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State of Washington

Summary of Problems with Solid Waste Laws in Washington:

Themes and Subthemes

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Summary of Problems with Solid Waste Laws in Washington

Themes and Subthemes

Waste 2 Resources Program
Washington State Department of Ecology
Olympia, Washington

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Introduction

The Department of Ecology's Waste 2 Resources Program (Ecology) is evaluating the need to update the state's solid waste management laws, which are located primarily in the Revised Code of Washington (RCW), Chapter 70.95. This paper summarizes comments heard from stakeholders, both public and staff, at meetings Ecology held in 2010 to discuss problems with solid waste management laws. (While we asked about problems, we also heard suggestions for solutions, some of which are included in this document.) The problems are arranged by themes and subthemes based on the comments expressed by stakeholders. We intend to use these themes and subthemes as we continue in the solid waste laws update process. The ordering of themes and subthemes in this document is random and does not imply any statement of importance or number of comments received.

While this process is focusing on problems with solid waste laws, it is important to note that many elements of our solid waste system work very well. Washington State has achieved much success with recycling and solid waste management and we want to build on that success. Therefore, each of the themes starts with comments we heard about "what's working" which highlight strengths in our existing system. However, it is not to be assumed this list is inclusive.

DISCLAIMER:

In this document, we attempt to report the issues as expressed. When there were opposing views, we represent both sides. This paper does not claim these comments are true, and in some cases, the comments may not be factually accurate. The comments do not represent Ecology's opinions.

Themes and subthemes

Comments on the state's solid waste management laws generally fall into the following 11 themes.

- Financing (11 subthemes)
- Enforcement (10 subthemes)
- Infrastructure and Materials Markets (9 subthemes)
- Public Awareness and Education (5 subthemes)
- Waste Reduction (6 subthemes)
- Packaging and Products (9 subthemes)
- Government "Walk the Talk" (5 subthemes)
- Definitions (12 subthemes)
- Measurement (6 subthemes)
- Toxics (4 subthemes)
- Roles and Responsibilities (1 subtheme)

Each theme is described in more detail by subthemes. Both the themes and subthemes reflect issues heard during the 2010 meetings.

Theme: Financing

What's working?

Comments related to what's working with financing include the following:

- Coordinated Prevention Grants (CPG) provides funding for local efforts.
- Investment by private industry in solid waste infrastructure.
- Tire pile cleanup funding (though without continuing to spend money on tire removal its likely tire accumulations will again occur).
- The current finance system has some ability to adapt to future changes as we move towards the beyond waste goals.
- Electronic product stewardship program covers costs to safely recycle some consumer electronics at end-of-life.

Financing subthemes

Solid waste management priorities conflict with solid waste system financing

Waste collection and disposal generates revenue. Much of the solid waste system is funded by disposal dollars. When waste generation goes down, or materials are diverted from the waste stream, revenues to some private sectors and government programs decrease. This can be a disincentive for reducing waste. However, waste reduction can save on the cost of disposal, especially for commercial firms.

Chapter 70.95 RCW established waste reduction and recycling as the top two priorities for addressing solid waste. Waste reduction does not offer the opportunity to generate revenue, and recycling offers less opportunities for revenue generation than waste collection and disposal. Many jurisdictions use disposal revenue to fund recycling programs. Waste reduction programs, where in place, are typically funded by waste disposal dollars or limited grant dollars. Successful waste reduction and recycling programs diminish financial resources needed to run these programs and, in some cases, to subsidize other general government expenses.

Regulated garbage companies have a franchise on collecting waste in certain areas. While this has been very effective at providing garbage collection service to all citizens who want it, this system can decrease incentives to reduce waste by recycling or other means. Regulated garbage companies and landfill operators lose revenue when they receive less waste, especially if they are not involved in collecting and processing recyclable materials.

Taxes on solid waste disposal fund other programs

Revenues from tax assessments are typically not used to fund solid waste services or recycling programs. Taxes and surcharges on solid waste are used for other program priorities. Cities can levy utility taxes on solid waste collection and disposal. The utility taxes are often used for general government operations, not waste management. Counties currently do not have the option to impose utility taxes. The state taxes solid waste collection to fund the Public Works Trust Fund. This fund provides low interest loans to local

governments for infrastructure, chiefly wastewater projects. As waste disposal decreases, this funding source also decreases. Increasing taxes and surcharges on solid waste disposal may encourage illegal dumping. Furthermore, the tax is only on solid waste, and does not include recycling services, which is a disincentive for those relying on the tax income to divert waste from disposal to recycling.

Private recycling companies generate revenue for the State through the business and operations tax, sales tax on recycled end-products, employment wages, spending power of employees, land improvement and infrastructure, and property taxes.

Local government has responsibility for solid waste management but often lacks sufficient financial resources

Solid waste management authority is delegated to local governments. Along with this comes the financial burden of assuring functional solid waste operations. Cities can choose to run their own solid waste collection system, or contract for services. Counties must use the services of regulated garbage companies that hold the franchise for that area. Some local governments own and operate processing, transfer, and disposal facilities. Others depend upon these services being provided by the private sector. Nonetheless, local government is required to assure these services are offered to their citizens and typically costs have been covered from local sources. In addition, local public health agencies need adequate funding to provide regulatory oversight of solid waste facilities and to enforce on illegal disposal. Local government does not have enough flexibility or taxing authority to generate revenue to pay for solid waste services.

When revenues decline, jurisdictions must continue to fund waste disposal needs to meet State mandates and prudent practices. When cuts have to be made it often is on recycling program funding. Smaller jurisdictions usually have less material and a greater distance to market. There is insufficient monetary incentive for smaller jurisdictions to continue collecting recyclable materials.

Are there ways local governments and private businesses can better work together to efficiently finance solid waste systems? There may be some duplication of efforts, such as education, between local governments and private sector recycling businesses.

Local governments rely on grants to provide waste reduction, recycling and enforcement programs

Grants to local governments for solid waste management activities have varied over the years. Currently, the Model Toxics Control Act (MTCA) provides biennial grants to local governments to update and implement their local solid and hazardous waste management plans. Many local governments depend on those grants to finance some or all of their waste reduction, recycling and moderate risk waste (MRW) collection programs. As state revenues decline grant funds for these programs also decline. If grant funding is no longer available because of budget cuts, some programs may be eliminated. New revenues or approaches will be needed to fund and provide the programs.

Landfill fees vary throughout the state incentivizing transport of wastes to the lowest cost landfill

Disposal (tip) fees vary from county to county. This can result in transport of wastes to a lower cost landfill, sometimes in distant counties. Flow-control ordinances allow governments to require private

waste contractors to deliver the garbage they pick up to a specific disposal facility so they will receive the tip fees for the waste. County flow control ordinances can be adopted, but few have been, and they still may not stop the export. Flow control can create difficulties and increase costs for haulers who can no longer haul materials to the least costly or closest landfill if it is in a different county.

Recycling is perceived to be free or that it should pay for itself

The general public has a perception that recycling services such as drop-off and curbside collection is free, and does or should pay for itself. This is not the case. The public is not aware there is a cost to collect and prepare materials for recycling, that often exceeds the costs from sales of the recyclable materials. The public is also not aware of all the benefits of recycling that make it worth the costs. However, educating people that recycling isn't free may disconnect recycling from waste management in people's minds. The public may look at recycling as optional and stop participating.

Financing for private innovation is limited

In order for a private entrepreneur to secure financing for a recycling facility, they need collateral such as a contract that assures materials will come to them over the life of the loan. The current system does not provide such assurances. The state constitution does not allow for grants to help finance private investment. Publicly funded solid waste infrastructure can compete with private opportunities.

