

Standing Council on Environment and Water

# Packaging Impacts Consultation Regulation Impact Statement (RIS)

Standing Council on Environment and Water  
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# Format for public forum

9:30

- Introduction

9:40

- Background and context

10:00

- Cost–benefit analysis for Consultation RIS (PwC)

11:00

- Questions

11:20

- Next steps

# Background and Context

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# Background and context

- (1) What is a Regulation Impact Statement (RIS)?
- (2) Why do a RIS on packaging impacts?
- (3) Role of Consultation RIS
- (4) Role of Standing Council on Environment and Water (SCEW)
- (5) History of government consideration
- (6) Progress to date on the Packaging Impacts RIS
- (7) Key issues for consultation

## (1) What is a Regulation Impact Statement (RIS)?

- ▶ What does a RIS do?
- ▶ Emphasis is on analysis; not advocacy
- ▶ Informs governments' regulatory decisions
- ▶ Consultation RIS & Decision RIS
- ▶ Consultation RIS has no preferred option
- ▶ Role of Office of Best Practice Regulation

## (2) Why do a RIS on packaging impacts?

- ▶ Long-standing and strong community interest
- ▶ Consumption of packaging continues to rise
- ▶ Away from home recycling and litter key priority areas
- ▶ Degree of inconsistency between jurisdictions
- ▶ Desire to do more at a national level
- ▶ Test effectiveness and feasibility of a national approach

### (3) Role of Consultation RIS

- ▶ Council of Australian Governments (COAG) requires broad stakeholder consultation
- ▶ Consultation on identified options
- ▶ Feedback fills gaps, corrects errors and identifies alternatives
- ▶ Significance of public submissions

## (4) Role of Standing Council on Environment and Water (SCEW)

- ▶ What is SCEW?
- ▶ Composition of SCEW
- ▶ Role
- ▶ The Senior Officers Oversight Group (SOOG)
- ▶ What happens after consultation period closes?



## (5) History of government consideration

1999

- First National Packaging Covenant (1999–2005)

2005

- Second National Packaging Covenant (2005–2010)

2008

- Mid term review of second National Packaging Covenant
- Cost-effectiveness study of packaging recycling options (BDA report)

2009

- Willingness-to-pay study (PwC report)
- National Waste Policy agreed – Strategy 3 on packaging waste and litter

2010

- New Australian Packaging Covenant
- Ministerial Council decision to undertake Consultation RIS on packaging

2011

- Commonwealth *Product Stewardship Act 2011*

## (5) History of government consideration

**July 2010** – EPHC agreed to a Consultation RIS on national measures to address the impacts of packaging, including (but not limited to):

- container deposit legislation (CDL)
- an advanced disposal fee (ADF), and
- enhanced workplace, events, hospitality and public place recycling

The Council decision recognised that:

- the broader problem is packaging waste, particularly in the away-from-home and commercial settings, and
- beverage containers are a subset of this problem

## (6) Progress to date on the Packaging Impacts RIS

**September–  
November 2010**

- One-on-one consultation with key stakeholders

**December 2010**

- Stakeholder workshop in Sydney

**January–  
February 2010**

- Stakeholder feedback invited

**March–  
June 2011**

- Open tender process for economic services
- PricewaterhouseCoopers (PwC) and Wright Corporate Strategy (WCS) appointed

**July 2011**

- Stakeholder workshop in Melbourne

## (6) Progress to date on the Packaging Impacts RIS

**July–  
September 2011**

- PwC and WCS liaise with key stakeholders on options (Boomerang Alliance, packaging industry, Covenant)

**November–  
December 2011**

- OBPR clearance of Consultation RIS; ABARES peer review of CBA report

**7 December 2011**

- Ministers release Consultation RIS for public comment

**February–  
March 2012**

- Public forums

**30 March 2012**

- Closing date for public submissions

## (7) Key issues for consultation

- ▶ No preferred option
- ▶ Ministers will consider quantitative (e.g. costs) and qualitative information (e.g. community preferences) in making a decision
- ▶ Stakeholder feedback will inform ministers' decision making
- ▶ Unless marked 'confidential', public submissions will be uploaded onto the SCEW website
- ▶ Submissions report will be published

