

Moving Toward Beyond Waste with Industries

YEAR 2035 GOALS

1. SAFE PRODUCTS AND SERVICES

2. SUSTAINABLE MATERIALS MANAGEMENT

3. ECONOMIC VITALITY

Recommendation IND 1: (unchanged) Modify the Pollution Prevention Planning Program to dovetail with the Beyond Waste vision.

Milestones	Rationale
IND A: (unchanged) Most P2 plans comprehensively address hazardous substance use.	This is not yet achieved although much groundwork has been laid.

Recommendation IND 2: (unchanged) Expand information on Ecology's web site.

Milestones	Rationale
IND B: (unchanged) The Hazardous Waste and Toxics Reduction program web site includes more information about best management practices, including alternatives for key wastes and substances.	This is on-going work, especially the new website content.

Recommendation IND 3: (modified) Put in place several Beyond Waste incentives.

Milestones	Rationale
IND C: (modified) Several incentives have been put in place to help implement Beyond Waste, including a possible low-interest loan program.	With the help of two stakeholder groups, many incentives have been identified, but most have not been instituted yet. Some require legislation.

Recommendation IND 4: (unchanged) Encourage new businesses to adopt sustainability practices.

Milestones	Rationale
IND D: (unchanged) Most of the major new businesses locating to Washington State have been designed to minimize waste and toxic substances.	Very little work has been done on this recommendation and the milestone has not been achieved.

Recommendation IND 5: (modified) Encourage waste handlers (including businesses and other entities that generate waste) to become material brokers.

Milestones	Rationale
IND E: (unchanged) Hazardous waste handlers in WA have taken noticeable steps toward becoming brokers of materials.	More work could be done on this. There are by-product synergy groups on both sides of the state collaborating to increase industrial materials reuse.

Recommendation IND 6: (unchanged) Support EPA's "Beyond Waste-type" efforts.

Milestones	Rationale
IND F: (unchanged) EPA and Ecology have been working together to implement Beyond Waste.	Some work has been accomplished, but more could be done. EPA provided funding to support chemicals policy implementation, product stewardship for paint and fluorescent lamps, and safer chemical alternatives assessments.

Recommendation IND 7: (unchanged) Promote sustainability in product development.

Milestones	Rationale
IND G: (unchanged) Strategy developed and agreed to for moving forward and at least one project is underway to promote sustainable product design.	The lean project on sustainable product design was unsuccessful. A proposed strategy is in the works for minimizing toxics in products. Much more needs to be done move this recommendation forward.

Recommendation IND 8: (new) Eliminate or minimize groups of the most toxic chemicals as part of the agency's reducing toxic threats work. Prioritize and address those chemicals that pose significant threats to vulnerable populations and environment and/or for which safer chemical alternatives have been identified. Encourage manufacturers to disclose the composition of their products (Same as MRW 1)

Milestones	Rationale
IND H: (new) There is a reduction in use of at least 5 specific toxic chemicals or groups of toxic chemicals used in products/materials. Safer alternatives to these toxic chemicals have been identified. (same as MRW A)	There is momentum building for a more comprehensive approach to reducing toxic chemicals, instead of focusing on one chemical or a small handful of chemicals at a time. This will help us reach the Beyond Waste vision and support the reducing toxic threats work.

Recommendation IND 9: (new) Continue to use the sector approach as the framework to structure HWTR work. Use existing agency initiatives as criteria for future sector projects (potential to reduce greenhouse gas emissions, Puget Sound pollution, reducing toxic threats, etc).

Milestones	Rationale
IND I: (unchanged) Government is leading by example with significantly less waste generation and less use of toxic substances at the local, state and federal levels.	Need to continue to focus on government as a sector and lead by example.
IND J: (new) At least two successful sector campaigns have been completed that reduce greenhouse gasses, toxics in products and/or emissions going into Puget Sound and other Washington waters.	Sectors help us effectively target our work and implement the agency's initiatives. The Agency has chosen priorities that reflect significant risks to health and the environment, and it behooves us to work with other programs on these efforts.

