Summary.

The world our children, grandchildren and future generations will inherit has valuable finite resources; some like water are essential resources.
Our growing climate emergency severely threatens the world's long term sustainability and added stresses are placed on the long term viability of humanity and the world's flora, fauna and fungi by both on-going population growth as well as unsustainable consumption of the world's material resources.
Today progress is designed to benefit only one species- not a good prognosis for the world.
Plastics are derived from oil, an extremely useful, valuable and finite resource over which wars may well be fought as oli supplies diminish.
Plastics are very useful materials which are manufactured into a vast range of useful and convenient products.
Many plastics are extremely durable materials. As such, durable plastics should be ideally manufactured into reusable, multi -use products such as wheelie bins or products with extremely long,durable lives such as plastic pallets,railway sleepers, bollards, furniture or rainwater tanks. Many of these extremely durable products can be manufactured from recycled plastic.
Many plastics can be recycled and then reconstituted into other products.
However, many plastics cannot be co-mingled and then recycled; thus many plastics have to be separated and sorted into individual types of plastic before they can be effectively recycled. It is mainly soft plastics that are more difficult to recycle.
Despite the huge costs imposed by our climate emergency and increasingly evident water shortages in Australia we are still not attempting to minimise our waste, instead we still continue to attempt to manage our waste.
Managing waste suits our waste managers, for the more waste we consumers generate, the more waste managers are paid and the more waste or unwanted plastics become the most problematic sources of marine pollution because plastics degrade into ever smaller particle of marine pollution. Plastics never disappear completely as they enter the marine food chain.

The future is what you choose and I believe it is essential that more very basic environmental education is provided from early childhood through to the wider adult community on the following fundamental concepts. You will then be better placed to make more sustainable decisions about packaging and plastics you choose to manufacture and use.

On my first lecture tour to Tsurugashima, which aimed to become Japan's recycling capital city, I explored the following basic concepts involved in waste minimisation:-

REDUCE, REUSE, recycle.
Your basic needs and the difference between your "needs" and "wants."
Barry Commoner's "Laws of Ecology."
The manufacturing inputs of every product you choose to use.
Paul Hawken's "take less, make less, waste less and want less."

The Seattle System of "Volume Based Waste Fees."
Other waste plastic issues worthy of consideration.

Personal Submission to :- The Product Stewardship Amendment (Packaging and Plastics) Bill 2019.

Thank you for giving me the opportunity to make a submission to this important Bill.
I was a Special Education teacher in Queensland for 41 years until I retired in 2008.
In 1973 I was appointed as Pre-vocational at Aspley Special School, a new school in a suburb with a strong community work ethic. Bearing in mind Barry Jones comments in "Sleepers Wake":- "Your job opportunities depend on your post code." I was interested in minimising the waste of human resources, namely the school's teenage students with with intellectual and physical disabilities who wanted to make a working contribution in their local community.

In 1983 Aspley Special School commenced accepting recyclables from the local community, initially only aluminium cans which the students crushed and sold with the funds raised being saved towards the construction of a purpose-built recycling centre adjacent to the school.

At this time Brisbane City Council was yet to establish a kerbside recycling scheme, so the school then commenced accepting and processing all household recyclables for which there was a genuine, viable local market. Local community members dropped off aluminium, plastic and glass beverage containers,cardboard and paper 24 X 7 x 365 days per year. The students sorted and processed the materials and learnt basic work skills and local retirees processed these valuable recyclables at weekends and over the school holidays. These two groups were Aspley Special School's VIPs- our Volunteers In Partnership.

In 1994 at a cost of $94,000 Kingfisher Recycling Centre, a drive-in, drive-out centre was built with half the funds raised by the students' and retirees' recycling activities.

According to The World Resources Institute Kingfisher Recycling Centre was the world's most comprehensive school/community recycling initiative.

