be engaged. In this Plan we set out the roles and responsibilities as we currently see them.

Producers

Producers as defined in the Section 28 Call for Industry Waste Management Plans are collectively responsible for funding PETCO to the extent required to fulfil the industries EPR obligations and commitments as set out in this Plan.

The EPR fee is paid over to PETCO by the purchaser of raw material or imported preforms, sheets or thermoforms. Purchasers may opt to pass on the EPR fee in full or in part, or not at all. Importers of finished goods will have Importers of finished goods will pay the equivalent fee on their products directly to PETCO, or via the Federation of Plans.

Producers also have additional roles to play and these will be detailed in their plans for material reduction and recycling design as set out in the Industry Best Practice section of this Plan. Note that a single company may fall under multiple categories depending on the products that they import, are brand owners for or retail – this is most notable in the case of Retailers.

Brand Owners

Specify the recyclability of their products according to the Design for Recycling Guidelines.

Specify use of recycled content for their packaging.

Allow for recycling information to be present on their products e.g. On Pack Recycling Logo

Retailers

Convey recycling messaging to consumers.

Provide feedback to relevant stakeholders regarding consumer concerns, queries and demand.

Importers of finished or semi-finished goods

Pay the EPR fee to PETCO or to the Federation of Plans based on tonnage of PET present in the products imported.

Communicate design requirement sand EPR imperative to manufacturers of imported goods.

Seek to import recyclable packaging products compatible with South African end use markets.

Bottlers/Fillers/ Convertors / Sheeters / Thermoformers

Pay the EPR fee to PETCO based on tonnage of virgin and recycled PET resin or preforms, sheet or thermoforms purchased or imported.

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Collaborate with customers to produce packaging according to Design for Recycling Guidelines.

Raw material producers

Provide PETCO with information on raw material purchases,

Provide technical and technical information regarding safety of PET etc.

PETCO

PETCOs role is to ensure funds made available for execution of the tasks as set out in this Plan are spent effectively and efficiently, maximising the return on investment for society.

Operate with continued success and to uphold our values of respect, empowerment, integrity, professionalism, and sustainability.

Recyclers

Operate sound businesses that adhere to all applicable laws and environmental sensitivity.

Keep PETCO informed of the progress of their plans, invest in infrastructure and provide innovative solutions to recycling of all PET packaging products.

Adhere to PETCO's values.

Collectors

Operate sound businesses that adhere to all applicable laws and environmental sensitivity.

Provide good service and highest quality material to recyclers.

Seek to improve, grow increase the economic and environmental sustainability of their businesses.

Maintain positive working relationships with waste pickers.

Waste pickers and the informal sector

Actively participate in their integration into the formal sector.

Make use of all available avenues and programmes which seek to uplift them and improve their situation.

Take part in assessments and provide input into integration efforts.

Where Separation at Source are not run by waste pickers, to respect the business interests of those who are running them.

Municipalities

Consult with PETCO and relevant stakeholders when implementing Separation at Source, recycling, collection or energy recovery plans and bylaws affecting waste.

Fully capacitate Solid Waste Management Departments with skilled individuals.

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Work with PETCO and stakeholders to assess extent of available land for implementation of collection and separation at source schemes.

Develop Integrated Waste Management Plans.

National and Provincial Government

Consult with stakeholders prior to introducing legislation and regulations which may hinder the successful implementation of these plans.

Seek to clarify the legalities regarding the possible competing or overlapping mandates for the collection or removal of waste from households.

Department of Environmental Affairs and the Waste Management Bureau

Monitor implementation of plans.

Enforce compliance of free-riders.

Consumers

Where separation at source is made available, to make every effort to utilise the programmes. Low participation rates are often the leading cause of Separation at Source Schemes being unviable.

To pressure brand owners and retailers to consider the full sustainability and life cycle of their packaging, including the recyclability thereof of.

To demand recycled content in packaging wherever possible.

NGOs (Social and Environmental)

To alert stakeholders to problems areas where they find them.

To approach problems with an open and collaborative approach.

Academia

Seek to identify further areas of research, guidance and input as necessary.

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Key Assumptions and Notes

Important points that might not be raised elsewhere:

Market Size

All our targets, income and subsequent spends are driven by the market size. We are projecting an 8% annual growth of the PET market per year for the next 5 years.

Finished imported goods

This is an unknown, as there is no reliable data available for the amount of PET contained within finished imported goods. We believe the figure to be negligible, or at most a small tonnage, for PET Bottles. Edible Oils and Thermoforms may be higher. The latter particularly because many products which are imported with PET thermoform included, such as with toys and hardware and fruit.

