APPENDIX A

2010 Summary of Meetings

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DEQ is a leader in restoring, maintaining and enhancing the quality of Oregon's air, land and water.

I. General Background

This documents the results of the Product Stewardship Stakeholder Group (PSSG) process conducted by the Oregon Department of Environmental Quality (DEQ) in partnership with Metro Oregon (Metro) in 2010. This is an overview of product stewardship, including product stewardship in Oregon, and reflects stakeholder group input on the policy and design of product stewardship programs and how such programs can be implemented in Oregon.

The background information and stakeholder input described here informs the Department of Environmental Quality's report and recommendations on future product stewardship policy in Oregon.

The PSSG was convened to assist and inform DEQ in responding to a budget note directive from the 2009 Oregon Legislature. DEQ, in its continuing work to develop product stewardship solutions for Oregon, building on concepts like the legislatively mandated full producer responsibility Oregon E-cycles program and the producer run national rechargeable batteries program, Call2Recycle. This policy work includes methods for indentifying future products and designing programs where producers take greater responsibility for their products throughout the products lifecycle, including the end of the products' useful life.

II. Product Stewardship Stakeholder Group Purpose and Process

As part of the development of a product stewardship program, key stakeholders were assembled for a working group to provide guidance on policy and program development. The group, called the Oregon Product Stewardship Stakeholder Group, included a wide range of interests representing manufacturers, retailers, recyclers, waste collectors and disposal facilities, environmental advocacy organizations, and state and local government officials. A full list of stakeholder group members and their affiliations is included at the end of this document.

Beginning in January 2010, the stakeholder group met eight times over a ten-month period working toward three key goals:

- Enhancing stakeholders' understanding of product stewardship as a policy approach
- Identifying key elements for a product stewardship program, including such things as roles and responsibilities, a process to select products, performance goals, convenience standards, and environmental management.

- Discussing and considering legislative recommendations and DEQ policy development priorities.

As part of its guiding principles, the work group agreed that consensus on conclusions was not a primary consideration and that input on a range of issues would be sought and documented. Where consensus could be reached by the group, it would be documented as well. The work of the group in general would inform the development of product stewardship policy in Oregon.

During the first several meetings the group discussed background information based on several white papers and presentations related to the "state of the practice" in product stewardship. Topics for these included an overview of product stewardship programs worldwide, environmental impacts of products, possible considerations for the structure and elements of product stewardship programs, and green design.

As meetings progressed, the group focused on key program elements facing product stewardship, such as performance goals, convenience standards, financing and product selection. The group also discussed merits and shortcomings of existing and possible product management structures. During the last several meetings, the group continued discussions on program governance, key program elements, and product selection, and focusing on DEQ recommendations. The group's final meetings offered an opportunity to fine-tune recommendations and ensure that the groups' input had been captured accurately.

III. Overview of Product Stewardship

A. What is Product Stewardship?

Product stewardship is typically described as a policy approach that involves those who produce, distribute, and use a product in reducing the lifecycle environmental and health impacts of the product from how the product is manufactured to how it is managed at the end of its life. In general, product stewardship policy is intended to address the following objectives:

- Redistribute and potentially reduce the cost of waste management;
- Enhance options for better end-of-life management, including increased options for collection and recovery of materials; and
- Improve environmental and human health benefits through reduced life-cycle impacts, including improvements in product design and manufacture.

Key discussion points:

The general concept stated above, an approach which places primary responsibility on the producer, has guided Oregon solid waste policy development since 2000, including the passage of the e-waste product stewardship law in 2007 and the paint product stewardship law in 2009.

Regarding the general concept of product stewardship there were different perspectives on how responsibility should be shared under a product stewardship approach. Some interests in the group preferred a flexible approach to sharing that might address the specific and economic characteristics of a product and result in more efficient and economical programs. For example they thought a producer could reduce the toxicity of their product, but may not have control over getting consumers to return that product at end-of-life. Other thought public education should be a shared responsibility, and producers should be primarily responsible for the end-of-life management of products and its associated costs. Costs should shift from local governments and the general ratepayers to the producers and consumers who benefit from the sale and use of the products.

The PSSG discussed and reinforced the idea that product stewardship in Oregon should address the lifecycle impacts of products, from product design and manufacture to managing the waste product at the end of its useful life (end-of-life). Specific discussion points about the mechanisms for reducing life cycle impacts are addressed in Section V and VIII of this report. It is also important to recognize the role product technology and life span plays in the ability of producer "take-back" programs to influence environmental improvements in product design. For products that experience frequent technology changes/improvements and have relatively long life spans making producers responsible for collection programs are likely to have little impact on design improvements. This is further complicated by systems that do not require producers to take back their own brands as opposed to requiring them to take back all brands.

B. Background on product stewardship in Oregon[1]

Since 2000 product stewardship has been an approach used to manage some products in the waste stream that contain toxic chemicals or are otherwise difficult to manage.