Solid waste permit fees do not cover all permitting costs

Many local governments rely on Ecology's technical staff to provide professional services necessary to write a solid waste handling permit. However, permit fees are retained by the local government; Ecology's costs are not covered by the permit fee. Related to this issue, facilities conditionally exempt from solid waste permitting do not pay fees. Without a permit fee, there is no funding for local oversight. Therefore, it may not be known if the facility is operating within the conditions of the exemption.

Product stewardship programs are not used sufficiently to fund recycling programs

Washington lacks an integrated product stewardship policy that could reduce waste management costs for local government. Recycling could be funded by manufacturers through a product stewardship mechanism. These programs are ultimately paid for by the product consumer, not the tax or rate payer. Moving the fee structure up to the product manufacturers can also influence product design to both reuse recyclable materials and decrease toxic components.

There are concerns with product stewardship programs. By removing products from the waste stream, product stewardship programs may negatively impact the current solid waste collection and disposal system as less waste means less revenue.

Funding sources for solid waste management infrastructure are inadequate

Solid waste system infrastructure is typically a fixed cost. No matter how much the waste stream is reduced, the core infrastructure must remain and be maintained and updated. Solid waste tipping fees fund infrastructure costs, though some are diverted to other activities. Where does funding come from when facilities close or garbage disposal amounts are reduced?

Solid waste system costs are not properly allocated or evaluated

Solid waste system costs are complex and multifaceted. Costs vary across the system and need to be evaluated from different perspectives. For example, single stream collection may reduce the collector's cost, but not the cost to customers, or the cost to end-users of the recycled commodities.

Theme: Enforcement

What's working?

Comments related to what's working with enforcement include the following:

- Landfill management laws have been needed and are successful. Lined, subtitle D landfills are working to protect the environment. Some natural geography/geology can be protective similar to lined landfills. Disposal sites have been consolidated and are now better controlled.
- Collection is affordable, reliable and safe. The Utilities and Transportation Commission (UTC) has ensured that everyone has garbage service that wants it.
- Recycling revenue sharing provides incentives for haulers to increase recycling.
- Some disposal bans, for example of lead-acid batteries, have worked well.
- The joint structure with Local Health Districts doing broad enforcement and permitting, while relying on Ecology staff for specific expertise, can work well.
- Recognition of alternative uses for solid wastes (i.e. beneficial use determination) and other variances are very helpful.
- The Washington waste management community is responsive to problems, though the response does take time.
- Litter control and illegal dumping programs have been successful.
- Many illegal tire piles have been successfully cleaned up.

Enforcement subthemes

Local enforcement of solid waste regulation is inconsistent

Who enforces and implements the rules is a primary issue. By statue, local health departments are responsible for enforcing state solid waste management regulations. Local governments can adopt stricter requirements than state regulations provided they do not conflict with state law. There is concern that regions and counties approach permitting and enforcement inconsistently. Some jurisdictions may be less focused on potential environmental and human health impacts from poorly operated solid waste handling facilities and unpermitted waste disposal than others.

Solid waste handling facilities are permitted and regulated by the local health department. Not all local health departments have staff with the expertise or time allocated to carry out these duties. In some jurisdictions, due to limited staff and resources, regulations are not enforced or are enforced by staff not proficient in solid waste issues. Ecology can provide needed expertise, if requested.

Differing interpretations of solid waste regulations lead to different permitting requirements and exemptions in jurisdictions. Similarly, local health districts take different approaches to regulatory oversight for facilities managing street wastes. This can result in an uneven playing field for building, permitting and operating solid waste infrastructure within which companies compete. It can also be a disincentive for private industry to invest in new infrastructure. Interpretations of the law and requirements are not transparent among jurisdictions.

Statute provides health departments only criminal enforcement mechanism and the courts typically have large case loads. The ability to apply civil infractions could ease up the work load.

Because of potential conflict of interests, some feel that permitting and enforcement functions should be removed from local health departments and handled by a state agency committed to state waste reduction goals and policies.

Many believe enforcement should remain a local jurisdiction responsibility. However, there is recognition that more standardized enforcement is needed, and funds made available to do so. Some local jurisdictions do an excellent job with enforcement, but many do not because of lack of resources, expertise or local enforcement priorities. Some have concerns about the state having primary enforcement responsibility, which would have funding and logistic limitations of its own. The state could, however, address specific items such as sham recycling, beneficial use determinations, and oversight of exempt facilities to increase consistency among jurisdictions. A delegated authority model is a potential idea, similar to the air authority model which works well.

Exempt facilities criteria and oversight is inconsistent across the state

Some facilities are exempt from permitting if they meet certain criteria. Decisions on exemptions can vary among jurisdictions, which can result in a similar facility in one county being required to have a permit while a similar facility in another county being exempt from solid waste permitting.

Facilities operating in exempt status may not receive regulatory oversight from the local health department. The health department funds oversight activities by the permit fees. Without a permit fee, there is no funding for local oversight. Therefore, it may not be known if the facility is operating within the conditions of the exemption. Without a permit fee, allegedly exempt facilities are not contributing their fair share to fund enforcement.

The exemption process can encourage more businesses to participate in recycling, generating innovation. However, not all reuse and recycling is environmentally benign. Interim solid waste handling facilities and recycling facilities deal with significant quantities of waste materials that could potentially have health risks.

Some feel that all facilities handing solid waste should be regulated and issued a solid waste permit to ensure environmental protection and exemptions from solid waste permitting for certain solid waste handling activities should be eliminated. Without a permit, even review under the State Environmental Policy Act is avoided, and virtually no assurance of environmental protection is provided. Facilities claiming an exemption may in fact not qualify for the exemption, yet simply by claiming the exemption, those facilities fall outside of the focus of the regulatory agencies. There should be a minimum annual site verification of exempt solid waste facilities to confirm operations continue to meet conditions of the exemption. Others feel that if solid waste permitting were less burdensome there would be no real need for exemptions.

Processing of recyclables which have a long history and have proven not to pose environmental risks should be provided more incentives and less bureaucratic red tape.

Beneficial use provisions are not clear or effective

Beneficial use determination (BUD) provisions give an exemption from permitting for a use of a material under specific terms and conditions. However, the materials remain classified as a solid waste. The solid waste classification provides authority to pull materials back into the realm of solid waste management if they are not being managed in a way that meets the terms and conditions of the BUD.

There needs to be a more effective method for regulators to recognize changing beneficial uses for waste materials and more consideration of what fits beneficial use criteria. This could provide a better balance between enforcement and beneficial use and facilitate additional waste materials being recycled into viable products. Some even suggest another definition of beneficial use that can remove the solid waste label, such as *feedstock* or *resource*.

An example of where clarity with beneficial use might help is street waste management. This material is frequently generated in significant volumes. Current management requirements put a major financial strain on local and state maintenance agencies. Development of standards for reuse would help make management more predictable and create opportunities for beneficial use rather than reliance on disposal. Construction and demolition debris was also mentioned as an area that could be ripe for more beneficial use considerations.