Ringfenced funding

For budget items where ringfencing occurs, this is proportional to the overall income obtained.

Parties to the Plan

Obliged Industry

Members of PETCO are parties to the PETCO Industry Waste Management Plan.

- ALPLA South Africa
- Bizee Corporation t/a ATA Agencies
- Bowler Plastics (Pty) Ltd.
- Coca Cola Beverages South Africa (CCBSA)
- Coca-Cola Africa (Pty) Ltd.
- Coca-Cola Peninsula Beverages
- Safripol (A division of KAP Diversified Industrial (Pty) Ltd.)
- Little Green Beverages
- Mpact Plastics
- Nampak Liquid Packaging
- New Age Plastics cc
- Nioro Plastics cc
- Pick ‘n Pay
- Polyoak Packaging
- Purpleline Plastics (Pty) Ltd.
- RPC Astrapak
- Serioplast
- Split Line Manufacturers cc

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- Tsitsikamma Crystal Spring Water (Pty) Ltd.
- Twizza (Azores Manufacturers)
- Woolworths Holdings (Pty) Ltd.

Prior to submission of the Plan to DEA, we will confirm with additional stakeholders whether they are parties to the PETCO Industry Waste Management Plan.

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Definitions

The definitions below do not offer legal opinion but are listed here to assist with understanding of this plan.

Word	Definition
Collector	A company, co-operative or individual (usually a business) that collects or purchases post-consumer packaging material for on-sale to another collector or to a recycler. Sorting and baling material activities are typically undertaken, and in some cases, flaking of PET material. Collectors often handle multiple material types.
Extended Producer Responsibility	An environmental policy approach in which a producer's responsibility for a product is extended to the post-consumer stage of a product's life cycle.) (i.e. end of life management of the product)
Federation of Plans	Collection of Producer Responsibility Organisation plans under PackagingSA
Full Time Equivalent	At least the income of a full-time job paid at minimum wage. R20 per hour, 8 hours per day, 5 days per week, 52 weeks per year.
Informal collector	An informal collector is a person who salvages post-consumer reusable or recyclable materials that have been discarded. He/she operates in the informal market. In this context, an informal collector operates by going door-to-door to salvage recyclable materials or salvages from a landfill site. Cross reference to "waste picker"
Material Recovery Facility	A specialized plant that receives, separates and prepares recoverable materials for marketing to end user manufacturers.
Minimum Wage	Minimum wage of R20/hr as proposed by National Treasury.
Obliged Industry	Those companies with whom Extended Producer Responsibility lies.
PET Bottles	PET packaging associated with beverages, food, household items etc excluding Edible Oil. i.e. cooking oil.
PET Edible Oil	PET packaging associated with food such as cooking oils.
PET Thermoform	PET packaging such as punnets, trays, blister packs.
Post-consumer	After use by the consumer.
PRO - Producer Responsibility Organisation	Producer Responsibility Organisation, i.e. a collective entity set up by producers or through legislation, which becomes responsible for meeting the recovery and recycling obligations of the individual producers.
Recycler	A recycler is a business that converts sorted recyclable materials into a new product (secondary raw material). For PET Recycling, flake is not counted as a new product.
Recycling	Any recovery operation by which waste materials are reprocessed into products, materials or substances whether for the original or other purposes. It includes the reprocessing of organic material but does not include energy recovery and the reprocessing into materials that are to be used as fuels or for backfilling operations.
Separation at Source	Separation at source refers to the end consumer separating recyclables from other waste at the point of generation. In the context of this document it refers to the end consumer separating recyclables from other waste at household-level for separate collection. The end consumer also includes businesses such as restaurants and hotels.
Waste Disposed	Balance of Waste Generated less Waste Recycled.

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Waste Generated	Total tonnage of packaging placed onto the South African market, locally produced and imported.
Waste picker	A waste picker is a person who salvages post-consumer reusable or recyclable materials that have been discarded from a landfill or door-to-door. Cross reference to “informal collector”
Waste Recycled	Total tonnage of post-consumer waste that: 1) Originates from South Africa and is purchased by recyclers for the purposes of recycling plus 2) Tonnage that is exported from South Africa e.g. in bale or flake form.

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Section 28 Reference

The table below references the specific requirements detailed in section 6.1) of the CALL ON THE PAPER AND PACKAGING, ELECTRICAL AND ELECTRONIC AND LIGHTING INDUSTRY TO PREPARE AND SUBMIT INDUSTRY WASTE MANAGEMENT PLANS TO THE MINISTER FOR APPROVAL gazetted on 6th December 2017.