In 1999 the Waste Policy Leadership Group (WPLG), a solid waste policy advisory group, was convened by DEQ to help set future solid waste policy direction in Oregon. The WPLG recommended product stewardship as a priority policy direction for toxic and difficult-to-manage products and identified electronics, carpet, and mercury containing products as initial priority product categories. Since that time the following product stewardship policy work has occurred:

- 2000 – 2005 participation nationally and regionally through Western States Electronics Product Stewardship Initiative (WEPSI) and National Product Stewardship Initiative (NEPSI) on electronics product stewardship policy
- 2000 Oregon signed the national carpet memorandum of understanding for a voluntary product stewardship program. That agreement expires in 2012 and work is underway on a new agreement as well as legislation for a carpet product stewardship program in California.

[1] The information in this section addresses product stewardship policy in Oregon since it was formally viewed as product stewardship in 2000. Earlier solid waste legislation that shifted some responsibilities to producers is not included - 1) the bottle bill (1970); 2) recycled content standards for glass containers, newsprint, and directories (1991); 3) rigid plastic container requirements (1991); lead acid battery disposal (1989); and the sale and collection of alkaline manganese batteries and mercuric oxide batteries (1995)

- 2001 Oregon legislature required manufacturers of mercury containing thermostats to provide a program for the collection and management of thermostats as universal waste.
- 2003 Oregon legislature passed a law (SB867) asking for a study on an e-waste product stewardship.
- 2004 – 2008 participation nationally through the Product Stewardship Institute's Paint Product Stewardship Initiative (PPSI) on a product stewardship approach for managing leftover paint.
- 2005 Oregon legislature considered but did not pass legislation (SB740) for an e-waste product stewardship program funded by an advanced recovery fee on the sale of covered products.
- 2007 Oregon legislature passed legislation (HB2626) for an e-waste product stewardship program covering televisions, computers, and computer monitors. This law is similar to a law passed in Washington in 2006.
- 2007 – 2008 Oregon Association of Clean Water Agencies (ACWA) convened a multi-stakeholder process to develop proposed product stewardship legislation for the management of leftover pharmaceuticals.
- 2009 Oregon legislature passed legislation (HB3037) for a paint stewardship program. The legislature also considered but did not pass product stewardship legislation for pharmaceuticals, rechargeable batteries, mercury lights, and phone directories as well as a framework for implementing future product stewardship programs.

In addition to legislated programs, several voluntary product stewardship programs operate in Oregon including the Call2Recycle program for rechargeable battery and cell phone recovery operated by rechargeable battery producers; a mercury thermostat recovery program for contractors operated by the producer funded Thermostat Recovery Corporation (TRC); the National Vehicle Mercury Switch Recovery Program operated by the End of Life Vehicle Solutions (ELVS) Corporation; and a few individual retailer take-back programs for mercury containing fluorescent lights and cell phones. All of these programs are primarily focused on end-of-life management of waste products.

Several national voluntary product stewardship programs focus "upstream" in the design, manufacture, and procurement of products. Electronics products have an international voluntary program (Electronic Product Environmental Assessment Tool or EPEAT) that establishes independent third party environmental standards for select electronic products that are used to inform institutional and business procurement of "green" products. This program improves the design of products and reduces the lifecycle impacts of those products. A similar "Eco Index" for clothing and recreational goods is being rolled out this year by the Outdoor Industry Association. There are also examples of individual producers voluntarily making "upstream" changes, such as reducing the mercury content of fluorescent lamps. Wal-Mart, as a retailer, has established its sustainable value network, which impacts how products are made, packaged, and sold. It should be noted that none of these "product improvement" programs engage in end-of-life management of discarded products but are solely focused on the environmental improvements of product design.

C. Principles of Product Stewardship

The key product stewardship principles that have guided the development of product stewardship policy to date and presented to the PSSG included the following:

- All parties involved in designing, manufacturing, selling, and using a product take responsibility for reducing the environmental impacts at every stage of the product's life. Those who have the greatest ability to influence the lifecycle impacts of the product have the greatest responsibility.
- Government's role is to set performance standards and to ensure the appropriate handling and environmental management of materials.
- Producers have flexibility in determining how to best implement programs and address environmental impacts.
- Government plays a primary role educating and informing the public about product stewardship and providing program oversight and evaluation.
- Product stewardship programs should address the reduction in the lifecycle environmental impacts of products, including reduced toxics and greenhouse gas emissions, as well as conservation and recovery of resources.
- Producers have primary responsibility to finance and provide the end-of-life management system. Retailers, consumers, end-of-life waste managers, and government play key roles.
- A level playing field should be assured for producers so that no one producer enjoys a competitive advantage over another by being exempt from a product stewardship program. In order to sell a product a producer must be part of an approved product stewardship program.

PSSG discussion:

Issues were raised about identifying principles to guide the development of product stewardship programs. For instance, there were differences on what constitutes shared responsibility and where producers should take primary responsibility.
The discussion also touched on the need for a level playing field, performance measures, and the principle that a consumer should not pay a fee at the time they discard the product. These topics are addressed in more detail under the specific topic headings that follow.

