The Next 50 Percent

Introduction

The Beyond Waste Implementation Working Group (IWG) has developed proposals that will contribute to reductions of greenhouse gas (GHG) emissions generation associated with solid wastes when implemented, building on the prioritized recommendations from the 2007 CAT process known as *AW-3: Significant Expansion of Source Reduction, Reuse, Recycling, and Composting* and the CAT's 2007 interim report headline titled: *Recommendation 11 Reduce waste and Washington's emissions of GHGs through improved product choices and resource stewardship.* Additional information and recommendations related to 2007 CAT priorities are in Appendix A.

Through the waste reduction and recycling efforts of the last 20 years, Washington is now diverting about 48 percent of the solid waste generated in the state to reuse, recycling and beneficial use applications. Though we don't know exactly how much GHG emission reductions this represents it is several million metric tons of CO_2 equivalents (MMTCO₂e) per year, probably more. We believe that pursuing the recommended strategies to recycle "the next 50 percent" will result in at least a measurable 7 MMTCO₂e per year being reduced.¹

The goal of the Beyond Waste IWG is to significantly expand source reduction, reuse, recycling and composting and build on what is best and most successful in current waste management system by developing an implementation plan targeting products with the largest GHG reduction potential.

To accomplish the goal the IWG was charged to build on existing source separation strategies and the state's solid waste management plan – the Beyond Waste Plan - implementation approaches. The group was to develop an implementation plan considering actions that:

- Optimize the collection and processing infrastructure needed to more effectively capture recyclable materials with the highest carbon footprint generated from industrial, commercial, agricultural and residential sources;
- Expand, recruit or develop in-state businesses that use recyclable materials in their manufacturing processes (including investment, financing and incentives);
- Remove organics from the disposal stream so that they can be beneficially used for healthy soils, bioenergy production and new products;
- Create product stewardship framework legislation applicable to consumer products focusing on the full
 product life-cycle including cradle-to-cradle design, material and energy content, manufacturing and end
 of life recycling/reuse;
- Determine actions to expand byproduct synergy, zero waste business practices, design for the environment and other emerging commercial activities;

¹ Based on EPA's Waste Reduction Model (WARM). WARM has received occasional criticism for overstating emission reductions for some materials. However, WARM does not provide GHG calculations for all materials covered in these recommendations so the gross GHG reductions may in fact be greater than what can be modeled.

- Review implementation of existing environmentally preferred purchasing policies and recommended new environmentally preferred purchasing policies to be used by state and local government entities, that will result in reduced GHG generation; and
- Support and expand consumer product reuse and related business activities.

Through the IWG deliberations, the following materials were targeted as have significant GHG emission reduction potential:

- Paper 1.6 MMTCO₂e
- Metals 0.4 MMTCO₂e
- #1 & #2 plastics 0.1 MMTCO₂e
- Other plastics 1.5 MMTCO₂e
- Construction & demolition 1.7 MMTCO₂e
- Organics 1.5MMTCO₂e
- Contaminants (GHG reduction potential is not known, however, contaminants reduce the recyclability of the targeted materials above)

The tonnage estimates reflect the results of using the USEPA Waste Reduction Model (WARM) for calculating GHG reductions related to alternative solid waste management methods. WARM does not calculate GHG reduction potential for all products and materials. So, the potential for realizing additional GHG emission reductions is high.

In addition, there is the potential of .8 MMTCO₂e to be realized through anaerobic digestion of dairy wastes. This potential becomes greater with the addition of other organic farm and food processing wastes.

The IWG developed many action proposals to accomplish the outlined tasks. To winnow the many ideas down to the few, the criteria of "readiness to proceed" and "GHG reduction potential" were used.

It is important to remember that the solid waste management system is part of larger systems. Materials are extracted, turned into products, used and then disposed. The solid waste management system has traditionally focused only on the last point in the system – disposal. Recycling has been demonstrated to be an effective strategy to reduce the impacts of disposal. It is now recognized as being an effective tool to reduce the upstream impacts of extraction, product and use as well. The action proposals set forth below keep these farther reaching benefits in mind.

Action Recommendations and Implementation Timeline

FOR 2009 LEGISLATIVE SESSION:

1A: *Optimize the Solid Waste Collection System* – focuses on collection and creates financing mechanisms to accomplish these actions

1B: *Product stewardship framework legislation* – Aimed at improving the environmental performance of products, specifically reducing their carbon footprint and increasing their recycling.

- 1C: Establishing a comprehensive organics management system -
 - 1. Green electricity Bio-power/Anaerobic Digestion Legislation
 - 2. Compost products use subsidy
 - 3. Compost product procurement by the Department of Transportation

NON-LEGISLATIVE ACTIONS FOR 2009:

2A: Collaborate with industry to influence the supply chain, particularly retail

2B: Establish a workgroup by Governor's Executive Order to develop an Environmentally Responsible Purchasing strategy for state and local governments

DEVELOP FOR THE 2010 LEGISLATIVE SESSION:

3A: Establish strong government environmental procurement and responsible purchasing practices in statute 3B: Gain legislative authorization of a sustainable product design institute

DEVELOP FOR THE 2011 LEGISLATIVE SESSION:

4: Stimulating Recycled Material Use

- Incentives for Industry
- Assure utilization of collected materials through aggressive market development strategies

Research and Development

Appendix B contains a funding matrix that describes the potential funding sources for the recommendations.

ACTION 1A: OPTIMIZE THE SOLID WASTE COLLECTION SYSTEM

2009 ACTION DESCRIPTION

- The goal of this action is to optimize the collection of recyclable materials and products, construction and demolition debris and organics for recycling in Washington State to meet a new recycling goal of 80 percent by 2020.
- The fundamental strategy to achieve this goal is to require source separation of solid wastes by residential and commercial generators into at least three categories: recyclable materials and products, organic materials, and residual solid wastes.
- Recyclable materials include at a minimum recoverable paper, container metals, container glass (with some exceptions) and plastics. Organics include at a minimum yard, garden and food wastes.
- Residential generators must separate their wastes and participate in provided collection services.
- Commercial generators must separate their wastes and can select their recycling service provider.
- The action will increase the collection of recyclables, organics and waste through required source separation and collection programs.
- Local governments will be required to update their local comprehensive solid waste management plans on a phased schedule based on population size and location or contract renewal, describing the services that will be provided.
- Local governments are to write plans to assure construction and demolition wastes are reused and recycled at registered recycling businesses.

• Financial incentives are provided to the private sector to encourage investment in the infrastructure needed to support this action.

BASIS FOR SELECTION

• The result of this action will contribute to the reduction of GHG annually by over five MMTCO₂e when fully implemented, based on current waste generation calculations.

IMPLEMENTATION APPROACH AND MECHANISMS

- Amendments to Chapter 70.95 RCW are required, (see "Legislative Proposal Overview", below, and draft language in Appendix C). The amendments require updates of local solid waste management plans.
- A funding mechanism is offered to increase revenues generated by the solid waste collection tax required by Chapter 82.18 RCW by increasing the tax rate on collection of garbage and applying a differential rate collection of recyclable materials and organics.
- There is concern over requiring commercial and industrial recycling expressed by the private recycling industry. The proposal, however, only requires that these generators source separate wastes and participate in recycling. It does not require them to use any specific recyclable collection service provider.
- It is not the intent to eliminate the potential for recycling to be a part of the new "carbon market" strategies by expanding collection.

SUPPORTING INFORMATION

- GHG Emission Reduction Potential if these targeted materials are recycled:
 - \circ paper 1.6 MMTCO₂e
 - o metals 0.4 MMTCO₂e
 - #1 & #2 plastics 0.1 MMTCO₂e
 - other plastics 1.5 MMTCO₂e
 - construction & demolition 1.7 MMTCO₂e
 - Contaminants (GHG potential not known, however, contaminants reduce the recyclability of the targeted materials above).
- **Costs or cost savings:** Recycling has proven to be more cost effective than disposal. Recycling costs less than disposal given that a disposal fee is avoided and that marketing of recyclables generates revenue. The cost of collection remains, in either case.
- **Distribution of costs and benefits:** Costs will be borne by rate-payers, the benefactors of the services provided. This is a pay as you go proposal.
- Additional external benefits: This action will create more green collar jobs in businesses and industries that collect, process and use recycled materials.
- Engagement opportunities for individual action/behavior change: Participating in recycling and engaging in waste reduction activities is direct and tangible way the general public can engage and be part of the climate change solution.

- Economic Implications: The climate change action agenda demands a shift in our economy. The traditional "dig and dump" economy relies heavily on resource extraction and waste disposal. The new "sustainable" economy will rely on resource conservation and materials reutilization. A robust recycling system, starting with collection, is the key to making this new economic system work.
- Engagement opportunities for local and regional governments and private sector: This action relies completely on the ability of local governments and the private sector to work collaboratively to provide services to the public.

LEGISLATIVE PROPOSAL OVERVIEW

• Legislation is proposed (see description below, and draft language in Appendix C) to optimize the collection of recyclable materials and products, construction and demolition debris and organics for recycling in Washington State to meet a new recycling goal of 80 percent by 2020.

Residential Waste

- The fundamental strategies to achieve this goal related to residential waste are to:
 - Maximize source separation of recyclable materials, organic materials and wastes by residential generators
 - Require participation in collection services where they are available.
 - Provide collection of recyclable materials, organics and wastes separately, at a minimum
- At a minimum, recyclable materials include paper products, container metals, container glass and plastics. Organic materials include yard and garden wastes, food waste and food contaminated paper. Construction and demolition wastes are not considered part of the residential waste stream.
- All recycling facilities that receive recyclable materials from residential generators are identified and properly registered.
- Applicability: Residential includes both single-family and multi-family dwellings.

Commercial Waste

- The fundamental strategies to achieve this goal related to commercial waste are to:
 - Require source separation of recyclable materials, organic materials and wastes by commercial generators;
 - Assure comprehensive collection services are available and provided for recyclable materials, organic materials and wastes separately; and
 - Verify that materials collected for recycling are recycled.
- Local solid waste planning jurisdictions must identify through the local comprehensive solid waste management plans:
 - Collection services that are available for metals, paper products and organics to commercial generators. Jurisdictions can consider a variety of alternatives.
 - Registered recycling facilities that receive recyclable materials from commercial generators.
 - How commercial generators will be informed of and have access to the recycling service options available.
 - What will be done if options are not accessible.
- Commercial generators must separate their unwanted materials into at least three material streams: recyclable materials, organic materials and wastes. They must have these materials collected by one of the available registered recycling businesses.

- Organics collection services may be phased if markets are not currently available. The local planning jurisdiction must write a plan to develop those markets, in collaboration with their local economic development councils.
- For all material categories, the local government may apply for a waiver of these collection requirements from Ecology if end-use markets fail to develop. The local government must demonstrate efforts to develop markets in collaboration with private industry before a waiver can be issued.
- Applicability: This includes all commercial businesses, non-profit organizations, and government facilities.

Construction and Demolition Debris

- The fundamental strategies to achieve this goal related to construction and demolition wastes are to:
 - Require local solid waste planning jurisdictions to develop construction and demolition wastes reduction, reuse and recycling elements within the local comprehensive solid waste management plan;
 - Provide technical assistance from Ecology to local planning jurisdictions via model ordinances that can be adopted by local governments; and
 - Verify that materials collected for reuse and recycling are reused or recycled.
- At a minimum, construction and demolition debris generators must separate their unwanted materials into at least two material streams: 1. reusable and recyclable materials; and 2. waste. Generators must have these materials collected by one of the available registered recycling businesses.
- Applicability: All construction and demolition projects requiring a building permit.

Local Government Planning Requirements

- Local governments will be required to update their local comprehensive solid waste management plans and must consider constraints such as contract renewals, etc. The updated plans will describe how services will be provided in all contiguous incorporated and unincorporated areas with a population density² of 333 persons per square mile according to the planning schedule below:
 - July 1, 2011 for the counties of Clark, King, Kitsap, Pierce, Snohomish, and Spokane and all the cities therein;
 - July1, 2012 for the counties of Benton, Franklin, Walla Walla and Yakima and all the cities therein;
 - July 1, 2013 for the counties of Cowlitz, Grays Harbor, Island, Lewis, Mason, Skagit, Thurston and Whatcom and all the cities therein; and
 - o July 1, 2014 for the counties of Chelan, Clallam, and Grant and all the cities therein.
- Participation is optional for:
 - The counties of Adams, Asotin, Douglas, Ferry, Garfield, Jefferson, Kittitas, Klickitat, Whitman Lincoln, Pacific, Pend Oreille, Okanogan, Columbia, San Juan, Skamania, Stevens and Wahkiakum³; and
 - Any cities and areas in the state that do not have waste collection services as of January 1, 2009.
 - Any city with a population of 1,500 or less that is only bordered by an unincorporated area of a county within the counties required to write plan updates.
 - If these jurisdictional areas do choose to participate, their plans would be due no later than July 1, 2016.

² There are 640 acres per square mile. Rural residential zoning that provides a minimum of one single family dwelling per five acres or 128 single family units per square mile has been commonly practiced within the state. The average persons per household in the U. S. were 2.6 in 2000. So, 128 X 2.6 is 333 persons per square mile.

³ These 18 counties have less that 50,000 population each. The total combined population of these counties is 366,700 according 2005 population estimates. That is just less than 6% of the States' total population.

Financing for the Private Sector

• Revenue Sharing Between Haulers and Generators – Current law allows solid waste collection companies to retain up to 30 percent of the revenue generated from the sales of recycled materials as negotiated between the company and the local planning jurisdiction. 70 percent is returned to generators through reduction in their garbage bills. To provide a stronger incentive the solid waste collection companies, this revenue sharing lid should be increased to 50 percent. The amount of the revenue sharing should continue to be negotiated between solid waste jurisdiction and the collection service provider as a means to incentivize the collection service provider to improve recycling systems, improve the quality of recycled materials for market and increase market development efforts.

Issues That Have Not Been Addressed

- Funding: Potential mechanisms to fund state and local government responsibilities are described in the Funding Matrix in Appendix B.
- Public Education about this new approach is necessary. RCW 70.95 addresses public education. A funding mechanism is needed.
- Enforcement responsibility for the recommendations has not been assigned.
- If the stated recycling goal of 80 percent is attained, the Public Works Trust Account could be seriously reduced because of reduced revenue from one of its major funding sources, the Solid Waste Collection Tax.

ACTION 1B: PRODUCT STEWARDSHIP FRAMEWORK LEGISLATION

2009 ACTION DESCRIPTION

- The goal of this action is to establish a legislative framework utilizing product stewardship to minimize the environmental and health impacts of products throughout all stages of their lifecycle, including GHG emission impacts. "Product stewardship" policies require that producers take responsibility to manage and reduce the entire life-cycle impacts of their products from product design to end-of-life management.
- Product stewardship framework policy includes:
 - Requirements that producers (not local or state government) finance and provide product stewardship programs that provide environmentally-sound collection, transportation, reuse, and either recycling or disposal (as appropriate) of selected products.
 - An effective approach for decreasing GHG generation.
 - Language to encourage the design of products that are less toxic, more recyclable, more energy efficient, and have lower GHG emissions during the product's lifecycle.
 - A process for building markets for the recyclable materials.
 - A process for adding products to be covered by the legislation over time.
 - A process for evaluation of performance.

BASIS FOR SELECTION

Recycling Significantly Reduces GHGs

There is a large potential to increase the recycling and diversion of products that are currently being disposed and thus to decrease GHG emissions. This proposal could reduce GHG by over 0.9 million tons CO2e (see below). Additionally, a pending EPA report documents that 46 percent of US GHG production is a result products – production and provision of goods and materials and food, (EPA OSWER).

A Changing Waste Stream Requires Creative Solutions

A century ago, garbage was mostly coal ash and food waste with a small amount of simple manufactured products, like paper and glass. Now, product waste makes up 75 percent of per capita waste. Many of these products -- like paint, electronic products and fluorescent light bulbs -- are hard to recycle and contain toxic components. Local governments do not have adequate budgets to finance the special collection systems needed for these complicated products. And current recycling systems may be challenged to keep up with product design changes. Product stewardship links product design with disposal impacts so that producers take end-of-life impacts into account during the design phase.

Provides a Process to Maximize Producer Engagement and Private Sector Ingenuity

Framework policy provides a process for maximizing outreach to and input from producers of potentially covered products through an advisory committee and product selection and rule making processes. If a stewardship program is justified, producers assist in developing the rules and then they (not the government) design and manage the stewardship program. The framework establishes base criteria to be met, establishes a level playing field among competitors, and otherwise relies on private sector ingenuity and market forces.

Provides a Recycling Solution for Energy Efficient Products that Contain Mercury

Products such as fluorescent lights that can significantly reduce energy consumption do not currently have convenient, free, safe recycling options. This could create a disincentive for consumers to purchase and use these energy-saving products. Product stewardship programs provide a convenient and environmentally-sound management program for these products.

Provides an Incentive to Design Greener Products

There are currently few financial incentives for manufacturers to design products with smaller carbon footprints. Product stewardship links product design with end-of-life impacts so that producers take those end-of-life impacts into account during the design phase, so that their collection/processing costs for their products are reduced or eliminated over time. Framework legislation would require producers to be responsible for the product throughout the lifecycle of the product – thus providing an incentive to design products that are more environmentally benign.

Complements Collection Programs for Traditional Recyclables

Framework legislation makes producers responsible for handling products that may be toxic and difficult to handle in existing, effective programs, such as curbside collection. This cuts down on contamination and increases the recyclability of materials that continue to be collected at the curb and through other efficient methods. Some products may be most effectively collected through expanded curbside services or the creation of innovative new collection methods, which would therefore increase the economy-of-scale and efficiency of those services.

Framework Legislation in Place in Canada and Gaining Recognition in US

Framework policies exist in British Columbia and Ontario, Canada for paint, packaging, electronics, pharmaceuticals, solvents, pesticides, batteries, oil and tires. The Canadian Ministry of the Environment is currently working on a plan to harmonize framework policies across Canada. The Minnesota state legislature has passed a bill directing the state to establish a product stewardship framework policy. Framework legislation is being proposed in at least two other states in 2009.

Addresses the 2007 CAT's Recommendations

Framework legislation addresses the 2007 CAT Recommendation 11: Reduce waste and Washington's emissions of GHGs through improved product choices and resource stewardship, and specific implementation elements outlined in the strategy identified as AW-3: Significant Expansion of Source Reduction, Reuse, Recycling, and Composting, RCI-8: Consumer Education Programs, Including Labeling of Embodied Life-Cycle Energy and Carbon Content of Products and Buildings, and RCI-10: More Stringent Appliance/Equipment/Lighting Efficiency Standards, and Appliance and Lighting Product Recycling and Design.

Framework Legislation Can Be Adapted to Address Single Products of Concern

The framework legislation text can be adapted to be used as legislation for addressing a single product of concern, such as fluorescent (mercury-containing) lighting. A sample is provided within this report.

IMPLEMENTATION APPROACH AND MECHANISMS

Pass Legislation

Framework legislation has been drafted that could be introduced into the 2009 legislative session (see Appendix D), or that could be adapted to address single products of concern (see Appendix E) until the time that the full framework legislation is passed. If the framework passed in 2009, the law would be effective in July 2009. Producers would fully provide recycling programs for an initial set of products by 2011, with additional products potentially added annually.

Key Support and Barriers to Implementation

Likely Supporters:

- Residents who want convenient recycling programs for many additional products.
- Schools, charities, and small businesses who want to be able to participate in free and convenient recycling programs for the products they discard.
- Non-profit advocacy groups interested in energy efficiency, GHG reduction, and increased prevention and recycling.
- Non-profit charitable reuse organizations, such as Goodwill, who often have unwanted products dumped on them as "donations" and then incur costs to properly dispose.
- Local governments who want their residents to be provided with recycling programs but are not able to adequately finance programs for many hard-to-handle products.
- State government. Product stewardship approaches have been identified as needed in numerous processes and reports by various agencies and are consistent with Washington's electronics recycling law.
- Retailers. Product stewardship typically has greater acceptability among retailers than fees at point of purchase.
- A few specific manufacturers and industries that could move toward support of this approach.

Possible Opposition:

Manufacturers and industries that would be required to arrange and finance recycling programs for their
products, as well as from industry associations representing the general business community. This is
being addressed by building relationships with industries and industry members already in a good position
to implement a product stewardship system, and by listening to their concerns and input regarding
program structure. Additional outreach, education, and engagement with a diversity of producers will be
needed and undertaken. Lessons are also being taken from the successes of the electronics product
stewardship system in WA and other states.

Key Components of a Shared Responsibility Approach

In the proposed product stewardship system, responsibilities and roles would be shared as described below.

- Program Implementation: Producers not state or local governments would set up and pay for the recycling programs. The law would not prescribe specific program details, but instead allows the manufacturers flexibility in designing and providing the program. Producers would be responsible for developing stewardship plans, which the Department of Ecology would review and approve prior to implementation.
- Sustainable Program Financing: Financing for the manufacturer provided recycling programs comes from the manufacturers, not from State funds. The Department of Ecology would recover its minimal costs to administratively oversee and enforce the program from the manufacturers. This producer-pays approach minimizes costs to the State and establishes sustainable financing.
- Stewardship Organizations May Operate the Program: Producers are required to provide the collection, transportation and recycling programs for their products. Industry-run stewardship organizations may be contracted to operate the programs on behalf of the producers. Producers will work with processors and collectors, such as retailers, haulers, charities, and local governments
- Consumer Participation: Consumers will return their unwanted products to the stewardship programs.
- Enforcement and Oversight: The Department of Ecology will provide regulatory oversight and enforcement. Ecology, with accountability to the legislature, would also determine additional products to be covered by product stewardship programs through the use of an advisory committee and rulemaking process.
- Education and Outreach: A number of participants, including manufacturers, collectors, retailers, local governments and state government, will share responsibility for education and outreach.

SUPPORTING INFORMATION

Potential GHG Emissions from Products

Initial products that could be covered by stewardship programs include carpet, rechargeable batteries, fluorescent lighting, paint, and mercury-containing thermostats. In addition, agricultural chemical containers, additional electronics, and aerosol products containing ODS (Ozone Depleting Substitutes) used by non-professionals could be considered. The next tier of targeted products could include packaging and containers, plastic products, and propane gas tanks.

Potential GHG emission reductions include:

- Carpeting can potentially reduce GHG emissions by up to 897,000 tons CO2e (assuming 80 percent recycling).
- Paint, rechargeable batteries and mercury recycling have the potential to reduce emissions by an additional 9,610 tons CO2e.
- Stewardship of product packaging comprising paper packaging, container glass, PET bottles, aluminum cans, and tin cans has the potential for significant GHG reductions, but information is currently not available on the waste stream reductions achievable through stewardship of packaging.

Citizens Want Fluorescent Lamp Recycling Programs

Due to the new 2007 national appliance and equipment efficiency standards, people will need to purchase fluorescent lighting products as incandescent lamps are phased out. Washington needs a recycling program, paid for by the lamp manufacturers that will allow our citizens to safely recycle their lamps at no charge. By requiring that manufacturers be responsible for their product at the end of life, it provides an incentive for the design of new energy-efficient lamps that don't contain mercury or other toxic components.

Stewardship Programs Bring Jobs

Product stewardship programs utilize and build on existing and efficient collection, transportation and processing approaches and infrastructure, as well as create new business opportunities, processing activities, market development, and green jobs.

Citizens Want Stewardship Programs

Recent surveys have demonstrated that individuals support product stewardship concepts. A Sound Stats™ survey that focused on unwanted electronic products found:

- 94 percent of respondents agreed that corporations that make electronic products should be responsible for designing them to be easily recyclable and less toxic.
- 92 percent also agreed that when these products contain toxic lead and mercury, these corporations should provide a safe and convenient way to recycle them.
- 71 percent of respondents would prefer that pre-paid recycling costs be included in the price of the product.
- Overt 61 percent of respondents would prefer to take their computers and electronic products back to a retailer for recycling.

LEGISLATIVE PROPOSAL OVERVIEW

Intent and Findings

- Convenient and environmentally sound product stewardship programs help protect our environment and the health of residents.
- Producers are the best entity to manage and finance product stewardship programs.
- Product stewardship programs encourage the design of products that have a lower carbon footprint and that are less toxic, less energy and material intensive, and more reusable and recyclable.