## (7) Key issues for consultation

- ▶ Questions on a range of issues
- ▶ Feedback on all aspects of RIS welcome
- ▶ Additional information & evidence sought

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# ***COAG Standing Council on Environment and Water***

## **Cost-benefit analysis for Packaging Impacts Consultation RIS**

Public forum presentation

February-March 2012



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# ***Consultation RIS Public Forum***

- 1. Introduction**
- 2. Problem analysis**
- 3. Options**
- 4. Key assumptions**
- 5. Cost-benefit analysis results**
- 6. Other benefits (not in the CBA)**
- 7. Sensitivity analysis**

## ***Disclaimer***

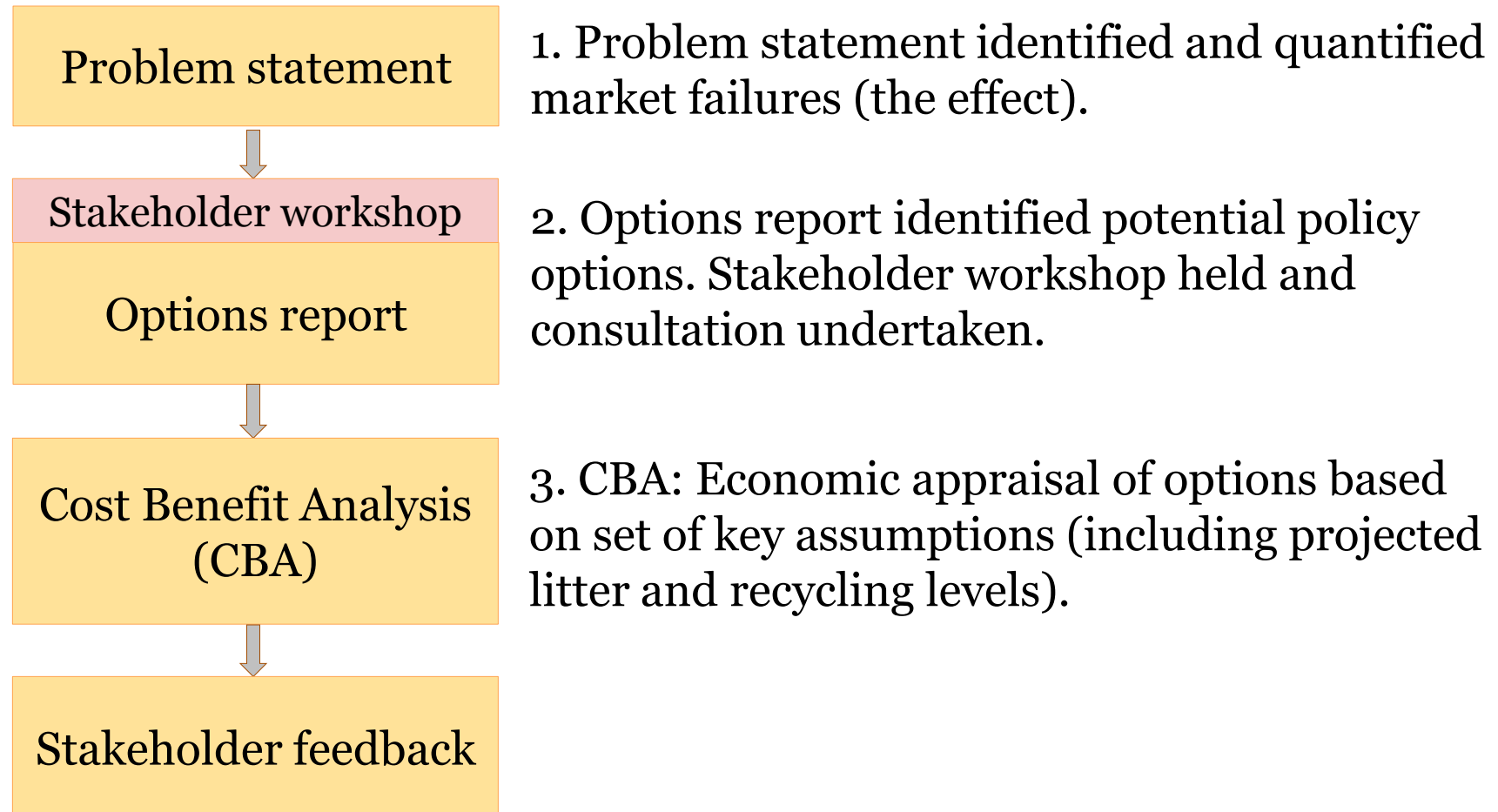
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The information, statements, statistics and commentary (together the “Information”) contained in this presentation draws on material prepared by PwC S from publicly available material and from discussions held with stakeholders. PwC have based this presentation on information received or obtained, on the basis that such information is accurate and, where it is represented by the client and other stakeholders as such, complete. The Information contained in our reports have not been subject to an Audit. The information must not be relied on by third parties, copied, reproduced, distributed, or used, in whole or in part, for any purpose other than detailed in our Consultant Agreement without the written permission of the COAG SCEW and PwC.