In 1995 Aspley Special School's waste minimisation program was one of 18 global school environmental education programs chosen for presentation at the United Nations First Children's Environmental Conference in England.
In the same year and in 1996 and 1997 I was invited on lecture tours to Japan to present Aspley Special School's waste minimisation concepts under the 3Rs "REDUCE, REUSE, recycle." as well as the other concepts mentioned in the summary. Tsurugashima, where I first lectured in 1995 now has a comprehensive packaging and plastics recycling and waste minimisation program.

I will now outline those concepts of environmental education that I believe are needed by both school students as well as the wider community. We will then be in a better position to make more prudent decisions about packaging and plastics we both manufacture and use. These choices will better reflect the European Union's bans and restrictions on the most problematic sources of marine plastics pollution.

In developing and refining this philosophy of waste minimisation I have over many years received a great deal of advice from Professor Ian Lowe.

The 3 Rs REDUCE, REUSE, recycle.

Number 1 REDUCE both consumption and waste of material resources.
A 1% reduction in consumption = a 25% rate of recycling.

Number 2 REUSE an article again and again for its original manufactured purpose. REUSE is a "front end" solution in preference to recycling which is an "end of pipe" partial solution, so you should try to be in a position to reuse more and thus recycle less.

Number 3 recycle when REDUCE or REUSE are not viable options. Recycle only those materials for which there is a genuine, viable market that does not involve long distances from the collection points of recyclable items to the recycling facilities.
The common materials that are easy to recycle are glass, aluminium, steel, other metals, paper, cardboard, organic material, wood and some plastics.
It should be pointed out that in water-poor countries like Australia, it is becoming increasingly important to recycle water back to a potable standard as occurs in other developed countries.

Your basic, essential needs are: clean, carbon-constrained AIR, unpolluted WATER
uncontaminated SOIL and SPECIES DIVERSITY.
So when you throw something away or burn it, where does it go?

So to what extent are you prepared to change your wants to satisfy your basic, vital needs?

Barry Commoner's "Laws of Ecology"from the 1970s.

Everything must go somewhere.
Everything is connected to everything else.
Nature knows best.
There's no such thing as a free lunch.
We all live downstream.

Again, when we throw something away, where does it go?

The Manufacturing Inputs.

The Manufacturing Inputs of every product you choose to use are:- Materials, Water, Energy, AIr Pollution, Water Pollution and Manufacturing Waste.
Yet still today all the Manufacturing Inputs are still rarely mentioned to the general public, yet they are a vital consideration for the following reason.
The Manufacturing Inputs are incurred every time you choose to use CON-venient, single-use disposable items, items better suited to a throw-away world.
However, if you instead choose to use a reusable item, that is a far more sustainable choice, for these manufacturing inputs are locked into the manufacture of the reusable item for the entire life of that product.
So try not to choose what you can't REUSE.
Today due to our growing climate emergency many parts of Australia are becoming steadily hotter and drier to the extent that water, one of the manufacturing inputs is becoming extremely scarce in our rivers and rural towns.
So to use less water, use many more reusable products.

Paul Hawken's thesis in his excellent book "The Ecology of Commerce" is that to live more prudently by cutting your resource use you should: " take less, make less, waste less and want less.'

With Paul Hawken's thesis in mind I now briefly consider changes to minimise the waste of easily recycled plastics including beverage containers.
Enact national standardised Container Deposit Legislation (CDL) since CDL has been enthusiastically embraced by the public where it has already been introduced.
I prefer to use the term Container Deposit Legislation (CDL), for once a high return rate has been achieved and once the community accepts that Australia really is a continent with quite limited supplies of fresh water, it will be far easier to bring back the refillable glass container- CDL then standing for Containers Designed to Last.

Future generations will look back in amazement at Australia's present profligate generation who has been conned by the beverage packaging industry to buy a single-use glass bottle designed by a computer, manufactured by a robot, a bottle that lasts for a thousand years.
The break- even costs for glass bottles apply after only 10 refills. Just imagine how many less beverage containers will be entering the waste steam and the marine environment once our Australian community again chooses to reuse glass bottles.

