Ref	Subject	Questions	WRIWA Response
1 (p19)	<ul> <li>b) Shared responsibility &amp; system stewardship</li> <li>c) Economic, environmental &amp; social cost of waste</li> <li>d) Behaviour change to minimise waste</li> <li>e) Waste hierarchy</li> <li>f) Continuous improvement</li> </ul>	<ul><li>1.1 Have the correct principles been identified?</li><li>1.2 Are there other principles that should be included?</li></ul>	WRIWA supports all of the Principles. However we suggest that '(f) Continuous Improvement' be amended to: (f) Continuous improvement and flexibility.  Given China's recent policy change on non-acceptance of contaminants in recyclables such as some metals, plastics, paper, cardboard, glass etc (notwithstanding that it may in fact get worse if they extend the application of the policy into other materials), the government's policy position/strategy needs to be flexible enough to adapt to such changes and support industry in developing solutions.
2 (p20)	FOUNDATIONS a) Planning b) Engagement & education c) Regulation, compliance & enforcement d) Better practice guidance e) Knowledge & data f) Economic incentives	2.1 Are these the right foundations for our waste strategy?  2.2 Are there others that you consider should be included?	WRIWA supports the Foundations set out in the report and would like to make some additional comments:  a) Planning WRIWA strongly supports a focus on Planning in the waste strategy. In addition to matters raised in the consultation paper, WRIWA would like a greater emphasis on land use planning to avoid conflicts between existing waste facilities and new residential/commercial development.  Industry has invested heavily in infrastructure which supports better waste outcomes here in WA. This includes landfills, material recovery facilities, alternative waste treatment plants, composting facilities, scrap metal reprocessing and shredding plants, and in the near future, waste-to-energy plants. Encroachment by residential and/or other developments on established waste treatment/recovery infrastructure needs to be avoided.  Land use planning should recognise the capital investment made to provide this infrastructure and should protect that investment to provide long term certainty for industry. Without this level of certainty, industry cannot expand into new technologies that would further enhance recycling in WA.  e) Knowledge & Data  WRIWA supports a continuing focus on quality knowledge & data:  The recent report: Recycling Activity in Western Australia 2015-2016, prepared by ASK Waste Management Consultancy Services for the Waste Authority, made a number of assumptions which may have led to an overestimate of the quantity of C&D waste being recycled.  The report asserts that C&D recycling is now on target and has reached 60%. However the report did not attempt to quantify any waste avoidance or Levy avoidance and relied on data that was obtained from voluntary surveys and, by their own admission, was incomplete:

Ref	Subject	Questions	WRIWA Response
			The report also relied on a methodology that did not ascertain quantities for non-metropolitan landfills but instead "estimated by extrapolating from data collected through a voluntary survey of large landfills with weighbridges outside the Perth metropolitan region" (p. 5).
			The report's conclusion (ie. that C&D waste recycling has reached 60%) is achieved by noting that the amount of C&D sent to metropolitan landfills has significantly reduced. However, the report provides no firm measure of C&D waste generated in the metropolitan area and sent to non-metropolitan landfills. This must inevitably distort the figures to show a larger percentage of metropolitan C&D waste being recycled.
			WRIWA seeks a refocus of the data collection strategy to ensure greater certainty as to the actual levels of recycling being achieved.
3 (p23)	OPPORTUNITIES FOR IMPROVEMENT a) Valuing waste b) Collaboration c) Harnessing Markets d) Removing barriers e) Technology & Innovation f) Waste disposal	3. Are there other opportunities for WA to improve its waste performance?	WRIWA supports the focus on Collaboration and Removing Barriers – see our detailed response under Objective 1 below.
(1)	SCOPE OF THE STRATEGY	4. Should the scope of the waste strategy be broadened to include other types & sources of waste?	No, the scope is adequate.
5 (p25)	PRIORITY MATERIALS 90% of waste is made up of: a) C&D b) Organics c) Metals	5.1 Have the highest priority wastes for WA been identified?	5.1 Yes
	d) Paper & cardboard e) Glass f) Plastics g) Textiles	5.2 How will marketing and processing based factors affect the inclusion of these materials in the waste strategy?	5.2 Marketing and processing of waste materials are essential considerations in the development of an effective waste strategy. The precise challenges and appropriate solutions will vary over time and so will need to be continually re-examined to ensure that WA's approach reflects current best practice.