# ***Introduction***

## **Process for developing the CRIS**



## *2. Problem analysis*

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## ***Definition of packaging***

Packaging is defined as materials that protect and preserve raw materials and products as they move through supply chains.

Packaging includes:

- ✓ containers
- ✓ wrapping
- ✓ cartons
- ✓ beverage containers
- ✓ padding

Packaging can be made of:

- ✓ paper
- ✓ flexible plastics
- ✓ glass
- ✓ cardboard
- ✓ rigid plastics
- ✓ metals
- ✓ paperboard
- ✓ expanded plastics
- ✓ wood

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## *Current national recycling performance*

- 62.5% of all packaging recycled in 2010 (2.8 million tonnes)
- 37.5% to landfill or littered (1.7 million tonnes)
- ‘Away-from-home’ recycling lower than ‘at-home’ for **glass, plastic, steel** and **aluminium**
- Significant differences between material types

# Current national recycling performance

## Recycling Performance by Material Type and consumption location (2010)

Material	Consumption (tonnes)	At-Home Recycling (%)	Away-from-Home* Recycling (%)	Total Recycling (%)
Paper/ cardboard	2,680,000	75.6%	75.5%	75.5%
Glass	991,000	53.8%	26.6%	47.0%
Plastics	565,000	51.7%	23.1%	34.8%
Steel cans	136,000	37.0%	14.6%	30.3%
Aluminium cans	51,600	77.5%	57.3%	67.4%
<b>Total</b>	<b>4,424,000</b>	<b>60%</b>	<b>64%</b>	<b>62.5%</b>

Source: Wright Corporate Strategy (2011). See *Attachment A: Problem statement for packaging*, Appendix B for the methodology to derive this table.

\* 'Away-from-home' = offices, industry, venues, institutions, shopping centres, schools, public places

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## *Current national litter performance*

- Limited data on how much is littered nationally
- Keep Australia Beautiful annual National Litter Index survey:
  - packaging litter rates declining slightly
  - packaging makes up 87% of litter by volume and 37% of litter by item
- Estimated 40,000-160,000 tonnes of packaging littered annually
- 60,000 tonnes most realistic estimate for analysis

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## ***Problems identified in CRIS***

- Waste reduction and resource recovery objectives not being met in away-from-home sector, leading to externalities such as litter
- Innovations in packaging design not necessarily improving recyclability
- Potential for increasingly fragmented jurisdictional approaches, hindering operation of national market
- Improvements in recycling rates under current arrangements not guaranteed

# *3. Options*



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## *Options development*

- Based on problem analysis and stakeholder input, a range of options were selected for initial analysis
- Two options, 2B and 4A, specifically proposed by stakeholders
- Options compared to ‘business as usual’ or base case, representing current arrangements across Australia:
  - state/territory/local government programs
  - Australian Packaging Covenant (APC)
  - voluntary action

## *Options shortlisted for analysis*

<b>Non-regulatory</b>	Option 1 - National Waste Packaging Strategy
<b>Co-regulatory</b>	Option 2A - Co-regulatory Packaging Stewardship
	Option 2B - Industry Packaging Scheme (proposed by industry participants)
	Option 2C - Extended Packaging Stewardship Scheme
<b>Mandatory</b>	Option 3 - Mandatory Advance Disposal Fee (ADF)
	Option 4A - Boomerang Alliance (BA) Container Deposit Scheme (CDS)
	Option 4B - Hybrid CDS