IV. Reducing Life Cycle Impacts

Product stewardship creates opportunities to reduce the environmental and health impacts of products. For this reason, it is important to understand product impacts and some of the opportunities to reduce them.

Products impact the environment across their full "life cycle" – all of the stages of the life of the product. These include "upstream" stages such as resource extraction, manufacturing, and transportation; the use of the product; and "downstream" stages

involving the management of products when they are discarded. Upstream impacts are often many times greater than downstream impacts, although there are exceptions. For products that consume energy or release toxic chemicals during use, use-phase impacts can be significant. So when designing programs or policies, it is important to consider the potential impacts across the full life cycle. Looking at only one life cycle stage may lead to unintended consequences, increasing impacts elsewhere.

Products can have a wide variety of environmental and health impacts, from global warming and impacts on wildlife to respiratory illnesses and cancers. Specific to toxic chemicals, DEQ has a stakeholder process that is helping to develop an Agency Toxics Reduction Strategy. As part of that effort, DEQ has developed a list of 52 priority toxics – or in some cases, families of toxics. About 20% of these are found primarily in legacy products. Of the remainder, all are either found in current consumer products, or are used in the production or transportation of consumer products, or both.

Looking at greenhouse gases, EPA has recently estimated that 42% of the nation's greenhouse gas emissions are associated with the domestic production, transport, and disposal of products – greater than building energy use (25%) or transportation of people (24%). Another 8% are associated with energy-consuming devices (other than vehicles, heating, lighting, and cooling). As a net importer, the impacts of products sold into the US are even higher. More than 90% of these emissions are "upstream", primarily in product manufacturing.

It is important to understand that product attributes do not always correlate with actual environmental impacts. For example, while there are often environmental benefits associated with increasing the recycled content of a given material, when comparing two different materials, the one with higher recycled content is not necessarily the better choice for the environment. The same can be true for other attributes, such as recyclability and biodegradability.

Even though upstream impacts are typically larger than downstream ones, there can be significant environmental benefits to increasing recycling and other appropriate management at end-of-life. For example, many of the environmental benefits of recycling are a result of providing industry with feedstocks that can be incorporated into new products with lower impacts than using virgin feedstocks. In 2008, recycling in Oregon saved about 30 trillion BTUs of energy, and reduced greenhouse gas emissions by an amount equivalent to the tailpipe emissions from more than half a million passenger cars.

Recycling can also have limitations. For example, a recent analysis by EPA finds that while increasing recycling can reduce greenhouse gas emissions, a scenario of near total recycling (and composting) will only reduce U.S. domestic greenhouse gas emissions by about 6% (representing 1/7 of all emissions associated with production, transport, and disposal of materials). Approaches focusing more directly upstream, including elimination of toxics, sustainable production methods and waste prevention (the "reduce, reuse" part of "reduce, reuse, recycle") typically offer a greater potential for environmental improvement. A key question for product stewardship programs, then, is how to help achieve these larger "upstream" benefits while simultaneously improving how products are managed at end-of-life.

Upstream Product Stewardship Actions

Product stewardship policies offer the potential to address the impacts products have at end of life, as well as throughout the product's life-cycle. Ideally, these policies establish built-in mechanisms and incentives that minimize environmental and health impact during design, production, transport, use and disposal. As an environmental management strategy for "greening" product design and production, and reducing product life- cycle impacts, product stewardship attempts to internalize and link together the impacts of a product and the production process. For downstream impacts, this is often achieved by building the costs of such impacts into the consumer-manufacturer transaction, rather than covering such costs through solid waste rates and taxes. In some cases, doing so will also influence upstream processes.

Many other mechanisms exist and are emerging that maintains level regulatory playing fields, thus allowing industry to compete on improving their full environmental footprint, rather than simply cost and performance. Some are more market driven, others are more regulatory. While many of these approaches are currently being implemented at a national level, all can be modified to the state level. These mechanisms rely on different engines, ranging from leveraging purchasing power (EPEAT, Top Runner) to restricting materials (RoHS, food service packaging) to requiring consumer education regarding purchase and use (Paint).. These approaches provide lessons and experience from which Oregon can draw.

In order to maximize the potential for upstream actions product stewardship policies must:

- Provide a clear policy or statement of intent.
- Focus on results.
- Recognize that recycling does not always provide the optimal solution.
- Provide information that allows consumers to choose preferable products or packaging.
- Involve stakeholder's representatives from the full product life cycle.
- Include clear goals for design improvements & lifecycle improvements.
- Adopt leading existing standards.
- Foster direct feedback to manufacturers.