Ref	Subject	Questions	WRIWA Response
6 (p26)	WASTE STRATEGY OBJECTIVES  1) Minimise environmental impact 2) Reduce generation 3) Increase recovery	6. Are these the right objectives for the waste strategy?	Yes.
7 (p28) 7A (p28-	OBJECTIVE (1) MINIMISE ENVIRONMENTAL IMPACT Risks & Impacts from waste activities can be minimised by:	7.1 Do you have any other ideas	WRIWA strongly supports Updating Regulatory Approaches – see our detailed response in the next section.
29)	a) Improving the design of products     b) Updating regulatory approaches     c) Improving services & infrastructure     d) Improving consumer and producer behaviour     e) Reduction and safe disposal of problem wastes	about how we can minimise environmental risks and impacts from waste?	
7B (p29)	What we are currently doing:  a) Applying waste levy and enforcing compliance b) Detecting, investigating & prosecuting illegal dumping c) Implementing the litter prevention strategy d) Providing collection, storage    & disposal of hazardous waste e) Reviewing & updating the regulatory framework f) Introducing container deposit system g) Banning single use lightweight plastic bags  We believe we should also: a) Expand the illegal dumping program b) Equitable application of the waste levy c) Waste classifications & definitions should be reviewed & updated d) Encourage the use of waste derived materials including product specifications e) Better practice guidance & standards for	7.2 Are there other actions that should be undertaken to minimise environmental impact?  7.3 What should state and local governments do? Business and industry? Community groups?	7.2 WRIWA supports the current and proposed actions. In particular WRIWA considers that more needs to be done to support:  Equitable application of the waste levy New compliance and enforcement approaches are urgently needed to improve the waste management and levy framework in Western Australia. Recent increases in Western Australia's Landfill Levy have driven the growth of fraudulent activity in the disposal of construction and demolition (C&D) waste. At the same time, the Levy has disadvantaged honest players in the industry who comply with the Levy conditions and support the State's recycling objectives.  While its clandestine nature makes the illegal waste disposal industry impossible to quantify, there is good reason to believe that it is both extensive and a significant cause of lost revenue to Government. The Four Corners episode of 7 August 2017 contained a number of allegations about the transport and dumping of construction and demolition (C&D) waste from NSW to Queensland for the purpose of avoiding the Levy.  The situation in WA is similar, with C&D waste being transported and dumped illegally on a significant scale for the purpose of avoiding the Landfill Levy. Transporters are moving C&D waste out of the metropolitan area to regional landfills where monitoring
	waste facilities, waste steams & waste derived products.  f) Asses & develop guidance for landfill infrastructure & practices g) Review management of hazardous waste h) Encourage the use of recycled materials to		of compliance is severely compromised. Until this fraudulent activity is brought to a halt, the Government cannot achieve its recycling objectives. WRIWA considers that additional measures are necessary to end large-scale avoidance and create a level playing-field for honest operators and recommends:  1. Waste levies should be consistent across the largest jurisdiction possible, and ideally be applied in a manner that minimises 'border' market distortions.

Ref	Subject	Questions	WRIWA Response
	reduce risks & impacts of stockpiling		<ol> <li>The area in which the Landfill Levy applies must be extended. Initially it should extend to at least a radius of 500 km from the Perth CBD.</li> <li>If different landfill levies are created by geographic boundaries, levy portability must be designed so that enforcement is rigorous enough to deter arbitrage and levy avoidance.</li> <li>C&amp;D waste transporters should be licensed.</li> <li>Improved certification/receipting procedures and reporting are required at each point in the waste supply chain to both improve understanding of recycling and diversion rates, and correct application of landfill levies. For example, C&amp;D waste transporters should be required under the regulations to identify at the point of disposal, where the waste has originated. The identity, registration number, licence of the truck and driver should be recorded and the driver should certify the information as true. Breaches should be rigorously prosecuted.</li> <li>In addition a GPS tracking system, monitored by DWER, should be put in place.</li> <li>Processes for active auditing of data supplied by regional landfills to DWER should include quarterly aerial volumetric surveys of non-metropolitan landfills. Quarterly volumetric surveys should be undertaken of all licensed landfills including all non-metropolitan landfills to ensure correct remittance of the landfill levy.</li> <li>Clear definitions to eliminate potential misrepresentation of key terms such as "waste", "waste origin", "waste source" etc. is required as part of eliminating levy avoidance.</li> <li>Weighbridges should be installed at all licenced landfills. Levy fund loans should be made available from the collected Landfill Levy Fund.</li> <li>There needs to be a large increase in the number of DWER officers dedicated to compliance. The Auditor General's report of October 2016 commented that: "DWER is unable to ensure that all waste operators self-reporting" and that "only 47% of (high risk) sites were inspected annually". (Report 23</li></ol>

