

Overview of AW-3

Context and Description

2007 Technical Work Groups

- **Agriculture/Waste** - biofuels, waste reduction, recycling and energy recovery, solid waste management
- **Energy Supply** - heat and power generation, electrical generation, transmission
- **Forestry** - forest restoration, sustainable forest management, wood energy and sequestration
- **Residential, Commercial & Industrial** - energy efficiency and conservation, industrial process, "customer side" of the meter
- **Transportation** - including vehicle efficiency, alternative fuels and demand reduction programs

2007 TWG Mitigation Options

- **Agriculture/Waste** – 8 options
- **Energy Supply** – 7 options
- **Forestry** – 8 options
- **Residential, Commercial & Industrial** – 11 options
- **Transportation** – 13 options
- Total = 47 options for prioritization and work

AG/Waste Mitigation Options

Option #	Option Name	Annual GHG Reductions		Cost Effectiveness	2020 Cumulative GHG Reductions	NPV 2007-2020 Cost/Cost Savings
		2012 MMt	2020 MMt	\$/MtCO _{2e}	MMtCO _{2e}	\$ Million
1	Manure digesters / Other Waste Energy Utilization	0.18	0.94	-\$3.93	5.08	-\$19.94
2	In-State Production of Biofuels and Biofuels Feedstocks	-	1.45	\$57.53	4.59	\$264.33
3	Significantly Expand Source Reduction, Reuse, Recycling and Composting	1.30	4.76	-\$12.10	29.21	-\$353.32
4	Agricultural Carbon Management	0.21	1.12	-\$12.46	6.04	-\$75.23
5	Agricultural Nutrient Management	0.03	1.45	\$0.86	0.86	-\$2.13
6	Reductions in On-Farm Energy Use and Improvements in Energy Efficiency	0.01	0.06	-\$76.28	0.31	-\$23.37
7	Preserve Open Space / Agricultural Land	0.75	0.11	\$16.05	10.42	\$167.23
8	Support for an Integrated Regional Food System	Not Quantified				

AW-3 Option

Significantly Expand Source Reduction, Reuse, Recycling and Composting

(household, business, industrial, agricultural, and construction-related waste streams)

2005- existing recycling efforts reduced greenhouse gas emissions in Washington by almost 3.2 million metric ton CO₂ equivalents

Build on existing programs and approaches and take advantage of newer market and business-based activities.

AW-3 Option Description

- **In addition to traditional recycling programs, a partial list of these approaches includes:**
 - ✓ **source reduction (waste prevention) initiatives**
 - ✓ **expanding existing and encouraging more reuse, recycling, composting and processing businesses**
 - ✓ **establishing product stewardship programs**
 - ✓ **using environmentally preferable procurement practices**
 - ✓ **encouraging cradle-to-cradle design and manufacturing**
 - ✓ **facilitating safe byproduct “synergy” strategies**
 - ✓ **achieving a reduction of toxics in packaging and products to make them safer to manufacture, use and recycle while increasing their value and use in the market place**
 - ✓ **increasing closed-loop recycling and the percentage of recycled-content in products**
 - ✓ **expansion of disposal bans**

AW-3 Option Short Story

Goals:

Reduce the total amount of household and business waste by 15% and recycle at least 50% of the waste remaining

Capture for composting (anaerobic digestion, etc.) over 90 percent of compostable organics

AW-3 Table 1. Goals by Household and Business Waste Sources

	Current Recycling Rate	Source Reduction Goal	Recycling Goal	Composting Goal
Aluminum Cans	33%	15%	60%	
Steel Cans	14%	15%	50%	
Glass	26%	15%	50%	
HDPE	20%	15%	50%	
LDPE	91%	15%	91%	
PET	32%	15%	50%	
Corrugated Cardboard	61%	15%	80%	
Newspaper	56%	15%	80%	
Office Paper	44%	15%	60%	
Food Scraps	17%	15%		80%
Yard Trimmings	56%	15%		100%
Mixed Waste Paper (general)	28%	15%	60%	
Mixed Metals	83%	15%	90%	
Mixed Plastics	2%	15%	25%	
Mixed Organics	50%	15%		90%

Timing: Achieve 30% of the incremental increase in diversion by 2012.
Achieve full goal implementation by 2020.

AW-3 Implementation Mechanisms

1. Local waste audits (statewide system model)
2. Evaluate use of a model and index to measure and monitor GHG reductions
3. Build on existing source reduction and recycling programs, targeting commodities with the largest GHG reduction potential.
4. Fully implement and update Washington's Beyond Waste Plan.
5. Fully implement and expand Environmentally Preferable Procurement policies.
6. Encourage manufacturers to provide – and consumers to use – end of life management and upstream design solutions for product waste.
7. Encourage large retailers to leverage buying power to encourage manufacturers to make the design solutions that reduce GHG and environmental impacts of product waste.
8. Establish a research and educational institute to address sustainable product design and manufacturing.
9. Annual reporting of progress to legislature.
10. Form an on-going technical work group of experts on reduction, reuse, recycling, composting, product stewardship and green business development to advise.