What is Product Stewardship?

"Product stewardship" means that producers take responsibility to manage and reduce the entire life-cycle impacts of their products and/or their packaging, from product design to end-of-life management.

"Product stewardship program" means a program that addresses the lifecycle impacts of a product and includes the collection, transportation, reuse, and either recycling or disposal, or both, of unwanted products, including historical products and the program's fair share of orphan products. The product stewardship program is financed as well as managed or provided by the producers of those products.

"Producer" means a person that:

- (a) Has legal ownership of the brand, brand-name or co-brand of a covered product sold in or into Washington state;
- (b) Imports a covered product branded by a producer that meets (a) of this subsection and that producer has no physical presence in the United States; or

(c) Sells at wholesale or retail a covered product and does not have legal ownership of the brand, and elects to fulfill the responsibilities of the producer for that product.

Product Stewardship Participation Requirements

Every producer of covered products and covered product categories sold in or into the state must participate in a product stewardship program by either:

- operating, individually or collectively with other producers, a product stewardship program approved by the department; or
- entering into an agreement with a stewardship organization to operate, on the producer's behalf, a product stewardship program approved by the department.

Initial Covered Products

The Legislature could decide to include an initial set of products and example text has been drafted for carpet, mercury-containing lighting, mercury-containing thermostats, paint and rechargeable batteries.

Product Selection Process

At least every two years, the department will consider and evaluate through rulemaking, product categories or products to designate for product stewardship programs. The department will also determine the covered entities, the implementation date, management requirements and any labeling requirements for each additional product category. The department will also determine whether a product's packaging is designated as a product.

Criteria for Product Selection

- Climate change impacts and benefits;
- Energy conservation potential;
- Public and environmental health and safety;
- Resource recovery and material conservation potential;
- Toxicity of the product;
- Opportunity to achieve greater waste reduction, toxicity reduction, design for recycling, recycled content, and recycling;
- Potential of a product to act as a contaminant in the materials streams collected in residential and commercial recycling programs;
- Concerns about disposing of the product in the waste stream;
- The costs of management to local governments, ratepayers, and taxpayers in the absence of product stewardship programs;
- The opportunity to use existing and new businesses and infrastructure to manage products or product categories proposed for designation and to use or increase markets that utilize the recovered materials from such products or product categories;
- Public demand;
- Success in collecting and processing similar products in other programs in the U.S. and other countries; and
- The advice of the Advisory Committee.

Advisory Committee to the Department of Ecology

The Department of Ecology will appoint and consult with an advisory committee of up to 15 members regarding new products or product categories, covered entities, implementation dates, management requirements, performance goals, labeling requirements, and other inputs requested by Ecology. The advisory committee shall vet the department's recommendations on new products or product categories.

The public may petition the department to consider products for inclusion in product stewardship programs required under this chapter. The department shall adopt rules describing the petition process. Public petitions will be considered during the product selection process established in this chapter.

Involvement of the Legislature

Before adoption of new products or product categories into regulations, Ecology must present the list of products or product categories to the appropriate standing committees of the legislature.

Product Stewardship Plan Requirements

Plans describing the product stewardship program must be submitted to the department for approval. The plans must include the following:

- Contact information and participating producers;
- Performance and recovery goals for the first three years of the program;
- Description of the collection system(s) that will be used, including how unwanted products will be collected in all counties in the state and for all cities with populations greater than 10,000;
- Description of the handling systems and processing or disposal systems that will be used;
- How hazardous substances will be tracked through to final disposition;
- Best management practices that will be used by first processors and their downstream vendors to assure that hazardous substances and wastes are not released into the environment or impact human health;
- Description of how the program will seek to use businesses within the state, including retailers, processors, and collection and transportation services, in the implementation of the plan.
- Amount of green house gas reductions anticipated from implementation of the collection, transportation and recycling program;
- Financing mechanisms that will be used;
- Strategies to manage and reduce life-cycle impacts of the products and packaging, from product design to end-of-life management;
- Description of how producers participating in the plan will communicate and work with processors and recyclers used by that plan to encourage sustainable design of products and packaging;
- Education and outreach strategy, including how the program will measure the effectiveness of education and outreach; and
- A description of the process used to consult with affected stakeholders about the contents of the plan.

Required Reuse or Recycling

All products that have been collected by a product stewardship program must be reused or recycled, except if the department determines the products are not recyclable.

No Fee to Covered Entity

Product stewardship programs shall be provided to covered entities without charging any fee at the time the unwanted products are delivered or collected for recycling or disposal.

Producers shall pay all the administrative costs, education and outreach costs, and operational costs associated with their product stewardship program, including the costs of collection, transportation, and recycling or disposal, or both, of the products covered by the program.

Education and Outreach

Product stewardship programs must conduct effective and measurable education and outreach efforts promoting their use. Programs must provide pertinent information, including a toll free telephone number and website where collection options are listed, to covered entities, wholesalers, retailers, collectors, and other interested parties.

Education and outreach efforts must be sufficient to meet required recovery rates and to ensure that collection options are widely understood by covered entities.

If the program does not attain the required recovery rate, it must describe in its annual report what actions it will take during the next reporting period to do so, including how it will increase and improve its outreach and education.

Prison Labor Prohibited

No product stewardship program may include the use of federal or state prison labor for processing.

Encouraging Collaboration

Producers are encouraged to collaborate with product retailers, certificated waste haulers, processors, recyclers, charities, and local governments within the state in the development and implementation of their plans.

Annual Report

Annual reports describing the activities of the product stewardship program during the previous year must be submitted to the department.

Recovery Rates

By June of the third program year for each product or product category, the department shall establish required recovery rates for the fourth and subsequent program years, and must establish a fine system for those producers and product stewardship programs that do not attain the mandated goals and rates.

The department will establish the fine system through rulemaking. Ecology will also establish through rulemaking a process for setting the recovery rates for the fourth and subsequent years and for adjusting recovery rates as needed.

Sale of Covered Products Prohibited

As of the implementation date established by the department for each product, no producer, retailer or other person may sell or offer for sale that product to any person in this state unless the producer of the product is participating in an approved product stewardship plan.

Enforcement

Producers who are not participating in an approved product stewardship program and whose products continue to be sold in or into the state 60 days after receipt of a written warning, and retailers who sell products from producers who are not participating in an approved product stewardship program 60 days after receipt of the written warning, shall pay a fine of \$10,000 per day of noncompliance, beginning 60 days after receipt of the written warning.

Agency Administrative Costs Paid by Producers

The department may establish fees for administering this statute that are charged to the producers.

Anticompetitive Conduct

A producer or stewardship organization that organizes product stewardship programs is authorized to engage in anticompetitive conduct to the extent necessary to plan and implement its chosen organized product stewardship program and is immune from liability under state laws relating to antitrust, restraint of trade, unfair trade practices, and other regulation of trade or commerce for this purpose.

No changes to WUTC Authority

Nothing in this statute changes or limits the authority of the Washington utilities and transportation commission to regulate collection of solid waste in the state of Washington, including curbside collection of residential recyclable materials, nor does this statute change or limit the authority of a city or town to provide such service itself or by contract under RCW 81.77.020. (Note: consider additional reference to RCW 81.80 regarding commercial carriers.)

DRAFT FRAMEWORK LEGISLATION

Draft framework legislation is attached as Appendix D. This draft framework legislative text provides a means of identifying an initial set of products to be addressed or it could be run without identifying any specific products. The text can also be adapted to address a single product area of immediate concern if the Legislature is not ready pass an overall framework approach at this time. A sample of this approach using a product currently of particular concern, mercury-containing lighting, has been drafted and is provided to demonstrate the adaptability of the framework text.

DRAFT LEGISLATION FOR MERCURY-CONTAINING LIGHTING USING FRAMEWORK APPROACH

Draft legislation for mercury-containing lighting is attached as Appendix E. This sample draft legislative text for a product currently of particular importance and concern, mercury-containing lighting (fluorescent lighting), has been drafted and is provided to demonstrate the adaptability of the framework approach and text.

ACTION 1C) 1: GREEN ELECTRICITY – BIO-POWER/ANAEROBIC DIGESTION LEGISLATION

2009 ACTION DESCRIPTION

The specific action of this portion of the Beyond Waste Implementation Work Group package is to pass legislation to further the development of green energy - biopower/anaerobic digestion projects and remove barriers that prevent projects going forward. The legislation (proposed language is attached in Appendix F) has two parts:

- Broadening renewable energy credits (also known as renewable energy cost recovery/ or in Europe feedin tariffs) to include all anaerobic digestion systems (not just livestock). The purpose of this broadening is to significantly improve the economics and environmental handling of anaerobic digestion projects including dairies and feedlots. This is an adjustment to the legislation previously passed for solar electric (photovoltaic), wind and anaerobic digestion using livestock manure established in law (see RCW 82.16.110 to 140 and RCW 82.08.900); and
- Requiring in-state utilities to wheel biopower/anaerobic digestion power to other in-state utilities in need to the renewable power. A modest fee not to exceed 5 percent of the value of the power or the standard utility transmission rate, which ever is lower, provides guidance.

Definitions: An adjustment to the definition of anaerobic digestion is needed to include all wet organic material not just dairy/livestock manure. The definition in RCW 82.16.110 (4) is done by reference to a retail sales tax exemption in RCW 82.08.900. Therefore, the definition found in RCW 82.16.110 is amended in a manner within the draft legislation to ensure that there is no unintended ripple effect of adding a broader retail sales tax exemption to RCW 82.08.900.

Procedural and administrative provisions and requirements: The administrative provisions for the renewable energy credits are already in place with the Department of Revenue and the WSU Extension Energy Program. Public and investor owned utilities have already implemented the original renewable energy credit application system. Utilities would need to enable the wheeling requirements of the legislation.

BASIS FOR SELECTION

Two rationales were used by the IWG to select this action:

- Early anaerobic digestion/biopower projects have run into a number of barriers blocking full implementation. Some of these barriers include: 1) A low price offered by some of the state's 66 local utilities (WA is blessed with a limited but oversubscribed source of cheap hydropower). This has been the case even though new power sources are considerably more expensive; 2) Issues of interconnection or wheeling to a neighboring utility (willing purchaser); and 3) The need for cost reductions for northern climate digesters (WSU has invested over \$5 million in research and development to reduce this barrier). The legislation focuses on item one and two; and
- A goal of 100 to 150 anaerobic digesters in the state has been envisioned for several years. Only two dairy digesters have been built in our state. Dairy digesters receive a double GHG emission reduction: 1) The shut down of a manure lagoon is a methane reduction pathway; 2) The biopower produced offsets natural gas or coal based power production.

An explanation of this second rationale is as follows: The Northwest has had over a quarter century of very strong policy analysis of its power grid. This is a distinct advantage in sorting out the GHG impact of energy efficiency, renewable energy, and CHP. The Northwest Power and Conservation Council is one of the major analytical bases for the Northwest <u>http://www.nwcouncil.org/</u>. If a megawatt (MW) of energy efficiency or CHP comes on line, what happens? The answer depends on whether or not the grid is in baseload mode or "on peak" (when a tough region wide cold snap occurs in winter for example). Our region has natural gas based "peaker" plants. They are also called "marginal resources". On peak, we use less standalone natural gas. On base, we use less standalone coal based power from the Southwest or Eastern Montana.

Note: Our hydropower system has been maxed out for years. So, we have wrapped around it energy efficiency, renewables, CHP, natural gas peaker plants, and imported coal based power.

Biopower/anaerobic digestion is viewed as baseload power and as such can best be compared to the GHG emissions production of coal based power. For an example of the depth of analysis see the I-937 presentation by the Northwest Power and Conservation Council staff (especially slides 25 to 31) at I-937 Rulemaking under conservation 2/23/07 "NWPCC Conservation Methodology Presentation http://www.cted.wa.gov/site/1001/default.aspx.

IMPLEMENTATION APPROACH AND MECHANISMS

Draft legislation is attached (see Appendix F)⁴. A fiscal note from the Department of Revenue will also be needed.

The three potential barriers to implementation are:

- 1) The low price for power barrier is eliminated in the legislation by providing a renewable energy credit (cost recovery) similar to solar electric/photovoltaic systems established in current law;
- 2) The checker board nature of Washington's utilities, with some needing the renewable power and wanting wheeling to occur and others unwilling to wheel the power to the other in-state utilities that need it, is resolved by requiring wheeling to occur for a modest fee; and
- 3) Capital costs.

A major capital cost reduction strategy has been underway by WSU for over 4 years and \$5 million in research and development. A totally redesigned anaerobic digestion system which increases speed of digestion (reduces the major cost of cement), scrubs the biogas to reduce high wear and tear to the power generation systems and adds a number of new revenue streams. The new revenue streams include: 1) extraction of excess nitrogen and phosphorous for fertilizer, 2) upgrading the digested fiber as a peat moss substitute (peat moss is mined out of Canada); 3) development of co-digestion systems for food wastes/food processing wastes; 4) documentation of GHG emissions for sale. The WSU comprehensive digester system is now emerging from research and development and moving toward full commercialization.

SUPPORTING INFORMATION

GHG Reduction Potential and Underlying Assumptions

Quantifying all the GHG emissions reductions and offsets is difficult. For example, the WARM model is inadequate to address farm generated wastes. Quantification has been done in cooperation with the Stockholm Environment Institute and the Agricultural Sector Carbon Market Workgroup. A partial calculation yields MMTCO₂e.

- For dairies lagoon methane reduction pathway assume: 135 larger dairies with a total of 162,080 milk cows and 28,986 heifers (WSDA data for 2006). For milk cows assume 5.49 metric tons of CO2E/milk cow/year and for heifers assume 1.92 metric tons of CO2E/heifer/year (source is Chicago Climate Exchange/Environmental Credit Corporation). 945,000 metric tons of CO2E/year. However, not all manure will make it from the cow to the digester, therefore a very caution 65 percent assumption is used yielding a methane reduction of 615,000 metric tons/year from 135 dairy digester lagoon shut downs;
- For power reduction offsets assuming 2 kWh/cow/day (low end of factsheet from Northwest CHP Application Center) yields 90,700 MWh per year. If this new power generation displaces combined-cycle combustion turbines emitting 0.5 metric tons CO2 per MWh (the assumption used in all other electricity offset measures considered by the CAT) roughly 45,400 metric tons are of CO2E are offset;
- Embedded GHG emissions reductions from nitrogen and phosphorous fertilizer offsets Not calculated;
- Embedded GHG emissions reductions per ton of peat moss Not calculated; and
- Reduction in nitrous oxide releases from the soil due to elimination of nitrogen overloading Not calculated.

Costs or Cost Savings (net present value, cost-effectiveness)

The economics of anaerobic digestion are in a state of major change with strong cross currents. Capital cost increases have included the price of cement for the digester, the price of the power generation engines, and other system components. Interconnection costs can vary widely and permitting with related costs for co-digestion are

⁴ Dave Sjoding, WSU Extension Energy Program, drafted this legislation per the direction of the Beyond Waste IWG.

part of a major review by the Departments of Ecology (solid waste and water quality), Agriculture, Community, Trade & Economic Development, WSU and the dairy industry. Counter balancing cost increases are capital cost decreases through the system redesign by WSU and development on new revenue streams. Current analysis shows that co-digestion flips system economics from negative to positive (more biogas is produced and tipping fees are charged). Anaerobic digestion is viewed as complementary to compost systems rather than competitive.

Distribution of Costs and Benefits

The costs and revenue streams are principally borne and received by the project developer/owner. Ten year bank loans are common. Utilities receive baseload renewable power to comply with Initiative-937 or green power needs. The nursery industry receives an ability to buy an alternative that is equal to or superior to peat moss.

Additional external benefits beyond the green power benefit include

- Preservation of local/in-state family dairies by improved economics
- Odor reduction
- Development of in-state green jobs (Andgar is an example)
- Elimination of nutrient ground water overloading through nutrient extraction (helps resolve co-digestion concerns)
- Development of an alternative to mined peat moss, and
- Digested material can be added to compost to improve the health of soils.

Implications/Engagement Opportunities for Individual Action

The dairy feedlot industry has been very cautious to adopt anaerobic digestion due to a nationally prominent example of a dairy in Prairie, MN relationship to a local utility. Utility power purchase agreements that are for the length of the dairies bank loan resolve the MN issue. Extension and outreach to dairies, feedlots, wastewater treatment facilities and compost facilities will need to be done with workshops, factsheets, tours of existing digesters, and one-on-one discussions.

Implications/Engagement Opportunities for Local and Regional Governments and the Private Sector

Permitting of proposed systems will move though the permit processes (see discussion above). The private sector dairies, feedlots, waste water treatment facilities, compost facilities and Washington based project developers that take advantage of the opportunity will benefit.

STAKEHOLDER INFORMATION

There are at least six pieces of related or neighboring legislation. One (second on the list) is very closely related to the organics legislation. The Beyond Waste Organics electricity legislation would fit as an insert into the broader bill. Coordination with the proponents (not Climate Action Team associated) is underway. The other proposed pieces of legislation are:

- 1. Changing the net metering law from 100 kW to a proposed 500 kW;
- Renewable Rate Recovery and Control Act This bill sets a floor and a ceiling on the prices paid for different renewable electricity sources, requires the utilities to accept the electricity at those established rates and allows the utilities to rate base the power. The Beyond Waste Organics electricity legislation would fit as an insert with those rates;
- 3. Clean Heat and Power (CHP) legislation Part of the Energy Efficiency Green Buildings Climate Action Team process;
- 4. Bioenergy Tax Credits extension to 2015 Community, Trade and Economic Development request legislation;
- 5. Clean Power Equipment Tax Incentive A different tax extension; and

6. Expedited permitting of renewable energy systems.

Likely supporters of the legislation are some utilities (drafters of bill #2 above), Puget Sound Energy (hunting for renewable power projects and requesting other utilities to wheel renewable power to them) Tribes such as the Tulalip, and the Washington Dairy Federation.

LEGISLATIVE PROPOSAL OVERVIEW

Green electricity – Bio-power/Anaerobic Digestion Legislation

For insert into the Renewable Rate Recovery and Control Act (Note: Like all the IWG's legislative proposals this is a draft and a work in progress.)

The Renewable Rate Recovery and Control Act is being developed outside the CAT process by a number of utilities with the Northwest Solar Center are leading this other effort. Per discussion at the Beyond Waste IWG meeting on 8/26/08, this draft legislative language is being designed to fit within the larger legislative effort. Further stakeholder discussion is necessary to address concerns raised regarding current concepts and additional language adjustments may be necessary to ensure a better fit. The broader language is intended to serve as both a cap and a floor on renewable energy prices from various renewable energy sources. Prices vary by source. This will avoid Finance Committee issues. Utilities will be required to buy the power as the established rates. They will also be enabled to recover the cost of the renewable energy in their rate base. This draft is developed with a verbal understanding of the larger bill. (Note: The bio-power wheeling section of the bill may not be necessary depending on the drafting of the requirement of the utilities to purchase the renewable electricity.)

Proposed legislative language can be found in Appendix F

ACTION 1C) 2: DIVERSION OF PUTRESCIBLE ORGANICS FROM THE MUNICIPAL SOLID WASTE STREAM FOR CREATION OF GREEN ENERGY AND ORGANIC SOIL AMENDMENTS

2009 ACTION DESCRIPTION

Subsidize use of compost/organic amendments on agricultural lands by providing a per ton subsidy to farmers Statewide using the existing State Conservation District infrastructure. The subsidy would be available annually for a fixed time period. The subsidy would cover use of compost/organics at agronomic loading rates with a fixed amount of funding available per county. The rate of funding available per county would be determined based on farm acreage.

BASIS FOR SELECTION

Diversion of putrescible organics (examples include yard waste, food waste, and other high moisture content wastes) from the MSW stream offers the potential to generate GHG credits through methane avoidance. In addition, these materials have value for green energy re anaerobic digestion and as soil amendments. Anaerobic digestion and land application of digestates post energy extraction are complimentary processes. Use of organic soil amendments can generate GHG credits by substituting for synthetic fertilizers, reducing irrigation requirements by increasing soil water holding capacity and increasing total soil carbon. This 'grave to soil' approach offers the potential to generate GHG credits in three ways:

- Methane avoidance through land fill diversion
- Green energy through anaerobic digestion
- Ag credits through use of organic soil amendments

It is a low cost option with technology and limited capacity for anaerobic digestion in hand and with pre-existing infrastructure and facilities for composting residuals (in lieu of digestion or post digestion).

IMPLEMENTATION APPROACH AND MECHANISMS

Budget Request

Funding for statewide subsidy for agricultural use of compost/organics on farmlands, financial support for this would be derived from a increase in the solid waste tax or State and Local Toxics, Centennial Clean Water Fund, Carbon credits, Tipping fees or Renewable energy credits

• Example for Yakima, Kittitas, Chelan/Douglas, Spokane and Grant Counties: Each of these counties has a permitted operating or soon to be operating compost facility. There is high value agriculture in many of these counties including high tree fruit production. Providing subsidies for farm purchase of compost up to 25,000 dry tons per county to be used at an agronomic loading rate of 5 dry tons per acre at a subsidy rate of \$8 per dry ton. Total cost for 5 counties would be \$1.5 million. Total acreage covered would be 5,000 acres per county. Total feedstocks used to produce compost per county would be approximately 75,000 dry tons.

Define Statewide Subsidy Level/Integrate into State Conservation District Funding Requires identification of a revenue source to fund.

SUPPORTING INFORMATION

- Decomposition methane avoidance of approximately 1.15 MMTCO₂e per year
- Upstream GHG benefits of approximately 0.16 MMTCO₂e per year
- Cost per ton of CO2 saved is very low- added benefits of increased soil tilth and productivity
- Benefits to be seen by agricultural sector across the State
 - o improved soil productivity
 - o improved water quality
 - o improved crop yields and quality
- Creation of jobs re anaerobic digestion, compost production will be distributed between public and private sectors

ACTION 1C) 3: COMPOST MADE FROM RECOVERED ORGANIC MATERIALS PROCUREMENT BY THE DEPARTMENT OF TRANSPORTATION AND OTHER STATE AGENCIES

SUMMARY

Update language within RCW 43.19A to refer to the EPA Comprehensive Procurement Guidelines V (CPG V) regarding the Landscaping Products category to allow for use and purchase of a wider range of organics that comply with WA DOE regulations for compost and fertilizers land application of recovered organic materials.

This action will increase the markets for recovered organic wastes throughout the State and increase the variety and volumes available of recovered organic materials to Department of Transportation, as well as influence local and county purchasing specifications.

HIGHLIGHTS

This action will enhance the procurement goals for recycled content materials by state and local agencies by coming in line with the most recent federal procurement guidance for recycled products as previously codified by Washington State within RCW 43.19A and specifically define recovered organic materials that meet WA DOE requirements for land application.

The state is one of the biggest single purchasers of composted products, and the Standard Specifications for WSDOT for Compost, Fertilizer, Topsoil and Mulch products influence counties and cities purchasing actions and specifications state wide.

Updating the reference in 43.19A to include the EPA Comprehensive Procurement Guidelines V (CPG V) would result in the WSDOT modifying the 2008 Standard Specification Section 9-14.4(8)8. Requirements for purchasing compost, mulches, erosion control products, fertilizers and manufactured topsoil so that they are not limited to a certain feedstock or percentage of "composted plant materials" as they are now. This will allow a wider variety of composted products to be sourced locally to development projects. The current language used in WSDOT Standard Specifications for erosion control and roadside planting was intended to meet the 1991 goals as originally codified under RCW 43.19A Section, of increasing the use of composted yard debris. The markets for composted yard debris is well established in regions that produce these products, however areas outside of these production centers show little use of composted organic wastes due to transportation costs. It is important to note that Federal procurement laws have already been changed to accomplish this task and became effective September 14th, 2008. This proposed update would facilitate state transportation projects that receive federal funding to be in compliance with current federal purchasing rules for these materials.

The primary goal is to provide a change in all state recycled product procurement vendor lists and material sources to be inclusive of the other recycled organic waste feedstocks that are being extracted from the waste stream, that are processed by facilities that meet their applicable waste management and environmental regulations; and are processed to meet the applicable physical and performance standards set by the procuring agency for mulch, erosion control, compost applications, fertilizers and manufactured topsoil.