Ref	Subject	Questions	WRIWA Response
			recycled. ¹  16. Landfill levies should not be applied on waste volumes subject to bad debts. The current discount of 8% for administration does not adequately cover bad debts.  17. Waste levies should not be applied in a manner that makes recycling uneconomical or less economical within internationally competitive markets.  18. The impact of levies on recycling residuals to meet the market requirements for international exports such as metals recycling needs to be minimised, possibly via discounts to ensure competitiveness with direct exporters of unprocessed materials and competing exporters from zero levy jurisdictions. The need to address this issue has become increasingly important with the advent of the China National Sword program which has made sale of recycled metal products both ferrous and non-ferrous considerably more problematic (see also under Objective 3 below). Although levies should be as uniform as possible, a critical consideration is to ensure their application does not undermine the recovery of materials destined for international export. For example in the metals recycling sector, the application of the levy on the disposal of recycling residuals ('shredder floc') greatly reduces the competitiveness of recovered steel sold into the international market. If a levy reduction on recycling residual is applied, transparent reporting should be put in place and overviewed by the State levy administrator. WRIWA notes that there is a 50% discount on the landfill levy for floc in NSW, and supports the introduction of a similar discount here in WA.  19. WRIWA supports the current schedule of landfill levy rates of \$70 per tonne for putrescible and inert waste to apply in 2019. WRIWA does not support any increase in these rates in the foreseeable future due to the impact on the competitiveness of recovered materials in international markets, and the potential for higher landfill levy rates to encourage illegal dumping.  Hazardous Materials in Recycling  The receipt of hazardous/dangerous materials in

<sup>1</sup> For clarity this also means producing a product for sale or use at the landfill - such as daily cover - and includes creation of electricity or a heat supply from landfill gas.

Ref	Subject	Questions	WRIWA Response
7C (p31)	Targets: a) Collect & report data on incidence impact & outcomes of the illegal dumping program b) Achieve a 25% reduction in littering 2012-13 to 2020 c) Facilitate appropriate separation, collection, transport, management & disposal of problem wastes d) Ensure that mechanisms regulatory & non-regulatory are consistent, appropriate & reduce environmental impact & risks from waste management.	7.4 What targets do you consider should be used for the objective?	<ol> <li>Targets should be concrete, quantifiable and achievable, for instance:</li> <li>Levy avoidance through transporting waste outside the metropolitan area is reduced to zero by 2020.</li> <li>Littering is reduced by 25% from 2012-13 levels by 2020.</li> <li>Appropriate separation, collection, transport, management and disposal of 100% of problem wastes is achieved by 2022.</li> <li>DWER to immediately cease the practice of reliance on operators self-reporting.</li> <li>100% of (high risk) sites to be inspected annually.</li> <li>All WA landfills within 500km of Perth to provide DWER with quarterly aerial volumetric surveys by 2019.</li> <li>(Targets are distinct from the means used to achieve the targets, such as regulatory</li> </ol>
8	OBJECTIVE 2		and non-regulatory mechanisms.)
(p33) 8A (p34)	REDUCE GENERATION  Efficient processes and design that minimise material use & packaging  a) Choosing products designed for longevity & serviceability.  b) Improved food supply chain processes.  c) Reduce availability & convenience of 'disposable' products & choosing low waste alternatives.  d) Improved building design & construction planning.  e) Increasing knowledge & awareness of waste, impacts & strategies for avoidance.  f) Incentives & disincentives.	8.1 Do you have any other ideas about how we can reduce our waste generation?	WRIA supports all of the objectives.  In addition, manufacturers/distributors/retailers of goods should be required to minimise packaging and utilise materials that are recyclable (ie: have an end use market).
8B (p34)	What we are currently doing:  a) Implementing a ban on single use plastic bags.  b) Community education & communication.  c) Waste Wise Schools  d) Supporting charitable organisations that recycle clothing & other goods.  e) Supporting community & industry initiatives	8.2 Are there other actions that should be undertaken to reduce waste generation?	No