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## ***Option 1: National Packaging Waste Strategy***

- Non-regulatory; all packaging materials
- Funded from additional government resources
- Co-ordinated jurisdictional action to increase resource recovery and reduce litter. May include:
  - Away-from-home recycling programs
  - Consistent labelling of recycling bins
  - Measuring and reporting litter rates
  - Voluntary standards for product labelling
- Implementation from 2014 (1 year for Decision RIS; 1 year to develop strategy)

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## ***Option 2: Co-regulatory Packaging Stewardship***

- Co-regulatory industry stewardship schemes addressing all packaging waste:
  - 2A brings current APC under Product Stewardship Act
  - 2B based on industry National Bin Network proposal
  - 2C extended scheme
- Government sets outcomes and requirements; industry has flexibility in how achieved
- Each scheme has regulated targets for packaging recycling and litter reduction
- Implementation from 2015 (1 year for Decision RIS; 2 years to develop regulations and establish arrangements)

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## ***Option 3: Mandatory Advance Disposal Fee***

- Government places mandatory ADF on all packaging materials
- Designed to influence producer decisions, reduce packaging consumption
- Revenue from ADF to fund packaging recycling and litter initiatives, such as:
  - increased public place recycling
  - business recycling programs
  - end market development
- Implementation from 2015 (1 year for Decision RIS; 2 years to develop legislation)

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## ***Option 4: Mandatory Container Deposit Scheme***

- Targeting beverage containers
- 4A from Boomerang Alliance; 4B hybrid model based on international analysis
- Key difference is configuration of infrastructure:
  - 4A is hub and spoke model with large number of reverse vending machines (RVMs)
  - 4B relies on storefront depots
- Both models: 10 cent refund; 1200 urban/regional collection points; 700 rural/remote collection points
- Implementation from 2016 (1 year for Decision RIS; 2 years to develop regulations; 1 year to establish infrastructure)