Enforcement funding is limited

Enforcement needs to be coordinated with the financing issue, as local health departments have limited resources to pursue enforcement activities. Adequate funding is needed in order for local jurisdictions to provide sufficient oversight. Demands on local health departments are high and resources to address those demands don't match expectations. When solid waste infractions are referred to a prosecutor's office, the action is often perceived to be of a lower priority than the other issues facing a public prosecutor. Many illegal dumping cases are dismissed due to limited resources. The health department funds facility oversight activities by permit fees. As mentioned earlier, facilities operating exempt from solid waste permits do not pay permit fees. Without a permit fee, there is no funding for local oversight of exempt facilities. Many resources at the state and local level are devoted to planning, instead of policing. Flow control is one method to secure disposal fees for a jurisdiction to provide stable funding; however, it needs to be enforced as well.

Conflicts of interest exist between local government departments

There is a conflict of interest in local government enforcement of solid waste regulations when solid waste facilities are operated by local public works departments. Local health districts are responsible for enforcement of solid waste regulations at those facilities. Both departments often report to the same local council, commission and/or administrator. Intra-jurisdictional conflicts of interest can arise when health district enforcement actions are taken at public works solid waste facilities. Getting political backing for enforcement actions can be hard for local governments, who may be enforcing against a company with strong ties in the district.

A county operating a transfer station or landfill has a powerful economic incentive to "enforce" regulations so as to direct waste toward landfilling, and discourage or obstruct recycling. This is in conflict with the state goal to reduce waste.

Sham recycling occurs

Transparency about where recyclable materials go for final disposition and the amount of residuals from recycling is still lacking. We do not have a good system to examine, measure, and monitor loads of recyclables. Currently, entities that collect recyclables from commercial generators and transport out of Washington State do not get defined as a transporter of recyclables. Thus Washington transporter laws do not affect them, which may not be in line with the intent of these laws.

Enforcement is key to eliminating sham recycling. Monitoring diversion through permitted facilities would be more effective than exempting recycling facilities from permits. If all solid waste handling facilities had a permit it could decrease sham recycling.

Sham recycling can also be defined as hauling of recyclable material to a landfill to avoid flow control, which also needs enforcement.

Definitions are crucial to sham recycling. People can use definitions to avoid legitimate disposal and recycling procedures. If definitions change, it could open the door to more sham recycling.

What's a waste, what's a product?

It is not well-defined when a material is a solid waste and when it is a product or byproduct. Having a clearer distinction would help determine how a material is handled and by whom, what regulations apply, and what can be done with it once it is collected, processed, or stored. For more details on this issue, see the ***Definitions*** theme.

Enforcement authority in the law is lacking

Local governments need clear authority and statutory avenues for many solid waste enforcement issues, including landfill operations and moderate risk waste collection facilities. However, violations of the solid waste law listed in Chapter 70.95 RCW only concern illegal dumping of solid wastes. The authority to enforce on many other solid waste issues is not provided for, including enforcement on a facility not meeting regulatory requirements. Furthermore, only criminal prosecution is addressed in Chapter 70.95 RCW.

The state is also lacking enforcement authority in the current law. For example, local governments are required to write and update local solid waste management plans, but the state has no authority to ensure this occurs. The law has no requirement to implement the plans if and when they are adopted. While Ecology could withhold grants to counties and cities that do not have updated plans, this action has not been taken and is undesirable.

Ecology is not currently authorized to compel health departments to fulfill their enforcement duties. This is needed, for example, when health department budgets are cut to the extent they cannot fulfill their duties. If a local health department doesn't enforce on a violation at a permitted facility, there's no authority for Ecology to pursue enforcement. The state's direct enforcement authority is limited to sending solid waste permit-exempt facilities a *Notice of Violation*, which documents that a violation has occurred and the penalties for failure to correct the situation. The state has rarely taken enforcement action against non-compliant exempt facilities.

There is no authority for any state agency to enforce waste reduction, the first solid waste management priority in the law.

Some feel that present laws and rules are, for the most part, appropriate and sufficient. The primary problem is lack of coordination, application and serious enforcement--not the laws and rules themselves. An example is the lack of enforcement of the law governing the Transporters of Commercial Recyclables (RCW 70.95.400). Enforcement authority needs to allow regulators to move quickly on enforcement when illegal activity is happening. We need positive interactions between regulators and operators that lead to environmentally beneficial solutions.

Ecology and other agencies' laws are not always coordinated

There are many points of confusion between Ecology and other agencies' laws. Ecology and the Utilities and Transportation Commission regulations have different definitions of solid waste, which results in conflicts. This, and other inconsistencies, makes implementation of programs difficult and authorities unclear.

Additional examples of inconsistencies between Ecology and other agencies' laws and rules include:

- Ecology and Department of Natural Resource regulations on reclamation pits and inert waste.
- Department of Agriculture regulations on fertilizer determinations and Ecology's solid waste rules.
- Fire codes and wood waste related to compost piles and pile heights.
- Clean Air Agency regulations on composting, air pollution, best available technology, and Ecology's solid waste composting rules.
- Grade and fill codes (allowing over 250 cubic yards) and inert waste landfill permits.

There are also coordination issues between different Ecology programs and standards:

- Solid waste versus industrial waste, such as acceptance of solid waste or wood derived fuel with incidental solid waste into energy recovery facilities.
- Inability to determine compliance with the exemption for material recovery facilities regarding percentages of incidental amounts of non-recyclables allowed.
- Minimally contaminated soils from clean-up sites, not considered contaminated, but not considered clean soils.

Waste disposal on private land is difficult to address

Private property owners sometimes create disposal sites on their land without a permit. They may seek to fill an area and use any available material, or invite others to dispose of wastes on the site to speed up the filling process. This can result in environmental damage such as contaminated groundwater, diversion of surface waters flooding neighboring properties, or attraction of rats (or other vermin), causing a public health hazard. These activities are illegal, but are difficult to take action on due to limited resources.

Illegal dumping on private property without the owner's consent can result in significant costs to the property owner. Some of these locations have become community dump sites, where the owner has been stuck with cleanup costs. The requirement to find three pieces of identification in the illegally disposed wastes makes it difficult for the property owner to pursue legal action against the dumpers.

Theme: Infrastructure and Materials Management

What's working?

Comments related to what's working with infrastructure and materials management include the following:

- Landfill management laws have been successful. Lined Subtitle D landfills are working to protect our environment. Some natural geography/geology can be nearly as safe as lined landfills.
- Waste collection is affordable, reliable and safe. All citizens have access to disposal from their homes.
- We have very successful curbside recycling programs. Residential curbside recycling and yard waste/ organics service has increased.
- There are improved technologies and increased investment by private industry for collection, separation, recycling, and disposal.
- There is growth in commercial recycling, such as big hotels and retail centers, as well as hard to reach residential sectors, such as multifamily housing units.
- New materials have left the disposal system for the recycling system.
- We have good access to Pacific Rim markets.
- Washington's recycling rate is more than 45 percent. Lots of progress has been made in the past 20 years.
- Sharing of recycling revenue provides incentives for haulers to increase recycling.
- Yard waste recycling is successful. More than a million tons a year is composted at approved facilities. Increased use of compost can lead to less need for chemical fertilizers.
- New organic technologies, such as anaerobic digestion, are proving successful.
- Private sector development in organics recycling has allowed jurisdictions to move into food waste collection for composting.
- The U.S. Green Building Council promotes the use of recycled content materials and recycling at the job site. This represents more overall sustainability in the building industry. It has led to more construction and demolition recycling and reuse industries.
- Our solid waste system is responsive to problems, though the response does take time.
- Sustainability programs create opportunities for material recycling.
- There has been growth in beneficial use of industrial byproducts.
- There is growth in green job industries.
- Training opportunities, such as the Compost Facility Operator Training, provide good support.
- Public and private partnerships, such as the Washington Organics Recycling Council, work well and promote communication between stakeholders.