Key Discussion Points

- Manufacturers need to comply with European standards and as a result the same products come to the USA, not a different or lesser product.
- RoHS has had a significant impact and reduced the use of some toxic substances, although it was adopted without alternatives assessments and may have had some unintended negative consequences. Some are concerned that it is overly ambitious.
- DEQ's list of priority toxics and a broad view of impacts - across the full life cycle and multiple attributes (toxics, greenhouse gases, etc.) - should provide a useful framework for evaluating policies (and products)
- Upstream actions cannot address historic waste.

- A focus on downstream actions, such as take-back, has greater potential to impact design for short-lived products (such as packaging) and less potential to impact design for long-lived products (such as consumer durables). However, anticipating potential regulations may lead producers to make upstream changes.
- Harnessing the potential of institutional purchasing and adding environmental performance to state purchasing standards in law.
- Other options discussed by the group included: using environmental attributes when setting fees; material restrictions (if uniform with other states or nations); requiring disclosure of information to consumers, and ensuring that such information is clear and credible; giving authority and resources to the state to implement/enforce Federal Trade Commission guidelines on environmental marketing claims; and providing incentives for consumers to purchase environmentally preferable alternatives.

V. Product Selection

To date, most products have been selected and acted upon based on response to public demand for collection services, financial burdens to local programs, and political opportunities. While those are all good reasons for selecting products and could be included in a set of selection criteria, many programs seek to set out clear selection criteria and a public process for choosing products to be regulated. While it is tempting to develop elaborate tools to evaluate and select products, it is important to consider the context of product selection within the overall purpose of product stewardship. Oregon, guided by the Waste Policy Leadership Group Report Recommendations, has focused on toxic and difficult to manage wastes and on a list of products including electronics, paint, carpet and mercury containing products.

Products should be selected that make a significant impact on our society through their effect on the environment and human health, costs to taxpayers, and good potential for environmental improvements. When evaluating products, effects on the environment could consider the perspective of the total life cycle (extraction, production, use, and end-of-life management), as opposed to just solid waste impacts.

<u>Process:</u>
Generally, there are two primary methodologies used to select products or product categories. Either an agency or other entity recommends products to its legislature for possible legislation on a product-by-product basis or the legislature sets a system and delegates product selection to a state agency. The authority for designating products could rest primarily with the legislative branch, the executive branch, or to both branches through a coordinated process. Alternatively legislation may identify an initial schedule of products to come under regulation with products selected later according to established selection criteria process. Regardless of the method there is a need for a consistent approach that can be applied to multiple products.

In the model with strong legislative authority, programs rely on the legislature to determine which product(s) to include. This approach could include a system for products to be prescreened as in the Oregon framework bill, Minnesota's recommendations, and the Maine framework law, or could be responsive to bills that appear in each new

legislative session. The later is the status quo and likely reflects stakeholder concerns about being involved in the selection of products.

Alternately a model with strong executive authority would rely on an agency to determine which product(s) to designate through regulation. The legislature would delegate the authority and either establish criteria in statute or grant authority to set the criteria via regulation. This approach would take advantage of agency expertise regarding mitigating environmental hazards. It would allow the agency to more rapidly respond to public demands and any new circumstances that may arise.

Criteria:
Regardless of the process, there are many criteria that could be used to determine which products or groups of products are selected for product stewardship programs. A limited set of criteria may create a more predictable regulatory environment, while a more broadly defined set of criteria might provide greater flexibility to respond quickly to new concerns. Generally criteria fit into three broad categories:

- Environmental Impact
- Potential for Environmental Improvement
- Political/Other

Key Discussion Points:

- There is a direct connection between the process to select products and the criteria used. Consideration should be given to the fact that using detailed and complicated criteria may not achieve a better result than simply using an open process with some general criteria.
- Products with a clear scientific link to toxics and resulting environmental and/or health impacts should be at the top of the list.
- Following criteria where mentioned: 1) invested energy in a product; 2) if product contains rare or precious minerals; 3) there should be a net benefit over cost, broadly calculated; 4) greatest potential to reduce products own environmental footprint; 5) willingness to participate on part of the producer; 6) is the material causing other issues in the existing solid waste management system, such as film plastic; and 7) consumer demand should be considered.
- The process should give the legislature the ultimate authority to select a product.
- If the process and selection criteria are established, then DEQ and EQC should have authority to select products.
- Should consider looking at product groups rather than individual products to make the process more efficient.
- The group discussed which products might be important to look at as a high priority. The list was broad and varied and included mercury containing lamps, all batteries, large appliances, all electrical appliances (anything with a plug), packaging such as film plastic and Styrofoam, automobiles, solar panels, carpet, apparel, construction material, sharps, and smoke detectors.

VI. Governance and Structure

The group discussed the key issues the legislature should consider to ensure any product stewardship program is well structured and governed. The discussion started with consideration of the roles and responsibilities assigned to various parties, continued with a discussion about the need for a "level playing field" for producers, financing, and the role of producer plans.

