



State of Oregon  
Department of  
Environmental  
Quality

## Briefing Paper: Sustainable Consumption and Waste Prevention

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### Introduction

DEQ has a clear mandate to advance waste prevention, the “reduce, reuse” part of the solid waste management hierarchy.<sup>1</sup> Oregon state law identifies prevention as the most preferred policy approach for managing solid waste (the top of Oregon’s waste management hierarchy). Oregon law also establishes statutory goals for reducing waste generation (via prevention and reuse). Yet prevention is somewhat of an odd fit with the remainder of the waste management hierarchy. Ultimately, prevention involves changes in how materials are *designed, purchased and used*; it operates primarily in the realms of production and consumption, not waste management. At the same time, significant discussions are underway outside of DEQ – advanced by businesses, governments and non-governmental organizations – about “sustainable consumption.” This paper provides some background on sustainable consumption and explores its relationship with waste prevention. It concludes that DEQ’s traditional waste prevention work may be more effective if reframed clearly in the context of sustainable consumption.

### Sustainable Consumption: Definitions and Background

While sustainability, environmental and economic researchers have written about the challenge of sustainable consumption for decades, the topic began to attract serious attention with the 1987 United Nations report “Our Common Future” and the 1992 United Nations Conference on Environment and Development (also known as the Rio Earth Summit). Outcomes of that conference included:

- The “Rio Declaration on Environment and Development,” which includes the statement “To achieve sustainable development and higher quality of life for all people, States should reduce and eliminate unsustainable patterns of production and consumption . . .”
- “Agenda 21,” a blueprint for international activities to foster sustainable development. Chapter 4, “Changing Consumption Patterns,” places primary responsibility on industrialized countries.
- The establishment of the United Nations Commission on Sustainable Development.

The Commission on Sustainable Development defines sustainable consumption as “the use of services and related products which respond to basic needs and bring a better quality of life while minimizing the use of natural resources and toxic materials as well as the emissions of waste and pollutants over the life cycle so as not to jeopardize the needs of future generations.”

International action progressed further at the World Summit on Sustainable Development in Johannesburg in 2002. Like Agenda 21, the resulting Johannesburg Plan of Implementation articulates the need to change consumption patterns and directs developed countries to take the lead in that change. The 2002 summit launched an international process referred to as the “Marrakech Process,” which spent

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<sup>1</sup> The hierarchy is contained in Oregon law and describes a six-tiered set of preferences for managing solid wastes. Reduction is the most preferred method, followed by reuse, then (in order) recycling, composting, energy recovery and landfilling. For additional details on waste prevention, please refer to the separate [briefing paper on waste prevention](#).

the next 10 years developed a draft framework of programs for sustainable consumption and production. This framework was discussed by the commission in 2012 but has not yet been officially adopted.

The business community has also become much more engaged in the topic of sustainable consumption. For example, the World Business Council for Sustainable Development has published a series of reports on the topic. A 2008 report developed by members of WBCSD's Consumers & Sustainable Consumption workstream draws a number of conclusions:<sup>2</sup>

- “Current global consumption patterns are unsustainable... efficiency gains and technological advances alone will not be sufficient to bring global consumption to a sustainable level; changes will also be required to consumer lifestyles, including the ways in which consumers choose and use products and services. We recognize the need for business to play a leadership role in fostering more sustainable levels and patterns of consumption, through current business processes such as innovation, marketing and communications, and by working in partnership with consumers, governments and stakeholders to define and achieve more sustainable lifestyles.”
- “Human well-being does not necessarily rely on high levels of consumption... many poorer countries achieve levels of life satisfaction that is just as high as their wealthier neighbors. Above a minimum level, there is no apparent correlation between per capita GDP and life satisfaction.”
- “Consumers are increasingly concerned about environmental, social and economic issues, and increasingly willing to act on those concerns; however consumer willingness is not translating into sustainable consumer behavior. A variety of barriers have been identified, such as availability, affordability, convenience, product performance, conflicting priorities, skepticism and force of habit.”
- “There is currently no common understanding of what a sustainable product or lifestyle is. Business may determine the sustainability of a product based on a full life cycle analysis. Retailers, governments and other actors may assess the “sustainability” ...of a product based on varying disclosure criteria or societal pressure. As a result of this confusion over who determines the sustainability of a product, choices to edit the availability of certain products are often in conflict. Business, governments and society (including consumers) must work together to define sustainable products and lifestyles.”

The WBCSD goes on to describe “important roles... in fostering sustainable consumption” for businesses, governments, consumers and non- governmental organizations. Roles for government include: international agreements; national policies, laws and regulations; fiscal structures and incentives; infrastructure and services (transport, recycling, etc.); guidance for businesses and consumers; monitoring; and enforcement.

The business group BSR (formerly Businesses for Social Responsibility) has also recently published on the topic of sustainable consumption, defining it as a new set of potential opportunities for businesses. Echoing others, BSR (2010) concludes “we are living beyond our ecological means” and “an economic model that overshoots natural resource constraints while failing to meet peoples’ basic needs is, quite literally, unsustainable. What’s needed, therefore, is a new model of economic development in which all people can meet their basic needs without disrupting healthy ecosystems, which serve as the foundation for sound economies, sustaining and enhancing human life.”