Infrastructure and materials management subthemes

Markets and manufacturing capacity is inadequate

There are few local markets for recyclable materials. Markets are necessary for successful recycling programs. Many recyclables are sent overseas for remanufacturing. Dependence upon overseas markets can leave recyclers at the mercy of foreign economies. Sending manufacturing resources abroad to make products for Americans to consume sends domestic financial resources out of the economy. Local markets for recyclable materials would create jobs, reduce transportation costs and create a system independent of foreign demand. There is not enough focus on local market development. Some of the largest waste streams (like carpet, mattresses, and plastics), with high greenhouse gas footprints, have no or inadequate markets.

Information about materials markets is hard to find

Secondary materials markets are vital to recycling and can be hard to find. Knowledge about these markets can be a competitive advantage between recyclers. Government efforts to increase recycling can be frustrated due to a lack of information about existing markets.

Organic material processing capacity is insufficient

The amount of wet organic material (such as food waste) available in Washington exceeds the capacity of existing processing operations. Waste reduction and greenhouse gas reduction strategies call for organics to be diverted from the solid waste disposal system. Local governments are expanding food waste and other organics collection programs, putting pressure on the existing system.

Rural areas are lacking recycling infrastructure

Rural areas of Washington have smaller populations and greater distances to transport recyclable materials. Small populations often don't have sufficient quantities of wastes to justify recycling infrastructure. There are not enough incentives to promote recycling in these areas. The local solid waste management planning model encourages individual county planning as opposed to collective planning. Collective planning could help increase justification for more recycling infrastructure in rural areas.

Infrastructure funding, siting and oversight is challenging

The state provides grants for the creation of publicly operated recycling facilities. These grants can put private investment in similar facilities at a disadvantage. There are few incentives for private industry to invest in waste processing infrastructure or recyclable manufacturing capacity in Washington State. There is a lack of coordination between agencies with different directives (land use regulations versus solid waste regulations) in allowing siting of new facilities.

The risks of investing in recycling infrastructure are high when there isn't a guaranteed flow of recyclable feedstock. Conversely, the risks to set up collection and processing infrastructure are high when there is no guaranteed market for material that is recovered or when the market for the recyclable material goes down.

Comprehensive Solid Waste Management Plans are expected to address siting criteria for landfills, to include geology, groundwater, soil, cover material, and more. For many local jurisdictions, siting a

landfill is totally unfeasible and a detailed siting study is expensive and time consuming. The requirement should be revised to account for this.

Ecology needs to be aware of alterations in existing facilities or new facilities, but oversight for facility development can be cumbersome, lengthy and of questionable benefit. For minor proposals with no apparent environmental impacts, a quick email to the local authority could be substituted for extensive and time consuming reviews.

Competition for feedstock inhibits innovative recycling

There is competition for organic feedstock between the composting and biofuels industries. Some programs encourage end-use of certain materials which displace the markets for others. For example, the U.S. Dept. of Agriculture's Biomass Crop Assistance Program uses crop waste to supplant wood waste.

Regulated garbage collectors have rights to wastes generated in their franchise area. This makes it difficult for other businesses to access materials in the waste stream for new or innovative recycling efforts.

Defining recyclables in local plans is restrictive

Counties define what materials are recyclable in their comprehensive solid waste management plans. If a new recycling operation is proposed, that recyclable material must be in the county plan in order for the operation to be properly permitted. Similarly, if the county would like to add materials to the recycling collection program, the materials need to be included in the plan before they can be added. This can delay recycling opportunities, as plan updates are an infrequent, lengthy, and expensive process.

Training for facility operations and enforcement is burdensome and outdated

Adequate training of landfill operators is important. The system under Chapter 70.95D RCW, Solid Waste Incinerator and Landfill Operators, is outdated, burdensome to both operators and oversight jurisdictions, and provides little value. It requires all operators to be certified; yet, in other fields (i.e. water quality) only the managers or supervisors need to be certified. Guidelines and training for permit authorities of landfills would help provide consistency across the state.

Training for compost facility operators is not required, and training opportunities are limited.

Collection infrastructure is inconsistent and confusing

There is a lack of programmatic and collection infrastructure consistency statewide. This includes both the recyclable items collected and the color and types of bins in use. This contributes to customer confusion and prevents far-reaching media campaigns to educate residents on how to use the system.

Theme: Public Awareness and Education

What's working?

Comments related to what's working with public awareness and education include the following:

- Training and support, such as the Compost Facility Operator Training.
- Public information and outreach. For example, Public Participation Grant (PPG) and Coordinated Prevention Grant (CPG) programs promote outreach on the value of recycling.
- There is public interest in composting. Recycling education efforts have been successful in this regard.
- Education is available on less toxic and dangerous cleaning product alternatives.

Public awareness and education subthemes

Need expansion of public awareness of waste reduction and recycling

When asked why significant waste reduction was not being realized, or what would make recycling programs more effective, an overwhelming response was there needs to be more public awareness and education on these topics. There is a need for more targeted, specific education on waste reduction, including education for the public on not overbuying. This would greatly help promote waste reduction.

Local service providers need encouragement and assistance to generate promotional education materials that will help their local businesses while promoting waste reduction and recycling. Public education needs to be a part of every new program and messaging to school-aged children, such as a K-12 environmental curriculum. We need to educate a new generation of environmentally conscious adolescents and adults. Any educational program will require continuous and innovative effort.

Education is costly and hard to measure

Public education on waste reduction and recycling cannot compete with mass-market advertising that promotes consumption. There are limited government resources to promote waste reduction. Public education is costly and its immediate value is hard to measure. Education needs to be on-going. The results of educational programs are realized over the long term, and rarely provide immediate results. As funding becomes more difficult to obtain, education is the first thing to be cut. Some suggest public education programs could be contracted out, but this still requires funding.

Public messaging is inconsistent and difficult to distribute

Public messaging can be inconsistent across jurisdictions because each has their own list of recyclables, different recycling opportunities, and independent waste reduction programs. People are confused by different recycling programs between jurisdictions, either by hearing advertising intended for other areas or as they move from one area to another. People moving to rural areas from urban areas expect a level of recycling service that is not available.

Educational materials from the state to jurisdictions and service providers might save costs. However, due to inconsistent programs around the state, the detail in these messages would be limited. A consistent list of recyclables accepted by regions could help with statewide messaging opportunities.

The seemingly simple educational approach of having consistent color coding for recycling, compost and waste receptacles would be costly. The purchase and distribution of new receptacles would impact costs of service.

Hotline mandate is outdated

The current need for the recycling hotline is not the same as when it was mandated in RCW 70.95.100. Local governments now have websites with detailed information, especially the larger counties where most of the calls come from. Earth 911 also provides a similar service. Ecology does not have the funding to sufficiently staff the hotline or keep the database updated.

Building contractor education is needed

Education for building contractors is needed so they know how to abide by regulations to prevent sham recycling of construction and demolition materials. There is no identified funding or staff for this purpose.

Theme: Waste Reduction

What's working?

Comments related to what's working with waste reduction include the following:

- The Beyond Waste Plan promotes the concept that waste has value.
- Sustainability programs are working.

Waste reduction subthemes

Waste reduction is hard to measure

Waste reduction is the prevention of waste, and therefore hard to measure. There are few adequate measures to evaluate waste reduction efforts. It is difficult to accomplish something that is not measured.