The secondary goal is to have state agencies purchase these designated items with the highest percentage of recovered organic materials practicable so that market demand increases as supplies of recovered organic

materials increase as their collection expands from 50 to 90 percent of the total available organics in the waste stream.

IMPLEMENTATION DATES

The Amendment to 43.19A would be submitted to the 2009 legislature with a targeted date for compliance/implementation by late 2009

MECHANISM

Put the attached legislative language to the Legislature, and if passed, have state agencies WSDOT, GA, Ports, Colleges and all other state purchasing departments that develop the land or install or maintain landscapes for state properties, to put in place procedures to purchase designated items with the highest percentage of recoverable materials content practicable, by using the following mechanisms to assure preferential purchasing of compost or fertilizers made from recovered organic materials.

- Revise state procurement specifications to comply with the September 14, 2007 Federal Register Notice of the EPA Comprehensive Procurement Guidelines V (CPG V) to change the description of "compost" by consolidating all compost designations under one item designation: "compost made from recovered organic materials"
- 2. Add a designated recoverable material landscaping item of "fertilizer made from recovered materials"
- 3. Adopt the current companion guidance of the product specifications in the Recovered Materials Advisory Notice V (RMAN V) see the following web link for more information
- 4. Develop and make available a list of recovered organic materials product vendors and/or manufacturers and update it annually.
- 5. Assure through processor documentation, that purchased compost and fertilizer from recovered organic materials have met the applicable state health, fertilizer and solid waste regulations.

SYNERGY WITH OTHER PROPOSALS

This action could be combined with updating of overall procurement guidelines of recycled products for state and local agencies, as well as improve the information data base of available recycled products.

Resources:

http://www.epa.gov/fedrgstr/EPA-WASTE/2007/September/Day-14/f18150.pdf http://www.epa.gov/epawaste/conserve/tools/cpg/rman5.htm http://www.epa.gov/fedrgstr/EPA-WASTE/2007/September/Day-14/f18149.pdf http://www.epa.gov/epawaste/conserve/tools/cpg/products/compost.htm http://www.ga.wa.gov/PCA/Forms/Washington-Purchasing-Manual.doc# Toc162333231 http://www.wsdot.wa.gov/Publications/Manuals/M41-10.htm

Legislative language can be found in Appendix G.

ACTION 1C) 4: IN CONJUNCTION WITH ANY OR ALL OF THE ORGANICS PROPOSALS, IT IS RECOMMENDED THAT THE STATE CHAMPION EXISTING MECHANISMS AND PROGRAMS FOR LANDFILL DIVERSION OF PUTRESCIBLE ORGANICS

Even without the adoption of the tax-related recommendations, the emergence of cap-and-trade markets provides an existing financial incentive for organics diversion from landfills. The State is encouraged to maintain and strengthen these market-based mechanisms as additional policies are developed and to provide guidance to private and public entities as to how to take advantage of these incentives. This guidance could take the form of support staff to work with public and private entities to provide necessary documentation to officially register projects or entities on currently trading carbon markets. It could also take the form of web-based guidance and educational materials for those seeking more information on these existing markets. This could also serve to showcase individual projects. It is possible that the individuals that have participated in these projects could cooperate with State agencies to offer guidance to other interested parties.

Participation in currently operating carbon markets does not preclude participation in the Western Climate Initiative. It also offers the opportunity to quantify carbon balances and receive credits for carbon offset projects using existing protocols while the WCI protocols are being formulated.

The Chicago Climate Exchange is the only established carbon market in the US where carbon credits are currently bought and sold. It is open for membership to a wide range of public and private entities. Washington State is currently represented on the Exchange by a number of projects and municipalities. For example, King County became a member of the Exchange in 2006. The VanderHaak Dairy, Lynden, WA, registered it's anaerobic digestion facility on the Exchange as a carbon offset project and receives annual payments for reducing methane emissions from its farm.

There are currently several protocols either in place or under development at the Exchange that are relevant to the organic component of the waste stream. A protocol is near completion for credits for methane avoidance for diversion of putrescible waste (food scraps, municipal biosolids, and yard trimmings) from landfills to compost facilities. Credits under this protocol derive from the methane release that is avoided by having these wastes decompose aerobically. There is also an existing protocol for anaerobic digestion of manures. The protocol can credit both methane avoidance for methane capture as well as green energy produced through controlled anaerobic digestion.

Several examples are detailed below to illustrate how these protocols could be used to generate revenue to support organics diversion projects. In each case, the diversion process results in the production of a material that has value as a soil amendment. Land application of these materials, either directly or after composting, could be encouraged and potentially subsidized through revenues gained from trading carbon credits.

FOOD SCRAP COMPOSTING

Several municipalities and their service providers within the State including King (http://www.metrokc.gov/dnrp/swd/garbage-recycling/recycle-food.asp), Snohomish (http://www.mnorthwest.com/ssnohomishcounty/index.html and http://www.rabanco.com/collection/Lynnwood/residential/residential_organic_debris.aspx) Thurston (http://www.co.thurston.wa.us/wwm/Recycling and Disposal/Recycle/Composting/Compost home.htm), and Whatcom (http://www.ssc-inc.com/recycling_multifamily.php#foodplus) counties have begun programs that offer

joint collection of food scraps with yard trimmings. The mixed organics are then composted. Similar programs exist in Alameda County, CA and in Europe. (http://www.stopwaste.org/home/index.asp). Including food scraps in compost increases the nutrient value of the final product. In Washington State, food scrap composting operations are required to meet certain criteria for pathogen reduction (http://www.ecy.wa.gov/programs/swfa/compost/). On line resources already exist that showcase composting operations that comply with State regulations, such as Cedar Grove Compost (http://www.cedar-grove.com/), Pierce County (http://www.co.pierce.wa.us/pc/services/home/environ/waste/recycle/compost/compost2.htm) and their service provider Pierce County Recycling Composting and Disposal (www.Irilandfill.com).

Each of these programs are potentially eligible for carbon credits. These credits are only available through the Chicago Climate Exchange if food scrap recycling is encouraged by municipalities. They are not eligible if food scraps are banned from the MSW stream. Tip fees at compost facilities are likely to be comparable or less than to tip fees at landfills. If yard waste collection programs are currently in place, adding food scraps to the existing programs may not result in additional collection requirements or costs. However, it is essential that the compost facility comply with Department of Ecology regulations for pathogen destruction. No compost programs are currently listed on the Chicago Exchange. However, negotiations are ongoing to list programs for carbon credits. Each of these programs can be used as a model for other municipalities that are considering landfill diversion of food scraps. Carbon credits for these programs can help to defray additional costs and may also provide revenue to subsidize compost use within participating municipalities.

ANAEROBIC DIGESTION - ON FARM

Anaerobic digestion of animal manure is currently a recognized and functioning protocol on the Chicago Climate Exchange. Credits are provided both for methane avoidance as well as energy production. On farm anaerobic digestion operations that are currently listed on the Chicago Climate Exchange include the Vander Haak Dairy,in Lynden (<u>http://www.envcc.com/index.php?option=com_content&task=view&id=20<emid=38</u>). Projects are also underway or in development in the state. See for example: Qualco Energy Corporation's Monroe anaerobic digester facility. Qualco is a non-profit organization that includes representatives from the Sno/Sky Agricultural Alliance, a dairy farmers' group; Quilceda Power, a subsidiary of the Tulalip Tribes; and Northwest Chinook Recovery, a nonprofit organization founded in 1997 to preserve, restore, and enhance salmon habitat in the Puget Sound region. (<u>http://www.quilcedapower.com/Biomass_Final_Report.pdf</u>)

Revenue from carbon credits is important for the economic viability of these projects. These projects qualify for credits under existing protocols on the Chicago Climate Exchange (http://www.chicagoclimatex.com/content.jsf?id=103).

The methane generation potential of manures is generally significantly lower than that of food scraps and other food processing wastes. This is due to the fact that manures have already been through a digestion process within the animal and so have lost a significant portion of their energy. Alternate waste streams can be accepted into these digesters to provide both revenue from tip fees as well as additional gas production. It is likely that controlled anaerobic digestion of alternate feedstocks would also qualify for credits under the methane avoidance from composting protocol.

Examples of additional feedstocks that are currently being accepted into operating on farm digesters include cheese processing wastes and food scraps. In each case, these feedstocks provide revenue both from tip fees as well as high methane generation potential.

ANAEROBIC DIGESTION - WASTEWATER TREATMENT FACILITIES

Municipal wastewater treatment facilities (WWTP) often use anaerobic digestion to reduce volume of wastewater solids, as well as to meet regulatory requirements for pathogen reduction and vector attraction reduction. Municipalities can flare gas or capture gas for energy recovery. In many cases, these digesters have excess capacity. Using this excess capacity for digestion of targeted organics also has the potential to qualify for GHG credits through the Chicago Exchange. It can also provide additional revenues to WWTPs through tip fees for accepting these wastes and added energy production from increased gas production. Examples of feedstocks that are suitable for digestion include fats oils and grease, food scraps and animal processing wastes. A limited number of wastewater treatment facilities outside of WA state are currently accepting alternate feedstocks including grease, chicken blood and commercial food scraps (http://www.epa.gov/region09/waste//organics/ad/index.html; http://www.environmentalleader.com/2006/11/20/city-of-millbrae-powers-wastewater-treatment-plant-on-kitchen-grease/). Both King County and the City of Tacoma have or are currently conducting research on co-digestion of alternate feedstocks with standard wastewater solids. Initial results from other municipalities have shown an increase in gas production and volatile solids reduction when alternate feedstocks are introduced into digesters.

Accepting residuals that are covered under the CCX protocol on methane avoidance through landfill diversion of putrescibles suggests that this practice would be eligible for carbon credits through the Exchange. These credits would provide revenue in addition to revenue generated from tip fees and increased energy production.

ACTION 2 A: INDUSTRY COLLABORATION - RETAIL

2009 ACTION DESCRIPTION - COLLABORATE WITH RETAILERS TO ACHIEVE CONSUMER WASTE REDUCTION

At least 50 percent of household wastes come through retailers. Retailers could be asked to help the state meet an overall 15 percent reduction goal, as described in AW-3. This would take the form of a memorandum of agreement with retailers and the governor to achieve GHG emissions reduction goals through packaging and product reduction strategies. Two specific area for waste reduction are packaging and food waste.

Packaging Reduction

An example a collaboration with retailers is the "Glassrite Bottle Initiative" in the United Kingdom. Retailers worked with wine producers to lightweight wine bottles. For products that were imported, bulk wine was shipped and bottled in the UK.

The result was reduced materials and energy use, equating to 788,229 metric tons of CO2 equivalent reduction per year.

Pursuing a strategy like this could expand to other products and packages as well as pallet and other shipping materials reduction strategies. It could also include working with retailers to donate returned products to reuse organizations instead of disposing of them, and other waste reduction and education measures. Also, Washington could work with California and Oregon on regional efforts.

Food Waste Reduction

Nearly one-third of the food that is purchased is thrown away. Food waste is a major factor in methane generation in landfills and a major portion of household budgets. "Love Food, Hate Waste" is a food waste reduction strategy

developed in the United Kingdom. While it focuses information to consumers about food waste reduction strategies, it also engages retailers and producers in developing packaging for longer safe food storage and information about how to store food properly.

Up to 866,000 MTCO2E could be eliminated if we reduced our in-state generated food wastes by half.

BASIS FOR SELECTION

- Consumer products and food account for nearly half of the total global GHG emissions generation from the United State (EPA).
- Retailers have direct contact with consumers and can provide not only products, but information as well.
- Retailers have enormous influence on the products and packaging offered to consumers. Their control in the product supply chain can have significant impacts on GHG emissions generation increases and decreases.

IMPLEMENTATION APPROACH AND MECHANISMS

A memorandum of agreement would be written between the governor and major retailers and retail associations in the state of Washington.

SUPPORTING INFORMATION

Costs or Cost Savings

Costs to state government would be minimal. It would primarily be staff time to negotiate and write the memorandum of understanding and would with the retail industry to track results. Implementation costs would be borne by retails, voluntarily.

External Benefits

A non-regulatory partnership with one of the state's major industry groups to reduce GHG emissions. This has not been vetted with the retail industry.

Engagement Opportunities for Individual Action

This proposal targets individual behavior. Retailers would work to provide consumers low carbon footprint products and information on safe storage of food. The provision of products and information alone will not be effective without consumer participation.

Economic Implications

Reduction in food waste should benefit consumers saving them money. Other economic implications are unknown.

Engagement Opportunities for Local and Regional Governments and Private Sector

This could provide an opportunity for local governments to partner with retailers within their jurisdiction.

ACTION 2 B: ENVIRONMENTALLY RESPONSIBLE PURCHASING

2009 ACTION DESCRIPTION

Establish, through a Governor's Executive Order, an intergovernmental work group to evaluate the need for and recommend if necessary revisions to state purchasing laws, regulations and practices to ensure that products and services used by government have the lowest possible environmental and carbon footprint.

There are existing efforts related to environmentally responsible/preferable purchasing (ERP). There are at least three state statutes, four executive orders and a variety of agency level policies. The degree of effectiveness of these various mandates is unclear. Also unclear is what barriers exist in other statutes and regulations that prevent effective environmental purchasing practices.

For the workgroup to be effective, the responsible state agencies will report the implementation status of existing state statutes, executive orders and agency level policies and barriers to full and effective implementation by March 1, 2009.

This action is about identifying barriers to environmentally responsible purchasing within current legislation and regulations and creating the legislated authorizing environment within which ERP can be achieved.

While the focus of the proposal is to reduce the carbon footprint of governmental purchasing, it is anticipated that proposed legislation will require that all purchases made with Washington state funds meet environmental performance characteristics, such as lowest possible GHG emissions and no toxicity. Currently, state purchasing contracts are awarded on price, availability and physical performance. This measure will add a fourth criterion, environmental performance, to the list.

BASIS FOR SELECTION

A soon to be released EPA study demonstrates that at least 46 percent of the United State GHG emissions are attributable to the provision of good and materials and food.

The opportunity to leverage a significant portion of the state's buying power to achieve noticeable GHG reductions by the state as a consumer, and to influence other consumers, was the rationale for selecting this action. Although this proposal will not be ready to implement in the 2009 legislative session, it is an important action to take as soon as possible, likely the 2010 legislative session.



Environmentally preferred purchasing as a concept has been around since the 1980's. Initially, recycled content paper products were targeted. In the early 1990's procurement of other recycled content products were added to the RCW. Eliminating the use of products that contain persistent, bio-accumulative and toxic substances was the focus of an executive order under Governor Locke, as was increasing the practice of environmentally preferred purchasing under his administration.

Those directives remain in place, but their effectiveness is unknown.

According to the Director of the Department of General Administration, Washington state government (including members of the Washington State Purchasing Cooperative) spends billions of dollars each year buying products and services through a "maze of purchasing authorizations." It appears that a very small amount of this total is intentionally directed to goods and services that reduce GHG emissions or that incorporate other environmentally responsible attributes. Many products with smaller climate impacts are available now.

IMPLEMENTATION APPROACH AND MECHANISMS

This action should be implemented through an executive order. The first item in the executive order should be to require an assessment of the progress and barriers related to environmental purchasing practices as reported by state agencies. This should be done by March 1, 2009 in order to provide the workgroup, described below, basic background information about ERP practices within government.

The second item in the executive order should be to require the Washington Departments of Ecology and General Administration to convene and facilitate a work group to develop an ERP program by June 2009, which will include an integrated set of revisions to the myriad laws and regulations that govern state purchasing and may also include additional elements. The working group should include representatives from:

- State government
- County government
- City government
- Special service districts
- Other members of the Washington State Purchasing Cooperative
- Colleges and universities
- K-12
- Vendors
- Department of Printing
- Department of Information Services

Proposed legislation will require that all purchases made with Washington state funds meet environmental performance characteristics, such as lowest possible GHG emissions and lowest possible toxicity. Currently, General Administration purchasing contracts are awarded on price, availability and physical performance. This measure will add a fourth criterion, environmental performance, to the list.

Additional actions that should be included in the Executive Order are:

- Adoption of the EPEAT standards for all computers purchased by government
- Adoption of a policy to require the use of 100 percent recycled content, process chlorine free office paper
- Establishment of standards for motor vehicles used by government related to environmental performance.

SUPPORTING INFORMATION

Costs or Cost Savings

Actual costs of desired products and services may or may not be higher than more traditional products have been. However, when product comparisons include life cycle costs throughout the supply chain along with environmental costs, it is likely that products meeting environmental performance standards will be price competitive.

External Benefits

Potential for more green collar jobs and green businesses within Washington.

Engagement Opportunities for Individual Action

This proposal focuses on changing the way government goes about its business in acquiring goods and services. When implemented, it will affect all suppliers and vendors and their customers.

Economic Implications

This proposal will put the \$8 billion buying power of the state to work to reduce GHG generation. Approximately 7 to 10 percent of the state's spending is purchased through approximately 300 GA contracts. The proposed purchasing requirements and processes that result from this effort should also apply to the other 90 percent of purchases that are made outside the state contracts, whether through delegation authority from GA, or through other sources, including the Dept of Information Services, the Department of Printing, Department of Transportation, Department of Social and Health Services, Department of Health and possibly others.

Engagement Opportunities for Local and Regional Governments and Private Sector

Local government will be affected by the statutory changes as well. Embedding environmentally responsible purchasing in state law will influence local governments by providing them the tools and authorities needed to integrate ERP into their own purchasing practices. Both from amendments to their purchasing authorities and by their customer relationship to the Department of General Administration.

ACTION 3 A: ESTABLISH STRONG GOVERNMENT ENVIRONMENTAL PROCUREMENT AND RESPONSIBLE PURCHASING PRACTICES IN STATUTE

2010 ACTION DESCRIPTIONS

See Action 2 B. above. The anticipated outcomes of 2 B. include legislative recommendations. This is a placeholder for the 2010 session.

ACTION 3 B: ESTABLISH A RESEARCH AND EDUCATIONAL INSTITUTE TO ADDRESS SUSTAINABLE PRODUCT DESIGN AND MANUFACTURING

See Action 4, below.

The Beyond Waste IWG identified this as a very important next step but did not have the time to develop a specific proposal. Others outside the CAT process may develop similar proposals and the Beyond Waste IWG advises that such proposals be supported.

Also, the Beyond Waste IWG suggests that related proposals to establish research, educational and/or training institutes related to toxics reduction, clean energy, or environmental technologies should be expanded in scope to include sustainable product design and manufacturing.

ACTION 4: STIMULATING RECYCLED MATERIALS USE

Strong markets for recycled materials use are one of the keystones to a successful closed-loop economy. The Beyond Waste IWG recognizes the need to assure market availability. The IWG also believes that it is important to take the time to determine the strategic policies necessary to achieve the closed-loop economy.

Below are many of the ideas that the IWG explored. We recommend that work continue on these ideas, and others, in order to put the strongest market development strategy forward. This will take time. Therefore we ask the CAT to endorse the need to further develop and refine this action area.

EXPAND, RECRUIT OR DEVELOP IN-STATE BUSINESSES THAT USE RECYCLABLE MATERIALS IN THEIR MANUFACTURING PROCESSES

Ideas Considered

- B&O tax break for manufacturers who use recycled goods.
- If there is a cap and trade system, provide a credit for businesses already achieving a world-class standard for efficiency or who get to a world-class standard as an incentive to achieve these efficiencies
- Streamlined and consistent regulations to facilitate permitting facilities and processes
- Provide information and technical assistance to highlight that many of the best strategies for GHG emissions reductions benefits also have other benefits, e.g., lean manufacturing

Recommendations

- 1. A B&O tax incentive for manufacturers that use recycled materials in the mfg process paper, metals, glass, plastics, urban wood, and yard waste (similar to proposed House Bill 1950).
- 2. Work with Washington Manufacturing Services (WMS) to identify existing services that can assist businesses looking to reduce GHG emission impacts, and also to identify additional services that could be offered, in conjunction with a CTED business recruitment focus on businesses using recycled materials.
- 3. Create an Industrial Design Center for Sustainable Products, in conjunction with Western Washington University Industrial Design Program and Huxley College, for example, to invest state and private resources in designing products that are designed for the environment (e.g. carbon neutral, recyclable, etc.). The center would be a public/private partnership with industry users.
- 4. Send message to the CAT: If there is a carbon cap and trade system, then provide a credit for businesses already achieving a world-class standard for efficiency or who get to a world-class standard as an incentive to achieve these efficiencies.

DETERMINE ACTIONS TO EXPAND BYPRODUCT SYNERGY, ZERO WASTE BUSINESS PRACTICES, DESIGN FOR THE ENVIRONMENT AND OTHER EMERGING COMMERCIAL ACTIVITIES AND ENCOURAGE CONSUMER DEMAND FOR THESE ACTIVITIES

Ideas Considered

• Create compelling reasons for businesses to create Zero Waste Plans and Goals.

- Identify a combination of financial incentives, price signals, regulatory policies, product bans, and/or disposal bans will accomplish this goal.
 - Address basic incentives.
 - Create state-wide contest/price for best new zero waste achievements by businesses.
- Create a Beyond Waste or Zero Waste Business Circle.
- Create incentives to encourage three types of activity:
 - Businesses to achieve zero-waste themselves.
 - Manufacturers to produce zero waste products / carbon neutral products; and for
 - Companies that use other companies waste in their manufacturing
- Provide assistance to help companies specifically with waste
 - Help companies meet carbon emission goals.
 - Develop and executing WRR plans.
- Information exchange
 - Create a reporting and information-sharing platform. A lot of information is out there to be shared.

Appendix A:

Overview of Beyond Waste Implementation Work Group Recommendations Related to 2007 Climate Advisory Team and Technical Work Group Recommendations

The purpose of this document is to review the status of and provide additional recommendations for actions found in AW-3; explain how the Beyond Waste IWG recommendations relate to and assist in implementing additional strategies; and establish the context within the work of the 2007 Climate Advisory Team and its recommendations.

On February 1, 2008, the 2007 Climate Advisory Team provided its recommendations to the Governor in its report titled *Leading the Way: A Comprehensive Approach to Reducing Greenhouse Gases in Washington State* (available at www.ecy.wa.gov/climatechange/CATdocs/020708_InterimCATreport_final.pdf).

The CAT's recommendations were presented through twelve "powerful directional recommendations." The directional recommendation that includes the work undertaken by the Beyond Waste IWG is Recommendation 11: Reduce waste and Washington's emissions of GHGs through improved product choices and resource stewardship.

The 2008 Beyond Waste IWG scope of work specifically addressed certain implementation elements outlined in the adopted strategy identified as *AW-3: Significant Expansion of Source Reduction, Reuse, Recycling, and Composting.* However, the proposals resulting from the Beyond Waste IWG's work also relate to and help implement other strategies included in Recommendation 11. These include RCI-8 and RCI-10. In addition, some of our recommendations could assist in addressing a strategy developed by the RCI TWG identified as *RCI – 11: Policies and/or Programs Specifically Targeting Non-energy GHG Emissions.*

AW-3 identified ten actions to achieve the overall strategy. The Beyond Waste IWG did not include in its scope of work or did not have time to address in detail all ten actions. All ten actions are included in this document with a status comment and brief next step recommendations where appropriate. Those actions that have been worked on more extensively with detailed recommendations.

Below is the text related to Recommendation 11 in the CAT's February 1, 2008 report.

Recommendation 11: Reduce waste and Washington's emissions of GHGs through improved product choices and resource stewardship

Greatly expanding source reduction, reuse, recycling and composting will result in a low cost/ton for GHG reductions and many co-benefits. The CAT strongly supports Significant Expansion of Source Reduction, **Reuse, Recycling, and Composting** (AW-3) because most communities and many businesses in Washington now have strong recycling programs that can be enhanced, there is a low cost/ton for the resulting GHG reductions and the many co-benefits, and this also represents significant opportunity to engage the public in combating global warming at the household and local business levels.⁵ This strategy sets targets to reduce the total amount of household and business waste by 15 percent, recycle at least 50 percent of the waste remaining, and compost over 90 percent of compostable organics through expanded source reduction, reuse, recycling, and composting of household, business, industrial, agricultural, and construction-related waste streams. In addition to traditional recycling

The 'most promising' strategies under this recommendation are:

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

programs, this strategy encourages 'cradle-to-cradle' design and manufacturing, and proposes to take advantage of market and business-based activities.⁶

In order to provide consumers with a better understanding of the impacts of their choices and empower them to make better choices, enhanced public education and outreach to support the long-term success of Washington's mitigation actions should be provided through Consumer Education Programs, Including Labeling of Embodied Life-Cycle Energy and Carbon Content of Products and Buildings (RCI-8). Education and certification programs for professionals involved in delivering services in support of RCI and other policy strategies considered by the CAT should also be developed and implemented. 'Carbon labeling' of products and buildings should be considered and evaluated for potential effectiveness and how this might be done in a consistent and verifiable manner, possibly on a regional or federal level.