2007 CAT's 12 Directional Recommendations

- CAT incorporated policy options and strategies into packages.
- 5 broad enabling strategies
- 7 specific action recommendations

Recommendation 11

Reduce waste and Washington's emissions of GHGs through improved product choices and resource stewardship.

The 'most promising' strategies under this recommendation are:

- **Significant Expansion of Source Reduction, Reuse, Recycling and Composting (AW-3)**
- In-State Production of Biofuels and Biofuels Feedstocks (AW-2)
- Consumer Education Programs, Including Labeling of Embodied Life-cycle Energy and Carbon Content of Products and Buildings (RCI-8)
- More Stringent Appliance/Equipment/ Lighting Efficiency Standards, and Appliance and Lighting Product Recycling and Design (RCI-10)
- Expanded Use of Wood Products for Building Materials (F-5)

Figure 3: Projected GHG Emissions from Business-as-Usual and Anticipated Reductions from Recent Actions and CAT Strategies

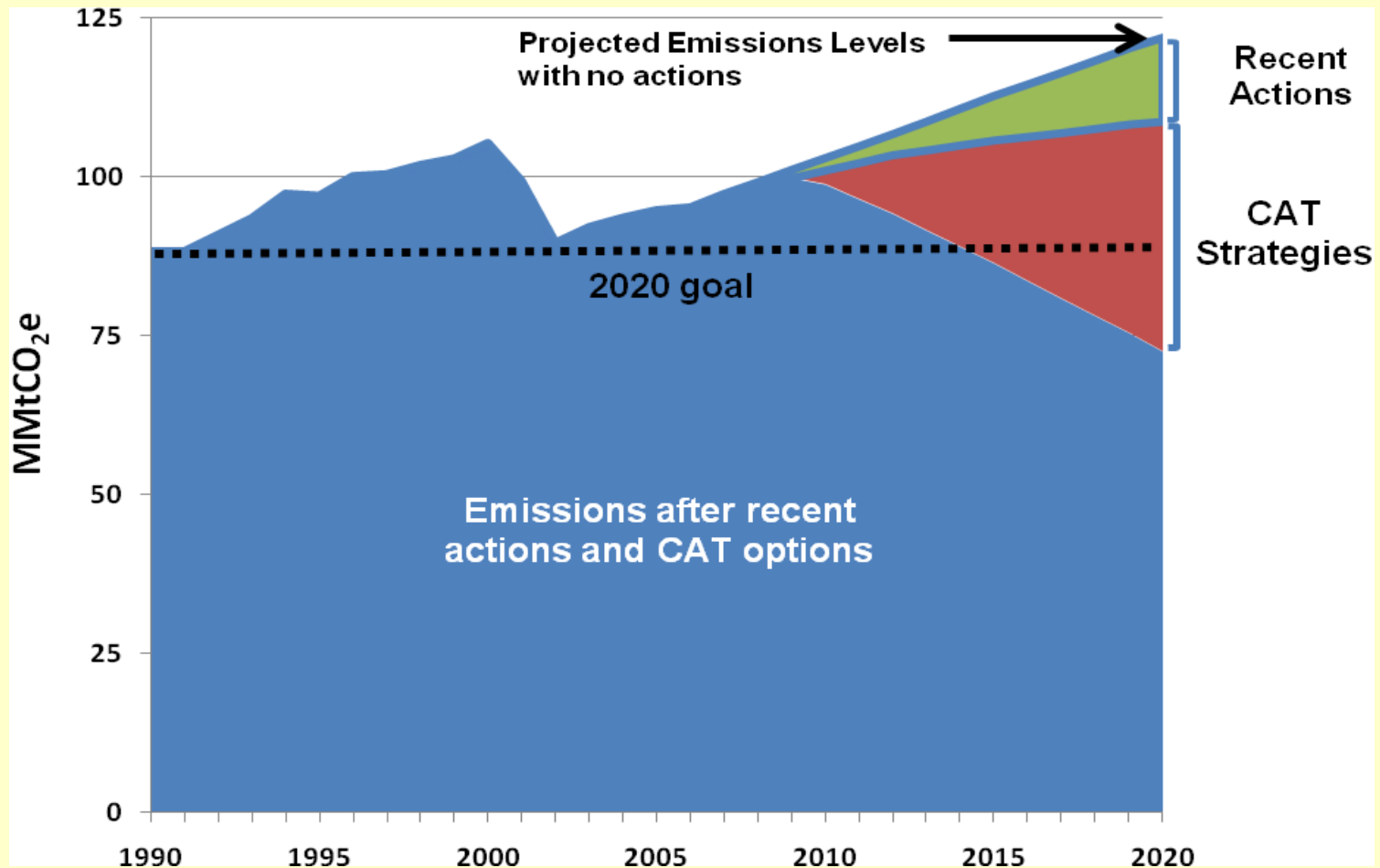


Figure 6: Anticipated GHG Emissions Reductions (MMtCO₂e) and Cost Impacts for Quantified Strategies (as calculated for the strategies individually, from 2008–2020)