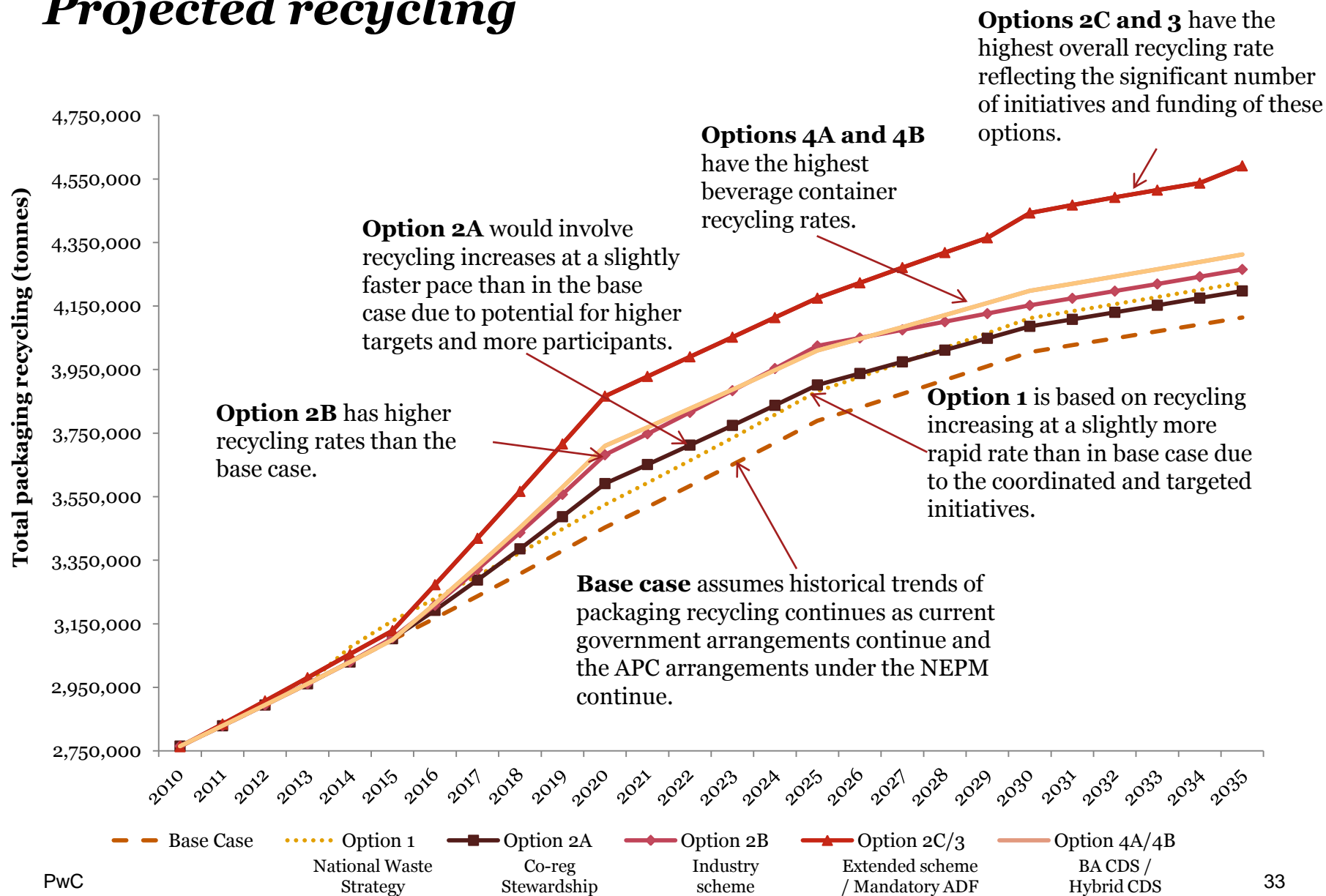
# *4. Key assumptions*

# *General assumptions and projections*

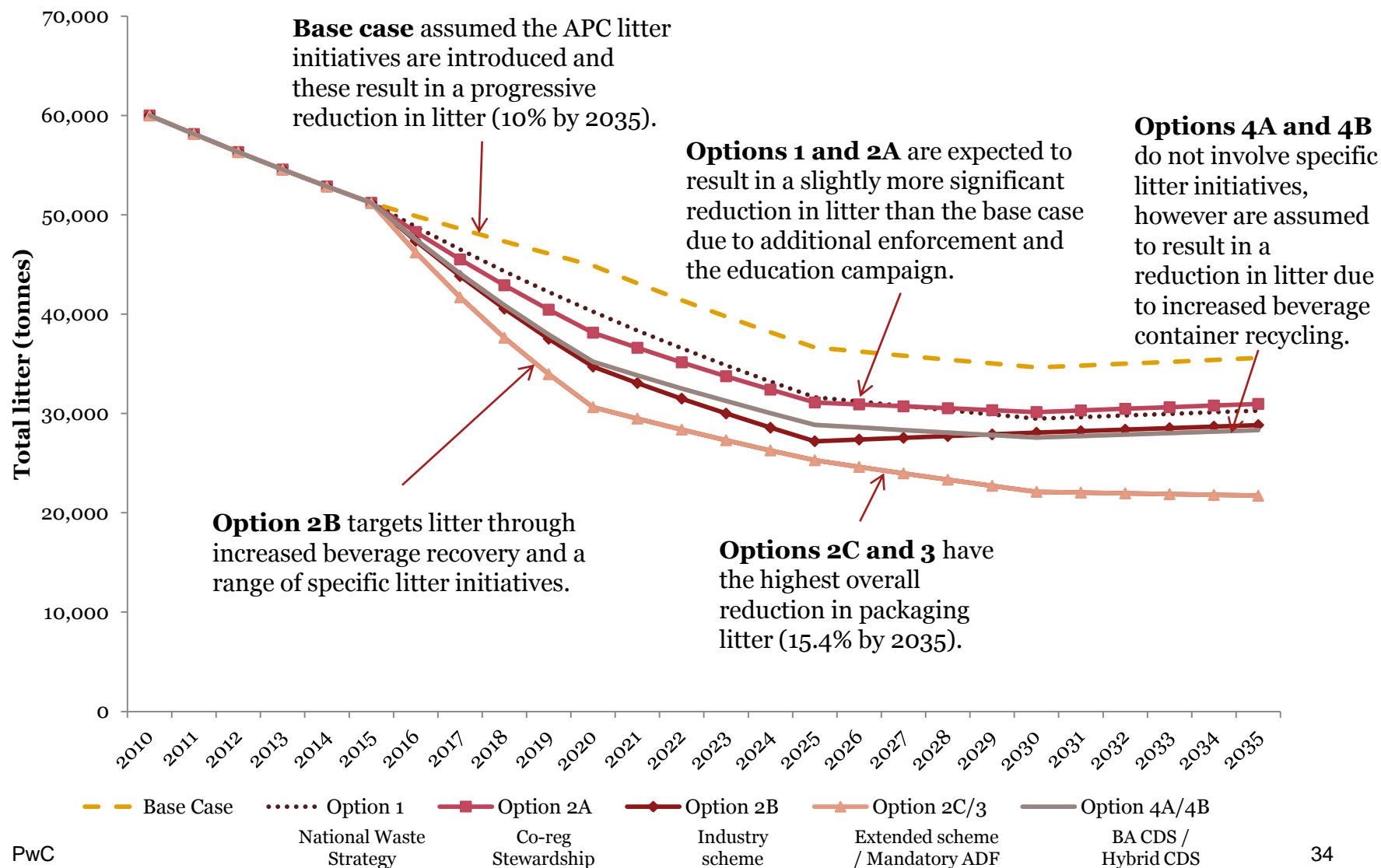
<b>General assumptions</b>	Base year	2011
	Evaluation period	25 years (to allow 20 years of operation for all options)
	Real discount rate	7%
<b>Projections</b>	Consumption projections	Same for all options; based on historical growth of packaging consumption relative to population
	Recycling projections	Recycling projections based on initiatives of each option (as specified in the options report) and maximum recycling rate considered feasible
	Litter projections	Due to lack of data on litter, method developed based on 'packaging available to be littered'