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<sup>2</sup> Members include adidas, Coca-Cola, General Motors, Henkel, Interface, KPMG, Nokia, Philips, Procter & Gamble, PricewaterhouseCoopers, Sony and Weyerhaeuser, among others.

## Waste Prevention and Sustainable Consumption

Sustainable consumption in practice can take many forms; waste prevention and sustainable consumption have considerable overlap yet are very distinct. Waste prevention may be thought of as a subset of sustainable consumption. Both share the broad goal of a (more) sustainable society, although their boundaries and practices may differ. Sustainable consumption addresses all consumption practices with the goal of sustainability (the “triple bottom line” of environment, economy and equity); it involves minimizing the use of natural resources and toxic materials as well as the emissions of waste and pollutants over the life cycle of materials and products. Waste prevention typically addresses only those practices that reduce solid waste generation, with a broader goal (in the case of Oregon statute) of protecting the environment.

When viewed in the broader framework of sustainability, focusing on waste prevention alone has some limitations:

- The term “waste prevention” is confusing to many people and also difficult to communicate. Although waste prevention is fundamentally about changes in how materials are designed, purchased and used, the use of the term “waste” leads many people to assume that prevention is the same as recycling.
- If “waste prevention” is interpreted literally as being limited to solid waste, then prevention actions are limited to those that reduce solid waste generation. This constrains discussions about alternatives in a way that makes little sense to businesses or the general public (as well as government) and may foreclose discussion of important options. For example, when applied to home construction and wall framing, a narrow and literal reading of “waste prevention” might require that walls use minimal material (perhaps excluding the use of energy-saving insulation) or avoid heavier, more waste-generating options such as insulated concrete forms. Yet DEQ’s recent green building research shows that when it comes to wall framing, more material may result in lower overall environmental impacts. Similarly, when applied to product packaging, “waste prevention” would require the use of the lightest-weight material possible, even if it is fundamentally not sustainable. In both cases other, more sustainable options might be excluded merely because they produce more solid waste. A narrow, literal interpretation of “waste prevention” limits options to just those that prevent solid waste.
- Even within this narrowed range of purchasing options (limiting purchases to just those products that are reused or produce minimal waste at end-of-life), not all solid waste prevention activities are necessarily good for the environment. For example, under a narrow waste prevention framework, the owner of a failing, old and inefficient refrigerator might choose to repair the refrigerator or replace it with another used one, when in fact neither of these options is necessarily beneficial. In contrast, an option that benefits the environment (relative to the status quo) would be to buy a new, high efficiency refrigerator and remove the old inefficient one from use by having it destroyed via recycling (even though doing so would increase generation of solid waste).
- Waste prevention represents an effort to be “less bad,” as opposed to a vision that is healthy and/or restorative. Another way of thinking about this is that waste prevention, as commonly interpreted, is only about “consuming less.” In contrast, sustainable consumption involves both “consuming less” and “consuming differently.”

State policy provides DEQ with clear direction to advance waste prevention (via the statutory waste management hierarchy and statewide waste generation goals). DEQ does not have a similarly clear and explicit mandate around sustainable consumption. However, the goals (or at least, the environment-specific goals) of sustainable consumption are generally consistent with the goals of DEQ’s core work,

including but not limited to the policy objectives contained in ORS 459.015.<sup>3</sup> DEQ's regulatory system already sets limits and mandates standards to prevent pollution that affects Oregonians and others (for example, limits on air emissions through permit requirements and vehicle testing, prioritization of critical waterways and limits on discharges, and goal setting to conserve energy and resources and reduce landfilling that has pushed the development of the recycling infrastructure). DEQ sometimes promotes specific behaviors in order to protect the environment and public health. Creating stronger momentum toward sustainable consumption patterns will be challenging and may require approaches outside of DEQ's historic (and traditional) roles, but doing so is consistent with the broad goals of conserving energy and natural resources and protecting the environment and human health.

## Conclusion

There is growing, worldwide recognition that current patterns of consumption are fundamentally not sustainable and cannot be increased or even continued in perpetuity. This recognition spans elements of government, business and civil society. Waste prevention shares much in common with sustainable consumption in that it addresses how materials are designed, purchased and used. However, the framework of waste prevention, narrowly interpreted, sometimes limits options and creates barriers to success. The environmental goals of sustainable consumption are widely held and largely consistent with the goals of Oregon's solid waste policy. The broader framework of sustainable consumption offers a more coherent and comprehensive framework for action. As part of DEQ's 2050 Vision for Materials Management project, DEQ invites discussion on whether efforts to engage consumers and producers in changing how materials are purchased and used, already a central element of DEQ's Waste Prevention Strategy, would be more effective if recast in the larger framework of sustainable consumption.

This paper established the relationship between waste prevention and sustainable consumption. Separate briefing papers summarize [barriers and challenges to sustainable consumption](#), and [policy and program options](#) for government to make consumption and its corollary, production, more sustainable.

## References

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<sup>3</sup> These include conserving energy and natural resources; maintaining public health, safety and welfare; and reducing the impacts associated with increasing consumption of resources.