

State of Oregon  
Department of Environmental Quality

Memorandum

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**Date:** March 6, 2018

**To:** Environmental Quality Commission

**From:** Richard Whitman, Director

**Subject:** Agenda item K, Informational item: Update on *Materials Management in Oregon: 2050 Vision and Framework for Action*  
March 21-22, 2018, EQC meeting

**Why this is important**

In December 2012, the commission adopted *Materials Management in Oregon: 2050 Vision and Framework for Action* to guide a more holistic approach toward reducing the significant impacts from materials produced, used and discarded in Oregon. The *2050 Vision* is directing a significant shift: from a narrow focus on managing wastes to a broader and more holistic approach that considers the impacts that occur across the full life cycle of materials - from extraction of resources to recovery and disposal. This is important because the large majority of environmental impacts occur before materials are discarded. The *2050 Vision* is uncovering new opportunities for government, businesses and individuals to protect the environment. The novelty and significance of Oregon's new approach is attracting widespread interest and attention nationwide.

EQC requested annual updates on implementation of the *2050 Vision and Framework for Action* and Oregon's progress toward achieving the vision. The last update was provided to the EQC in January 2017 in Hillsboro.

**Background**

The *2050 Vision* describes a future with sustainable materials management. It includes a vision statement – *Oregonians in 2050 produce and use materials responsibly; conserving resources; protecting the environment; living well* – and desired outcomes for the design and production, consumption and use, and end-of-life management of materials in 2050. The document addresses both materials produced in Oregon, as well as materials used in Oregon but made elsewhere.

The accompanying *Framework for Action* includes actions to reduce ecological impacts at every stage in material and product life cycles. Those actions are organized into four pathways: foundational work, policies and regulations, collaboration and partnerships, and education and information.

DEQ has worked with many diverse stakeholders with varying interests and knowledge in order to develop its Sustainable Materials Management Program. To develop the *2050 Vision and Framework for Action*, DEQ worked for over a year during 2011 and 2012 with a diverse group of stakeholders. Following EQC adoption in December 2012, DEQ convened a new 23-member stakeholder workgroup to explore key statutory changes needed to successfully implement the *2050 Vision and Framework for Action*. DEQ also consulted extensively with other stakeholders across Oregon. Resulting legislation was adopted in 2015 that significantly expanded DEQ's authority to implement the *2050 Vision and Framework for Action*, restored and stabilized funding, and set new goals and program requirements.

DEQ received new fee revenues from landfill tipping fees updated in 2015, which provided for a significant investment in priority work. DEQ has been able to restart valuable services such as grants and collection of toxic wastes that had been suspended during the Great Recession. Recently hired staff in new positions are starting up new projects addressing cleaner production, toxics reduction, waste prevention, government procurement, reuse/repair, recycling, and developing new measures of environmental outcomes.

At the same time, DEQ is responding to new external challenges and opportunities. First among these is China's "National Sword" policy regarding recycled materials. China's policy is severely restricting all mixed recyclable imports from any country including the U.S. This policy shift is severely restricting U.S. exports of mixed recyclables and disrupting community recycling programs here in Oregon. Advances in methods for quantifying the environmental impacts of materials are identifying new and sometimes different priorities. External interest in concepts such as circular economy, sustainable consumption and production, wasted food, the nexus of materials and climate change, emerging toxics, and extended producer responsibility are also providing DEQ with ample opportunities to engage with partners to reduce the environmental impacts of materials.

**Implementation  
updates**

Recent highlights of Materials Management Program activities include the following:

In 2017, DEQ announced the award of 58 grants for projects across the state to reduce and recover solid wastes. Awards totaling \$1.9 million were announced in three separate grant rounds. This included the Program's first-ever grants to businesses, issued in a pilot "micro-

grant” project to support reuse and repair organizations with workforce development needs. Other grants went to support community recycling and composting projects, building material reuse, rescue and redistribution of edible food, school programs, local plans, waste prevention, and projects that will prevent the wasting of edible food.

DEQ worked with numerous concrete producers during 2017 in a partnership with the Oregon Concrete and Aggregates Producer Association. The partnership has a goal to help concrete businesses measure and disclose the environmental impacts of their concrete mixes using Environmental Product Declarations, or EPDs. EPDs are third-party-verified product labels that can be used by purchasers to choose lower impact products and by companies to prioritize environmental improvements. Through this program, DEQ provides free access to a web-based EPD tool, limited technical assistance directly to businesses, and a reimbursement incentive. DEQ expects the first concrete EPDs from an Oregon business by this spring.

DEQ is working with local governments, businesses, non-profits, and trade groups to accelerate efforts to prevent the wasting of food. DEQ will complete a major statewide study in 2018 into the quantities and causes of wasted food. Study results will inform future outreach and business partnerships, and will establish a baseline against which future progress will be evaluated.