Another way to support improved product choices is More Stringent Appliance/Equipment/Lighting Efficiency Standards, and Appliance and Lighting Product Recycling and Design (RCI-10), which increases energy efficiency through strengthened standards for new lighting, equipment, appliances and consumer electronic products and encourages product recycling and reuse, thus avoiding the generation of solid waste and the production and

Beyond Waste Implementation Group: The Next 50% Appendix A: Overview of Beyond Waste IWG Recommendations Related to 2007 CAT and TWG Recommendations

⁵ This strategy incorporates and builds upon the State's recently developed Beyond Waste Plan.

⁶ A partial list of the approaches in this strategy includes: source reduction (waste prevention) initiatives; expanding existing and encouraging more reuse, recycling, composting, and processing in businesses; establishing product stewardship programs; using environmentally preferable procurement practices; facilitating safe byproduct "synergy" strategies; achieving a reduction of toxics in packaging and products to make them safer to manufacture, use and recycle while increasing their value and use in the market place; increasing closed-loop recycling and the percentage of recycled-content in products, and expansion of disposal bans. Additional detail on this and all strategies is available in Appendices F–J.

emissions of toxic materials. Reduction of GHG emissions through improved product choices is also supported by the **Expanded Use of Wood Products for Building Materials** (F-5), which promotes substitution of wood products in place of other energy intensive materials (e.g., steel and concrete) to store carbon and avoid production emissions. Increased utilization of waste is accomplished through In-State Production of Biofuels and Biofuels Feedstocks (AW-2), which targets waste biomass for biofuels.

AW-3: Significant Expansion of Source Reduction, Reuse, Recycling, and Composting

AW-3 identified ten actions to achieve the overall strategy of significant expansion of source reduction, reuse, recycling, and composting. These ten actions are repeated below with a status update and suggested next steps, where appropriate. The complete text of AW-3 can be found on pages 31-52 at www.ecy.wa.gov/climatechange/interimreport/122107 TWG agr.pdf.

- 1) Local waste audits
 - Development of statewide system model
 - Development of statewide funding
 - Implement audit
 - Use results to influence local GHG reduction programs

Status: Department of Ecology convened an advisory group to assist in developing a methodology for a statewide waste characterization study, including regional waste audits that would be relevant to and utilized by local jurisdictions. An RFP is ready to be released if and when Ecology is granted permission to proceed with the contract as an exception to the freeze on personal services contracts or when the freeze is lifted. The is to conduct sampling throughout the state, which will determine waste composition for about 100 categories of disposed materials in 8 waste generation areas. The contract period is about 15 months. Local audits are currently underway or planned in Clark, King, Pierce and Snohomish Counties and City of Seattle.

- 2) Evaluate use of a model and index to measure and monitor GHG reductions
 - The EPA's WARM model was used for policy development
 - WARM model has some gaps, notably in failing to calculate source reduction potential for yard waste and food waste and it doesn't consider all the materials that are being recycled.
 - Investigate applicability or tweaks necessary to account for the actual types and location of disposal facilities in Washington State.[1]
 - Implement and evaluate use of the Washington State Consumer Environmental Index (CEI). CEI tracks changes over time in the environmental emissions and their impacts caused by the production, use and disposal of items purchased each year by Washington's consumers.

Status: The EPA WARM model can only calculate emission reductions for a limited number of primary recyclable materials. There are many other materials from the household, business, industrial, agricultural, and construction-related waste streams that have GHG emission implications – and are disposed as well as reduced, reused, recycled and composted/digested – that cannot be addressed through the WARM model at this time. The model does not adequately address all types of organics management options, such as anaerobic digestion. In addition, , several of the underlying assumptions and algorithms in WARM are based on limited or incomplete data. There are problems with addressing other materials due to incompatibility between state definitions and WARM categories.

Examples of such materials include in part: asphalt, composites, construction and demolition debris, electronic products, fluorescent light bulbs, furniture, gypsum, hazardous materials, land clearing debris, manure and other agricultural wastes, multi-material packaging and products, milk cartons/drink boxes, rubber materials, single use and rechargeable batteries, solvents, textiles, tires, used oil, various industrial wastes, vehicle batteries, etc.

EPA continues to expand the materials covered in the WARM model and refine calculations. It also continues to work with experts regarding issues around modeling organics. The limitations of WARM continue to limit the ability to model GHG reductions resulting from many product stewardship and recycling activities, but it is the best available to our knowledge. It is unlikely the State could afford to create a superior model.

The Washington State Consumer Environmental Index (CEI) has been created. One of the indices tracks purchases made in Washington and the related output of GHG emissions tied to product life cycles. These emissions are generated both in Washington and elsewhere, but are a result of the purchase of goods and services made in Washington. Between 2000 and 2005, there was approximately a 17 percent increase in GHG emissions, or 18.3 million tons of carbon dioxide equivalent emissions, due to consumer activities in Washington. The CEI provides an opportunity to track the GHG emissions associated with consumption of materials – and, in theory, changes in emissions resulting from waste reduction and changes in the carbon-intensity of goods purchased in Washington. However, refinements to the CEI would likely be needed. Resources to update the CEI have not yet been identified.

3) Build on existing source reduction and recycling programs, targeting commodities with the largest GHG reduction potential.

Status and Recommendation: This area has been addressed by the Beyond Waste IWG.

4) Fully implement and update Washington's Beyond Waste Plan. The current 5-year milestones and action items include key initiatives to increase recycling of industrial waste and organic materials, expand green building, reduce toxics and increase the ability to recycle products, and more. The next update and related funding priorities should further incorporate GHG emissions analysis and GHG reduction actions.

Status and Recommendation: The Beyond Waste update process is scheduled to begin in 2009 with the update completed in 2010. Ecology should incorporate all related work for the 2007 TWGs, 2008 IWGs, and CAT into that update process.

5) Fully implement and expand Environmentally Preferable Procurement policies and programs by the State and local governments.

Status: This area has been addressed by the Beyond Waste IWG. In addition, an internal staff team is working with General Administration to add ERP products to state contracts and working state and local agencies to expand their EPP programs.

6) Encourage manufacturers to provide – and consumers to use – end of life management and upstream design solutions that reduce the green house gas and other environmental impacts of product waste. Develop a framework policy for establishing product stewardship programs.

Status and Recommendation: This area has been addressed by the Beyond Waste IWG.

7) Encourage large retailers (e.g. Wal-Mart) to leverage buying power to encourage manufacturers to make the design solutions that reduce GHG and environmental impacts of product waste.

Status and Recommendation: This area has been addressed by the Beyond Waste IWG.

8) Establish a research and educational institute to address sustainable product design and manufacturing.

Status and Recommendation: The Beyond Waste IWG identified this an very important next step but did not have the time to develop a specific detailed proposal. Others outside the CAT process may develop similar proposals and the Beyond Waste IWG advises that such proposals be supported. Also, Beyond Waste IWG suggests that related proposals to establish research, educational and/or training institutes related to toxics reduction, clean energy, or environmental technologies should be expanded in scope to include sustainable product design and manufacturing.

9) Ecology, CTED, Health and other appropriate agencies should coordinate reporting to the appropriate committees of the legislature, on an annual basis, progress made in reaching the goals and recommendations for legislation or other actions by the state.

Status: This is outside the scope of the Beyond Waste IWG to address.

10) Form an on-going technical work group of experts on reduction, reuse, recycling, composting, product stewardship and green business development to advise Ecology, CTED, Health and other appropriate agencies on actions needed to implement this action item and attain the policy goals.

This could be accomplished by restructuring the Washington Solid Waste Advisory Committee (SWAC), creating a sub-committee of SWAC, or by creating an entirely new group. The technical work group's recommendations will be considered when reporting progress, next steps and recommendations to the legislature.

Status and Recommendation: If the Beyond Waste Implementation Work Group is not continued through the CAT process past 2008, then the additional necessary work should be passed on to ensure on-going policy development and implementation. The State Solid Waste Advisory Committee is an established committee with diverse stakeholder membership. Membership should be reviewed and enhanced to ensure that stakeholder representation includes expertise in upstream waste prevention, business product stewardship, zero waste business practices, and climate implications. If the CAT does not continue the Beyond Waste IWG under its umbrella, then SWAC should be asked to form a Beyond Waste or Climate Impacts subcommittee to absorb and continue the work of the Beyond Waste Implementation Work Group, including its membership. This would include completing work in 2009 and identifying and advocating significant next steps related to materials management and green house gas emission reductions, including legislation for 2010 and beyond. This possibility was addressed at the September 2008 SWAC meeting and SWAC members confirmed their willingness to serve this role if requested.

RCI-8 Consumer Education Programs, Including Labeling of Embodied Life-Cycle Energy and Carbon Content of Products and Buildings

RCI-8 contains a number of recommendations related to the work of the Beyond Waste IWG. For the complete text see pages 55-62 at www.ecy.wa.gov/climatechange/interimreport/122107 TWG rci.pdf.

These elements include:

• Carbon labeling of products. Please see extensive text at link above.
2008 Climate Action Team | Appendix 5: Beyond Waste Implementation Working Group

 Implementing requirements for retail education (on packaging or on a handout at the time of purchase), that will inform customers about the energy consumption of the products and materials (including building materials) they buy, and how to operate and use products in the most energy-efficient manner. These requirements should take advantage of and build upon existing Energy Star initiatives and certification programs, and be implemented with retail sales organizations where applicable.

Relevance of Beyond Waste IWG proposals:

The Beyond Waste Implementation Work Group's recommendations address these elements in part. The Collaboration with Retailers proposal does not envision requirements on retailers, but instead a collaborative yet rigorous effort that could include carbon labeling and retail education as described in RCI-8. The Environmentally Preferable Purchasing proposal could be a means of providing incentive for retailers to participate in use of labels, certifications and retail education. Product categories covered under a future Product Stewardship Framework law, as proposed, could have carbon labeling or certification requirements applied, if through the described process carbon labeling or certification was determined to be warranted and beneficial.

RCI-10 More Stringent Appliance/Equipment/Lighting Efficiency Standards, and Appliance and Lighting Product Recycling and Design

RCI-10 contains a number of recommendations related to the work of the Beyond Waste IWG. For the complete text see pages 55-62 at <u>www.ecy.wa.gov/climatechange/interimreport/122107 TWG rci.pdf</u>.

These elements include:

- Require (through state legislation) manufacturers to have an effective system in place for collecting and recycling end-of-life bulbs that contain hazardous materials that is easy and convenient for the consumer. (footnote included this text: For example, transitioning from incandescent lighting to CFLs in the residential sector offers enormous energy savings potential, but the fact that there is no comprehensive and effective system in place for recycling or disposing of old CFLs to avoid mercury contamination creates a barrier to achieving the full potential of CFLs.)
- Provide incentives for manufacturers to improve the energy efficiency of products, the efficiency with which products can be produced, and the degree to which products can be recycled.
- Consideration of potential shifts in the use of toxic materials (such as mercury in fluorescent lamps) that could inhibit consumer demand for the efficient appliances and create costly disposal issues. For example, efficiency standards could be linked to manufacturer "takeback" requirements, toxic reduction standards, aor incentives for development and use of non-toxic technologies.
- Require (through state legislation) the preferential procurement of EnergyStar products if available (equipment, appliance, or technology) if state funds are involved (e.g., state purchasing contracts, state grants or loans, etc.)
- Substantially increase the use of green electronic products and reduce solid waste by promoting EPEAT through a consortium of state, local government and business procurement entities, and require the use of EPEAT in state and local procurement.

Relevance of Beyond Waste IWG proposals:

The Beyond Waste Implementation Work Group's recommendations address these issues in part. The proposed Product Stewardship Framework legislation would establish a means to achieve a number of elements and

2008 Climate Action Team | Appendix 5: Beyond Waste Implementation Working Group

mechanisms above. Fluorescent lighting could be named as an initial product category in the legislation. Or fluorescent lighting recycling could be run as a separate bill, using text from the Framework legislation as that basis of the text. A sample of that approach is included in the Beyond Waste IWG report.

The Environmentally Preferable Purchasing proposal can be a means of addressing the other elements above.

RCI-11 Policies and/or Programs Specifically Targeting Non-energy GHG Emissions

RCI-11 contains a number of recommendations related to the work of the Beyond Waste IWG. These elements pertain to the use of Ozone Depleting Substitutes (ODS) such as Hydrofluorocarbon (HFCs) and Perfluorocompounds (PFCs) that are potent GHG emissions. A number of consumer products contain these gases, including novelty aerosols, aerosol Mobile Air Conditioning products sold to non-professionals, and aerosol keyboard cleaners.

Text throughout RCI-11 calls for consumer and retailer education, labeling, procurement policies, and restrictions. The text can be seen on pages 63-71 at <u>www.ecy.wa.gov/climatechange/interimreport/122107_TWG_rci.pdf</u>.

Relevance of Beyond Waste IWG proposals:

Recommendations from the Beyond Waste IWG will assist in addressing some elements described in RCI-11. The proposed Product Stewardship Framework legislation would establish a means to achieve a number of approaches named in the text. For instance, consumer aerosol products with ODS could be named as an initial product category in the legislation. Or ODS containing consumer aerosol products could be run as a separate bill, using text from the Framework legislation as that basis of the text.

The Environmentally Preferable Purchasing proposal and work with retailers can be a means of addressing the other elements discussed.

Appendix B: Funding Needs Matrix

Proposal	Funding Needed For:	Government Fiscal Impact	Funding Options
Optimize the Collection System	State and local responsibilities related to planning, tracking and enforcement	State: Minor Local: Moderate	1. Solid Waste Collection Tax 2. State and Local Toxics
	Capitalization of private infrastructure	None	 Increase the amount of revenue generated from the sales of recycled materials the solid waste collection company may retain from 30% to 50%. Develop incentives within the UTC regulatory framework Increase revenue from increased customer base and commodity sales.
Product Stewardship Framework	State responsibilities for program development, tracking and enforcement	Moderate	 State and Local Toxics to cover Ecology startup costs. On-going agency cost covered by fee for services placed on regulated producers of covered products (Producers cover implementation costs of their stewardship programs as cost of doing business.)
Wheeling		None	None
Tariff		None	None
Subsidy	Level the playing field between the cost of chemical fertilizers and compost by subsidizing the use of compost on farm lands.	Moderate	 Solid Waste Collection Tax State and Local Toxics Centennial Clean Water Fund Carbon credits Tipping fees Renewable energy credits
Compost use/ procurement	Policy development by DOT	Minor	
EO -Environmentally Responsible Purchasing	Staff time – Ecology, DIS, GA	Minor	1. Existing resources
Retailer Collaboration	Staff time	Minor	 Absorb State/local toxics General fund
ERP Legislation	Staff time	Minor	 Absorb State/local toxics General fund
Market Development and Industry Incentives	Staff time	Significant	 Absorb State/local toxics General fund

Category of Fiscal Impact Rating Scale

2008 Climate Action Team | Appendix 5: Beyond Waste Implementation Working Group

None = zero

Minor = less than \$50,000 per year (fiscal)

Moderate = \$50,000 to \$1 million per year

Significant = \$1 million to \$100 million per year

Major = Greater than \$100 million per year

Indeterminate = key variable cannot be estimated at this time

APPENDIX C: Collection Draft Language

BILL REQUEST - CODE REVISER'S OFFICE

BILL REQ. #: P/AL-5/09

ATTY/TYPIST: AL:seg

BRIEF DESCRIPTION:

AN ACT Relating to source separation and collection of source separated recyclable materials and products, organic materials, and wastes in order to reduce greenhouse gases, amending chapter 70.95 RCW, chapter 81.77 RCW and adding new sections to chapter 70.95 RCW.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF WASHINGTON:

Sec. RCW 70.95.010 and 2002 c 299 s 3 are each amended to read as follows:

RCW Caption: Legislative finding--Priorities--Goals.

The legislature finds:

(1) Continuing technological changes in methods of manufacture, packaging, and marketing of consumer products, together with the economic and population growth of this state, the rising affluence of its citizens, and its expanding industrial activity have created new and ever-mounting problems involving disposal of garbage, refuse, and solid waste materials resulting from domestic, agricultural, and industrial activities.

(2) Traditional methods of disposing of solid wastes in this state are no longer adequate to meet the ever-increasing

problem. Improper methods and practices of handling and disposal of solid wastes pollute our land, air and water resources, blight our countryside, adversely affect land values, and damage the overall quality of our environment.

(3) Considerations of natural resource limitations, energy shortages, economics and the environment make necessary the development and implementation of solid waste recovery and/or recycling plans and programs.

(4) Waste reduction must become a fundamental strategy of solid waste management. It is therefore necessary to change manufacturing and purchasing practices and waste generation behaviors to reduce the amount of waste that becomes a governmental responsibility.

(5) Source separation of waste must become a fundamental strategy of solid waste management. Collection and handling strategies should have, as an ultimate goal, the sSource separation of all materials with resource value or environmental hazard is necessary to protect human health and the environment.

NEW SECTION 70.95.013- Responsibilities assigned

(1)(a) It is the responsibility of every person and business to minimize their production of wastes, to separate recyclable or hazardous materials from mixed waste and participate in available materials collection programs.

(b) It is the responsibility of state, county, and city governments to provide for a waste management infrastructure to fully implement waste reduction and source separation strategies and to process and dispose of remaining wastes in a manner that is environmentally safe and economically sound. It is further the responsibility of state, county, and city governments to monitor the cost-effectiveness and environmental safety of combusting separated waste, processing mixed municipal solid waste, and recycling programs.

(c) It is the responsibility of county and city governments to assume primary responsibility for solid waste management and to develop and implement aggressive and effective waste reduction and source separation strategies.

(d) It is the responsibility of state government to ensure that local governments are providing adequate source reduction and separation opportunities and incentives to all, including persons in both rural and urban areas, and nonresidential waste generators such as commercial, industrial, and institutional entities, recognizing the need to provide flexibility to accommodate differing population densities, distances to and availability of recycling markets, and collection and disposal

costs in each community; and to provide county and city governments with adequate technical resources to accomplish this responsibility.

(e) Environmental and economic considerations in solving the state's solid waste management problems requires strong consideration by local governments of regional solutions and intergovernmental cooperation.

NEW SECTION - 70.95.015 Solid waste management priorities (8) The following priorities are established for the collection, handling, and management of solid waste to be

followed in descending order as applicable:

(a) Waste reduction;

(b) Recycling, with source separation of recyclable materials as the preferred method;

(c) Energy recovery, incineration, or landfill of separated waste;

(d) Energy recovery, incineration, or landfill of mixed municipal solid wastes.

NEW SECTION RCW 70.95.017 - goals, strategies, requirements

(1) It is the state's goal to achieve an eighty percent recycling rate by 2020.

(2) To accomplish this goal, it is the overall solid waste management strategy of the state that source separation of recyclable materials and products, organic material, and wastes shall be practiced by all persons and collection services shall be provided to all residents to eliminate disposal of recyclable, compostable and digestible materials and assure their reutilization.

(3) It is the state's goal that programs be established to eliminate residential or commercial yard debris in landfills by 2012 in those areas where alternatives to disposal are readily available and effective.

(4) Steps should be taken to make recycling at least as affordable and convenient to the ratepayer as mixed waste disposal.

(5) It is necessary to compile and maintain adequate data on the types and quantities of solid waste that are being generated and to monitor the effectiveness of these goals and strategies. (6) Vehicle batteries shall be recycled and the disposal of vehicle batteries into landfills or incinerators shall be discontinued.

(7) Excessive and nonrecyclable packaging of products should be avoided.

(8) Comprehensive education shall be conducted throughout the state so that people are informed of the requirements to reduce, source separate, and recycle solid waste.

(9) Governmental entities in the state shall participate in source reduction, source separation and recycling programs in the various communities where they are located, unless they have already established waste reduction and recycling programs that achieve equal or greater rates of material diversion. (10) All governmental entities shall purchase products that are made from recycled materials and are recyclable.

(11) To ensure the safe and efficient operations of solid waste disposal facilities, it is necessary for operators and regulators of landfills and incinerators to receive training and certification.

(12) It is necessary to provide adequate funding to all levels of government so that successful waste reduction and recycling programs can be implemented.

(13) The development of stable and expanding markets for recyclable materials is critical to the long-term success of the state's recycling goals. Market development must be encouraged on a state, regional, and national basis to maximize its effectiveness. The state shall assume primary responsibility for the development of a multifaceted market development program to carry out the purposes of this act.

(14) There is an imperative need to anticipate, plan for, and accomplish effective storage, control, recovery, and recycling of discarded tires and other problem wastes with the subsequent conservation of resources and energy. [2002 c 299 § 3; 1989 c 431 § 1; 1985 c 345 § 1; 1984 c 123 § 1; 1975-'76 2nd ex.s. c 41 § 1; 1969 ex.s. c 134 § 1.]

Sec. RCW 70.95.020 and 2005 c 394 s 2 are each amended to read as follows:

RCW Caption: Purpose.

The purpose of this chapter is to establish a comprehensive statewide program for to manage solid waste handling, and solidwaste recovery and/or recycling which will prevent land, air, and water pollution and conserve the natural, economic, and energy resources of this state. To this end it is the purpose of this chapter to:

(1) To aAssign primary responsibility for adequate solid waste handling to local government, reserving to the state, however, those functions necessary to assure effective programs throughout the state;

(2) <u>To pP</u>rovide for adequate planning for solid waste handling by local government;

(3) To pProvide for the adoption and enforcement of basic minimum performance standards for solid waste handling, including that all sites where recyclable materials are generated and transported from shall provide a separate container for solid waste;

(4) To cEncourage the development and operation of waste recycling facilities needed to accomplish the management priority of waste recycling, to promote consistency in the requirements for such facilities throughout the state, and to ensure that recyclable materials diverted from the waste stream for recycling routed to facilities in which recycling occurs;

(5) <u>To p</u>Provide technical and financial assistance to local governments in the planning, development, and conduct of solid waste handling programs;

(6) To eEncourage storage, proper disposal, and recycling of discarded vehicle tires and to stimulate private recycling programs throughout the state; and

(7) To <u>e</u>Encourage the development and operation of waste recycling facilities and activities needed to accomplish the management priority of waste recycling and to promote consistency in the permitting requirements for such facilities and activities throughout the state.

(8) Encourage it is the intent of the legislature that local governments be encouraged to use the expertise of private industry and to contract with private industry to the fullest extent possible to carry out solid waste recovery and/or recycling programs.

[2005 c 394 § 2. Prior: 1998 c 156 § 1; 1998 c 90 § 1; 1985 c 345 § 2; 1975-'76 2nd ex.s. c 41 § 2; 1969 ex.s. c 134 § 2.]

NOTES:

Intent--Severability--2005 c 394: See notes following RCW 70.95.400.

Sec. RCW 70.95.030 and 2004 c 101 s 1 are each amended to read as follows:

RCW Caption: Definitions.

As used in this chapter, unless the context indicates otherwise:

(1) "Anaerobic digestion" means processes in which microorganisms break down biodegradable material in the absence

of <u>oxygen</u>, resulting in the production of <u>methane</u> and <u>carbon</u> <u>dioxide</u> rich <u>biogas</u> suitable for energy production or use as fuel, and nutrients in the effluent that can be used as fertilizer.

(12) "City" means every incorporated city and town.

 $(\frac{23}{2})$ "Commission" means the utilities and transportation commission.

 $(\underline{34})$ "Committee" means the state solid waste advisory committee.

(45) "Composted material" means organic solid waste that has been subjected to controlled aerobic degradation at a solid waste facility in compliance with the requirements of this chapter. Natural decay of organic solid waste under uncontrolled conditions does not result in composted material.