Recommendation IND 10: (new) Support creation of green jobs and a green economy while emphasizing ways to reduce the use of toxic chemicals and wastes.

Milestones	Rationale
IND K: (new) The Governor's strategy on creating green jobs and a green economy for Washington State includes ways to minimize toxics and wastes.	It is critical we eliminate use of the most toxic chemicals because we are creating legacy problems for future generations and continuing to pollute the environment.

Recommendation IND 11: (new) Help to minimize the release of toxics into stormwater.

Milestones	Rationale
IND L: (new) An effective strategy exists which minimizes toxics in stormwater. A coordinated effort is in place between HWTR, SWFAP, and WQ programs on unique roles and responsibilities for managing toxic chemicals in stormwater.	Toxics in stormwater are a major source of water pollution. An effective strategy is needed to tackle this problem, including clear roles for the different programs in Ecology. There is a potential for coordination around the industrial general permit, including compliance and pollution prevention for specific sectors.

Recommendation IND 12: (new) Implement the Toxic Reduction Advisory Committee (TRAC) recommendations.

Milestones	Rationale
IND M: (new) The majority of the TRAC recommendations have been implemented.	The TRAC recommendations will help the state to move forward on toxics use reduction and pollution prevention.

Recommendation IND 13: (new) Support product stewardship framework and EPP legislation as recommended by the Climate Action Team.

Milestones	Rationale
IND N: (new) A statewide product stewardship framework is in place.	Product stewardship creates a more closed loop recycling system for some difficult to recycle products such as electronics, pharmaceuticals, paints, etc. It keeps these products and toxics out of the waste stream and stormwater.
IND O: (new) Legislation has been modified to support more Environmentally Preferred Purchasing (EPP), a program to track EPP purchases is in place, and sales of EPP goods and services are increasing. (same as MRW I)	State government is a large purchaser of goods and services and can help create demand for more EPP products and services in the state. Additionally, purchasing safer products and services can help prevent future environmental problems.

Recommendation IND 14: (new) Educate the public and businesses on proper use, storage, and disposal of hazardous products and wastes. Encourage safer alternatives to minimize toxic threats, especially to vulnerable populations.

Milestones	Rationale
IND P: (new) Statewide education to minimize toxic threats is in place and compliments local and regional efforts. (same as MRW M)	We need a statewide effort to maximize the effectiveness of education efforts. Products are a significant source for toxic chemicals to getting into the environment generally and Puget Sound specifically. Additionally, the public can help drive demand for EPP products. Signage on containers can be one tool for education.
IND Q: (new) Fewer toxic products are purchased, misused, and disposed improperly and the public is more aware of what chemicals are in products. (same as MRW L)	The public needs to know what is in products so they can choose the safest product to meet their needs and handle it properly.

Reducing Small Volume Hazardous Materials and Waste

YEAR GOALS

1. SAFE PRODUCTS AND SERVICES

2. EFFICIENT MATERIALS MANAGEMENT

3. GREATER ECONOMIC VITALITY

Recommendation MRW 1: (modified) Eliminate or minimize groups of the most toxic chemicals as part of the agency's reducing toxic threats work. Prioritize and address those chemicals that pose significant threats to vulnerable populations and the environment and/or for which safer chemical alternatives have been identified. Encourage manufacturers to disclose the composition of their products. (Same as IND 8)

Milestones	Rationale
MRW A: (modified) There is a reduction in use of at least 5 specific toxic chemicals or groups of toxic chemicals used in products/materials. Safer alternatives to these toxic chemicals have been identified. (same as IND H)	There is momentum building for a more comprehensive approach to reducing toxic chemicals, instead of focusing on one chemical or a small handful of chemicals at a time. This will help us reach the Beyond Waste vision and support the reducing toxic threats work. The modified recommendation will also encompass part of the original Recommendation MRW 8 which calls for managing hazardous substances according to hazards, toxicity and risk.

Recommendation MRW 2: (unchanged) Reduce threats from mercury.