A. Roles and Responsibilities

Oregon's product stewardship programs for e-waste and paint are based on the premise that a producer selling a designated product into the state must fulfill certain responsibilities. The roles and responsibilities shared by others in the product chain (e.g., consumers, retailers) have also been addressed in these programs. The group was presented with a description of potential or typical roles and responsibilities in a product stewardship system:

- Producers – 1) finance and implement end-of-life management systems; and 2) reduce lifecycle impacts
- Retailers – 1) sell only compliant brands; and 2) inform consumers about recycling services
- Government – 1) approve producer plans; 2) oversee programs; 3) assure level playing field; and 4) provide public education and outreach
- Consumers – 1) return discarded products through the system; and 2) comply with disposal bans

Key Discussion Points:

Some stakeholders were concerned that the list assigned too great a financial responsibility to producers. Some felt additional requirements on retailers to collect products might be appropriate in some cases.

The discussions added more detail to the basic list above and also identified additional roles and responsibilities.

- All roles and responsibilities should be looked at from the perspective of "upstream" lifecycle impacts as well as collection and end-of-life management.
- Producers have primary responsibility for lifecycle impacts of products and for environmentally sound end-of-life management of identified waste products.
- Producers should be responsible for reducing toxics in products where possible.
- In legislated programs, stewardship organizations established by producers should have roles and responsibilities defined in legislation.
- Producers should work with existing infrastructure where possible.

- Government should have the role of compliance and oversight, including the assurance that environmental standards and practices are met by waste handlers, including collectors.
- Collectors, recyclers, and waste managers should be included as parties with key roles and responsibilities for end-of-life waste handling and management. Their role should include: 1) provide services as requested/contracted by producers; and 2) comply with established standards and environmentally sound management practices.
- Consumers, in addition to having responsibility to use the system provided, and pay for it through the cost of the products, should be informed and make responsible purchases.

B. Level Playing Field

The concept of "level playing field" means that each individual producer fulfilling its responsibilities under a product stewardship program is assured that every other producer will also meet these requirements. A level playing field helps ensure producers share costs fairly amongst themselves and the public receives adequate levels of service. The group was asked to discuss the importance of product stewardship legislation on providing this level playing field.

Key Discussion Points:

There was general agreement that a level playing field for producers is important for legislated programs.

The following additional points were also put forward for consideration:

- The concept of level playing field should be considered for other system components, such as being able to select from a pool of existing collection and processing infrastructure, and use of retailer collection points.
- Government should set and enforce consistent environmental standards for all collection and processing system participants.

C. Financing

Approaches producers take to manage and finance their product stewardship programs, in particular when the stewardship obligations are legislated, are covered under this topic. Whether consumers should "see" the cost of these programs (i.e., a visible "eco-fee") when they buy a product was also discussed.

Voluntary stewardship programs generally finance themselves in two manners. First, programs operated by a single company normally just internalize these costs in the price of the product. Second, firms joined in a stewardship organization (SO) apportion the costs of the stewardship program among themselves and pay fees to the SO. For example,

the rechargeable battery industry's recycling program recoups its costs by charging its members different fees for each type of battery sold.

The same two approaches are also generally found when stewardship obligations are legislated: a) when producers provide their own programs they internalize their costs in the product price; and b) producers in a joint program remit fees to the stewardship organization. Oregon's e-waste program uses the first approach. Oregon's paint stewardship legislation has a variation on the second approach. The paint stewardship organization collects an "assessment" from producers on each container of paint sold in the state and distributors and retailers add the fee to the cost of each container sold. The state reviews the level of the fee to ensure that it covers but does not exceed the cost of the paint program. The assessment may or may not be displayed when product is sold.

Information about whether the cost of stewardship programs should be visible to consumers through, for example, an "eco-fee" posted on the consumer's receipt was presented. Reasons to favor visibility included that it lets consumers know recycling is available and that there is a cost to that service); reasons why the cost need not be visible (i.e., internalized in the overall price) included that other environmental control costs are not made visible, and the price signal to the producer is important for encouraging reductions in lifecycle impacts.

Key discussion points:

The general principle of allowing flexibility in whether producers individually or jointly decide to meet legislated stewardship obligations and how has been adopted for both the e-waste and paint program legislation in Oregon.
Using the cost internalization approach, gives producers flexibility in determining how to finance their systems. There was discussion about how different products may require specific different financing techniques. The merits of specific systems, such as the assessment mechanism used in the Oregon paint stewardship program, were not explored in detail. There was discussion of pros and cons of visible producer fees with a range of opinions offered. Government should not directly collect or manage fees for implementing stewardship programs.

The group also discussed the concept that product stewardship systems should be financed so that consumers discarding products do not face an additional cost or fee at the end of a product's life.

There are differing opinions on whether the producer is responsible for financing the entire end-of-life system in legislated programs or whether some costs should be shared.

The following additional points were put forward:

- Financing legislated programs:
  - Consider the cost effectiveness to the consumer, e.g., consider the price point of the product and relative cost to recover the product at end-of-life.
  - Consider the amount and kind of toxic constituents in the product or generated in the production of the product in determining the financing amount paid by the producer and the cost-benefit of the program.