(56) "Department" means the department of ecology.

 $(\frac{67}{2})$ "Director" means the director of the department of ecology.

(78) "Disposal site" means the location where any final treatment, utilization, processing, or deposit of solid waste occurs.

(89) "Energy recovery" means a process operating under federal and state environmental laws and regulations for converting solid waste into usable energy and for reducing the volume of solid waste.

 $(9\underline{10})$ "Functional standards" means criteria for solid waste handling expressed in terms of expected performance or solid waste handling functions.

(1011) "Incineration" means a process of reducing the volume of solid waste operating under federal and state environmental laws and regulations by use of an enclosed device using controlled flame combustion.

(1112) "Inert waste landfill" means a landfill that receives only inert waste, as determined under RCW 70.95.065, and includes facilities that use inert wastes as a component of fill.

(12<u>13</u>) "Jurisdictional health department" means city, county, city-county, or district public health department.

 $(\underline{1314})$ "Landfill" means a disposal facility or part of a facility at which solid waste is placed in or on land and which is not a land treatment facility.

(1415) "Local government" means a city, town, or county. (16) "Material recovery facility" means any facility that collects, compacts, repackages, sorts or processes in preparation for transport source separated materials for the purpose of recycling. (1517) "Modify" means to substantially

change the design or operational plans including, but not limited to, removal of a design element previously set forth in a permit application or the addition of a disposal or processing activity that is not approved in the permit.

 $(\frac{1619}{19})$ "Multiple family residence" means any structure housing two or more dwelling units.

(1720) "Person" means individual, firm, association, copartnership, political subdivision, government agency, municipality, industry, public or private corporation, or any other entity whatsoever.

(1821) "Recyclable materials" means those solid wastes that are separated for recycling or reuse, such as papers, metals, and glass, that are identified as recyclable material pursuant to section 70.95.080 (2) of this chapter as adopted within a local comprehensive solid waste plan. Prior to the adoption of the local comprehensive solid waste plan, adopted pursuant to RCW 70.95.110(2), local governments may identify <u>additional</u> recyclable materials by ordinance.from July 23, 1989.

 $(\frac{1922}{2})$ "Recycling" means transforming or remanufacturing waste materials into usable or marketable materials for use other than landfill disposal or incineration.

(2023) "Residence" means the regular dwelling place of an individual or individuals.

(2124) "Sewage sludge" means a semisolid substance consisting of settled sewage solids combined with varying amounts of water and dissolved materials, generated from a wastewater treatment system, that does not meet the requirements of chapter 70.95J RCW.

(2225) "Soil amendment" means any substance that is intended to improve the physical characteristics of the soil, except composted material, commercial fertilizers, agricultural liming agents, unmanipulated animal manures, unmanipulated vegetable manures, food wastes, food processing wastes, and materials exempted by rule of the department, such as biosolids as defined in chapter 70.95J RCW and wastewater as regulated in chapter 90.48 RCW.

(2326) "Solid waste" or "wastes" means all putrescible and nonputrescible solid and semisolid wastes including, but not limited to, garbage, rubbish, ashes, industrial wastes, swill, sewage sludge, demolition and construction wastes, abandoned vehicles or parts thereof, and recyclable materials.

(2427) "Solid waste handling" means the management, storage, collection, transportation, treatment, utilization, processing, and final disposal of solid wastes, including the recovery and recycling of materials from solid wastes, the

recovery of energy resources from solid wastes or the conversion of the energy in solid wastes to more useful forms or combinations thereof.

(2528) "Source separation" means the separation of different kinds of recyclable materials and products, and organic materials from mixed solid waste at the place where the wastes are generated those materials are generated.

(29) "Collection services" means services provided as universal residential collection and comprehensive commercial collection.

(30) "Universal residential collection" means the services required to be provided throughout the state to collect source separated recyclable materials and products, organic materials, and wastes separately. These services shall be provided at all single family and multi-family dwellings through collection companies as required under RCW 81.77 and municipal collection services provided under rcw 35.21.152 and rcw 35.67 except in those areas of the state which are excluded in section 70.95.110.(3).

(31) "Comprehensive commercial collection" means the services provided to commercial generators in the state to collect source separated recyclable materials and products, organic materials, and wastes separately. Commercial generators may transport recyclable materials or organic materials themselves, or may secure recycling services from any transporter of recyclable materials or recycling business in the state registered under this chapter.

(2632) "Vehicle" includes every device physically capable of being moved upon a public or private highway, road, street, or watercourse and in, upon, or by which any person or property is or may be transported or drawn upon a public or private highway, road, street, or watercourse, except devices moved by human or animal power or used exclusively upon stationary rails or tracks.

(2733) "Waste-derived soil amendment" means any soil amendment as defined in this chapter that is derived from solid waste as defined in RCW 70.95.030, but does not include biosolids or biosolids products regulated under chapter 70.95J RCW or wastewaters regulated under chapter 90.48 RCW.

(2834) "Waste reduction" means reducing the amount or toxicity of waste generated or reusing materials <u>or products</u> without processing.

(2935) "Yard debris" means plant material commonly created in the course of maintaining yards and gardens, and through horticulture, gardening, landscaping, or similar activities.

Yard debris includes but is not limited to grass clippings, leaves, branches, brush, weeds, flowers, roots, windfall fruit, vegetable garden debris, holiday trees, and tree prunings foursix inches or less in diameter. [2004 c 101 § 1; 2002 c 299 § 4; 1998 c 36 § 17; 1997 c 213 § 1; 1992 c 174 § 16; 1991 c 298 § 2; 1989 c 431 § 2; 1985 c 345 § 3; 1984 c 123 § 2; 1975-'76 2nd ex.s. c 41 § 3; 1970 ex.s. c 62 § 60; 1969 ex.s. c 134 § 3.]

NOTES:

Intent--1998 c 36: See RCW 15.54.265. Short title--1998 c 36: See note following RCW 15.54.265.

Finding--1991 c 298: "The legislature finds that curbside recycling services should be provided in multiple family residences. The county and city comprehensive solid waste management plans should include provisions for such service." [1991 c 298 § 1.]

Solid waste disposal--Powers and duties of state board of health as to environmental contaminants: RCW 43.20.050.

8.3. Sec. RCW 70.95.070 and 1975-'76 2nd ex.s. c 41 s 4 are each amended to read as follows:

RCW Caption: Review of standards prior to adoption--Revisions, additions and modifications--Factors.

The solid waste advisory committee shall review prior to adoption and shall recommend revisions, additions, and modifications to the minimum functional standards governing solid waste handling relating, but not limited to, the following:

(1) Vector production and sustenance.

(2) Air pollution (coordinated with regulations of the department of ecology).

(3) Pollution of surface and ground waters (coordinated with the regulations of the department of ecology).

(4) Hazards to service or disposal workers or to the public.

(5) Prevention of littering.

(6) Adequacy and adaptability of disposal sites to population served.

(7) Design and operation of disposal sites.

(8) Recovery and/or recycling of solid waste.

[1975-'76 2nd ex.s. c 41 § 4; 1969 ex.s. c 134 § 7.]

10.4. Sec. RCW 70.95.080 and 1985 c 448 s 17 are each amended to read as follows: County comprehensive solid waste management plan-RCW Caption: -Joint plans--Duties of cities. Each county within the state, in cooperation with the various cities located within such county, shall prepare a coordinated, comprehensive solid waste management plan. Such plan may cover two or more counties. The purpose is to plan for solid waste and materials reduction, collection, handling and management services and programs throughout the state, as designed to meet the unique needs of each county and city in the state. The objective of local comprehensive plans is to ensure the following required handling methods or services occur: Source separation of recyclable materials and products, organic materials and wastes by generators; Collection of source separated materials as defined as collection service; Handling and proper preparation of materials for reuse or recycling; Handling and proper preparation of organic materials for composting or anaerobic digestions; Handling and proper disposal of non-recyclable wastes. At a minimum, each plan shall identify methods that will be used to address the following: Construction and demolition waste for recycling or reuse; Organic material including yard debris, food waste, and food contaminated paper products for composting or anaerobic digestion; Recoverable paper products for recycling; Container metals, container glass and plastics for recycling; Waste reduction strategies. Each city shall:

(<u>a</u>+) Prepare and deliver to the county auditor of the county in which it is located its plan for its own solid waste management for integration into the comprehensive county plan; or

 $(\underline{b}2)$ Enter into an agreement with the county pursuant to which the city shall participate in preparing a joint citycounty plan for solid waste management; or

 (\underline{c}^3) Authorize the county to prepare a plan for the city's solid waste management for inclusion in the comprehensive county plan.

(5) Two or more cities may prepare a plan for inclusion in the county plan. With prior notification of its home county of its

intent, a city in one county may enter into an agreement with a city in an adjoining county, or with an adjoining county, or both, to prepare a joint plan for solid waste management to become part of the comprehensive plan of both counties.

(6) After consultation with representatives of the cities and counties, the department shall establish a schedule for the development of the comprehensive plans for solid waste management. In preparing such a schedule, the department shall take into account the probable cost of such plans to the cities and counties.

(7) Local governments shall not be required to include a hazardous waste element in their solid waste management plans. [1985 c 448 § 17; 1969 ex.s. c 134 § 8.]

NOTES:

Severability--1985 c 448: See note following RCW 70.105.005.

Sec. RCW 70.95.090 and 1991 c 298 s 3 are each amended to read as follows:

RCW Caption: County and city comprehensive solid waste management plans--Contents.

Each county and city comprehensive solid waste management plan shall include the following:

(1) A detailed inventory and description of all existing solid waste handling facilities including an inventory of any deficiencies in meeting current solid waste handling needs.

(2) The estimated long-range needs for solid waste handling facilities projected twenty years into the future.

(3) A program for the orderly development of solid waste handling facilities in a manner consistent with the plans for the entire county which shall:

(a) Meet the minimum functional standards for solid waste handling adopted by the department and all laws and regulations relating to air and water pollution, fire prevention, flood control, and protection of public health;

(b) Take into account the comprehensive land use plan of each jurisdiction;

(c) Contain a six year construction and capital acquisition program for solid waste handling facilities; and

(d) Contain a plan for financing both capital costs and operational expenditures of the proposed solid waste management system.

(4) A program for surveillance and control.

(5) A current inventory and description of solid waste collection needs and operations within each respective jurisdiction which shall include:

(a) Any franchise for solid waste collection granted by the utilities and transportation commission in the respective jurisdictions including the name of the holder of the franchise and the address of his or her place of business and the area covered by the franchise;

(b) Any city solid waste operation within the county and the boundaries of such operation;

(c) The population density of each area serviced by a city operation or by a franchised operation within the respective jurisdictions;

(d) The projected solid waste collection needs for the respective jurisdictions for the next six years.

(6) A comprehensive waste reduction and recycling element that, in accordance with the priorities established in RCW 70.95.010015, provides programs that (a) reduce the amount of waste generated, (b) provide economic incentives and mechanisms for require source separation, and (c) establish reuse and recycling opportunities for the source separated recyclable materials and products, and organic materials.

(7) The waste reduction and recycling element shall include the following:

(a) Waste reduction strategies;

(b) Source separation strategies, including:

(i) In counties identified under section 70.95.110 (2) Pprograms for the collection of source separated materials from residences in urban and rural areas. In urban areas, these programs shall include collection of source separated recyclable materials and products, organic materials, and wastes recyclable materials from single and multiple family residences. - unless the department approves an alternative program, according to the criteria in the planning guidelines. Such criteria shall include: Anticipated recovery rates and levels of public participation, availability of environmentally sound disposal capacity, access to markets for recyclable materials, unreasonable cost impacts on the ratepayer over the six year planning period, utilization of environmentally sound waste reduction and recycling technologies, and other factors as appropriate. In rural areas, these programs shall include but not be limited to drop-off boxes, buy-back centers, or a combination of both, at each solid waste transfer, processing, or disposal site, or at locations convenient to the residents of

the county. The drop-off boxes and buy-back centers may be owned or operated by public, nonprofit, or private persons;

(ii) Programs to monitor the collection of source separated recyclable materials and products, organic materials, and wasteswaste at nonresidential sites where there is sufficient density to sustain a program;

(iii) Programs to collect yard waste, if the county or city submitting the plan finds that there are adequate markets or capacity for composted yard waste within or near the service area to consume the majority of the material collected; and (iii) Programs to educate rate payers and other generators about and to promote the concepts of waste reduction and recycling and the collection programs available within the jurisdiction;

(c) Recycling strategies, including a description of markets for recyclables,

(c) Aa review of waste generation trends and a description of waste composition;

(d) Aa discussion and description of existing programs and any additional programs needed to assist public and private sector participation in source separation and collection programs and services; recycling, and

(e) A description of the comprehensive commercial collection services available to commercial generators and new services that will be needed in order to provide those services to those without services available;

(f) A plan to direct construction and demolition recyclable materials to recycling facilities for materials recovery to the extent achievable; and

(<u>g</u>h) an implementation schedule for the <u>provision of</u> designation of specific materials to be collected for recycling, and for provision of recyclingcollection services;

(id) Other information the county or city submitting the plan determines is necessary.

(8) An assessment of the plan's impact on the costs of solid waste collection. The assessment shall be prepared in conformance with guidelines established by the utilities and transportation commission. The commission shall cooperate with the Washington state association of counties and the association of Washington cities in establishing such guidelines.

(<u>98</u>) A review of potential areas that meet the criteria as outlined in RCW 70.95.165. [1991 c 298 § 3; 1989 c 431 § 3; 1984 c 123 § 5; 1971 ex.s. c 293 § 1; 1969 ex.s. c 134 § 9.]

NOTES:

Finding--1991 c 298: See note following RCW 70.95.030.

Certain provisions not to detract from utilities and transportation commission powers, duties, and functions: RCW 80.01.300.

12.6. **Sec.** RCW 70.95.092 and 1989 c 431 s 4 are each amended to read as follows:

RCW Caption: County and city comprehensive solid waste management plans--Levels of service, reduction and recycling.

Levels of <u>collection</u> service shall be defined in the waste reduction and recycling element of each local comprehensive solid waste management plan and shall include the services set forth in RCW 70.95.090 <u>and service areas as required in</u> <u>70.95.110</u>. In determining which service level is provided to residential and nonresidential waste generators in each community, counties and cities shall develop clear criteria for designating areas as urban or rural. In designating urban areas, local governments shall consider the planning guidelines adopted by the department, total population, population density, and any applicable land use or utility service plans. [1989 c 431 § 4.]

15.7. Sec. RCW 70.95.100 and 1989 c 431 s 6 are each amended to read as follows:

RCW Caption: Technical assistance for plan preparation--Guidelines--Informational materials and programs.

(1) The department or the commission, as appropriate, shall provide to counties and cities technical assistance including, but not limited to, planning guidelines, in the preparation, review, and revision of <u>local comprehensive</u> solid waste management plans required by this chapter. Guidelines prepared under this section shall be consistent with the provisions of this chapter. Guidelines for the preparation of the waste reduction and recycling element of the comprehensive solid waste management plan shall be completed by the department by <u>March-15, 1990July 1, 2010</u>. These guidelines shall provide recommendations to local government on materials to be considered for designation as recyclable materials. The state

solid waste management plan prepared pursuant to RCW 70.95.260 shall be consistent with these guidelines.

(2) The department shall be responsible for development and implementation of a comprehensive statewide public information program designed to <u>encourageinform the public about the</u> waste reduction, source separation, <u>and</u>recycling <u>and universal</u> <u>collection requirements of this chapter</u> by the public. The department shall operate a toll free hot line to provide the public information on waste reduction and recycling.

(3) The department shall provide technical assistance to local governments in the development and dissemination of informational materials and related activities to assure recognition of unique local waste reduction and recycling programs.

(4) Local governments shall make all materials and information developed with the assistance grants provided under RCW 70.95.130 available to the department for potential use in other areas of the state.

(5) The department shall provide model ordinances to local governments to consider addressing construction and demolition waste and recyclable materials.

[1989 c 431 § 6; 1984 c 123 § 6; 1969 ex.s. c 134 § 10.]

16.8. Sec. RCW 70.95.110 and 1991 c 298 s 4 are each amended to read as follows:

RCW Caption: Maintenance of plans--Review, revisions--Implementation of source separation programs.

(1) The <u>local</u> comprehensive countysolid waste management plans and any comprehensive city solid waste management plansprepared in accordance with RCW 70.95.080 shall be maintained in a current condition and reviewed and revised periodically by counties and cities as may be required by the department. Upon each review such plans shall be extended to show long-range needs for solid waste handling facilities for twenty years in the future, and a revised construction and capital acquisition program for six years in the future. Each revised solid waste management plan shall be submitted to the department.

Each plan shall be reviewed and revised within five years of July 1, <u>20101984</u>, and thereafter shall be reviewed <u>every five</u> <u>years</u>, and revised if necessary according to the schedule provided in subsection (2) of this section.

(2) Cities and counties preparing solid waste management plans shall submit the waste reduction and recycling element

required in RCW 70.95.090 and any revisions to other elements of its comprehensive solid waste management plan to the department no later than:

(a) July 1, 1991, for class one areas: PROVIDED, That portions relating to multiple family residences shall be submitted no later than July 1, 1992;

(b) July 1, 1992, for class two areas; and

(c) July 1, 1994, for class three areas.

Thereafter, each plan shall be reviewed and revised, if necessary, at least every five years. Nothing in chapter 431, Laws of 1989 shall prohibit local governments from submitting a plan prior to the dates listed in this subsection.

(3) The classes of areas are defined as follows:

(a) Class one areas are the counties of Spokane, Snohomish, King, Pierce, and Kitsap and all the cities therein.

(b) Class two areas are all other counties located west of the crest of the Cascade mountains and all the cities therein.

(c) Class three areas are the counties east of the crest of the Cascade mountains and all the cities therein, except for Spokane county.

(2) The updated plans will be due according to the planning schedule below and will include a description of collection services for all contiguous incorporated and unincorporated areas with a population density of 333 persons per square mile: July 1, 2011 for the counties of Clark, King, Kitsap, Pierce, Snohomish, and Spokane and all the cities therein;

July1, 2012 for the counties of Benton, Franklin, Walla Walla and Yakima and all the cities therein;

July 1, 2013 for the counties of Cowlitz, Grays Harbor, Island, Lewis, Mason, Skagit, Thurston and Whatcom and all the cities therein; and

July 1, 2014 for the counties of Chelan, Clallam, and Grant and all the cities therein.

(3) Participation in source separation and collection services as required by this chapter is optional for:

The counties of Adams, Asotin, Douglas, Ferry, Garfield, Jefferson, Kittitas, Klickitat, Whitman Lincoln, Pacific, Pend Oreille, Okanogan, Columbia, San Juan, Skamania, Stevens and Wahkiakum. This does not exempt these planning jurisdictions from reviewing and updating as necessary their plans at least every five year; and

Any city with a population of 1,500 or less that is only bordered by an unincorporated area of a county within the counties required to write plan updates.

If these jurisdictional areas do choose to participate, their plans would be due no later than July 1, 2016.

(4) Cities and counties shall begin implementing the programs to collect source separated materials no later than one year following the adoption and approval of the waste reduction and recycling element and these programs shall be fully implemented within two years of approval. [1991 c 298 § 4; 1989 c 431 § 5; 1984 c 123 § 7; 1969 ex.s. c 134 § 11.]

NOTES:

Finding--1991 c 298: See note following RCW 70.95.030.

<u>17.9.</u> **Sec.** RCW 70.95.130 and 1969 ex.s. c 134 s 13 are each amended to read as follows:

RCW Caption: Financial aid to counties and cities.

Any county may apply to the department on a form prescribed thereby for financial aid for the preparation of the comprehensive county plan for solid waste management required by RCW 70.95.080. Any city electing to prepare an independent city plan, a joint city plan, or a joint county-city plan for solid waste management for inclusion in the county comprehensive plan may apply for financial aid for such purpose through the county. Every city application for financial aid for planning shall be filed with the county auditor and shall be included as a part of the county's application for financial aid. Any city preparing an independent plan shall provide for disposal sites wholly within its jurisdiction.

The department shall allocate to the counties and cities applying for financial aid for planning, such funds as may be available pursuant to legislative appropriations or from any federal grants for such purpose.

The department shall determine priorities and allocate available funds among the counties and cities applying for aid according to criteria established by regulations of the department considering population, urban development, environmental effects of waste disposal, existing waste handling practices, and the local justification of their proposed expenditures.

[1969 ex.s. c 134 § 13.]

23.10. Sec. RCW 70.95.167 and 1991 c 319 s 402 are each amended to read as follows:

RCW Caption: Private businesses involvement in source separated materials--Local solid waste advisory committee to examine.

(1) Each local solid waste advisory committee shall conduct one or more meetings for the purpose of determining how local private recycling and solid waste collection businesses may participate in the development and implementation of programs to collect source separated materials from residences, and to process and market materials collected for recycling. The meetings shall include local private recycling businesses, private solid waste collection companies operating within the jurisdiction, and the local solid waste planning agencies. The meetings shall be held during the development of the waste reduction and recycling element or no later than one year prior to the date that a jurisdiction is required to submit the element under RCW 70.95.110(2).

(2) The meeting requirement under subsection (1) of this section shall apply whenever a city or county develops or amends the waste reduction and recycling element required under this chapter. Jurisdictions having approved waste reduction and recycling elements or having initiated a process for the selection of a service provider as of May 21, 1991, do not have to comply with the requirements of subsection (1) of this section until the next revisions to the waste reduction and recycling element are made or required.

(3) After the waste reduction and recycling element is approved by the local legislative authority but before it is submitted to the department for approval, the local solid waste advisory committee shall hold at least one additional meeting to review the element.

(4) For the purpose of this section, "private recycling business" means any private for-profit or private not-for-profit business that engages in the processing and marketing of recyclable materials or reclaiming materials and usable products for reuse. [1991 c 319 § 402.]

NOTES:

Severability--Part headings not law--1991 c 319: See RCW 70.95F.900 and 70.95F.901.

31.<u>11.</u> **Sec.** RCW 70.95.212 and 1993 c 300 s 3 are each amended to read as follows:

RCW Caption: Solid waste collection companies--Notice of changes in tipping fees and disposal rate schedules.

To provide solid waste collection companies with sufficient time to prepare and submit tariffs and rate filings for public comment and commission approval, the owner or operator of a <u>materials recovery facility</u>, transfer station, landfill, or facility used to burn solid waste shall provide seventy-five days' notice to solid waste collection companies of any change in tipping fees and disposal rate schedules. The notice period shall begin on the date individual notice to a collection company is delivered to the company or is postmarked.

A collection company may agree to a shorter notice period: PROVIDED, That such agreement by a company shall not affect the notice requirements for rate filings under RCW 81.28.050.

The owner of a <u>materials recovery facility</u>, transfer station, landfill or facility used to burn solid waste may agree to provide companies with a longer notice period.

"Solid waste collection companies" as used in this section means the companies regulated by the commission pursuant to chapter 81.77 RCW. [1993 c 300 § 3.]

41.12. Sec. RCW 70.95.260 and 1995 c 399 s 189 are each amended to read as follows:

RCW Caption: Duties of department--State solid waste management plan--Assistance--Coordination--Tire recycling.

The department shall in addition to its other powers and duties:

(1) Cooperate with the appropriate federal, state, interstate and local units of government and with appropriate private organizations in carrying out the provisions of this chapter.

(2) Coordinate the development of a solid waste management plan for all areas of the state in cooperation with local government, the department of community, trade, and economic development, and other appropriate state and regional agencies. The plan shall relate to solid waste management for twenty years in the future and shall be reviewed biennially, revised as necessary, and extended so that perpetually the plan shall look to the future for twenty years as a guide in carrying out a state coordinated solid waste management program. The plan shall be developed into a single integrated document and shall be adopted no later than October 1990July 1, 2010. The plan shall be revised regularlyat least every five years after its initial completion so that local governments revising local

comprehensive solid waste management plans can take advantage of the data and analysis in the state plan.

(3) Provide technical assistance to any person as well as to cities, counties, and industries.

(4) Initiate, conduct, and support research, demonstration projects, and investigations, and coordinate research programs pertaining to solid waste management systems.