Milestones	Rationale
MRW B: (modified) Product stewardship systems for fluorescent lamps, mercury thermostats, and other mercury-containing devices are in place. Mercury in biosolids continues to diminish.	Build on the growing momentum for product stewardship for mercury. This will result in long-term reductions of mercury in products and will reduce improper disposal of mercury-containing products and wastes.
IND R: (modified) The Washington State Mercury Plan has been fully implemented for hospitals, auto switches and lamps, and a repository for mercury is in place, resulting in significantly less mercury in the environment.	Need to continue work on reducing mercury.

Recommendation MRW 3: (modified) Reduce threats from PBTs (persistent bio-accumulative toxics).

Milestones	Rationale
MRW C: (new) The Lead Chemical Action Plan (CAP) has been implemented and additional work is being done on other PBTs.	A new milestone is needed to replace the milestone that has been achieved. Staff work is complete on PBDEs. We need to increase our focus on other PBTs.

Recommendation MRW 4: (modified) Develop a more comprehensive list of covered electronics through a product stewardship infrastructure.

Milestones	Rationale
MRW D: (modified) The scope of electronic products covered by the existing state program is expanded beyond the current three categories.	The original milestone was accomplished. There are many more electronic products that could be added to the existing system to provide needed collection and recovery of materials. This will further reduce the need for government to provide end-of-life management of these products.

Recommendation MRW 5: (modified) Ensure proper use of pesticides and encourage the use of non-synthetic pesticides.

Milestones	Rationale
MRW E: (modified) The amount of high-risk, non-agricultural pesticides found in urban waters has decreased.	The original milestone was not measurable and this is an available, effective measure.
MRW F: (new) Use has increased of lower-risk pesticides or pesticide alternatives found on lists such as the Organic Material Review Institute (OMRI) Products List. This includes approved fertilizers, soil amendments, and pesticides.	Encouraging non-synthetic pesticides is a positive action that moves us in the direction of reducing toxic threats for both agricultural and non-agricultural uses.
MRW G: (new) The proportion of landscape companies using integrated pest management (IPM) as their primary practice has increased.	Encouraging IPM is a positive action that moves us in the direction of reducing toxic threats for both agricultural and non-agricultural uses.

Recommendation MRW 6: (unchanged) Reduce and manage all architectural paint wastes.

Milestones	Rationale
MRW H: (modified) An industry-led management system for leftover paint has been created through the passage of product stewardship framework legislation.	Much progress has been made. To fulfill this recommendation, there is a need for legislation to allow a Paint Stewardship Organization to operate legally on behalf of the industry.

Recommendation MRW 7: (modified) Implement and promote Environmentally Preferred Purchasing at state/local governments and in institutional settings, with Ecology leading by example. Support the Climate Action Team proposals and other initiatives.

Milestones	Rationale
<p>MRW I: (modified) Legislation has been modified to support more Environmentally Preferred Purchasing (EPP), a program to track EPP purchases is in place, and sales of EPP goods and services are increasing. (same as IND O)</p> <p>Statement of action: The approach will include:</p> <ul style="list-style-type: none"> ▪ An intergovernmental workgroup has reviewed state and local purchasing laws, regulations and practices, and identified barriers to environmentally preferable purchasing. ▪ Recommendations for changes to laws, regulations and practices are made to the agencies and state legislature as needed. ▪ Increased technical assistance to state grantees and state and local agencies result in greater promotion and sales of EPP goods and services. 	<p>The lowest responsible bidder laws have been a significant barrier to implementation of EPP purchases due to possible vendor protests and litigation. Currently, progress in EPP cannot be measured due to lack of required reporting by governments. An opportunity exists to significantly increase the purchase of EPP products in Washington State by following the lead of several local governments (King County, City of Seattle, Spokane, Whatcom County) that are cutting edge practitioners in EPP.</p>

Recommendation MRW 8: (modified) Ensure MRW and hazardous substances are regulated according to hazards, toxicity, and risk.