- Financing voluntary programs:
  - Retailer may end up bearing all the costs for collection when collection occurs at retail locations.

- Producer fees (visible "eco-fees") versus "cost internalized" (no visible fee):
  - Eco-fees could make the stewardship organization more accountable for the way it uses its funds since the consumer will want to see that the fee is used for recycling or take-back purposes.

    - The value of being visible depends on the goal. For example, visible fees may encourage the consumer to only buy what they need, or to educate a consumer on the fact the product is expensive to manage at end-of-life.
    - Cost internalization provides a greater incentive for producers to keep prices competitive while they find a way to make their item more cost effective to manage at end-of-life or to reduce environmental impacts.
    - Cost internalization does not provide an incentive for producers to keep prices competitive when the technologies of the products taken back are unrelated to those being designed and sold, i.e. products where technology changes rapidly compared to the life span of the product. In these cases it is simply a way to fund the collection system without any additional benefit.

- To maintain the integrity of the system financing, programs need safeguards to ensure only the legislated covered products and covered entities use the program. Collectors need to refuse to take back suspect products.

D. Producer Plans

The requirement that producers submit plans to the state for approval on how they will fulfill their responsibilities is a feature of product stewardship programs adopted in Oregon and in other states. Legislation sets out basic requirements for programs and for plans but allows producers flexibility in how they actually implement a program. The review and approval by the state provides accountability and assurances to the public about the adequacy and quality of the services and program performance.

Key Discussion Points

Producer plans are a good mechanism to assure system services and accountability and allow for producer flexibility.

The following additional points were also put forward to be considered:

- The plan development process should allow time and mechanisms to bring all system participants and interests together.
- Producers should have the first option to design/draft the plan.
- Plans should address product improvements "upstream" and collection and end-of-life management "downstream".
- Plans should provide for environmentally protective standards.

VII. Program Elements

The elements outlined here are commonly found in legislated product stewardship programs, although not all programs have all elements. The purpose of reviewing them is twofold. First to come to a common understanding of what the elements are and the general purpose they serve in a product stewardship program. Second is to gather input from stakeholders on potential issues and concerns and how they might be used in product stewardship programs in Oregon going forward.

A. Collection Convenience

Collection convenience generally refers to the nature and extent of opportunities available to the consumer for the collection of a discarded product for the purpose of its end-of-life management. In product stewardship programs producers are responsible for the end-of-life management of their products. Part of that responsibility can be fulfilled by providing convenient collection options for the covered product. Convenient collection helps the consumer fulfill their responsibility to bring the discarded product to a collection point for safe handling at the end of its useful life. Convenient collection also helps the producer achieve performance goals and maximize the capture of resources from the discarded products. The more convenient collection is the more it will be used. Extensive networks for collection cost money to establish. It is important to consider the balance between cost and benefit when setting a standard for convenient collection.

Oregon has a long track record of providing convenient collection for recycling, and the public has an expectation that reasonably convenient collection options will be available to them. Examples include:

- 1983 Opportunity to Recycle Act brought curbside recycling collection for general recyclables to communities with 4000 people or more.
- 2007 Oregon E-waste law requires collection service in every county of the state and collection sites in every city of 10,000 people or more. Collection sites must be staffed and open to the public at convenient times and collection provided at no cost to the public.
- 2009 Oregon Paint Pilot Program law requires convenient and available statewide collection in urban and rural areas of the state. Collection must be free of charge to the consumer at the point of collection.
- 2009 Oregon Bottle Bill expansion requires all retailers of 5,000 square feet or more to take back all sizes and brands of covered beverage containers they sell. Smaller retailers may accept brands and sizes they sell.

Convenient collection in product stewardship programs may include the following elements:

- No charge to the consumer at the point of collection
- Statewide coverage in both urban and rural areas
- Collection point open at reasonable and convenient hours
- Collection services/locations established based on such things as population centers/population density, geographical distribution, and/or how the product comes to the customer.

- Depending on the product, collection points may include some or all of the following: depots/drop-off sites, collection events, household hazardous waste facilities, retail stores, consumer mail-back, Goodwill and other nonprofit drop-off sites, recycling centers, and solid waste transfer stations.

Key Discussion Points:

Collection convenience standard is important to consider including in legislated product stewardship programs. Finding the right balance to assure all consumers in Oregon have convenient options for end-of-life management of discarded products, producers have flexibility in how they set up the collection programs, and providing cost-effective service is challenging. Additional points to consider when establishing convenience standards include:

- Convenient, no cost, collection options in both urban and rural areas of the state is important. Without it there is a much higher risk of illegal dumping which represents environmental contamination and increased costs to local governments.
- Different types of products may warrant different types of collection options. Consider the following in establishing convenient collection for a product:
    - Free market perspective and how the producer gets the product to the consumer
    - Need for regulation of the collection infrastructure
    - Consumer fear of handling the product, e.g. some household hazardous waste products, products containing mercury
    - Space need to collect and store the discarded product
    - Consumer ease of returning the discarded product back to place of purchase
    - Frequency of need to discard the product/ product lifespan, potential for reuse
- Consider an incentive for collection in rural areas. An example would be to allow materials collected in rural areas to count more toward achievement of established performance goals.
- Public outreach about where to take discarded products within the product stewardship system should be considered as a component of a convenient collection standard.
- Convenient collection does not always result in high recovery rates. Battery collection programs are an example where the discarded product is small and easy to toss in the garbage or store in the home for extended periods of time.
- Where possible collection systems should include the existing collection infrastructure.