Insufficient attention and resources are devoted to waste reduction

Waste reduction is difficult to do. It takes knowledge, planning and commitment, whereas throwing things away is easy. In general, our society does not focus on waste reduction. Our culture promotes consumption. Not all waste collection systems provide a reduced rate to those that reduce their waste; such a rate can be an incentive to reduce waste.

We should align or at least examine the correlation between where Ecology's resources are expended and our waste hierarchy. How many resources are actually devoted to waste reduction, the highest priority?

Waste reduction design and incentives are not adequately emphasized

Waste is a design flaw. We need to incentivize the re-design of products and packaging to be less wasteful and more recoverable. We also need to create advantages for non-disposable packaging and products. Emphasis on producer responsibility can encourage design for durability, recyclability, reduced packaging, and promote waste reduction. Waste reduction also reduces the need to mine more natural resources to produce new packaging and products.

Waste reduction and the economy are in conflict

The first solid waste priority in state law is to reduce waste, but reducing waste can conflict with revenue generation. Some government revenue is collected from taxes on product purchases. Less waste means less revenue. Economic growth is based on consumption of products that generate waste.
Waste disposal also generates revenue for garbage companies and governments.

Some believe reducing waste means decreasing innovation and cutting jobs associated with raw materials extraction and manufacturing. Conservation of resources, energy, and materials are the core arguments in favor of waste reduction. Waste reduction, reuse and recycling can help create jobs.

Funding sources for waste reduction programs are limited.

Packaging provides challenges to reducing waste

There were many comments that noted packaging as a significant stumbling block to reducing waste. Unnecessary packaging, multi-material packaging, and non-recyclable plastic packaging all inhibit waste reduction. The upstream reduction of packaging is an important place to focus attention.

Conversely, product protection dictates some of the packaging used in order to protect products from damage during transport and theft on the shelf. For more on packaging, refer to the discussion in the ***Packaging and Products Theme***.

The role of local or state government in waste reduction and is unclear and ineffective

What can one local government or even one state do to promote waste reduction and less wasteful, less toxic products? Waste prevention at the local level does not work, and local governments do not have the funds to accomplish much. Waste reduction programs need a federal focus, or should come from the state and provide consistent information.

Theme: Packaging and Products

What's working?

Comments related to what's working with packaging and products include the following:

- Some packaging has been made more recyclable.
- Curbside collection of residential recyclables provides an opportunity to remove recyclable packaging from the disposal stream.
- Technologies for collection, separation, and recycling of packaging have improved.
- The E-Cycle Washington program is a successful product stewardship program where the producers are financially responsible. We are collecting a lot of covered products, and it's easy for local governments and the consumer. More products are considered for this type of program (such as mercury-containing lights).
- Green building practices promote the use of recycled content products.
- We are responsive to problem products, though there is a lag time to establish programs.
- There is an increase in environmentally preferred product procurement activities.
- The Northwest Product Stewardship Council is a good example of non-governmental organizations creating public /private communication on packaging and products.

Packaging and products subthemes

Packaging is often excessive and wasteful

Packaging is a primary target for reduction in the solid waste stream. It is frequently non-recyclable, made of multiple materials, and excessive. Packaging needs to be reduced, recyclable or compostable. Packaging also needs to be nontoxic. Packaging changes can only be made upstream by the producer. Manufacturers need incentives to reduce packaging.

Product packaging is required to protect the product from damage during transport, and from theft and spoilage while on the shelf. Some packaging prevents waste. Efforts to reduce product packaging need to consider the important role of packaging in product protection.

Should limited resources of time and funding be spent on the national issues like packaging, or would those resources be better spent on what we can impact locally, like infrastructure or illegal dumping?

There are no environmental performance standards for packaging or products in Washington

There are no design or performance standards for products and packaging to ensure recyclability, durability, or low toxicity. Many products are disposable or designed for one-time use. There are no requirements to identify the chemicals in products or packaging. It is difficult to determine what products are safe and what products have chemicals of concern. Countries across Europe have chemical and product policies that promote less toxic, less wasteful products. These policies are not present in the United States or Washington State. Government lacks control of what is introduced to the market, but

must manage the product at end-of-life. Changes in products and packaging could impact the consumer price. There is concern that drafting new state laws could have a negative economic impact.

Purchasing environmentally preferred products is difficult

There is no uniform or consistent way to determine what products are environmentally preferable. Legitimate certification is hard to tell from "green washing." Green washing refers to characterizing products as environmentally sound when they are not. Claims about environmental performance are often unsubstantiated. There are limited standards for environmental claims. Many green certification programs or product labels are not regulated.

Education is needed on environmentally preferred purchasing. Environmentally preferred products are seen as more expensive, though this is not always the case. They may be hard to find and consumers do not have time to research them. There is lack of consumer awareness about environmentally preferred products and packaging. More education and information is needed to make the right product choices. Studies on the preferred alternatives would provide more facts.

Recycling of products and packaging is confusing and not incentivized

Consumers are not fully aware of what kinds of packaging or products are recyclable. They often think a material is recyclable because of producer messaging. While technically the material may be recyclable, due to lack of infrastructure or an end-use market, many materials or products put into curbside recycling bins are not recycled. This is also a growing problem with some new compostable products being mixed with recyclable products.

There are few incentives for recycling (such as a bottle deposit law). People respond better to incentives than bans. More products need to have trade-in requirements, such as for auto batteries, or the dollar fee on tires. For some take-back options, there is a lack of incentive to bring the product back. For example, it is free to drop off household batteries, but few people bring them back.

The burden is on the consumer to properly manage the waste (recycle, reuse), but more of the burden needs to put be on the manufacturers. However, consumers also need to be responsible for taking products back for recycling once a manufacturer provides a program.

When deciding where to focus recycling efforts we should consider environmental aspects of products and materials, such as toxicity and volume of the material.

Planned obsolescence leads to more disposable products

Products are no longer made to last or be repaired. Many products are designed for one-time use, to be disposed or replaced with next years' version. This type of product design, called *planned obsolescence*, results in a wasteful society, and is in direct conflict with waste reduction efforts. For example, with many of today's electronic products, the latest innovation this year is out of date the next. Although the product still functions, people purchase the newest version. Another example: products that operate on rechargeable batteries come with unique battery chargers. This results in a large number of chargers for multiple electronic products, rather than having a standardized charging system for similar products.

Lack of extended producer responsibility

Once a product is sent out of a production facility, the producer has no further responsibility for that product in relation to its environmental performance and end-of-life management. Products are not designed or made with life-cycle impact and end-of-life management in mind. The cost of a product's end-of-life management is not included in the product's initial cost.

Lack of an integrated product stewardship approach

The current approach to product stewardship is to focus on one product or product category at a time. This is too slow. Thousands of new products come to the marketplace every year. Those products have impacts throughout their life-cycle which likely have not been considered and are not included in the purchase price. Product stewardship will happen incrementally (one product at a time) until framework laws provide a consistent method for recommending and listing additional products.

Under a product stewardship approach, producers and consumers share responsibility, not the ratepayer or taxpayer. Manufacturers must be included in any efforts to establish product stewardship programs.

Conversely, too much product stewardship is counterproductive and hard to integrate with the existing collection system. Product stewardship might be best suited to toxic products. Do we know if it will really lead to product redesign?

End-of-life handling needs to address convenience and clarity. Retailers will not likely want to be take-back facilities for waste. We do not have private sector, multiproduct take-back centers, such as the depots in British Columbia. Rural areas can feel that product take-back is a big city policy, and is harder to accomplish in nonurban areas.

The variety of state laws makes product stewardship difficult across the entire country. There is need for a national framework.