Ref	Subject			Questions	WRIWA Response
	We believe that we should also:  a) Lead collaboration between state government agencies.  b) Encourage behaviour change to reduce food waste  c) Improve community awareness & understanding.  d) Engage with decision makers & opinion leaders			8.3 What should state & local governments do? Business & Industry? Community groups? What will you do?	
8C					Yes.
		2025	2030		
	Reduction in waste generation per capita compared to 2014-15	10%	20%		
	Waste generation (kg per capita)	2,361	2,098		
9	OBJECTIVE 3				
(p37)	INCREASE RECOVERY				
9A (p37)	Factors that influence recovery of construction & demolition, organics, plastic, paper & cardboard are:  a) Services & infrastructure b) Behaviour change. c) Improved product design, longevity & serviceability d) Improved building & construction processes e) Improved food chain supply chain processes f) Increasing the demand for recycled products.			any other ideas about how we can increase resource recovery?	See below.
9B	What we are currently do		- ( )	9.2 Are there other	WRIWA supports both current and proposed initiatives.
(p38)	<ul> <li>a) Better Bins (3 bin rest)</li> <li>b) Recycled Construction</li> <li>c) Waste Wise Schools</li> <li>d) Household hazardoute</li> <li>e) Guidance to improve verge side &amp; drop off</li> <li>f) Support community</li> <li>g) Container deposit so</li> </ul>	on Products us waste per local gore f services & industry	orogram orogram vernment	actions that should be undertaken to increase resource recovery?	Government use of recycled materials  The acceptance and use of recycled materials by State and local government bodies needs substantial improvement as an important means of avoiding waste to landfill. In June 2016, the Waste Authority's Position Statement Construction and Demolition Waste noted that while only 38% of C&D waste was recycled, some other jurisdictions have achieved rates of 75% (NSW and SA) or 69% (Victoria). The evidence suggests that State and local government policies have a significant bearing on these rates.

Ref	Subject	Questions	WRIWA Response
	<ul> <li>We believe that we should also:</li> <li>a) Develop opportunities for state government agencies to increase use of recycled product &amp; recover resources.</li> <li>b) Develop better practice guidance to increase recovery for building industry, food chain, waste drop off facilities &amp; landfills.</li> <li>c) Implement consumer &amp; industry recycling education &amp; engagement programs.</li> <li>d) Develop a legislative framework to encourage the use of waste derived materials including product specifications.</li> <li>e) Implement a state government procurement policy to support sustainable procurement.</li> <li>f) Promote food &amp; garden organics kerbside systems.</li> </ul>	9.3 What should state & local governments do? Business & industry? Community groups?	The Municipal Waste Advisory Council conducted a survey of Western Australian Local Governments in 2013 to determine the acceptance and use of recycled C&D materials in local projects. Utilisation rates were found to be poor with less than half of the local governments which participated in the survey (15 out of 41) having used recycled materials; the balance of 26 Councils preferred to use virgin material.  WRIWA notes the substantial difference in attitude and outcomes between Victoria and Western Australia with respect to the use of recycled building materials. Victoria has a simple specification for incorporation of recycled materials in products such as road base. Victorian government agencies enthusiastically promote the use of recycled building materials which has created confidence and demand for the use of these materials. In some cases Victorian processing and recycling operators now pay collectors of C&D waste for some materials.  Western Australia should carefully consider Victoria's specifications for, and Government leadership in, the use of recycled building materials, so that a fully functioning recycled products market is established in WA. This will provide a significant economic incentive to divert C&D waste from landfill and is key to achieving the WA Government waste objectives. In summary, WRIWA fully supports the view expressed in the Foreword to the Waste Authority's 2016 Position Statement that "the use of recycled products for road base in WA should be an entirely unremarkable activity and the norm rather than the exception".  Container Deposit Scheme  WRIWA supports the introduction of a Container Deposit Scheme (CDS) and is keen to participate in the development of final policy positions and of legislation to implement this initiative. WRIWA considers that the following aims should be supported by the CDS in its final form:  • deliver maximum benefits to the environment from decreased littering and increased recycling;  • keep cost imposts at a minimum using simple and expedient proc