Milestones	Rationale
<p>MRW J: (modified) Program staff has researched regulatory change strategies for preventing threats from MRW and hazardous substances. The agency is moving in the recommended direction.</p> <p>Statement of action: Staff from HW and SW will analyze the effect of larger, prevention-focused, system-change efforts on the MRW regulatory structure, and whether we need smaller regulatory changes.</p> <p>The larger system-change efforts include a Product Stewardship framework, using the PBT and Children's Safe Product chemical lists, product disposal bans, potential statutory adjustments, as well as information on MRW threats in WA state (MRW12) to determine products of focus.</p>	<p>There is a need to focus on analyzing various methods, including product -based preventive approaches, for addressing threats from MRW and hazardous substances. There may also be opportunities to manage less-hazardous waste in a more cost-effective manner. This Recommendation is related to MRW 12.</p>

Recommendation MRW 9: (unchanged) Fully implement local hazardous waste plans.

Milestones	Rationale
<p>MRW K: (modified) Local hazardous waste plans are up to date and being fully implemented in accordance with Chapter 70.105 RCW and the new local hazardous waste planning guidelines. Full implementation includes all six required program elements, which are:</p> <ol style="list-style-type: none"> 1. Public Education 2. Business Technical Assistance 3. HHW Collection 4. CESQG Collection Assistance 5. Enforcement 6. Used Oil Collection and Education 	<p>A 2007 compilation of local HW plans showed that not all local jurisdictions are up-to-date or fully implementing the required six program elements of their local HW Plans. As such, this recommendation should remain and the milestone language should include the six required elements.</p>

Recommendation MRW 10: (unchanged) Ensure facilities handling MRW are in compliance with environmental laws and regulations.

Milestones	Rationale
<p>MRW L: (modified) MRW facilities, including treatment, storage and disposal facilities handling MRW, are in compliance with Chapter 173-350 WAC. The facilities reuse or recycle an increasing proportion of MRW.</p>	<p>This modified milestone focuses more on MRW within the SW regulatory system and provides direction regarding more desirable waste management methods (recycling and reuse).</p>

Recommendation MRW 11: (new) Educate the public and businesses on proper use, storage and disposal of hazardous products and wastes. Encourage safer alternatives to minimize toxic threats, especially to vulnerable populations. (Same as IND 14)

Milestones	Rationale
<p>MRW M: (new) Statewide education that minimizes toxic threats is in place and complements local and regional efforts. (Same as IND P)</p>	<p>We need a statewide effort to maximize the effectiveness of education efforts. Products are a significant source for toxic chemicals getting into the environment generally and Puget Sound specifically. Additionally, the public can help drive demand for EPP products. Local governments and others have been requesting renewed assistance for coordinated educational programs that result in behavior change in MRW management.</p>
<p>MRW N: (new) Fewer toxic products are purchased, misused and/or disposed improperly and the public is more aware of what chemicals are in products. (Same as IND Q)</p>	<p>The public needs to know what is in products so they can choose the safest product to meet their needs, and handle it properly.</p>

Recommendation MRW 12: (new) Develop and implement a strategy for a more regionally focused MRW program by evaluating the most significant threats and effective approaches, including safer alternatives, to reducing those threats.

Milestones	Rationale
<p>MRW O: (new) A strategy has been developed, based on existing and new studies, and is being implemented.</p> <p>Statement of Action: Analyze existing studies, and evaluate and fill in gaps to provide an integrated statewide and regional MRW implementation strategy. The analysis will include threats to people and places from MRW use and disposal in Washington State by watershed or a similar regional basis. In cooperation with local governments, develop a strategy to guide work on MRW, including:</p> <ul style="list-style-type: none"> - Providing information for the statewide education program. - Supplementing local educational materials. - Targeting CPG and PPG grant awards. - Specifying local source control specialist duties. - Providing guidance and/or regulatory interpretation on handling and disposing of specific materials. - Considering product bans or other statutory changes - Selecting sector campaigns. 	<p>The purpose of this strategy is to better focus our MRW efforts. This will include work that parallels the Oregon household hazardous waste priorities study as well as building on work associated with the Children’s Safe Products Act, Puget Sound Partnership, Safer Chemical Alternatives research, PBT and Lead Chemical Action Plans, and MRW Recommendation #1. An integrated statewide approach will also consider local variations of population density, vulnerable watersheds, and toxic product use patterns to provide statewide and local focus.</p>