# Projected recycling



# Projected litter



# *5. Cost-benefit analysis results*

# Cost estimates

Indicative costs (incremental to base case, discounted PVs, \$ millions)

Category	Cost	Option 1	Option 2A	Option 2B	Option 2C	Option 3	Option 4A	Option 4B
Scheme design and implementation	Regulation design and implementation	0	1	1	1	1	1	1
	Communications	3	3	4	4	4	10	10
Collection, transport and recycling	Household participation costs	83	83	152	250	250	447	457
	Business participation costs	20	20	37	61	61	7	7
	Collection and transport costs	53	70	58	125	125	-759	-759
	Processing of recycling at MRFs	63	66	118	194	194	-1,964	-1,964
Scheme operation	Government costs to administer regulations	0	1	1	1	1	1	1
	Scheme administration costs	0	3	3	3	0	3	3
	Scheme initiatives and infrastructure	87	10	177	342	342	4,379	4,716
Scheme compliance	Reporting and labelling	0	2	2	2	2	0	0
Total costs		311	258	552	982	979	2,125	2,471

# Benefit estimates

Indicative benefits (incremental to base case, discounted PVs, \$ millions)

Category	Benefit	Option 1	Option 2A	Option 2B	Option 2C	Option 3	Option 4A	Option 4B
Financial benefits	Market value of resources	148	153	275	449	449	463	463
Avoided costs	Avoided regulatory costs	0	35	35	35	35	35	35
	Avoided landfill externalities	31	30	36	43	43	36	36
	Avoided operating costs of landfill	29	31	55	91	91	62	62
	Avoided costs of litter clean up	54	56	102	168	168	114	114
Total benefits		262	304	503	786	786	710	710

## Cost-benefit analysis results

		Option 1 National Strategy	Option 2A Co-reg APC	Option 2B Industry Scheme	Option 2C Extended Scheme	Option 3 Mandatory ADF	Option 4A BA CDS	Option 4B Hybrid CDS
<b>Costs</b>	PV \$millions	311	258	554	984	981	2,125	2,471
<b>Benefits</b>	PV \$millions	262	304	503	786	786	710	710
<b>NPV</b>	\$millions	-49	46	-51	-198	-195	-1,414	-1,761
<b>BCR</b>	Number	0.84	1.18	0.91	0.80	0.80	0.33	0.29