International commerce limits the ability to make change

It is difficult for state and local government to influence product design and performance when most products are made outside the country. International commerce and trade laws usually take precedence over national environmental protection laws.

Existing product legislation is poorly organized and inconsistent

There are many existing state laws about products that are not well organized. For example, there are multiple laws on mercury, but no comprehensive mercury policy or law. Another example is the multiple laws concerning auto parts (tires, batteries, wheel weights, copper brake pads, mercury switches). We need to combine laws on similar consumer products.

The E-cycle Washington program does not cover the actual costs of collection. It is inconsistently implemented and enforced across jurisdictions, and is too narrow in the products it covers.

Theme: Government Walk the Talk

What's working?

Comments related to what's working in government walk the talk include the following:

- Sustainability programs create opportunities for recycling materials and allow interactions between different environmental programs.
- Green building has been successful at promoting the use of recycled and salvaged building materials and expanding recycling at the job site. This represents overall sustainability in the building industry.

Government Walk the Talk Subthemes:

Environmentally Preferred Purchasing is hard to implement

Most comments on government walk the talk were focused on environmentally preferred purchasing (EPP). The state should lead by example. Governments can help demonstrate EPP effectiveness through implementation and increase demand for EPP through its purchasing power.

There is a lack of consistency within government programs on what are environmentally preferred products, both within one government and between governments. Environmentally preferred products aren't always available for governments to purchase. Staff does not have time to research and find products. At the local level, staff is often directed to purchase from local or pre-approved vendors, or from existing contracts.

Technical assistance from state and federal government is needed, such as tip sheets and lists of green products, as well as taking non-EPP products off purchasing lists. State contracts are helpful for steering local governments to environmentally preferred products available on contract. Better definitions are needed for green products. It is hard to distinguish between legitimate certification and "green washing."

Environmentally Preferred Purchasing is hard to measure and enforce

Environmentally preferred purchasing is not measured or tracked at the state level. Many felt environmental purchasing needs to be mandated if it is to work. For example, the Leadership in Energy and Environmental Design (LEED) program was mandated and its use has been successful. There are laws requiring recycled content product purchasing, but they are not enforced. Enforcement of most existing policies, procedures, Executive Orders, and laws that mandate environmental purchasing is lacking.

Education and awareness about Environmentally Preferred Purchasing is lacking

There is a lack of education on best practices, most importantly with purchasing staff. Education areas include: how to do environmentally preferred purchasing; what products to buy; where to find them; and that EPP does not always cost more. Typically there is not just one purchasing agent; rather purchasing duties are delegated to many staff, which increases education needs. Janitorial staff, contractors, and

elected officials need education on the benefits of EPP. Building maintenance contracts need to have EPP requirements.

Government needs to lead the way by demonstrating good environmental stewardship. This will help create markets, and educate the public. The state should emphasize "government walk the talk" programs such as how WSDOT purchases compost for highway projects. This is an example other governments could follow.

We should work on federal chemical product policy reform so we don't have to read the labels and make a decision on each product. This would be better than spending time educating local purchasing staff. Action on EPP from the federal level would remove the need to rely on education.

Some people don't see the value in recycling and EPP so they may not support government doing so. Life-cycle analysis is generally not used to support EPP. We could learn from private companies who are successful at EPP.

Purchasing policies can conflict with Environmentally Preferred Purchasing

Purchasing policies and procedures are often a barrier to EPP. EPP policies need to be tracked, enforced, and rewarded from the top down. Low bid requirements often interfere with developing EPP policy. Government procurement needs to use best bid instead of lowest bid.

The lowest bidder requirements are a barrier to EPP, even if the cheapest product will cost government more in the long run. Current product prices do not reflect life-cycle costs. It may be more cost effective in the long run to buy the greener product, but that is not reflected by the price tag. Example: a local product versus a cheaper product made overseas.

Purchasing departments tend to reward big contracts, which can provide cost savings, and don't tend to reward reduced consumption.

Environmentally Preferred Purchasing can be costly and lacks incentives

It is costly to identify and secure environmentally preferred products. Governments don't always collaborate to achieve the economies of scale necessary to bring prices down. In particular, small governments could benefit from this approach.

There is a perception that environmentally preferred products always cost more than traditional products. EPP costs more in some cases. It is difficult in the current economy to justify the extra expense. There is a potential conflict between being good stewards of the environment and good stewards of public funds. There is concern about unfunded mandates related to EPP policies.

A Washington law passed in 2009 requires governments to reduce paper use by 30 percent, along with using recycled content paper (RCW 43.19A.022). This is an example of coupling waste reduction and recycling with EPP to make government policies more cost effective.

There is often no real incentive for local government to recycle. Recycling is not always convenient and systems are often not in place in local government offices. Not all government offices recycle correctly.

Theme: Definitions

What's working?

Comments related to what's working with definitions include the following:

- Variances in the solid waste rule are very helpful.
- Recognition of alternative uses for some solid wastes (i.e. beneficial use determination).
- Beneficial use of industrial by-products.
- The definitions have worked for several years now and could continue to function.

Definitions subthemes:

General issues with definitions

Definitions are very important. They establish the framework of solid waste management in Washington. Caution should be used when considering changes to current definitions. We must consider the impacts and risks of definition changes, as well as the relationships and consistencies with other laws. Definition changes will need to be coordinated between regulations and statutes.

Consideration should be given to how changes or additions to statutory definitions can influence reuse, innovation, competition, and services that support the state's waste management hierarchy. The statute should encourage a system that views materials as resources first, and as a waste only after reduction, reuse, and recycling options are exhausted. Definitions in both statute and regulation need to be clear for regulators and those required to comply with the laws and rules. Terms should not be vague or provide compliance loopholes. Definitions can be used to avoid legitimate disposal and recycling procedures. Changes to definitions could open the door to more sham recycling.

Waste versus product

State law does not define when a waste becomes a product, a by-product, or a residual. These terms need to be defined to support converting wastes to resources. Considerations should include protecting human and environmental health, and the need for permits or financial assurance when dealing with potentially unsafe wastes. How *waste* and *product* are defined determines how the material is handled and by whom, what regulations apply, what fees can be assessed, and what can be done with the material once it is collected, processed, or stored.

Private industry is always looking for ways to increase revenue, create viable products, and accept additional materials for recycling. There needs to be a more effective method for regulators to recognize changing beneficial uses for wastes. Terminology often lags behind technology.

Compost and anaerobic digestion are the only processes with regulatory statements on when a waste becomes a product. For composted materials, the regulations specify the compost is no longer a solid waste at the end of the compost process (if the material passes the compost tests). Digestate from a permit-exempt anaerobic digester is no longer a solid waste if it is managed in accordance with an

updated dairy nutrient management plan. For other waste materials that go through a recycling or reuse process, no regulatory definition exists for when the material is no longer a waste.

There is additional confusion between the terms *solid wastes* versus *hazardous wastes* versus *product*. An example is acetone. One company uses the pure product, another company can use a slightly contaminated acetone, and a third company can employ the final, used material. When is this material a product versus a waste, or, more clearly, a waste versus a continued-use product? Hazardous and solid waste regulations and definitions of *solid waste* and *recycling* can be in conflict.

Regulated garbage collectors have rights to solid wastes generated in their franchise area. This makes it difficult for other businesses to access materials defined as a solid waste in the waste stream for new or innovative recycling efforts to create products.