B. Environmentally Sound Management at End-of-Life

One of the functions of product stewardship programs is to establish a system for managing discarded products at the end of their useful life. That system should ensure that the discarded products are managed in an environmentally sound manner that does not pose a threat to human health and environment. This is generally done through two avenues in legislated product stewardship programs: 1) all handlers of materials – collectors, transporters, and processors – are required to be in compliance with all applicable environmental and health laws and regulations; and 2) producers are required

to assure that all handlers providing services in their approved plans meet the environmental management requirements established by the state relevant to the management of materials in the product stewardship system.

Key Discussion Points:

Environmentally sound management of products at end-of-life is an important element of any product stewardship program. How this is achieved can present challenges and concerns. The issue of exporting material for processing and assuring proper management is particularly a problem for e-waste and may be a problem for other products as well. Addressing the export issue is a federal responsibility. It is important that the state and producers continue to work with the federal government to see that the proper controls are in place. In addition to the national export issues, other more local challenges and needs have been raised.

- It is important to think of product stewardship policy as one that provides protections for both the environment and human health.
- Government's role is to provide compliance oversight of waste handlers within the state and assure that they are in compliance with environmental and health requirements.
- Government should set and enforce consistent environmental standards for all collection and processing system participants.
- In order for producers to utilize existing infrastructure for collection and processing, it would be useful to have a pool of certified handlers to draw from within the state.
- Producers are responsible for using materials handlers that are using environmentally sound management practices. Producer plans should include environmentally protective standards.

C. Performance Measures

Performance measures provide a mechanism for program management, oversight and accountability for program achievements. Performance measures can be a way of directing program activity toward achievement of the most important objectives or purpose of a program if the adage is true that you "get what you measure". Establishing performance measures for a product stewardship program is a means of stating what is to be achieved by the program and allowing producers the flexibility on how to achieve the goals.

Performance measures can vary by type, depending on the primary objectives of a program, and by specific products or materials, recognizing the different products have different composition, distribution channels, waste generation rates, and end-of-life management options. Some key questions to ask when considering performance measures are:

- Is the performance measure useful for program operations, stewardship, and reporting to the public?
- Can the performance measure help drive or improve performance?
- Can the performance measure communicate program outcomes or success clearly?

- Can data or information be collected and reported reliably and cost-effectively? Does needed data or information already exist?
- Can or is data or information collected consistently over time to enable trend evaluations and year-to-year comparisons?

Product stewardship performance measures can be quantitative or qualitative. Some examples used in other product stewardship programs include:

- Collection rates by established dates, expressed as a percent of amount generated or sold into the market. They can also be expressed in per capita amounts, accounting for population change over time.
- Amount of greenhouse gas reduced related to amount of recovery, reuse, or recycling.
- Collection convenience and/or amount of public outreach
- Product improvements, such as reduced level of toxics, recycled content in product, labeling or product content transparency
- Government procurement

Key Discussion Points:

Performance measures are important to any product stewardship program and the goals or measures should relate to the primary purpose(s) of the program. Performance measures are product specific and should be tailored to each product or product group. Beyond this general concept many additional points may be considered when establishing performance measures.

- Having a baseline measurement prior to implementing a program is important in deciding the measure and in looking at achievements under the program. Where a baseline does not exist, consider setting the metric in statute and allowing the producers in their plans to initially set the actual performance measure. After information is available for the first years of a program the oversight agency can set the performance measures for all producers.
- Performance standards should not be enacted in a way that requires any stakeholder in the program to be responsible for something that is not in their control.
- Involving stakeholders is critical to shaping good performance measures and establishing the objectives of a program. It is important to have the ability to change and adjust performance measures over time as program needs change. Setting actual performance measures in statute may reduce flexibility to make those adjustments when needed.
- Some programs may benefit from having intermediate and end goals. They can serve different purposes.
- In some cases using a prescriptive statutory approach to performance measures may be more effective and should be considered.
- Goals should be set that are possible to achieve. If something cannot be done, it should not be a goal or performance measure.
- In some cases “aspirational” goals do make sense. These types of goals make it clear what direction something should be going and what people should be striving for. There are those who will work to achieve these types of goals, even if they are challenging.