- CBA does not include society's willingness to pay for increased recycling and reduced litter or co-benefits
- These benefits are relevant to the assessment of options

## *6. Other benefits (not in CBA)*

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## ***Willingness to pay for increased recycling***

- 2010 PwC willingness to pay (WTP) study found households are willing to pay on average \$2.77 p.a. for every 1% increase above current national packaging recycling levels
- Not appropriate to add these WTP values to CBA results because likely to be element of double counting



# *Willingness to pay for increased recycling*

Willingness to pay benefits (incremental to base case, \$ millions, PV)

	Option 1 National Strategy	Option 2A Co-reg APC	Option 2B Industry Scheme	Option 2C Extended Scheme	Option 3 Mandatory ADF	Option 4A BA CDS	Option 4B Hybrid CDS
Lower confidence interval	234	233	422	689	689	465	465
Point estimate	296	295	534	871	871	588	588
Upper confidence interval	403	402	727	1,186	1,186	801	801

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## *Unquantified benefits*

### **A. Willingness to pay for reduced litter**

- 2010 PwC willingness to pay (WTP) study found high level of household concern about litter
- Households willing to pay between \$146 million and \$695 million per annum for a ‘noticeable’ or ‘significant’ reduction in litter
- However, unit of reduction not clear – not possible to determine what respondents had in mind when assessing a ‘noticeable’ or ‘significant’ reduction
- As a result, it was not possible to quantify the litter WTP values for each option

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## *Unquantified benefits*

### **B. Co-benefits for recycling other materials**

All options could potentially increase non-packaging recycling and/or reduce non-packaging litter (a 'co-benefit').

For example:

- Collection infrastructure for Option 4A and 4B could be used to collect a range of other recyclable items (e.g. other packaging and non-packaging items such as mobile phones, TVs and computers)
- Option 2B, 2C and 3 could increase non-packaging recycling through improved bin configuration
- Option 2B, 2C and 3 could reduce non-packaging litter through increased funding for clean-up campaigns

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## *Unquantified benefits*

### **C. Other co-benefits**

Other co-benefits discussed qualitatively in the CRIS include:

- Avoided mixed waste processing costs from removal of contaminants
- Energy and water savings from increased recycling
- Increased employment in the recycling sector

# *7. Sensitivity analysis*

## ***Sensitivity analysis***

A range of sensitivity tests were undertaken to test changes in costs, benefits and discount rates

<b>Option 1, 2B, 2C and 3</b>	Result in a <b>net benefit to the economy</b> when: <ul style="list-style-type: none"><li>• Benefits are increased by 30%</li><li>• Costs reduced by 30%</li><li>• The portion of litter that is packaging is increased</li></ul>
<b>Option 2A</b>	Results in a <b>net cost to the economy</b> when: <ul style="list-style-type: none"><li>• Costs are increased by 30%</li><li>• Benefits are reduced by 30%</li></ul>
<b>Option 4A and 4B</b>	Result in a <b>net cost to the economy</b> under all sensitivity tests

# *Conclusion*

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## *Conclusion*

- The analysis conducted by PwC was to provide an economic analysis of proposed options which could form a basis for stakeholder consultation
- Taking a strict market view suggests that Option 2A has the highest net economic benefit
- Options may have a range of co-benefits and society's values for increased recycling and reduced litter could not be included in the CBA