Waste to energy

New approaches for deriving energy from wastes have been developed, and solid waste laws have not kept pace with these developments. Definitions in the law may be in conflict. Issues related to waste used for energy need to be clarified. Terms that might need addressing include*: anaerobic digestion, energy recovery, landfill gas recovery, commercial boiler fuel, biofuel* and *bioenergy*. Definitions for *wood derived fuel, hogged fuel, woody biomass*, and *wood waste* may also need consideration for consistency. How these potential waste-to-energy strategies relate to green energy may need to be defined, as well.

Confusion about waste-to-energy definitions is also related to waste versus products, or waste versus commodity issues. Some proposals to use wood waste for energy call it a commodity, when others feel this is a form of solid waste incineration.

Recycle, recycling, recyclables, recycled products

Recyclable materials are required to be specified in local Comprehensive Solid Waste Management Plans (CSWMP), but some question the value in this. It can limit legitimate recycling and curtail innovation. As currently implemented, this requirement under CSWMP creates a ceiling for recyclables, rather than identifying the floor. Health departments could even assert an activity is not recycling because materials being managed are not listed in the CSWMP as recyclable materials. If a new recycling operation is proposed, that recyclable material must be in the CSWMP in order for the operation to be properly permitted. Similarly, if the county would like to add materials to the recycling collection program, the materials need to be included in the plan before they can be added. This can delay recycling opportunities, as updating plans is an infrequent, lengthy, and expensive process.

Often in daily use, the term *recycling* gets confused with the collection of recyclables, especially in discussions about measurement. *Recycling* is defined as remanufacturing or transformation of materials into products. Setting materials out for collection is not recycling. *Recycled products* may benefit from a definition.

Recycling facilities

Recycling facilities are not defined in law or regulation, though each term is defined separately. *Recycling* is defined and consistent in both statute and rule. *Facility* is defined in rule. The terms can be combined for a definition of *recycling facility*. There is some confusion between the use of the terms *recycling facility* and *processing facility*, and what should and shouldn't be regulated. This may be partly because processing facilities are perceived to be recycling.

The statutory definition of *recycling* results in confusion between what is considered actual recycling versus intermediate handling. Intermediate solid waste handling facilities (defined in WAC 173-350-310) include preliminary processing, such as collection, compacting, repackaging, and sorting for the purpose of transport. These are some of the excluded intermediate handling procedures described in the regulatory definition of *recycling* that actually results in transformation of recyclables into marketable materials.

Reuse

Reuse is not defined in law but is part of the definition of *waste reduction*. The distinction between *recycle* and *reuse* is not always clear. There is significant potential for reuse of more materials, though not all are environmentally benign. Currently, there is no regulatory focus on reuse. As reuse processes are less well known than recycling processes, additional regulatory scrutiny may be needed.

Waste reduction

Waste reduction is not well defined, and is defined differently in different laws. This increases the confusion surrounding our top priority for waste management.

Diversion

The difference between waste diversion and recycling is not always clear. *Diversion* refers to materials that are taken out of the waste stream. This confusion between diversion and recycling includes Ecology's measurement of recycling rates and diversion rates. The current use of the word *diversion* is not aligned with the law. Some think the term *diversion* refers to prohibiting individuals from culling high-value recyclable materials from collection programs for personal use or profit, or to waste generated out-of-state.

Solid waste

The definition of *solid waste* is different between agencies, specifically Ecology and the Utilities and Transportation Commission (UTC). Ecology includes recyclables in the definition and the UTC does not. City contracts and local government solid waste plans and programs have been established based on the inclusion of recyclable materials within the definition of solid waste and changing this would have repercussions. Others think we need to change the definition of solid waste to exclude recyclable materials and have the term only apply to materials destined for final disposal. This could make potentially recyclable materials more available for diversion from disposal. If management of recyclable materials is necessary, it could be regulated under a different law or heading.

Composting

Composting is defined in regulation but not in statute. Questions remain on what constitutes composting and what permit exemptions are applicable. Is having the definition in regulation only adequate?

Incidental contamination

Incidental contamination of waste in recyclable materials is an important issue that lacks clarity. It can affect who should be hauling what materials and whether permits are needed for processing facilities.

Interagency definitions are inconsistent

Where possible, there is a need to make definitions consistent among agencies using the same terms in statutory definitions. For example, the laws governing the Utilities and Transportation Commission and Ecology are not consistent in their definitions of *solid waste* and *recycling*, though this is intentional. Reconciling differences in statutes using the same terms may prove very difficult to accomplish and will be very labor intensive

Vactor waste use

Current regulations define certain materials as wastes, such as street sweepings and road construction debris. This adds permitting burdens and reduces options for reuse, when recycling and reuse opportunities do exist. Composted street sweeping and catch basin wastes (called vactor wastes) may be reused, but there are difficulties in doing so due to concerns about hazardous contaminants in the waste. Some analytical testing has found these processed wastes do not designate as hazardous. These materials may have alternative uses such as fill or landfill cover. The current regulatory framework in WAC 173-350, Solid Waste Handling Standards, does not address soil/earthen material reuse. Current laws and regulations governing solid waste do not effectively categorize street waste and processed/ treated soils

Theme: Measurement

What's working?

Comments related to what's working with measurement include the following:

- Ecology supports local governments with information and data on recycling

Measurement subthemes:

Performance measures for waste reduction are insufficient

Waste reduction is the top waste management priority in the law, but it is difficult to measure. It is hard to measure waste that isn't generated, or to know why it was not generated. Evaluations of economic growth measure consumption as opposed to conservation.

Greenhouse gas emissions are not connected sufficiently to waste management

The relationship between waste generation and greenhouse gas emissions is not typically considered in climate change discussions. Waste generation directly ties to production, transportation, and disposal of products. Using recycled materials reduces greenhouse gas emissions compared to the use of virgin materials. Cap and trade systems allow manufacturers using recycled materials to get carbon credits, but other sectors of the recycling system are not eligible to get carbon credits from recycling.

Measurement of the recycling rate is inadequate

State law requires Ecology to measure the recycling rate, which is the recycled percentage of total annual waste disposed in and from the state. There may be better measures to evaluate the overall effectiveness of waste management activities, particularly in relation to waste reduction and consumption. The amount of recycling at commercial and industrial operations is not reported separately, but included with the total recycling rate. Thus it is difficult to have effective measures of this sector's recycling rate.

We measure recycling at the collection point, but measuring at the point of processing, brokering, or end-use may give better measures of recycling.

Recycling data needs to be accurate to provide the best information. There is limited follow-up to ensure that facilities are reporting data accurately. There is little uniformity among jurisdictions on how or what to measure for recycling data.

The current system does not accurately or consistently measure diversion. There are some materials that are only counted in the diversion rate. Some believe the end-use of those materials should be considered recycling and should be consistently measured as such, not changed year-to-year. (For more on diversion, see the ***Definitions*** theme.)

Life-Cycle Analysis measurement is not used

Life-cycle analysis (LCA) evaluates the total impact of a product from design through end-of-life and disposal. There is no requirement for using this tool to evaluate products. There are many forms of and limits to life-cycle analysis tools. LCA can be useful for assessing the full costs of products and impacts of products and packaging over their life-cycle.

There is no measurement of the public value of recycling

There is no accounting for the value added to our society by the recycling industry and the use of recycled materials. In addition, there is a lack of an economic sustainability metric for the system as a whole. We also lack a measurement for determining value to the public of the variety of solid waste services provided. Does the public see value in achieving a 50 percent recycling rate?