- It would be useful to consider a product stewardship program where there is a reward if a producer achieves something that is close to aspirational. For example of they eliminated a particular toxin from their product they would not be required to participate in the program or have reduced requirements.
- Setting voluntary "reach" goals that go beyond basic performance measures is another way to include "aspirational" goals in a program.
- Product stewardship programs should strive to have material collected at end-of-life be used by the manufacturer in the making of new products, thus closing the material loop and providing a market for the material that comes back through collection so that it can used to its highest and best value.

D. Disposal Bans

Historically, the primary reasons for disposal bans have been to reduce environmental and health risks and to direct materials into channels where they can be recovered. The group was asked to consider when disposals bans should be part of a product stewardship program. The Oregon e-waste law was offered as a possible model for disposal ban as it was intended to allow a time for recycling services to get in place and employ a reasonable approach to enforcement based on discussions with stakeholders.

Key Discussion Points

The general tendency of the group discussion was to look at disposal bans on a product by product basis and not as a key element of all product stewardship programs. The toxicity of the product, the potential for material recovery, and the convenience of the collection system were cited as criteria that should be a factor in deciding if a ban was needed.

Other issues mentioned included:

- Banning disposal gets us closer to "closing the loop" on recycling.
- A disposal ban may be able to draw attention to discarded products are being exported and improperly managed.
- Programs with and without bans should be compared to see which perform better.
- Consider whether a recycling mandate/requirement might be an effective approach instead – or in addition to – a disposal ban.

VIII. Group Goals and Work Outline

Goals:

1. Become informed about the current "state of the practice" in product stewardship.
2. Use the experience and expertise of the stakeholders to develop a report that addresses:
   - Fulfilling the potential of product stewardship to address the impacts of products across their lifecycle.
   - Improving how stewardship programs are setup and run – e.g. financing, producer responsibility organizations, and general structure.
   - Key program elements – e.g. performance goals, convenience standards, environmental management.
   - The identification and selection of products.

3. Provide DEQ with guidance on solid waste program and policy direction related to product stewardship.
4. Consider potential legislative recommendations for the 2011 legislature.

DEQ Role

DEQ's 2009 legislatively approved budget provides for the development of a product stewardship program, including the identification of other segments of the solid waste stream whose management would be well served by a product stewardship approach. DEQ is the convener of the stakeholder process. DEQ and other stakeholders will use the information and report developed in this process to inform the implementation of product stewardship in Oregon, including potential legislative recommendations.

Stakeholder Group Work Outline

Over the course of eight meetings the group will consider the following general themes:

- *Product Stewardship as a tool of sustainability*
  - Improving the life cycle impacts of products
  - Including incentives to reduce those impacts in the state approach to stewardship

- *Governance*
  - Roles and responsibilities
  - Core elements of an effective product stewardship program.
  - Common concerns

- *Moving forward – elements of Oregon's approach to stewarding products*
  - Harmonization with other states and national initiatives
  - Product identification process
  - Roles for voluntary and legislatively mandated programs
  - Learning from existing programs and what others have done

IX. PSSG List of Members and Their Affiliations

Name	Affiliation
Emily Ackland	Association of Oregon Counties (AOC) Salem, OR
Pamela Brody-Heine	Zero Waste Alliance and EcoStewardship Strategies
Duke Castle	Natural Step Network, The Castle Group
Paul Cosgrove	Lindsay, Hart, Neil & Weigler, LLP
Jim Craven	TechAmerica
Katy Daly	Recycling Advocates
Betsy Earls	Association of Oregon Industries,(AOI) Clackamas County
Kathy Frevert	California Department of Resources Recycling and Recovery (CALRecycle)

Renee Hackenmiller-Paradis	Oregon Environmental Council (OEC)
Brenda Hoppe	Oregon Public Health Division
Mark Kohorst	National Electrical Manufacturers. Assoc. (NEMA), Association of Electrical & Medical Imaging Equipment Manufacturers
Matt Korot	Oregon Metro (METRO), Oregon
Craig Lorch	Total Reclaim, Seattle, Washington (replacing Andy Sloop)
Frank Marella	Manufacturers Recycling Management company (MRM),Consultant//Sharp Electronics
Michael D. Mason	Confederated Tribes of the Warm Springs Reservation of Oregon
Jeff Murray	Far West Fibers
Garry Penning	Oregon Refuse & Recycling Association(ORRA), Rogue Disposal
Wayne Rifer	Rechargeable Battery Recycling Corporation, RBRC EPEAT and Rifer Environmental
Jay Shepard	Department of Ecology, Washington
David Skakel	Tri-County Hazardous Waste & Recycling Program
Andy Sloop	EcoLights NW
Kristen Steigler	Oregon Department of Human Services
Kara Stewart	Department of Ecology, Washington(replacing Jay Shepard)
David Stitzhal	Northwest Product Stewardship Council, Full Circle Environmental, Seattle, Washington
Bruce Walker	City of Portland , Oregon
Wendy Wiles	Department of Environmental Quality (DEQ) Oregon
Rick Winterhalter	Association of Oregon Recyclers, (AOR) Clackamas County , Oregon