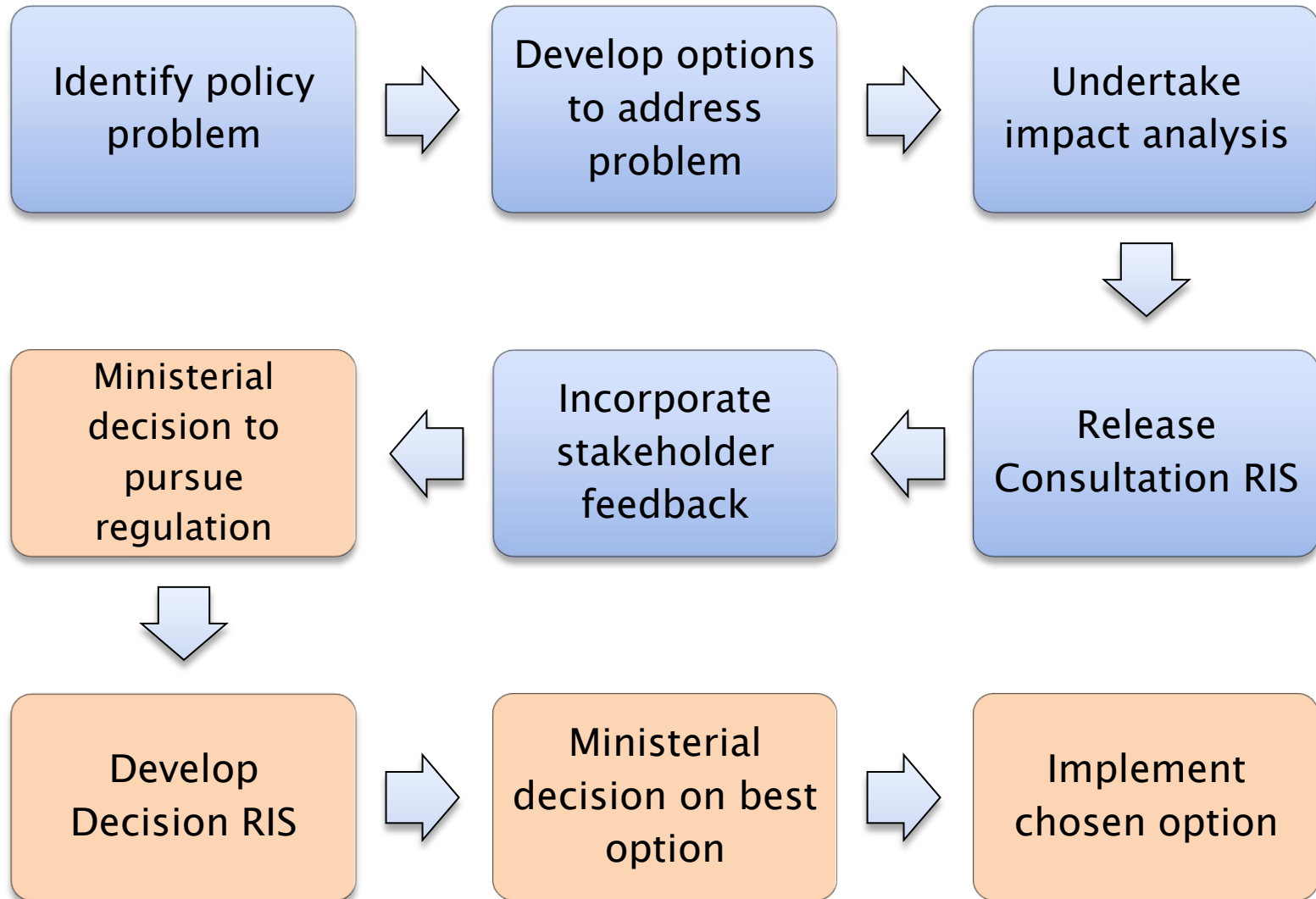


# Next steps

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# RIS Process



# Next steps

Submissions close on 30 March 2012

Stakeholder feedback will inform ministers' decision whether to pursue a national approach

If regulatory option sought, Decision RIS will need to be prepared – could take up to 1 year

Ministerial decision on the preferred option in a Decision RIS in 2013

Timeframes for implementation outlined in Consultation RIS

## Key issues for consultation

- ▶ No preferred option
- ▶ Ministers will consider quantitative (e.g. costs) and qualitative information (e.g. community preferences) in making a decision
- ▶ Stakeholder feedback will inform ministers' decision making
- ▶ Unless marked 'confidential', public submissions will be uploaded onto the SCEW website

## Key issues for consultation

- ▶ Questions on a range of issues in the RIS
- ▶ Feedback on all aspects of RIS welcome
- ▶ Additional information & evidence sought