An industry waste management plan, contemplated in paragraph must,

Requirement	Reference
a) identify all the parties to the industry waste management plan;	Section: Parties to the Plan Most of the PET industry and all of the PET recycling industry, as a minimum, is party to the Plan.
b) provide details of the governance model for the industry waste management plan, including how industry representivity and participation will be addressed;	Section: Governance Industry managed EPR
c) provide the annual projections over a five-year period of the – i quantities and types of waste generated from locally manufactured products and products imported that will become waste and will be managed through the industry waste management plan; ii quantities of waste that will be reused, recycled or recovered; iii quantities of waste that will be disposed of;	Section: Targets
d) indicate how the waste hierarchy is going to be given effect to in the implementation of the industry waste management plan prioritizing reduce, re -use and recycling, then recovery;	Section: Industry Best Practice
e) include measures to prevent pollution or ecological degradation;	Section: Market Demand Section: Collections, sorting storage and transport Section: Cleaning up Section: Industry Best Practice Section: Roles and Responsibilities
f) include measures or programmes to minimize the generation of a particular waste stream and final disposal of that waste stream;	Section: Membership requirements Section: Market Demand Section: Industry Best Practice Section: Roles and Responsibilities
g) include measures or actions to be taken to manage the waste;	Section: Market Demand Section: Collections, sorting storage and transport

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Requirement	Reference
h) identify the manner in which the waste transporters, storage facilities and processors who will receive the waste through the industry waste management plan will be identified and registered;	Section: Market Demand Section: Collections, sorting storage and transport Processors are registered via our Demand Support Programme. Waste Transporters and Storage facilities do not have to register with PETCO, but they may do so if they wish.
i) identify any incentives that will be applied in order to encourage the end user to practice good waste management;	Section: National Awareness Consumer incentives are prosed in relation to clean-up campaigns.
j) identify the potential number of waste transporters, storage facilities and processors that will be required;	Section: Market Demand Section: Collections, sorting storage and transport Recyclers, approximately 7 to 9, depending on size. Collectors, transporters and storage facilities – not possible to predict. Number not needed for execution of Plan.
k) indicate the manner in which the waste collected and processed will be recorded;	Section: Targets Independently audited purchased figures at recycler gates for local processing figures, and SARS data for exports.
l) provide estimations of the costs of implementing the industry waste management plan for a period of five years and the submission of an annual business plan to the Bureau including a breakdown of the activities of the industry waste management plan together with their costs;	Section: Budget and Financing
m) be aligned to the National Pricing Strategy for Waste Management (Extended Producer Responsibility; government managed model) as published under Government Notice 904 of August 2016;	Section: Budget and Financing This government managed tax model will have a high risk of being detrimental to PET recycling. We are proposing an alternative model that better aligns to multi-stakeholder needs.
n) provide targets for waste minimization through the reduction, re -use, recycling and recovery of waste for a period of five years;	Section: Targets
o) provide details of the manner in which the previously disadvantaged individuals and transformation will be integrated in the implementation of the industry waste management plan;	Section: Transformation Also highlighted throughout the Plan

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Requirement	Reference
p) provide where applicable, an estimate of the revenue that will be generated through the implementation of the industry waste management plan for a period of five years;	Section: Budget and Financing
q) indicate how the industry waste management plan will raise national awareness regarding the management of the particular waste stream;	Section: National Awareness
r) provide detailed measures on how the industry waste management plan will address issues of social responsibility in the specific waste sector and issues of historically disadvantaged communities;	Section: Collections, sorting storage and transport Section: Waste Picker and Informal Sector Support
s) provide specific measures in which historically disadvantaged individuals will meaningfully participate in the waste sector and the implementation of the industry waste management plan;	Section: Collections, sorting storage and transport Section: Waste Picker and Informal Sector Support See additional proposals throughout the Plan
t) provide specific targets on job creation, the promotion of small businesses, training and development, including the meaningful participation of the historically disadvantaged individuals that will be realized in the waste sector;	Section: Transformation Section: Targets Section: Budget and Financing
u) indicate the frequency and methods of auditing and reporting to the Bureau waste management plan envisaged;	Section: Governance Section: Industry Best Practice
v) provide measures to be implemented to give effect to the best environmental practice for the management of a particular waste stream;	Section: Industry Best Practice
w) provide details of the manner in which the informal sector will be integrated in the implementation of the industry waste management plan;	Section: Transformation Section: Collections, sorting storage and transport Section: Waste Picker and Informal Sector Support Section: Roles and Responsibilities

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