(5) Develop statewide programs to increase public awareness of and participation in tire recycling, and to stimulate and encourage local private tire recycling centers and public participation in tire recycling.

(6) May, under the provisions of the Administrative Procedure Act, chapter 34.05 RCW, as now or hereafter amended, from time to time promulgate such rules and regulations as are necessary to carry out the purposes of this chapter. [1995 c 399 § 189; 1989 c 431 § 9. Prior: 1985 c 345 § 8; 1985 c 6 § 23; 1969 ex.s. c 134 § 26.]

NOTES:

Study--1989 c 431: "The institute for urban and local studies at Eastern Washington State University shall conduct a study of enforcement of solid waste management laws and regulations as a component of the 1990 state solid waste management plan. This study shall include, but shall not be limited to:

(1) A review of current state and local solid waste rules, requirements, policies, and resources devoted to state and local solid waste enforcement, and of the effectiveness of these programs in promoting environmental health and public safety;

(2) An examination of federal regulations and the latest proposed amendments to the Resource Conservation and Recovery Act, in subtitle D of the code of federal regulations;

(3) A review of regulatory approaches used by other states;

(4) A review and evaluation of educational and technical assistance programs related to enforcement;

(5) An inventory of regulatory compliance for all processing and disposal facilities handling mixed solid waste;

(6) A review of the role and effectiveness of other enforcement jurisdictions;

(7) An evaluation of the need for redefining institutional roles and responsibilities for enforcement of solid waste management laws and regulations in order to establish public confidence in solid waste management systems and ensure public protection; and

(8) An evaluation of possible benefits in separating the solid waste planning and technical assistance responsibilities from the enforcement responsibilities within the department." [1989 c 431 § 96.]

42.13. Sec. RCW 70.95.263 and 1998 c 245 s 131 are each amended to read as follows:

RCW Caption: Additional powers and duties of department.

The department shall in addition to its other duties and powers under this chapter:

(1) Prepare the following:

(a) A management system for recycling waste paper generated by state offices and institutions in cooperation with such offices and institutions;

(a) An evaluation of existing and potential systems for recovery of energy and materials from solid waste with recommendations to affected governmental agencies as to those systems which would be the most appropriate for implementation;

(<u>be</u>) A data management system to evaluate and assist the progress of state and local jurisdictions and private industry in resource recoverymeeting the goals and objectives set in section 70.95.017 of this chapter;

 (\underline{cd}) Identification of potential markets, in cooperation with private industry, for recovered resources and the impact of the distribution of such resources on existing markets;

(<u>de</u>) Studies on methods of transportation, collection, reduction, separation, and packaging which will encourage more efficient utilization of existing <u>management and materials reuse</u> and recyclingwaste recovery facilities;

(<u>e</u>f) Recommendations on incentives, including state grants, loans, and other assistance, to local governments which will <u>encourage the increase reduction</u>, <u>recovery reuse</u> and recycling of solid wastes.

(2) Provide technical information and assistance to state and local jurisdictions, the public, and private industry on <u>source separation</u>, solid waste recovery and/or <u>reduction</u>, management and materials recycling.

(3) Procure and expend funds available from federal agencies and other sources to assist the implementation by local governments of solid waste recovery and/or recycling programs, and projects.

(4) Conduct necessary research and studies to carry out the purposes of this chapter.

(5) Encourage and assist local governments and private industry to develop pilot solid waste recovery and/or recycling projects.

 $(\underline{56})$ Monitor, assist with research, and collect data for use in assessing feasibility for others to develop solid waste reduction, management, reuse and recovery and/or recycling projects.

[1998 c 245 § 131; 1975-'76 2nd ex.s. c 41 § 5.]

14. Sec. RCW 70.95.280 and 1989 c 431 s 13 are each amended to read as follows:

RCW Caption: Determination of best solid waste management practices--Department to develop method to monitor waste stream--Collectors to report quantity and quality of waste--Confidentiality of proprietary information.

The department of ecology shall determine the best management practices for categories of solid waste in accordance with the priority solid waste management methods established in RCW 70.95.010. In order to make this determination, the department shall conduct a comprehensive solid waste stream analysis and evaluation. Following establishment of baseline data resulting from an initial in-depth analysis of the waste stream, the department shall develop a less intensive method of monitoring the disposed waste stream including, but not limited to, changes in the amount of waste generated and waste type. The department shall monitor curbside collection programs and other waste segregation and disposal technologies to determine, to the extent possible, the effectiveness of these programs in terms of cost and participation, their applicability to other locations, and their implications regarding rules adopted under this chapter. Persons who collect solid waste shall annually report to the department the types and quantities of solid waste that are collected and where it is delivered. The department shall adopt guidelines for reporting and for keeping proprietary information confidential.

[1989 c 431 § 13; 1988 c 184 § 1.]

48.<u>15.</u> **Sec.** RCW 70.95.285 and 1988 c 184 s 2 are each amended to read as follows:

RCW Caption: Solid waste stream analysis.

The comprehensive, statewide solid waste stream analysis under RCW 70.95.280 shall be based on representative solid waste generation areas and solid waste generation sources within the

state. The following information and evaluations shall be included:

(1) Solid waste generation rates for each category;

(2) The rate of recycling being achieved within the state for each category of solid waste;

(3) The current and potential rates of solid waste reduction within the state;

(4) Greenhouse gas reduction potentially available and greenhouse gas reductions realized through reduction, reuse and recycling of solid wastes;

(45) A technological assessment of current solid waste reduction and recycling methods and systems, including cost/benefit analyses;

(5) An assessment of the feasibility of segregating solid waste at: (a) The original source, (b) transfer stations, and (c) the point of final disposal;

(6) A review of methods that will increase the rate of solid waste reduction; and

(7) An assessment of new and existing technologies that are available for solid waste management including an analysis of the associated environmental risks and costs.

The data required by the analysis under this section shall be <u>kept currentupdated at least every four years</u> and shall be available to local governments and the waste management industry.

[1988 c 184 § 2.]

RCW 81.77.185 and XXXX are each amended to read as follows Recyclable materials collection - Revenue sharing.

(1) The commission shall allow solid waste collection companies collecting recyclable materials to retain up to thirtyfifty percent of the revenue paid to the companies for the material if the companies submit a plan to the commission that is certified by the appropriate local government authority as being consistent with the local government solid waste plan and that demonstrates how the revenues will be used to increase recycling. The remaining revenue shall be passed to residential customers.

(2) By December 2, $\frac{20052013}{2013}$, the commission shall provide a report to the legislature that evaluates:

(a) The effectiveness of revenue sharing as an incentive to

increase recycling in the state; and

(b) The effect of revenue sharing on costs to customers. [2002 c 299 § 6.]

Nothing in this act shall deter the authorities of the solid waste collection companies regulated under this chapter.

--- END ---

APPENDIX D: Draft Product Stewardship Bill

AN ACT Relating to product stewardship programs, financed and provided by product producers, that include reuse or recycling of unwanted products; and adding a new chapter to Title 70 RCW.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF WASHINGTON:

<u>NEW SECTION.</u> Sec. 1) SHORT TITLE. This act may be known and cited as the Washington product stewardship act.

<u>NEW SECTION.</u> Sec. 2) INTENT. The legislature finds that: (1) Convenient and environmentally sound product stewardship programs that include collecting, transporting and recycling unwanted products will help protect Washington's environment and the health of state residents;

(2) Product producers should finance and provide these programs, which are intended to encourage producers to design products that have a lower carbon footprint, are less toxic and energy and material intensive, and are more reusable or recyclable than other products; and

(3) It is appropriate to designate <u>[reserved--specified in</u> <u>section 17]</u> as covered products <u>[or covered product categories]</u> that are subject to product stewardship programs.

<u>NEW SECTION.</u> **Sec. 3)** DEFINITIONS. The definitions in this section apply throughout this act unless the context clearly requires otherwise.

(1) Brand means a name, symbol, word, or mark that identifies a product, rather than its components, and attributes the covered product to the owner of the brand as the producer.

(2) Covered entity means an entity, such as a residentor small business, that can use a product stewardship program to discard an unwanted product.

(3) Covered product means a product [covered by this act pursuant to section 17 of this act or] designated by the

department as covered by this act pursuant to section 18 of this act, either individually or as an item within a covered product category. "Covered product" includes all materials that make up a covered product.

(4) Covered product category means a group of similar products [covered by this act pursuant to section 17 of this act or]

designated by the department as covered by this act pursuant to section 18 of this act. (5) Department means the department of ecology. (6) Final disposition means the point beyond which no further takes place and materials from an unwanted product are either in a form capable of direct use as a feedstock in producing new products or disposed of or managed in permitted facilities. (7) "Hazardous substances" or "hazardous materials" means those substances or materials identified under regulations and rules adopted pursuant to the state hazardous waste management act, chapter 70.105 RCW. (8) Organization means a sole proprietorship, partnership, corporation, nonprofit corporation or organization, limited liability company, firm, association, cooperative, or other legal entity located within or outside Washington state. (9) Orphan product means a covered product that lacks a producer's brand, or for which the producer is no longer in business and has no successor in interest, or that bears a brand for which the department cannot identify an owner. (10) Processing means recovering materials from unwanted products for use as feedstock in new products . (11) Producer means a person that: (a) Has legal ownership of the brand, brand-name or cobrand of a covered product sold in or into Washington state; (b) Imports a covered product branded by a producer that meets 1 2 (a) of this subsection and where that producer has no physical 3 presence in the United States; or (c) If subsections a and b do not apply, a person who makes 4 5 an unbranded product that is sold in or into Washington state; 6 or (d) Sells at wholesale or retail a covered product, does not 7 have legal ownership of the brand, and elects to fulfill the 8 responsibilities of the producer for that product. 9 (12) Product stewardship means a requirement for a producer of a 10 covered product to manage and reduce adverse safety, health and 11 environmental impacts of the covered product throughout its life 12 13 cvcle 14 (13) Product stewardship plan or plan means a detailed plan describing the manner in which a product stewardship program 15 will be implemented. 16 (14) Product stewardship program or program means a program 17 financed and provided by producers of covered products that 18 addresses product stewardship and includes collecting, 19 transporting, reuse processing, and final disposition of 20 21 unwanted products, including a fair share of orphan products.

(15) Recycling means transforming or remanufacturing unwanted 1 products into usable or marketable materials for use other than 2 landfill disposal or incineration. Recycling does not include 3 energy recovery or energy generation by means of combusting 4 5 unwanted products with or without other waste. (16) Reporting period means the period commencing January 1 and 6 7 ending December 31 in the same calendar year. (17) Residuals mean non-recyclable materials left over from 8 processing an unwanted product. 9 10 (18) Reuse means a change in ownership of a covered product or its components and parts for use in the same manner and purpose 11 for which it was originally purchased. 12 13 (19) Stakeholder means a person who may have an interest in or be affected by a product stewardship program. 14 (20) Stewardship organization means an organization designated 15 16 by a producer to act as an agent on behalf of the producer to operate a product stewardship program. 17 18 (21) Unwanted product means a covered product no longer wanted by its owner or that has been abandoned, discarded, or is 19 intended to be discarded by its owner. 20 21 Sec. 4) PARTICIPATION IN PRODUCT STEWARDSHIP NEW SECTION. 22 PROGRAM REQUIRED--TERMS. (1) Every producer of a covered 23 product sold in or into Washington state must participate in a 24 25 product stewardship program for that product. Every such 26 producer must: (a) Operate, either individually or collectively with other 27 producers, a product stewardship program approved by the 28 29 department; or 30 (b) Enter into an agreement with a stewardship organization to operate, on the producer's behalf, a product stewardship program 31 32 approved by the department. (2) Product stewardship programs shall collect, free of charge, 33 unwanted products from covered entities for reuse or final 34 35 disposition. (3) A producer, group of producers, or stewardship organization 36 37 operating a product stewardship program shall: (a) Comply with a product stewardship plan approved by the 38 department and this act, any rules adopted by the department to 39 40 implement this act, and all other applicable laws and rules; and (b) Pay all administrative and operational costs associated with 41 their program. 42 (4) No product stewardship program required under this act may 43 use federal or state prison labor for processing unwanted 44 45 products.

1 NEW SECTION. Sec. 5) REUSE OR RECYCLING OF UNWANTED PRODUCTS 2 REQUIRED--EXCEPTIONS. (1) Except as provided in this section, 3 all unwanted products that have been collected by a product 4 stewardship program must be reused or recycled. 5 (2) [The department shall determine whether covered products 6 7 specified in section 17 of this act are reusable or recyclable pursuant to the procedure specified in that section.] The 8 9 department shall determine whether covered products designated 10 by the department pursuant to the process specified in section 11 18 of this act are reusable or recyclable pursuant to the procedure specified in that section. In either case, if the 12 13 department determines that an unwanted product is not reusable or recyclable, the product stewardship program must include a 14 waste reduction strategy pertaining to that product. If reuse 15 or recycling options for an unwanted product thereafter change, 16 the department will adopt rules requiring reuse or recycling of 17 18 the unwanted product. (3) Unwanted products that cannot be reused or recycled and 19 residuals must be disposed of or managed in permitted 20 21 facilities, including disposal or management of hazardous substances and hazardous materials in permitted hazardous waste 22 facilities. 23 24 Sec. 6) RESTRICTION ON SALE OF COVERED PRODUCTS. 25 NEW SECTION. 26 As of the [implementation date with respect to the covered products specified in section 17 of this act and the] 27 implementation date established for a covered product designated 28 29 pursuant to section 18 of this act, no producer, wholesaler, 30 retailer or other person may sell or offer for sale that product to any person in this state unless the producer is participating 31 32 in a product stewardship program approved by the department. А person selling or offering for sale a covered product in the 33 state shall consult the department's website for a list of 34 producers of that product participating in approved programs 35 prior to selling the product in or into the state. A person is 36 37 considered to have complied with this section if, on the date the person ordered a covered product from a producer or its 38 agent, the producer was listed as having an approved program on 39 the department's website. 40 41 NEW SECTION. Sec. 7) REOUIREMENTS OF PRODUCT STEWARDSHIP PLAN. 42

42 (1) A producer, group of producers, or stewardship organization
 44 operating or intending to operate a product stewardship program
 45 must, at least 60 days prior to submitting a product stewardship

plan to the department pursuant to subsection (2) of this 1 section, provide public notice of the plan it is considering for 2 submittal. The producer, group of producers, or stewardship 3 organization must consult with stakeholders during development 4 5 of the plan, solicit stakeholder comments, and attempt to address any stakeholder concerns regarding the plan prior to 6 7 submittal. (2) A producer, group of producers, or stewardship organization 8 9 operating or intending to operate a product stewardship program must submit a product stewardship plan to the department 10 11 specifying: (a) Information, including contact information, regarding: 12 13 (i) The organization submitting the plan; (ii) A list of all participating producers; and 14 (iii) If the program is to be operated by a stewardship 15 organization, a description of management, administration and 16 tasks to be performed by the stewardship organization; 17 (b) Recovery goals, including: 18 (i) Recovery goals for the first, second, and third years of the 19 program, expressed as pounds per capita, and an explanation of 20 21 how these goals reflect a significant percentage of an unwanted product relative to the quantity of the unwanted product that 22 23 may be available for reuse or recycling; and 24 (NOTE: other performance measures to consider include: awareness 25 26 (% of population aware of the program); participation and accessibility (participation rate, travel distance); collection 27 (% collected, % recycled); quality of service (target community 28 and partner satisfaction, number and nature of complaints); 29 30 management performance (progress against product stewardship plan goals and targets, awards and recognition).) 31 32 (ii) Plans to maximize recycling of packaging that may be 33 34 collected; (c) A collection system, including: 35 (i) Location of collection sites and other collection services 36 37 to be used by the program; (ii) A description of the consideration given as to whether 38 the existing curbside collection infrastructure is an 39 appropriate collection mechanism. If the curbside collection 40 infrastructure is not utilized by the plan, a written 41 explanation shall be provided citing the reasons that curbside 42 collection services are not included in the plan. 43

(iii) How unwanted products from all covered entities will be 1 collected for all cities in the state with populations greater 2 than 10,000 and in all counties of the state; 3 (iv) How the collection system will be convenient and adequate 4 to serve the needs of all covered entities in both urban and 5 rural areas; and 6 7 (v) How collected unwanted products will be transported to processing facilities; 8 9 (d) A processing and disposal system, including: 10 (i) Locations, permit status, and records of any penalties, 11 violations, or regulatory orders received in the previous five years by processing and disposal facilities proposed to be used 12 13 by the program; (ii) A third-party audit of each processing and disposal 14 facility proposed to be used by the program for any unwanted 15 product or residuals containing hazardous substances or 16 hazardous materials, documenting compliance with all applicable 17 18 laws, regulations and rules; 19 (iii) Policies and procedures to be followed by persons collecting, transporting, processing and disposing unwanted 20 21 products, including how the program will ensure compliance with all applicable laws, regulations and rules; 22 (iv) A description of how unwanted products will be processed at 23 each processing facility; 24 (v) How, if the department determines that an unwanted product 25 26 is not reusable or recyclable, the unwanted product will be disposed of or managed in appropriate, properly permitted 27 facilities, including disposal or management of hazardous 28 29 substances and hazardous materials in appropriate, properly 30 permitted hazardous waste facilities; (vi) How all residuals will be disposed of or managed in 31 appropriate, properly permitted facilities, including disposal 32 or management of all hazardous substances and hazardous 33 materials in appropriate, properly permitted hazardous waste 34 35 facilities; (vii) How hazardous substances and hazardous materials will be 36 37 safely and securely tracked and handled from collection to final disposition in compliance with this act, any rules adopted by 38 the department to implement this act, and all other applicable 39 laws and rules; 40 (viii) Best management practices that will be used by first 41 processors and their downstream vendors to assure that hazardous 42 substances and hazardous materials are not released into the 43

44 environment and will not adversely impact human health;

(e) How the program will seek to use businesses within the 1 state, including transportation services, retailers, collection 2 sites and services, existing curbside collection services, and 3 processing facilities, 4 and 5 (f) Greenhouse gas reductions anticipated from implementing the collection, transportation and recycling system; 6 7 (g) A financing system, including: (i) How the product stewardship program will be financed, 8 9 including how costs will be apportioned among and assessed upon producers participating in the program; 10 (ii) Where feasible, financial incentives to reward product 11 design that result in improved reuse or recycling and less 12 13 toxicity; and (iii) A plan to withhold a percentage of funds to be managed by 14 the product stewardship program to increase markets for 15 recyclable materials or other financial incentives to encourage 16 market development for recyclable materials contained in covered 17 18 products. (iv) How those providing services for the collection, 19 transportation and processing systems will be fairly compensated 20 21 for their services. (h) Strategies to manage and reduce life-cycle impacts of 22 products and packaging, from product design to end-of-life 23 management, including ways to improve designing, packaging and 24 25 distributing products to: 26 (i) Reduce waste, energy, toxicity, carbon footprints and other environmental and health impacts; 27 (ii) Increase recycled content and product longevity; and 28 29 (iii) Make products more easily reusable or recyclable; 30 (iv) How the producers participating in the program will communicate with processors used by the program to encourage 31 32 sustainable design of products and packaging; (j) Education and outreach activities, including: 33 (i) an educational campaign promoting the use of the program to 34 covered entities that includes a toll free telephone number and 35 website and that is sufficient to meet required recovery rates. 36 37 (ii) a plan for working with and providing information about the program to retailers, wholesalers, collectors and other 38 39 interested parties to disseminate to covered entities; and 40 (iii) the methodology for determining how the effectiveness of the outreach activities will be measured. 41 (k) Pursuant to subsection (1) of this section, the consultation 42 process, including: 43 (i) a description of the process used to consult with 44 45 stakeholders during development of the plan; and

(ii) a summary of stakeholder comments, and how any stakeholder 1 concerns were addressed. 2 (3) The product stewardship plan shall be approved by the 3 department when all requirements have been met in compliance 4 5 with this act and any rules adopted by the department to implement this act. 6 7 (4) All plans submitted to the department must be made available to the public on the department's website. Proprietary 8 9 information submitted to the department under this chapter is 10 exempt from public disclosure under RCW 42.56.270. 11 REVIEW OF PRODUCT STEWARDSHIP PLAN. NEW SECTION. Sec. 8) (1)12 13 A producer of a covered product, a group of producers, or a stewardship organization must submit a proposed product 14 stewardship plan to the department at least one year prior to a 15 covered product's implementation date. 16 (2) Within ninety days after receiving a proposed product 17 18 stewardship plan, the department shall determine whether the plan complies with this act and any rules adopted to implement 19 this act. If it approves a plan, the department shall notify 20 21 the applicant of its approval. If it rejects a plan, the department shall notify the applicant of its decision and its 22 reasons for rejecting the plan. An applicant whose plan has 23 been rejected by the department may submit a revised plan to the 24 25 department within sixty days after receiving notice of the 26 rejection. (3) At least once every four years, a producer, group of 27 producers or stewardship organization operating a product 28 29 stewardship program must update its product stewardship plan and 30 submit the updated plan to the department for review. The department must determine the status of an updated plan within 31 90 days of its submittal. If the department rejects an updated 32 plan, the producer of a covered product participating in the 33 product stewardship program described in the plan will be deemed 34 to be out of compliance with this act. 35 36 Sec. 9) CHANGES TO PRODUCT STEWARDSHIP PLAN. 37 NEW SECTION. (1)Except as provided in subsections (2) and (3) of this section, 38 the department must grant prior approval, in writing, to any 39 40 proposed change to a product stewardship plan. (2) Additions or changes to collection locations for unwanted 41 products may be made without the department's prior written 42 The product stewardship program must inform the 43 approval. department of such additions or changes within fifteen days of 44 45 the occurrence.
(3) Additional producers may join a product stewardship program 1 approved by the department without the department's prior 2 written approval. The product stewardship program must inform 3 the department of such additions within fifteen days of the 4 5 occurrence. 6 7 NEW SECTION. Sec. 10) SUSPENSION OR CANCELLATION OF APPROVAL. (1) If the department determines that a product stewardship 8 9 program is not being operated in compliance with the 10 requirements of this act, any rules adopted by the department to 11 implement this act, or any other applicable laws, regulations, or rules, or if the department determines that there is an 12 13 imminent danger to the public, the department may: (a) Amend its approval of the program's product stewardship plan 14 by clarifying terms or conditions to ensure full implementation 15 16 of the plan; or (b) Suspend or cancel its approval of the plan. 17 18 (2) At least 30 days prior to amending, suspending or canceling its approval of a product stewardship plan, the department shall 19 inform the producer, group of producers, or stewardship 20 21 organization operating the product stewardship program of its intended action and provide them an opportunity to respond. 22 The department may extend this period for good cause. 23 (3) Notwithstanding subsection (2) of this section, if the 24 department determines that it is necessary to protect the public 25 26 from imminent danger, it may immediately amend, suspend or cancel approval of a product stewardship program's product 27 stewardship plan without giving the producer, group of 28 29 producers, or stewardship organization operating the program an 30 opportunity to be heard, but the department shall give the operator an opportunity to be heard through proceedings 31 32 consistent with the administrative procedure act, chapter 34.05 RCW, within fifteen days after the date on which the department 33 takes any of those actions. 34 35 REPORTING. (1) On or before June 30 of 36 NEW SECTION. Sec. 11) 37 each year, every producer, group or producers, or stewardship organization operating a product stewardship program must 38 prepare and submit to the department an annual report describing 39 the program's activities during the previous reporting period, 40 specifying: 41 (a) Information, including contact information, regarding: 42 (i) the organization submitting the report; and 43 (ii) a list of all participating producers; 44 45 (b) Recovery rates, including:

(i) the amount, by weight, of unwanted products collected from 1 covered entities in each county in the state, including 2 documented collection and reuse, recycling or disposal of that 3 4 material; 5 (ii) how the program attained recovery rates established in the product stewardship plan or set by the department, and, if the 6 7 program did not attain those recovery rates, what actions it will take during the next reporting period to do so, including 8 how it will increase and improve effective, measurable outreach 9 10 and education efforts; 11 (c) The collection system, including collection locations and services provided for all cities in the state with populations 12 13 greater than 10,000 and in all counties in the state; (d) The processing and disposal system, including: 14 (i) a list of processing and disposal facilities used and 15 locations, the weight of unwanted products processed at each 16 processing facility and disposed at each disposal facility, and 17 18 a description of the methods used at each processing facility; 19 (ii) a list of subcontractors used through final disposition that processed or disposed of unwanted products containing 20 21 hazardous substances or hazardous materials, and subcontractor facility locations; 22 (iii) documentation and summary results of annual third-party 23 audits conducted on each processing facility and disposal 24 facility as required in section 7 of this act; 25 26 (iv) if an unwanted product is exempted from the reuse or recycling requirement in section 5 of this act, how the unwanted 27 product was disposed of or managed in appropriate, properly 28 29 permitted facilities, including disposal or management of 30 hazardous substances or hazardous materials in appropriate, properly permitted hazardous waste facilities; 31 (v) final disposition of residuals; 32 (vi) any penalties, violations, or regulatory orders received 33 during the reporting period by each processing facility or 34 disposal facility that was used; 35 (vii) whether policies and procedures in the product stewardship 36 37 plan for collecting, transporting, processing and final disposition of unwanted products were followed during the 38 reporting period, and a description of any noncompliance; 39 (e) The financing system, including a description of how the 40 system met the requirements in section 7 of this act; 41 (f) The education and outreach activities implemented during the 42 reporting period, including the effectiveness of the education 43 and outreach activities; 44

(g) Results of any actions taken to manage and reduce life cycle 1 impacts of products and package, as described in subsection 2 (2)(f) of section 7 of this act; 3 (h) How the product stewardship program complied with any other 4 5 elements in the plan approved by the department; and (i) Any other information that the department may reasonably 6 7 require. (2) A producer, group of producers, or stewardship organization 8 9 operating a product stewardship program meeting the following 10 conditions is only required to report to the department 11 information specified in subsections (1)(a), (b), (c), (g) and (i) of this section: 12 13 (a) All unwanted products collected by the product stewardship program neither contained hazardous substances or hazardous 14 materials nor used hazardous substances or hazardous materials 15 16 in the production process; (b) The product stewardship program attained a ninety percent 17 18 recovery rate of all unwanted products that were produced by 19 producers participating in the program and a reuse or recycling rate of eighty percent of materials contained in such products; 20 21 and (c) All unwanted products collected by the product stewardship 22 program were carbon neutral in production and use. 23 24 All reports submitted to the department must be made (3) available to the public on the department's website. Proprietary 25 26 information submitted to the department under this act is exempt from public disclosure under RCW 42.56.270. 27 28 29 NEW SECTION. **Sec. 12)** ENFORCEMENT. (1) The department shall provide, on its website, a list of all producers participating 30 in product stewardship programs it has approved and a list of 31 32 all producers it has identified as noncompliant with this act and any rules adopted to implement this act. 33 (2) Wholesalers, retailers, and other persons shall check the 34 department's website to determine if producers of covered 35 products they are selling in or into the state are compliant 36 37 with this act and any rules adopted to implement this act. If a wholesaler, retailer, or other person is unsure of the status of 38 a producer or believes that a producer is not compliant, they 39 shall contact the department to determine the producer's status. 40 (3) The department shall send a written warning and copies of 41 this act and any rules adopted to implement this act to a 42 producer who is not participating in a product stewardship 43 program approved by the department and whose covered product is 44 45 being sold in or into the state. The department shall also send

a written warning and a copy of this act and any rules adopted 1 to implement this act to a wholesaler, retailer or other person 2 known to be selling the covered product in or into the state. 3 (4) A producer not participating in a product stewardship 4 5 program approved by the department whose covered product continues to be sold in or into the state sixty days after 6 7 receiving a written warning from the department, and a wholesaler, retailer, or other person who continues to sell a 8 covered product from a producer not participating in an approved 9 10 product stewardship program sixty days after receiving a written 11 warning from the department, will be assessed a ten thousand dollar penalty. The department may waive or reduce the penalty 12 13 if the producer, wholesaler, retailer, or other person complies with this act and any rules adopted to implement this act, or 14 for any other reason the department determines to be justified. 15 (5) The department shall send a written warning to a producer, 16 group of producers, or stewardship organization operating a 17 18 product stewardship program that fails to submit a product 19 stewardship plan, updated plan, proposed change to a plan, or annual report as required in this act. The written warning must 20 21 include compliance requirements and notification that the requirements must be met within sixty days. If compliance 22 requirements are not met within sixty days, the producer, group 23 of producers, or stewardship organization will be assessed a ten 24 thousand dollar penalty. The department may waive or reduce the 25 26 penalty if the producer, group of producers, or stewardship organization complies with this act and any rules adopted to 27 implement this act, or for any other reason the department 28 29 determines to be justified. 30 (6) Each calendar day of a violation is a separate and distinct offense. 31 32

Sec. 13) RECOVERY RATES AND EVALUATION. NEW SECTION. 33 (1) By June of the third program year for each product or product 34 category, the department shall establish required recovery rates 35 for the fourth and subsequent program operating years, and must 36 37 establish a system of penalties for producers and product stewardship programs that do not attain the required recovery 38 39 rates. (2) By December 31, 2014, the department shall report to 40 appropriate committees of the legislature concerning status of 41

42 the program administered under this act and, if necessary,

43 recommend legislation.

(3) The department, or its designee, may inspect, audit, or 1 review audits of processing and disposal facilities used to 2 fulfill the requirements of a product stewardship program. 3 (4) The department shall annually invite comments from local 4 5 governments, communities, and citizens to report their satisfaction with services provided by product stewardship 6 7 This information must be used by the department in programs. reviewing proposed updates or changes to product stewardship 8 9 plans.

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11 <u>NEW SECTION.</u> Sec. 14) ADMINISTRATIVE COSTS AND FEES. The 12 department may establish fees for administering this act. Fees 13 may be charged to the producers and must be paid annually by 14 January 1 of each year. Fees may be established in amounts to 15 fully recover and not to exceed expenses incurred by the 16 department in administering this act.

18 NEW SECTION. Sec. 15) PRODUCT STEWARDSHIP PROGRAMS ACCOUNT. 19 The product stewardship programs account is created in the custody of the state treasurer. All receipts from fees and 20 21 penalties collected pursuant to this act must be deposited in the account. Expenditures from the account may be used only for 22 23 administering this act. Only the director of the department or the director's designee may authorize expenditures from the 24 25 account. The account is subject to the allotment procedures 26 under chapter 43.88 RCW, but an appropriation is not required 27 for expenditures.

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29 <u>NEW SECTION.</u> Sec. 16) RULEMAKING AUTHORITY. (1) The 30 department shall adopt rules under the administrative procedure 31 act, chapter 34.05 RCW, to implement this act, including, at a 32 minimum: 33 (a) Program operating rules;

34 (b) A process for designating covered products and covered
35 product categories and for determining whether such products or
36 product categories are reusable or recyclable;

37 (c) A process for determining whether reduced reporting38 requirements in section 11 of this act apply;

(d) A process for setting recovery rates for the fourth and
subsequent operating years of a program and for adjusting
recovery rates; and

42 (e) An enforcement process.

43 (2) The department shall designate covered products and covered

44 product categories under section 18 of this act by rule. The

45 department must provide notice to appropriate standing

committees of the legislature prior to designating a covered 1 product or covered product category. 2 3 (Note: Section 17 is for initial product categories that would 4 be expedited through the process by being initially named in 5 legislation. The products listed as examples are provided 6 7 because they: a. have significant GHG implications through their full life-cycle or end-of-life management and inclusion would 8 9 benefit GHG reduction efforts; b. have existing programs that 10 could be improved and be more effective through inclusion, but 11 would require little effort by the State or the affected producers; and c. have been engaged in extensive stakeholder 12 13 processes and as a result it is recognized that a legislated product stewardship approach is necessary to attain an effective 14 program and related benefits. It would be up to the legislature 15 which and if any of these products would be named in Section 17 16 In addition, a number of the products listed as examples contain 17 18 mercury or other toxic materials, and have significant 19 implications for human health and water quality (including Puget Sound) if not handled appropriately at end-of-life.) 20 21 Sec. 17 INITIAL (PRIORITY?) COVERED PRODUCTS AND 22 NEW SECTION. COVERED PRODUCT CATEGORIES. (1) Covered product and product 23 categories designated under this act as initial priority 24 25 products include: 26 (a) Carpet and related padding. (i) "carpet" means fabric or textile floor covering and padding 27 beneath the fabric and textile floor covering. 28 29 (ii) covered entities shall be all sources of post-consumer 30 carpet including residents, businesses, governments, charities and institutions. 31 (iii) carpet and related padding that has been collected by 32 product stewardship programs shall be reused or recycled, unless 33 otherwise determined through agency rulemaking. 34 (iv) product stewardship programs for carpet and related padding 35 must be fully implemented by July 1, 2011. 36 37 (b) Mercury-containing lights. (i) "Mercury-containing lights" means lamps, bulbs, tubes, or 38 other devices that contain mercury and provide functional 39 illumination in homes, offices, and outdoors. 40 (ii) covered entities shall be residents and small businesses. 41 (iii) mercury-containing lights that have been collected by 42 product stewardship programs shall be recycled unless otherwise 43 determined through agency rulemaking. Mercury and mercury 44 45 bearing residuals from recycling of general purpose lights must

be retorted in properly permitted facilities. Mercury recovered 1 from retorting must be recycled or placed in a properly 2 permitted, monitored hazardous waste landfill, storage or 3 disposal repository to avoid reintroduction into the 4 5 marketplace. When available, mercury recovered from retorting must be placed in a properly permitted, monitored permanent 6 7 mercury repository to avoid reintroduction into the marketplace and it shall not be recycled. 8 9 (iv) product stewardship programs for mercury-containing lights 10 must be fully implemented by January 1, 2011. 11 (c) Out-of-service mercury-added thermostats (i) "mercury-added thermostat" means a product or device that 12 13 uses a mercury switch to sense and control room temperature through communication with heating, ventilating, or air-14 conditioning equipment. A mercury-added thermostat includes 15 thermostats used to sense and control room temperature in 16 residential, commercial, industrial, and other buildings but 17 18 does not include a thermostat used to sense and control temperature as part of a manufacturing process. "Out-of-service 19 mercury-added thermostat" means a mercury-added thermostat that 20 21 is removed from a building or facility in this state and is intended to be discarded. 22 (ii) covered entities shall be all sources of out-of-service 23 mercury-added thermostats including residents, businesses, 24 governments, charities and institutions. 25 26 (iii) out-of-service mercury-added thermostats that have been collected by product stewardship programs shall be reused or 27 recycled, unless otherwise determined through agency rulemaking. 28 29 Mercury and mercury bearing residuals from recycling of mercury-30 added thermostats must be retorted in properly permitted facilities. Mercury recovered from retorting must be recycled or 31 32 placed in a properly permitted, monitored hazardous waste landfill, storage or disposal repository to avoid reintroduction 33 into the marketplace. When available, mercury recovered from 34 retorting must be placed in a properly permitted, monitored 35 permanent mercury repository to avoid reintroduction into the 36 37 marketplace and it shall not be recycled. (iv) product stewardship programs for out-of-service mercury-38 added thermostats must be fully implemented by January 1, 2011. 39 (d) Paint, including the plastic and metal containers containing 40 the paint that is collected. 41 (i) "paint" means interior and exterior architectural coatings 42 including: paints, enamels, clear finishes, sealers, 43 undercoatings, primers, tinting bases, and stains purchased for 44

45 commercial and homeowner use, but not including coatings

purchased for industrial and original equipment manufacturer 1 2 use. (ii) covered entities shall be residents, small governments, 3 small businesses, and charities. 4 (iii) paint, including the related plastic and metal containers, 5 that has been collected by product stewardship programs shall be 6 7 reused or recycled, unless otherwise determined through agency rulemaking. 8 (iv) product stewardship programs for Paint, including the 9 plastic and metal containers containing the paint, must be fully 10 11 implemented by January 1, 2011. (e) Rechargeable batteries 12 13 (i) "rechargeable battery" means (A) 1 or more nickel cadmium, nickel metal hydride, sealed lead 14 acid, lithium ion, lithium polymer or nickel zinc voltaic or 15 galvanic cells electrically connected to produce electric 16 energy, that weighs less than 1 kilogram, is easily removable 17 18 and is designed to be recharged for repeated uses; and 19 (B) includes any type of enclosed device or sealed container weighing less than 1 kilogram consisting of 1 or more such 20 21 cells, including what is commonly called a battery pack ; but (C) does not include -22 (i) a battery used as the principal electric power source for a 23 vehicle such as, but not limited to, an automobile, boat, truck, 24 tractor, golf cart or wheelchair; 25 26 (ii) a lead-acid battery weighing more than two pounds; (iii) a battery used for load leveling or for storage of 27 electricity generated by an alternative energy source, such as a 28 29 solar cell or wind-driven generator that weighs more than 1 30 kilogram consisting of 1 or more such cells; or (iv) a battery used as a backup power source for memory or 31 32 program instruction storage, timekeeping, or any similar purpose that requires uninterrupted electrical power in order to 33 function if the primary energy supply fails or fluctuates 34 35 momentarily. (ii) covered entities shall be all sources of rechargeable 36 37 batteries including residents, businesses, governments, charities and institutions. 38 (iii) rechargeable batteries that have been collected by 39 product stewardship programs shall be reused or recycled. 40 Mercury and mercury bearing residuals from recycling of 41 rechargeable batteries must be retorted in properly permitted 42 facilities. Mercury recovered from retorting must be recycled or 43 placed in a properly permitted, monitored hazardous waste 44 45 landfill, storage or disposal repository to avoid reintroduction

into the marketplace. When available, mercury recovered from 1 retorting must be placed in a properly permitted, monitored 2 permanent mercury repository to avoid reintroduction into the 3 marketplace and it shall not be recycled. 4 5 (iv) product stewardship programs for rechargeable batteries must be fully implemented by January 1, 2011. 6 7 (2) The department may adopt rules to implement this section and to determine: 8 (a) Any unique management requirements, including, without 9 limitation, special collection, processing and final disposition 10 11 requirements for an unwanted product containing hazardous substances or hazardous materials; 12 13 (b) Labeling requirements for producers, if any, such as brand, toxicity, or carbon footprint. 14 (c) Any other issues the Department deems necessary for 15 16 implementing this section. 17 18 NEW SECTION. Sec. 18 DESIGNATION BY DEPARTMENT. (1) At least every two years, commencing on the effective date of this act, 19 the department will consider and evaluate products and product 20 21 categories to designate as covered products or covered product categories under this act. 22 (2) The public, including producers, may petition the department 23 24 to consider products and product categories to designate as covered products or covered product categories under this act. 25 26 The department shall establish a procedure for review of these petitions during the process specified in subsection (3) of this 27 section. 28 29 (3) In designating covered products or covered product 30 categories, the department will consider: (a) Environmental and health impacts, including: 31 32 (i) climate change impacts and benefits; (ii) potential energy conservation; 33 (iii) public and environmental health and safety; 34 (iv) potential resource recovery and material conservation; 35 (v) product toxicity; 36 37 (vi) opportunities for reducing waste and toxicity; (vii) opportunities for increasing reuse or recycling, recycled-38 content, and design for reuse or recycling; 39 (viii) a product's potential to act as a contaminant in 40 recycling programs; 41 (ix) concerns about disposing of a product in the waste stream; 42 (x) success in addressing similar products and product 43 categories in other product stewardship programs in the United 44 45 States and internationally.

(b) Public and business benefits and interest, including: 1 (i) management costs to local governments, taxpayers, and solid 2 waste ratepayers in the absence of product stewardship programs; 3 (ii) difficulty managing in traditional curbside collection and 4 5 other standard government solid waste management systems; (iii) opportunities for existing and new businesses and 6 7 infrastructure to manage products or product categories proposed for designation and to use or increase markets for materials 8 recovered from such products or product categories with a 9 preference for in-state opportunities; 10 11 (iv) public demand; (v) recommendations of the product stewardship advisory 12 13 committee established in section 19 of this act. (4) Through the designation process the department will 14 determine: 15 (a) Covered entities for a product or product category; 16 (b) Implementation dates; 17 18 (c) Whether a product or product category is reusable or recyclable; 19 (d) Any unique management requirements, including, without 20 21 limitation, special collection, processing and final disposition requirements for an unwanted product containing hazardous 22 substances or hazardous materials; 23 (e) Labeling requirements for producers, if any, such as brand, 24 25 toxicity, or carbon footprint; and 26 (f) Whether a covered product or covered product category's 27 packaging should also be designated as a covered product. 28 Sec. 19 PRODUCT STEWARDSHIP ADVISORY COMMITTEE. 29 NEW SECTION. 30 (1) The department will appoint a product stewardship advisory committee consisting of up to fifteen members that will include 31 32 representatives of local governments, consumer advocacy groups, environmental groups, businesses, and four legislative members, 33 one from each major caucus of the house and senate. House 34 35 members shall be designated by the speaker of the house and senate members shall be designated by the president of the 36 37 senate. (2) The department will consult the advisory committee regarding 38 designation of new covered products and covered product 39 categories, covered entities, implementation dates, reusability 40 or recyclability of the product, management requirements, 41 labeling requirements, and other matters requested by the 42 department. 43

(3) The advisory committee shall review and provide comments on 1 the department's recommendations regarding designation of new 2 covered products and covered product categories. 3 4 Sec. 20 NO LIMITATION ON AUTHORITY. Nothing in 5 NEW SECTION. this act changes or limits the authority of the Washington 6 7 utilities and transportation commission to regulate collection of solid waste, including curbside collection of residential 8 recyclable materials, nor does this act change or limit the 9 10 authority of a city or town to provide such service itself or by 11 contract under RCW 81.77.020. 12 13 NEW SECTION. Sec. 21 ANTICOMPETITIVE CONDUCT. A producer, group of producers or stewardship organization and its officers, 14 members, employees, and agents that organize a product 15 16 stewardship program required under this act are authorized to engage in anticompetitive conduct to the extent necessary to 17 18 plan and implement a program, and are immune from liability 19 under state laws regarding antitrust, restraint of trade, unfair trade practices, and other regulation of trade and commerce. 20 21 22 NEW SECTION. Sec. 22 LIBERAL CONSTRUCTION. This chapter must be liberally construed to carry out its purposes and objectives. 23 24 Sec. 23 As used in this act, captions constitute 25 NEW SECTION. 26 no part of the law. 27 Sec. 24 Sections 1 through 22 of this act 28 NEW SECTION. constitute a new chapter in Title 70 RCW. 29 30 Sec. 25 If any provision of this act or its 31 NEW SECTION. 32 application to any person or circumstance is held invalid, the remainder of the act or the application of the provision to 33 other persons or circumstances is not affected. 34 35 NEW SECTION. Sec. 26 This act is necessary for the immediate 36 37 preservation of the public peace, health, or safety, or support of the state government and its existing institutions, and takes 38 effect July 1, 2009. 39

APPENDIX E: Draft Product Stewardship Legislation for Mercury-Containing Lights (based on Draft Model Product Stewardship Framework Legislation)

AN ACT Relating to product stewardship programs, financed 1 and provided by product producers that include reuse or 2 recycling of unwanted products; addressing mercury-containing 3 lights, and adding a new chapter to Title 70 RCW. 4 5 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF WASHINGTON: 6 7 8 NEW SECTION. Sec. 17) SHORT TITLE. This act may be known and cited as the product stewardship act for mercury-containing 9 lights. 10 11 NEW SECTION. Sec. 18) INTENT. The legislature finds that: 12 (1) Convenient and environmentally sound product stewardship 13 14 programs that include collecting, transporting and reusing or recycling unwanted products will help protect Washington's 15 environment and the health of state residents; 16 (2) Product producers should finance and provide these programs 17 18 which are intended to encourage producers to design products 19 that have a lower carbon footprint, are less toxic and energy 20 and material intensive, and are easier to recycle. 21 NEW SECTION. Sec. 19) DEFINITIONS. The definitions in this 22 section apply throughout this act unless the context clearly 23 24 requires otherwise. (1) Brand means a name, symbol, word, or mark that identifies a 25 26 product, rather than its components, and attributes the product 27 to the owner of the brand as the producer. (2) Covered entity means an entity, such as a resident or small 28 business, that can use a product stewardship program to discard 29 30 an unwanted product. (3) Covered product means a product designated by this act, 31 either individually or as an item within a covered product 32 category. "Covered product" includes all materials that make up 33 a covered product. 34 35 (4) Covered product category means a group of similar products covered by this act. 36

(5) Department means the department of ecology. 1 (6) Final disposition means the point beyond which no further 2 processing takes place and materials from an unwanted product 3 are either in a form capable of direct use as a feedstock in 4 5 producing new products or disposed of or managed in permitted facilities. 6 7 (7) Mercury-containing lights means lamps, bulbs, tubes, or other devices that contain mercury that provide functional illumination 8 in homes, offices, and outdoors. 9 (8) "Hazardous substances" or "hazardous materials" means those 10 11 substances or materials identified under regulations and rules adopted pursuant to the state hazardous waste management act, 12 13 chapter 70.105 RCW. (8) Organization means a sole proprietorship, partnership, 14 corporation, nonprofit corporation or organization, limited 15 liability company, firm, association, cooperative, or other 16 legal entity located within or outside Washington state. 17 18 (9) Orphan product means a covered product that lacks a producer's brand, or for which the producer is no longer in 19 business and has no successor in interest, or that bears a brand 20 21 for which the department cannot identify an owner. (10) Processing means recovering materials from unwanted 22 products for use as feedstock in new products. 23 (11) Producer means a person that: 24 (a) Has legal ownership of the brand, brand-name or cobrand of a 25 26 covered product sold in or into Washington state; 27 (b) Imports a covered product branded by a producer that meets (a) of this subsection and where that producer has no physical 28 29 presence in the United States; or 30 (c) If subsections a and b do not apply, a person who makes an unbranded product that is sold in or into Washington state; 31 32 or (d) Sells at wholesale or retail a covered product, does not 33 have legal ownership of the brand, and elects to fulfill the 34 responsibilities of the producer for that product. 35 (12) Product stewardship means a requirement for a producer of a 36 37 covered product to manage and reduce adverse safety, health and environmental impacts of the covered product throughout its life 38 39 cycle. 40 (13) Product stewardship plan or plan means a detailed plan describing the manner in which a product stewardship program 41 will be implemented. 42 (14) Product stewardship program or program means a program 43 financed and provided by producers of covered products that 44 45 addresses product stewardship and includes collecting,

transporting, reuse, processing, and final disposition of 1 unwanted products, including a fair share of orphan products. 2 (15) Recycling means transforming or remanufacturing unwanted 3 products into usable or marketable materials for use other than 4 5 landfill disposal or incineration. Recycling does not include energy recovery or energy generation by means of combusting 6 7 unwanted products with or without other waste. (16) Reporting period means the period commencing January 1 and ending December 8 31 in the same calendar year. 9 10 (17) Residuals mean non-recyclable materials left over from 11 processing an unwanted product. (18) Reuse means a change in ownership of a covered product or 12 13 its components and parts for use in the same manner and purpose for which it was originally purchased. 14 (19) Stakeholder means a person who may have an interest in or 15 be affected by a product stewardship program. 16 (20) Stewardship organization means an organization designated 17 18 by a producer to act as an agent on behalf of the producer to operate a product stewardship program. 19 (21) Unwanted product means a covered product no longer wanted 20 by its owner or that has been abandoned, discarded, or is 21 intended to be discarded by its owner. 22 23 24 NEW SECTION. Sec. 20) COVERED PRODUCTS AND COVERED PRODUCT (1) Covered product and product categories 25 CATEGORIES. 26 designated under this act include: (a) Mercury-containing lights. 27 (i) "mercury-containing lights" means lamps, bulbs, tubes, 28 29 or other devices that contain mercury and that provide functional 30 illumination in homes, offices, and outdoors. (ii) covered entities shall be residents and small 31 32 businesses. (iii) mercury-containing lights that have been collected by 33 product stewardship programs shall be recycled. Mercury and 34 mercury bearing residuals from recycling of mercury-containing 35 lights must be retorted in properly permitted facilities. 36 37 Mercury recovered from retorting must be recycled or placed in a properly permitted, monitored hazardous waste landfill, storage 38 or disposal repository to avoid reintroduction into the 39 marketplace. When available, mercury recovered from retorting 40 must be placed in a properly permitted, monitored permanent 41 mercury repository to avoid reintroduction into the marketplace 42 and it shall not be recycled. 43 44 (iv) product stewardship programs for mercury-containing

45 lights must be fully implemented by January 1, 2011.