The most exciting recent innovation in waste plastics recycling was reported in "Lens" from Monash University on August 23. 2019 following the time when China decided to no longer accept Australia's waste plastic junk since it has enough of its own waste plastic to convert back into diesel fuel.
Chemical Engineering Professor Sankar Bhattacharya already has a prototype plant on campus to convert soft plastics and vehicle tyres back into diesel fuel.
How much longer will it be before the penny drops that our planet really is in trouble and such information is shared for the global good rather than solely for commercial advantage, to the extent that human ingenuity changes direction so that we don't end up where we are heading?

Yet another exciting innovation is the use of the mycelium, the vegetative part of fungi as an natural alternative to some plastics and polystyrene packaging. Australia has 1500 species of fungi which breaks down naturally in the soil in 45 days (The Science Show Radio National Septeber 14. 2019)

The Seattle System for the collection of household waste has been successfully used in Seattle for many years to cut down on waste to landfill and at the same time ensuring a high return rate of plastics and other household recyclables is achieved. The Seattle System operates a Volume Based Waste Fees (VBWF) system for household waste.
Householders buy durable tagged bags for their household waste. The fewer bags a household puts out for their municipal waste collection, the less Waste Fees that household pays
So a householder who buys more reusable products, products with less packaging, recycles all their recyclables,and composts their organic waste pays less in Waste Fees than the householder who makes no attempt to "do the right thing". VBWF systems do not penalise prudent single person households.

In Japan I was proudly shown a "state of the art"multi-million dollar waste incinerator that generated local heating.
However the local community had to continue to feed this extremely expensive waste incinerator with waste so that there was no incentive to actually minimise the generation of waste.

One possible means to enable more people to participate in small local recycling plants would be to colour-code the most common and easily recycled plastics.

For example plastic bottles coloured red would be only used for non-potable liquids.

Some food containers incorporating plastic are extremely difficult to recycle. I refer in particular to waxed cardboard beverage containers that are internally-lined with plastic. Milk, juice and soup containers come to mind. The cardboard incorporated in these food containers in of high grade food standard cardboard and as any sandwich materials materials are extremely expensive to separate and then recycle. Such convenient containers are in very common use and I seriously question why they should ever be considered as being a suitable recyclable product.

Avoid excess packaging. Today many people now BYO shopping bags to their supermarket. Do you BYO refillable mug to the cafe? Do you BYO reusable plate and cutlery on a visit to a market or music festival?

How essental is the cardboard packaging around your tube of Colgate Palmolive toothpaste; could that cardboard be better used if it were still part of a growing tree?
Shoppers in Germany have already chosen to make a difference in their attitude to excess packaging. by starting en masse to leave the cardbox packaging around their toothpaste tubes at the supermarket check-out and to ask for their excess packaging discount.
Colgate Palmolive in Germany very promptly changed their toothpaste tube lids from the flip top back to the old fashioned but more secure screw top lids and now of course sell their tubes of toothpaste without any packaging around the tube of toothpaste. The result is less excess packaging which is better for the environment.
Germany now obtains 45% of its power from renewables since German voters place a high value on achieving a sustainable future for their grandchildren. But how long before we make similar prudent choices in our country?

Another reason that I commend this Bill to you is that virtually every day in Australia when you purchase an article from a shop you also purchase a packaging item that has to be either recycled or discarded as waste. What you do with what you no longer require is a question for every consumer.

In 1990 a Grade 3 8 year old girl visiting Kingfisher Recycling Centre said something I've never forgotten:-
"We should treat each other and the environment how we would like to be treated."

I value my grandchildren as much as I value myself and I commend this important Bill to you and wish you well in your deliberations for your children and grandchildren.
I am happy to have my submission placed on the internet.

All the best in the future you choose.

Harry Johnson.
Former Teacher/ Recycling Coordinator, Kingfisher Recycling Centre, Aspley Special School, Brisbane.