Additional measurements need to be considered

Additional measurements were suggested. These include: disposal versus recycling, jobs from the recycling industry, costs of waste and recycling services, the amount of resources expended on waste reduction activities, and a toxicity measurement to help us prioritize areas to focus on.

Theme: Toxics

What's working?

Comments related to what's working in regard to toxics include the following:

- Our current collection of moderate risk waste (MRW), through facilities and collection events, results in greater protection of human health and the environment. We are doing a better job of keeping hazardous waste and products out of the waste stream.
- There is education on less toxic and dangerous cleaning product alternatives.
- Washington's two product stewardship laws for electronics and mercury-containing lights provide a needed service and help keep certain toxics out of the environment.
- Ecology's pollution prevention program is effective.
- Dangerous waste laws encourage proper management of wastes.

Toxics Subthemes:

Moderate risk waste collection programs are limited

The current moderate risk waste *(*MRW) collection system keeps some toxics out of the environment or landfills. However, MRW collection systems are expensive to operate. Only a small amount of the total MRW is collected, leaving many toxics still in the solid waste stream. The environmental benefit of moving certain toxics from the solid waste stream can be questionable as most solid waste landfills are lined.

Many local MRW programs are dependent on grant funds. As state revenues decline, grant funds for these programs also decline. If grant funding is no longer available because of budget cuts, some programs may be eliminated.

The public lacks general knowledge about MRW and there is confusion about what types of MRW can be recycled or how to properly manage these materials at end-of-life.

At Ecology, the management of MRW is shared between two programs, creating bureaucratic challenges and some confusion for the public.

There are toxics in products and sufficient protections are not in place

Producers do not have to ensure that chemicals in their products are safe. With current labeling laws, it is difficult to determine what products are safe and what products contain chemicals of concern. There are no legally mandated design or performance standards for products to ensure low toxicity.

Safer alternatives to toxic products are not always known by or available to consumers. Sometimes safer alternatives with less toxic chemicals are more expensive or not as effective. Not using the product at all is typically not considered.

Toxics in products can make recycling the product difficult. However, there may be some environmental trade-offs for toxics in certain products such as mercury in energy-efficient lights.

We need more education on toxics in products. There is a lack of product labeling regarding hazardous products. The *salmon friendly* label is one example. Consumers need to know the hazards in the products in order to make educated choices. There is no negative marketing for hazardous products, unlike negative marketing efforts for cigarettes, for example. The public assumes products are safe if they are on the store shelf.

The Model Control Toxics Account taxes only certain toxics. Applying this taxing authority to a broader list might provide some incentive for businesses to reduce more toxics.

There is no integrated chemical policy in Washington State

Countries across Europe have chemical policies that promote less toxic products. These policies are not present in the United States or Washington State. Producers do not have to ensure that chemicals in their products are safe. It is left to government or consumers to prove or discover a product is not safe after it is on the market, rather than requiring a manufacturer to prove a product is safe before it is marketed. Integrated product or chemical policy may be similar to the precautionary principal. This principle states that when an activity raises threats of harm to the environment or human health, precautionary measures should be taken even if some cause and effect relationships are not fully established scientifically.

Designation and management of certain hazardous wastes is confusing and can inhibit reuse

Certain wastes are designated a hazardous waste or are only allowed to be handled in certain ways. This may discourage their recycling. Examples of this include used oil filters and street sweepings. Hazardous and solid waste laws may conflict on the management of certain wastes, such as with pharmaceuticals. It can be unclear whether certain wastes are hazardous or not, and when they fall under which authority, making management difficult.

In addition, the designation of certain hazardous wastes as a waste versus a product can be confusing. Lead is an example. Another point of confusion is differing regulations for MRW as opposed to hazardous waste when the main distinction is one of quantity, not toxicity. The less restrictive regulations in place for MRW may result in more negative impact on the environment.

Theme: Roles and Responsibilities

What's working?

Comments related to what's working with roles and responsibilities include the following:

- Solid waste planning at the local level has been a success and this structure should be maintained.
- Local Solid Waste Advisory Councils are a good way to bring people into the planning process.
- Local health department oversight works well in many places. The joint structure of having local health departments do enforcement and permitting, while relying on Ecology staff for specific expertise should be maintained.
- Some issues can't be handled at a local level. It's helpful for the state to keep an eye on water quality issues, such as copper brake pads, and persistent, bioaccumulative toxins (PBT's).
- Non- governmental organizations, such as the Washington Organics Recycling Council, can create an effective public/private dialogue and communication.
- Public and private partnerships between government and private business can work.
- It is a good support role for Ecology to provide data, information on recycling for locals, help with local solid waste plans, and training.
- The Utilities and Transportation Commission has ensured that everyone has garbage service who wants it. All citizens have access to disposal from their homes, which is not the case in other states.
- There has been job growth in green industries.

Roles and responsibilities subtheme:

Roles need to be defined and clarified between stakeholders, especially between Ecology and local governments

Who can and should have responsibility for what roles in solid waste management? There are many components needed in a solid waste system to meet the waste management priorities of Washington State. Different entities are involved in these areas to varying extents.

Components include:

- Public education
- Product end-of-life management
- Performance measures
- Rate setting
- Market development
- Product and packaging design
- Product certification programs
- Enforcement
- Consumption
- Bans

Entities include:

- Consumers
- Manufacturers/producers
- Waste companies
- Ratepayers
- Retailers
- Tribes
- Governments (city, county, state, federal)
- Marketers
- Recycling companies (processors, brokers, end-users)

Government roles:

Government can impact solid waste management through legislation, regulation, planning, enforcement and implementation of programs. Some stakeholders want more clearly defined roles between local and state government in rules and laws. Many said that there needs to be more consistency between local regulations and state agencies. How much of a role governments should have and whether it can or should occur at the local, state, or federal level is not agreed upon.

Larger governments may have more ability to take action. They could require businesses to reduce packaging and waste generation, require recycled content in products, standardize products and measurements, support pollution prevention, ban disposal or use of certain materials, remove toxics, require safer alternative chemicals, mandate consumer information on products, and use purchasing power to impact product design and availability. Governments are not necessarily good at creating markets. Governments have provided education, but have limited funds to do so. Performance measures are typically established and tracked by governments. In Washington, government oversees rate setting for some waste services. It has been suggested that government should certify product certification programs, to eliminate green washing.

A beneficial use of local resources could be to align solid waste, local health, and land use codes with existing system demands and likely developments. Building and planning departments could assist in educating contractors in the correct management of solid waste and recyclables.

Ecology and local government roles:

The roles between Ecology and local governments need clarification. Who does enforcement and who implements the rules is a primary issue. Inconsistencies in enforcement could be addressed by having all enforcement handled through the state, but this would have funding and logistical limitations of its own. The state should, however, address specific items such as sham recycling, beneficial use determinations, and oversight of exempt facilities to increase consistency between jurisdictions.

Some people mentioned conflicts of interest that stem from defined roles and responsibilities in Chapter 70.95 RCW. Many local governments depend on landfill tip fees and need the revenue generated from waste. Conflict can arise in that local governments can have operational, permitting and enforcement authority over the solid waste and recycling facilities.

General public roles:

Consumers, taxpayers, and the general public also have roles and responsibilities. They need to purchase environmentally preferred products, and they have a key role in proper recycling and waste disposal.

Private industry roles:

Private industry can have a vital solid waste management role. Industry decisions can impact use of recyclable materials, product packaging and design, product end-of-life, education, and marketing. Industry has been more involved in performance measures and certifications. When regulated garbage companies integrate recycling and composting into their businesses, this aids the public and the waste companies.