(3) The department may adopt rules to implement this 1 section and to determine: 2 (a) Any unique management requirements, including, without 3 limitation, special collection, processing and final disposition 4 5 requirements for general purpose lights containing hazardous 6 materials.; 7 (b) Labeling requirements for producers, if any, such as brand, toxicity, or carbon footprint; 8 9 (c) Any other issues the Department deems necessary for 10 implementing this section. 11 Sec. 5 PARTICIPATION IN PRODUCT STEWARDSHIP NEW SECTION. 12 13 PROGRAM REQUIRED--TERMS. (1) Every producer of a covered product sold in or into Washington state must participate in a 14 product stewardship program for that product. Every such 15 16 producer must: (a) Operate, either individually or collectively with other 17 18 producers, a product stewardship program approved by the department; or 19 (b) Enter into an agreement with a stewardship organization to 20 21 operate, on the producer's behalf, a product stewardship program approved by the department. 22 (2) Product stewardship programs shall collect, free of charge, 23 unwanted products from covered entities for reuse or final 24 25 disposition as appropriate. 26 (3) A producer, group of producers, or stewardship organization 27 operating a product stewardship program shall: (a) Comply with a product stewardship plan approved by the 28 29 department and this act, any rules adopted by the department to 30 implement this act, and all other applicable laws and rules; and (b) Pay all administrative and operational costs associated with 31 32 their program. 33 NEW SECTION. Sec. 6. RESTRICTION ON SALE OF COVERED PRODUCTS. 34 As of the implementation date established for the covered 35 product no producer, wholesaler, retailer or other person may 36 37 sell or offer for sale that product to any person in this state unless the producer is participating in a product stewardship 38 program approved by the department. A person selling or 39 offering for sale a covered product in the state shall consult 40 the department's website for a list of producers of that product 41 participating in approved programs prior to selling the product 42 in or into the state. A person is considered to have complied 43 with this section if, on the date the person ordered a covered 44

product from a producer or its agent, the producer was listed as 1 having an approved program on the department's website. 2 3 4 NEW SECTION. Sec. 7 REQUIREMENTS OF PRODUCT STEWARDSHIP PLAN. • A producer, group of producers, or stewardship organization 5 operating or intending to operate a product stewardship program 6 must, at least 60 days prior to submitting a product stewardship 7 8 plan to the department pursuant to subsection • of this section, provide public notice of the plan it is considering for 9 submittal. The producer, group of producers, or stewardship 10 11 organization must consult with stakeholders during development of the plan, solicit stakeholder comments, and attempt to 12 address any stakeholder concerns regarding the plan prior to 13 14 submittal. (2) A producer, group of producers, or stewardship organization 15 16 operating or intending to operate a product stewardship program must submit a product stewardship plan to the department 17 18 specifying: (a) Information, including contact information, regarding: 19 20 (i) the organization submitting the plan; (ii) a list of all participating producers; and 21 (iii) if the program is to be operated by a stewardship 22 organization, a description of management, administration and 23 24 tasks to be performed by the stewardship organization; 25 (b) Recovery goals, including: (i) recovery goals for the first, second, and third years of the 26 program, expressed as pounds per capita, and an explanation of 27 how these goals reflect a significant percentage of an unwanted 28 product relative to the quantity of the unwanted product that 29 may be available for reuse or recycling; and 30 (ii) plans to maximize recycling of packaging that may be 31 collected; 32 (c) A collection system, including: 33 34 (i) location of collection sites and other collection services to be used by the program; 35 (ii) how unwanted products from all covered entities will be 36 collected for all cities in the state with populations greater 37 than 10,000 and in all counties of the state; 38 39 (iii) how the collection system will be convenient and adequate 40 to serve the needs of all covered entities in both urban and 41 rural areas; and (iv) how collected unwanted products will be transported to 42 43 processing facilities; (d) A processing and disposal system, including: 44

(i) locations, permit status, and records of any penalties, 1 violations, or regulatory orders received in the previous five 2 years by processing and disposal facilities proposed to be used 3 4 by the program; (ii) a third-party audit of each processing and disposal 5 facility proposed to be used by the program for any unwanted 6 7 product or residuals containing hazardous substances or hazardous materials, documenting compliance with all applicable 8 9 laws, regulations and rules; 10 (iii) policies and procedures to be followed by persons 11 collecting, transporting, processing and disposing unwanted products, including how the program will ensure compliance with 12 13 all applicable laws, regulations and rules; (iv) a description of how unwanted products will be processed at 14 each processing facility; 15 (vi) how all residuals will be disposed of or managed in 16 permitted facilities, including disposal or management of all 17 18 hazardous substances and hazardous materials in permitted 19 hazardous waste facilities; (vii) how hazardous substances and hazardous materials will be 20 21 safely and securely tracked and handled from collection to final disposition in compliance with this act, any rules adopted by 22 the department to implement this act, and all other applicable 23 laws and rules; 24 (viii) best management practices that will be used by first 25 26 processors and their downstream vendors to assure that hazardous substances and hazardous materials are not released into the 27 environment and will not adversely impact human health; 28 (e) How the program will seek to use businesses within the 29 30 state, including retailers, processing facilities, and collection and transportation services; 31 (f) Greenhouse gas reductions anticipated from implementing the 32 collection, transportation and recycling system; 33 (g) A financing system, including: 34 (i) how the entire product stewardship program will be financed, 35 including how costs will be apportioned among and assessed upon 36 37 producers participating in the program; (ii) financial incentives to reward product design that result 38 in improved reuse or recycling and less toxicity where feasible; 39 (iii) a plan to withhold a percentage of funds to be managed by 40 the product stewardship program to increase markets for 41 recvclable materials or other financial incentives to encourage 42 market development for recyclable materials contained in covered 43 44 products;

(iv) how those providing services for the collection, 1 transportation and processing systems will be fairly compensated 2 for their services. 3 (h) Strategies to manage and reduce life-cycle impacts of 4 products and packaging, from product design to end-of-life 5 management, including ways to improve designing, packaging and 6 7 distributing products to: (i) reduce waste, energy, toxicity, carbon footprints and other 8 9 environmental and health impacts; (ii) increase recycled content and product longevity; and 10 (iii) make products more easily reusable or recyclable; 11 (i) How the producers participating in the program will 12 13 communicate with processors used by the program to encourage sustainable design of products and packaging; 14 (j) Education and outreach activities, including: 15 (i) an educational campaign promoting the use of the program to 16 covered entities that includes a toll free telephone number and 17 18 website and that is sufficient to meet required recovery rates. 19 (ii) a plan for working with and providing information about the program to retailers, wholesalers, collectors and other 20 21 interested parties to disseminate to covered entities; and (iii) the methodology for determining how the effectiveness of 22 the outreach activities will be measured. 23 (k) Pursuant to subsection (1) of this section, the consultation 24 25 process, including: 26 (i) a description of the process used to consult with stakeholders during development of the plan; and 27 (ii) a summary of stakeholder comments, and how any stakeholder 28 29 concerns were addressed. (3) The product stewardship plan shall be approved by the 30 department when all requirements have been met in compliance 31 32 with this act and any rules adopted by the department to implement this act. 33 (4) All plans submitted to the department must be made available 34 to the public on the department's website. Proprietary 35 information submitted to the department under this chapter is 36 37 exempt from public disclosure under RCW 42.56.270. 38 NEW SECTION. Sec. 8 REVIEW OF PRODUCT STEWARDSHIP PLAN. (1) A 39 producer of a covered product, a group of producers, or a 40 stewardship organization must submit a proposed product 41 stewardship plan to the department at least one year prior to a 42 covered product's implementation date. 43 (2) Within ninety days after receiving a proposed product 44 stewardship plan, the department shall determine whether the 45

plan complies with this act and any rules adopted to implement 1 this act. If it approves a plan, the department shall notify 2 the applicant of its approval. If it rejects a plan, the 3 department shall notify the applicant of its decision and its 4 5 reasons for rejecting the plan. An applicant whose plan has been rejected by the department may submit a revised plan to the 6 7 department within sixty days after receiving notice of the 8 rejection. 9 (3) At least once every four years, a producer, group of producers or stewardship organization operating a product 10 11 stewardship program must update its product stewardship plan and submit the updated plan to the department for review. The 12 13 department must determine the status of an updated plan within 90 days of its submittal. If the department rejects an updated 14 plan, the producer of a covered product participating in the 15 16 product stewardship program described in the plan will be deemed to be out of compliance with this act. 17 18 Sec. 9 CHANGES TO PRODUCT STEWARDSHIP PLAN. NEW SECTION. 19 (1)Except as provided in subsections (2) and (3) of this section, 20 21 the department must grant prior approval, in writing, to any proposed change to a product stewardship plan. 22 (2) Additions or changes to collection locations for unwanted 23 products may be made without the department's prior written 24 25 approval. The product stewardship program must inform the 26 department of such additions or changes within fifteen days of 27 the occurrence. (3) Additional producers may join a product stewardship program 28 29 approved by the department without the department's prior 30 written approval. The product stewardship program must inform the department of such additions within fifteen days of the 31 32 occurrence. 33 NEW SECTION. Sec. 10 SUSPENSION OR CANCELLATION OF APPROVAL. 34 (1) If the department determines that a product stewardship 35 program is not being operated in compliance with the 36 37 requirements of this act, any rules adopted by the department to implement this act, or any other applicable laws, regulations, 38 or rules, or if the department determines that there is an 39 40 imminent danger to the public, the department may: (a) Amend its approval of the program's product stewardship plan 41 by clarifying terms or conditions to ensure full implementation 42 of the plan; or 43

(2) At least 30 days prior to amending, suspending or canceling 1 its approval of a product stewardship plan, the department shall 2 inform the producer, group of producers, or stewardship 3 organization operating the product stewardship program of its 4 5 intended action and provide them an opportunity to respond. The department may extend this period for good cause. 6 7 (3) Notwithstanding subsection (2) of this section, if the department determines that it is necessary to protect the public 8 9 from imminent danger, it may immediately amend, suspend or 10 cancel approval of a product stewardship program's product 11 stewardship plan without giving the producer, group of producers, or stewardship organization operating the program an 12 13 opportunity to be heard, but the department shall give the operator an opportunity to be heard through proceedings 14 consistent with the administrative procedure act, chapter 34.05 15 RCW, within fifteen days after the date on which the department 16 takes any of those actions. 17 18 Sec. 11 REPORTING. (1) On or before June 30 of 19 NEW SECTION. each year, every producer, group or producers, or stewardship 20 21 organization operating a product stewardship program must prepare and submit to the department an annual report 22 23 describing: (a) Information, including contact information, regarding: 24 (i) the organization submitting the report; and 25 26 (ii) a list of all participating producers; (b) Recovery rates, including: 27 (i) the amount, by weight, of unwanted products collected from 28 29 covered entities in each county in the state, including 30 documented collection and recycling or disposal of that 31 material; (ii) how the program attained recovery rates established in the 32 product stewardship plan or set by the department, and, if the 33 program did not attain those recovery rates, what actions it 34 will take during the next reporting period to do so, including 35 how it will increase and improve effective, measurable outreach 36 37 and education efforts; (c) The collection system, including collection locations and 38 services provided for all cities in the state with populations 39 greater than 10,000 and in all counties in the state; 40 (d) The processing and disposal system, including: 41 (i) a list of processing and disposal facilities used and 42 locations, the weight of unwanted products processed at each 43 processing facility and disposed at each disposal facility, and 44 45 a description of the methods used at each processing facility;

(ii) a list of subcontractors used through final disposition 1 that processed or disposed of unwanted products containing 2 hazardous substances or hazardous materials, and subcontractor 3 facility locations; 4 (iii) documentation and summary results of annual third-party 5 audits conducted on each processing facility and disposal 6 7 facility as required in section 7 of this act; (v) final disposition of residuals; 8 (vi) any penalties, violations, or regulatory orders received 9 during the reporting period by each processing facility or 10 11 disposal facility that was used; (vii) whether policies and procedures in the product stewardship 12 13 plan for collecting, transporting, processing and final disposition of unwanted products were followed during the 14 reporting period, and a description of any noncompliance; 15 (e) The financing system, including a description of how the 16 system met the requirements in section 7 of this act; 17 18 (f) The education and outreach activities implemented during the reporting period, including an analysis of the effectiveness of 19 the education and outreach activities; 20 21 (g) Results of any actions taken to manage and reduce life cycle impacts of products and package, as described in subsection 22 (2)(f) of section 7 of this act; 23 (h) How the product stewardship program complied with any other 24 25 elements in the plan approved by the department; and 26 (i) any other information that the department may reasonably 27 require. (2) A producer, group of producers, or stewardship organization 28 29 operating a product stewardship program meeting the following 30 conditions is only required to report to the department information specified in subsections (1)(a), (b), (c), (g) and 31 32 (i) of this section: (a) The product stewardship program attained a ninety percent 33 recovery rate of all unwanted products that were produced by 34 producers participating in the program and a recycling rate of 35 eighty percent of materials contained in such products; and 36 37 (b) All unwanted products collected by the product stewardship program were carbon neutral in production and use. 38 (3) All reports submitted to the department must be made 39 available to the public on the department's website. Proprietary 40 information submitted to the department under this act is exempt 41 from public disclosure under RCW 42.56.270. 42 43 Sec. 12 ENFORCEMENT. (1) The department shall 44 NEW SECTION. 45 provide, on its website, a list of all producers participating

in product stewardship programs it has approved and a list of 1 all producers it has identified as noncompliant with this act 2 and any rules adopted to implement this act. 3 (2) Wholesalers, retailers, and other persons shall check the 4 department's website to determine if producers of covered 5 products they are selling in or into the state are compliant 6 7 with this act and any rules adopted to implement this act. If a wholesaler, retailer, or other person is unsure of the status of 8 9 a producer or believes that a producer is not compliant, they 10 shall contact the department to determine the producer's status. 11 (3) The department shall send a written warning and copies of this act and any rules adopted to implement this act to a 12 13 producer who is not participating in a product stewardship program approved by the department and whose covered product is 14 being sold in or into the state. The department shall also send 15 a written warning and a copy of this act and any rules adopted 16 to implement this act to a wholesaler, retailer or other person 17 18 known to be selling the covered product in or into the state. 19 (4) A producer not participating in a product stewardship program approved by the department whose covered product 20 21 continues to be sold in or into the state sixty days after receiving a written warning from the department, and a 22 23 wholesaler, retailer, or other person who continues to sell a covered product from a producer not participating in an approved 24 product stewardship program sixty days after receiving a written 25 26 warning from the department, will be assessed a ten thousand dollar penalty. The department may waive or reduce the penalty 27 if the producer, wholesaler, retailer, or other person complies 28 with this act and any rules adopted to implement this act, or 29 30 for any other reason the department determines to be justified. (5) The department shall send a written warning to a producer, 31 group of producers, or stewardship organization operating a 32 product stewardship program that fails to submit a product 33 stewardship plan, updated plan, proposed change to a plan, or 34 annual report as required in this act. The written warning must 35 include compliance requirements and notification that the 36 37 requirements must be met within sixty days. If compliance requirements are not met within sixty days, the producer, group 38 of producers, or stewardship organization will be assessed a ten 39 thousand dollar penalty. The department may waive or reduce the 40 penalty if the producer, group of producers, or stewardship 41 organization complies with this act and any rules adopted to 42 implement this act, or for any other reason the department 43 44 determines to be justified.

(6) Each calendar day of a violation is a separate and distinct 1 offense. 2 3 Sec. 13 RECOVERY RATES AND EVALUATION. 4 NEW SECTION. (1) By 5 June of the third program year for each product or product category, the department shall establish required recovery rates 6 7 for the fourth and subsequent program operating years, and must establish a system of penalties for producers and product 8 9 stewardship programs that do not attain the required recovery 10 rates. 11 (2) By December 31, 2014, the department shall report to appropriate committees of the legislature concerning status of 12 13 the program administered under this act and, if necessary, recommend legislation. 14 (3) The department, or its designee, may inspect, audit, or 15 review audits of processing and disposal facilities used to 16 fulfill the requirements of a product stewardship program. 17 18 (4) No product stewardship program required under this act may use federal or state prison labor for processing unwanted 19 products. 20 21 (5) The department shall annually invite comments from local governments, communities, and citizens to report their 22 satisfaction with services provided by product stewardship 23 This information must be used by the department in 24 programs. 25 reviewing proposed updates or changes to product stewardship 26 plans. 27 NEW SECTION. Sec. 14 ADMINISTRATIVE COSTS AND FEES. The 28 department may establish fees for administering this act. 29 Fees 30 may be charged to the producers and must be paid annually by January 1 of each year. Fees may be established in amounts to 31 32 fully recover and not to exceed expenses incurred by the department in administering this act. 33 34 Sec. 15 PRODUCT STEWARDSHIP PROGRAMS ACCOUNT. 35 NEW SECTION. The product stewardship programs account is created in the 36 37 custody of the state treasurer. All receipts from fees and penalties collected pursuant to this act must be deposited in 38 the account. Expenditures from the account may be used only for 39 40 administering this act. Only the director of the department or the director's designee may authorize expenditures from the 41 account. The account is subject to the allotment procedures 42 under chapter 43.88 RCW, but an appropriation is not required 43 for expenditures. 44 45

Sec. 16 RULEMAKING AUTHORITY. (1) The department NEW SECTION. 1 shall adopt rules under the administrative procedure act, 2 chapter 34.05 RCW, to implement this act, including, at a 3 4 minimum: 5 (a) Program operating rules; (b) A process for determining whether reduced reporting 6 7 requirements in section 11 of this act apply; (c) A process for setting recovery rates for the fourth and 8 9 subsequent operating years of a program and for adjusting 10 recovery rates; and 11 (d) An enforcement process. 12 13 NEW SECTION. Sec. 17 NO LIMITATION ON AUTHORITY. Nothing in this act changes or limits the authority of the Washington 14 utilities and transportation commission to regulate collection 15 16 of solid waste, including curbside collection of residential recyclable materials, nor does this act change or limit the 17 18 authority of a city or town to provide such service itself or by 19 contract under RCW 81.77.020. 20 21 NEW SECTION. Sec. 18 ANTICOMPETITIVE CONDUCT. A producer, group of producers or stewardship organization and its 22 officers, members, employees, and agents that organize a product 23 stewardship program required under this act are authorized to 24 25 engage in anticompetitive conduct to the extent necessary to plan and implement a program, and are immune from liability 26 under state laws regarding antitrust, restraint of trade, unfair 27 trade practices, and other regulation of trade and commerce. 28 29 Sec. 19 LIBERAL CONSTRUCTION. 30 NEW SECTION. This chapter must be liberally construed to carry out its purposes and 31 32 objectives. 33 Sec. 20. As used in this act, captions constitute 34 NEW SECTION. 35 no part of the law. 36 37 NEW SECTION. Sec. 21 Sections 1 through 22 of this act constitute a new chapter in Title 70 RCW. 38 39 NEW SECTION. Sec. 22 If any provision of this act or its 40 application to any person or circumstance is held invalid, the 41 remainder of the act or the application of the provision to 42 other persons or circumstances is not affected. 43 44

Sec. 23 This act is necessary for the immediate 1 NEW SECTION. preservation of the public peace, health, or safety, or support 2 of the state government and its existing institutions, and takes 3 effect July 1, 2009. 4 NEW SECTION. Sec. 24 A new section is added to chapter 5 70.95M RCW to read as follows: 6 7 (1) The department shall participate in national and global mercury forums to advocate reduction of global emissions and 8 9 permanent isolation of elemental mercury. 10 (2) By July 1, 2011, the department, in consultation with 11 the United States environmental protection agency, shall study the feasibility of the development of a national permanent 12 13 repository for mercury. The department shall develop recommendations and provide its findings to the appropriate 14 committees of the legislature by December 1, 2011. 15 16 17

18

Appendix F Green Electricity – Draft Bio-

2 **Power/Anaerobic Digestion Legislation**

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For insertion into the Renewable Rate Recovery and Control Act
3
4
5
   New section. Definitions
6
    "Anaerobic digester" means a facility that processes manure from
7
8
    livestock and/or other organic material into biogas based
    electricity and digested organic material using microorganisms
9
10
    in a decomposition process within a closed, oxygen-free
    container.
11
12
13
    "Landfill gas system" means a facility that uses landfill gas to
   produce electricity.
14
15
    "Organic waste clean heat and power system" means a facility
16
    that produces both electricity and used and useful heat for a
17
    combined energy efficiency of at least 65 percent.
18
                                                         The
    feedstock can be any combination of wood waste, hog fuel, urban
19
   wood waste, logging slash and other organic material.
20
21
   New section insert. Renewable rate recovery and control
22
23
   The following rates are established for renewable power
24
   production and control
25
26
27
   Anaerobic digester renewable electricity rate is set at twelve
   cents per kilowatt hour produced
28
29
   Landfill gas system renewable electricity rate is set at eight
30
    cents per kilowatt hour produced.
31
32
    Organic waste clean heat and power system renewable electricity
33
34
   rate is set at nine cents per kilowatt hour produced.
35
   The environmental attributes of the renewable electricity system
36
   belong to the system owner, and do not transfer to the state or
37
   the light and power business upon receipt of renewable
38
    electricity rate payments.
39
40
   New section:
                  Wheeling of bio-power
41
42
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If a utility does not wish to purchase the renewable electricity 1 produced from anaerobic digesters, landfill gas systems, and 2 wood waste clean heat and power systems, and if it has met the 3 requirements of Initiative 937 including all future requirements 4 established in statute, then it will make the available the 5 electricity produced to other in-state utilities for a modest 6 7 transmission fee not to exceed its normal transmission rate or 5 percent of the value of the power produced whichever is lower. 8

9

Appendix G: Compost Made From Recovered Organic 1 **Materials Procurement by the Department of** 2 **Transportation and Other State Agencies** 3 4 AN ACT Relating to product standards; amending RCW 43.19A.020; 5 providing an effective date; and declaring an emergency. 6 7 8 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF WASHINGTON: 9 Sec. 1. RCW 43.19A.020 and 1996 c 198 s 1 are each amended to 10 read as follows: 11 (1) The (USEPA) federal product standards, (as now or hereafter 12 amended) adopted under 42 U.S.C. Sec. 6962(e) as it exists on 13 the effective date of this act, are adopted as the minimum 14 15 standards for the state of Washington. These standards shall be implemented for at least the products listed in (a) and (b) of 16 17 this subsection (by the dates indicated), unless the director finds that a different standard would significantly increase 18 recycled product availability or competition. 19 (a)By July 1, 2009: 20 21 (i) Paper and paper products; (ii) (b) Organic recovered materials; and 22 23 (iii)(c) Latex paint products; (b) By July 1, 2010: 24 (i) (d) Products for lower value uses containing recycled 25 plastics; 26 (ii) (e) Retread and remanufactured tires; 27 28 (iii)(f) Lubricating oils; (iv)(g) Automotive batteries; 29 (v)(h) Building ((insulation)) products and materials; 30 (vi)(i) Panelboard; and 31 (vii)(j) Compost made from recovered organic materials; 32 products. 33 (viii) (k) Fertilizers made from recovered organic materials; 34 (2) By July 1, 2010, the director shall adopt product standards 35 36 for strawboard manufactured using as an ingredient straw that is produced as a by-product in the production of cereal grain or 37 38 turf or grass seed and product standards for products made from 39 strawboard. (3) The standards required by this section shall be applied to 40 recycled product purchasing by the department ((and)), other 41 42 state agencies, and state postsecondary educational

institutions. The standards may be adopted or applied by any 1 other local government in product procurement. The standards 2 shall provide for exceptions under appropriate circumstances to 3 allow purchases of recycled products that do not meet the 4 minimum content requirements of the standards. 5 NEW SECTION. Sec. 2. This act is necessary for the immediate 6 7 preservation of the public peace, health, or safety, or support of the state government and its existing public institutions, 8 9 and takes effect July 1, 2009.

10

11 <u>http://www.epa.gov/epawaste/conserve/tools/cpg/products/compost.</u> 12 <u>htm</u>