Last year, DEQ completed several projects aimed at advancing repair and reuse, including a successful pilot project to replace single-use bottled water with filtered filling stations in several schools, a workforce development project to grow the Portland area’s building deconstruction industry, and technical support for an Oregon Health Authority-led project to establish standards for dust reduction from building demolitions.

DEQ is continuing to conduct groundbreaking research that informs business decisions and sustainability programs. In 2017, Materials Management, working with the Oregon Sustainability Board, published nine literature summaries specific to the environmental impacts of foods. One outgrowth of that research was a follow-on study into reusable versus single-use kegs for the beer, wine and coffee industries. This year, DEQ will complete a major study into popular environmental attributes as they relate to packaging and foodservice products.

As a result of the 2015 legislation to increase program revenue, Senate Bill 245, DEQ, in partnership with Department of Administrative

Services, established a dedicated position to advance government procurement of low environmental impact materials. DEQ is now playing an active role in advancing sustainability criteria in national and statewide price agreements.

DEQ plans to publish an update to Oregon's consumption-based greenhouse gas emissions inventory in 2018. This inventory estimates the global emissions resulting from Oregon's consumption, and illustrates that our state's global "carbon footprint" continues to rise. In parallel, DEQ has started work on a sustainable consumption strategy, consistent with Oregon's *2050 Vision*.

DEQ organized household hazardous waste collection events in eight cities, and cleaned out 44 school labs in 2017.

On Jan. 1, 2018, new waste prevention and reuse requirements in the Opportunity to Recycle Act took effect. These require certain local governments to implement three to five waste prevention and reuse program elements. To assist local governments in complying with these requirements DEQ developed two campaigns. One commercial campaign promotes preventing the wasting of food, and a residential campaign encourages Oregonians to be more thoughtful about clothing purchases and care for their clothing to extend its useful life.

Also taking effect Jan. 1, 2018, were changes to the Expanded Education and Promotion program in the OTR, which now requires local governments to assess contamination in their recycling programs and take actions to reduce contaminants.

DEQ began to engage stakeholders early this year to find options that will support extending recycling opportunities to tenants of multi-tenant buildings. DEQ presented research conducted in 2017 to understand the state of multi-tenant recycling in Oregon and elsewhere. From this research and discussion with stakeholders, the workgroup will present options to improve recycling opportunities for tenants and this will inform a report to the Legislature in early 2019. DEQ's objective is to have tools and resources ready by 2021 for local programs to prepare for changes that take effect July 2022.

24,090,122 pounds of electronic devices were recycled as part of the Oregon E-cycles Program in 2017. The E-Cycles Program, a product stewardship effort, has ensured free access to recycling for televisions, computers, and monitors to all Oregonians since 2009; printers, keyboards, and mice were added in 2015. Electronic manufacturers cover all the costs associated with recycling the electronic devices.

The PaintCare program now has 174 drop-off sites, located throughout the state, provide free access to recycling for architectural paint. The recycling of paint is provided by a paint stewardship program, is paid for by Oregonians who buy paint, and overseen by DEQ. In 2009 Oregon became the first state in the nation to implement such a program.

DEQ continues to monitor and provide Oregonians with high-quality foundational data into materials and waste flows. The annual material recovery survey is used to estimate waste recovery and generation rates for communities across the state. A new project, IMFO, for “environmental Impacts of Material Flows in Oregon”, is being developed in order to calculate “outcome-based” recovery rates as required by legislation passed in 2015 as well as to inform program managers and policymakers regarding the broader environmental impacts of materials. In 2017 DEQ also completed statewide field sampling for a major waste composition study, which evaluates the material content of the state’s garbage.

**Next steps and  
EQC  
involvement**

*Materials Management in Oregon: 2050 Vision and Framework for Action* calls for an update every six years. The next update, which will require EQC adoption, is anticipated in late 2019.

DEQ is also working on a requirement from Senate Bill 263 (2015) that will require revisions to several administrative rules. This involves establishing alternative “outcome-based” waste recovery goals and measurement methods. These rules are anticipated to be presented to the commission in 2019.

In the coming year, DEQ will continue to work with stakeholders to design and implement several new programs for waste recovery, waste prevention and sustainable consumption, sustainable production and business partnerships, sustainable purchasing, outcome-based goals and measures, life cycle analysis, and public outreach. DEQ will also be recruiting for five additional positions that were authorized by the 2017 Legislative Assembly that will enhance this work.

**Program links**

1. Program website:  
<http://www.oregon.gov/deq/LQ/Pages/SW/MaterialsManagement.aspx>
2. Link to January 2017 program Report to the Legislature:  
<http://www.oregon.gov/deq/FilterDocs/MMProgram2017.pdf>

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3. Link to *Materials Management in Oregon: 2050 Vision and Framework for Action*:

<http://www.oregon.gov/deq/FilterDocs/MManagementOR.pdf>

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