<sup>&</sup>lt;sup>2</sup> (http://www.wastenet.net.au/Assets/Documents/Content/Information/CD\_Report\_Feb\_2013.pdf)

Ref	Subject	Questions	WRIWA Response
			WRIWA notes the requirement for barcodes to make possible the introduction of reverse vending machines. Any extension of barcode technology to the collection, sorting and verification of eligible containers from kerbside systems and MRF is not supported by WRIWA.
			The capital cost of implementing appropriate technology and the ongoing operating costs of barcoding in a MRF environment is prohibitive. Instead, WRIWA suggests that a regulated estimation method be utilised to determine the quantity of kerbside collected eligible containers and requests that it be given the opportunity to participate in its design.
			The design of the estimation and/or eligibility verification method may require additional handling of containers. In its submission to DWER dated 23 October 2017, WRIWA therefore requested that the statement "Containers in kerbside recycling do not attract a handling fee as collectors are already being paid by the local government to collect the recycling" (see p30 Western Australia Container Deposit Scheme - Discussion Paper) be withdrawn until the design of the estimation method is agreed.
			China 'National Sword' The China National Sword agenda which has seen China tighten acceptance criteria for recyclables by reducing acceptable contamination levels from 5% to 0.5% has disrupted the Australian recycling industry. Estimates of what this will do to the costs of processing recyclables vary from an increase of \$100 to \$200 per tonne.
			Traditionally the risk for varying commodity prices has been placed on private enterprise. This risk transfer model is no longer viable. All three tiers of government need to become involved in working with private enterprise to share this risk.  The cost of upgrades to recycling facilities to achieve a ten-fold reduction is significant. The State Government should support private industry by:  1) providing grants for upgrades to recycling facilities;  2) ensuring that government procurement policies prioritise the use of recycled materials in preference to virgin materials; and  3) supporting and incentivising the development of a home grown manufacturing industry using post-consumer products.
			The Victorian Government has announced an industry assistance package relating to the China National Sword issue, valued at \$13 million.  For further details see: <a href="https://www.premier.vic.gov.au/stepping-in-to-support-industry-and-councils-with-recycling/">https://www.premier.vic.gov.au/stepping-in-to-support-industry-and-councils-with-recycling/</a>

Ref	Subject				Questions	WRIWA Response
9C (p 39)	Targets: These build on the 2012 was benchmarked against other  Resource recovery rate  All sectors - WA  Municipal solid waste — Perth metro region  Municipal solid waste — major regional centres  Commercial & Industrial — WA  Construction & Demolition - WA		ictions:	2030 % 75 70 60 80	Questions  9.4 Are these the right targets for Objective 3 of the waste strategy?	<ol> <li>WRIWA Response</li> <li>9.4 WRIWA supports the stated targets and adds the following:</li> <li>1) 100% of Local Governments use recycled C&amp;D materials in preference to virgin materials by 2020.</li> <li>2) Local Government increase the percentage of recycled C&amp;D materials to 15% by 2020, 20% by 2025 and 25% by 2030.</li> <li>3) WRIWA understands that the Waste Avoidance and Resource Recovery budget specific to the promotion, acceptance and take up of recycled materials has had little or no expenditure in recent years in the following categories:         <ul> <li>Recycled Product Specification – currently zero spend.</li> <li>Recycled C&amp;D Market Development Program – 0.1% of budget spend currently.</li> <li>Resource Recovery Grant Scheme – zero spend currently.</li> </ul> </li> <li>We suggest that a competitive grants process be put in place seeking expressions of interest from companies and/or organisations to promote innovative approaches and adoption of national/international best practice in Western Australia.</li> </ol>
						<ul> <li>The Waste Authority convene a working party with Main Roads WA, DWER and industry with the objectives of:         <ul> <li>reviewing, by December 2018, current obstacles to the use of C&amp;D aggregates in road construction; and</li> <li>increasing the use in WA of C&amp;D aggregates in line with levels being achieved in Victoria by December 2020.</li> </ul> </li> </ul>