Increasing Recycling for Organic Materials

YEAR 2035 GOALS

1. ROBUST MARKETS

2. SOCIETY SUPPORTS A SUSTAINABLE ORGANICS CYCLE

3. CLOSED-LOOP MATERIALS MANAGEMENT

Recommendations (All Unchanged)

ORG 1 - Lead by example in government.

ORG 2 - Increase residential and commercial organics recovery.

ORG 3 - Improve quality of recycled organic products.

ORG 4 - Develop a strategy to increase industrial and agricultural organics recovery.

ORG 5 - Propose solutions to statutory and regulatory barriers.

ORG 6 - Develop new products and technologies for organics residuals.

Milestones	Rationale
<p>ORG A: (unchanged) Strategy for increasing agriculture and industrial organics recycling is being implemented. Relates to Recommendation 4.</p>	<p>Organics from agricultural and industrial sources represent a large portion of wasted or under-utilized resources. The strategy being co-developed by the Cross Agency Bioenergy Team is a work in progress and momentum must be maintained.</p>
<p>ORG B: (unchanged) Effective incentives for organics recycling identified and pursued. Relates to Recommendations 2, 4, 5, and 6</p>	<p>As our economic, environmental and political climate changes, state and local governments will continue to identify and implement more effective incentives to improve organics recycling. As Organic Waste to Resources funding is available, we will continue to support research and development of effective processes. Currently, staff are working with anaerobic digester proponents to develop a streamlined permitting process.</p>
<p>ORG C: (unchanged) Home composting programs are active and successful in every county. Relates to Recommendations 2 and 3.</p>	<p>This milestone was not met, yet remains a cornerstone to the Organic Initiative 30 year goal of “Society supports a sustainable organics cycle.” An educated, active public will also create a demand for high quality commercial organic products.</p>
<p>ORG D: (modified) Strategies have been proposed and actions are in place to improve the quality of recycled organic products. Relates to Recommendation 3.</p>	<p>Product labeling requirements may be one of the strategies to improve quality of product, but it must be combined with consumer education and market development. Using compost quality reports submitted by composters, we can establish a quality baseline which will help us measure the effectiveness of any strategies proposed.</p>
<p>ORG IE (modified) Most people (government, business and the public) understand benefits of healthy soils. Relates to Recommendations 1, 2, and 3.</p>	<p>Supporting ‘healthy soil’ education and programs benefits several Beyond Waste Initiatives, including Organics, MRW, and Green Building. Healthy soils also play a significant role in protecting Puget Sound and waterways around the state (through water conservation and erosion control), and mitigating climate change.</p>

<p>ORG F: (unchanged) A plan to address statutory and regulatory barriers to closed-loop organics recycling is widely supported.</p> <p>Relates to Recommendations 2, 4, 5, and 6.</p>	<p>This milestone is closely linked with Milestone F. Already, some regulatory barriers have been identified and are being addressed; reducing regulatory barriers, while maintaining a “closed loop” perspective, will be the necessary incentive for some operators to increase organics recycling.</p>
<p>ORG G: (new) A hierarchy has been created for residual organic material processing and uses. The hierarchy considers social, economic and environmental impacts of the organic waste to resource process.</p> <p>Relates to Recommendations 2, 4, and 6.</p>	<p>An evaluation of an organic material’s value, relative to the product that is created through different processes will help focus policy and funding efforts. Through Cross Agency Bioenergy Team participation on the Climate Action Team Implementation Working Groups, recommendations to support this hierarchy are already in place.</p>
<p>ORG H: (new) A strategy has been developed and promoted to increase soil carbon sequestration using recycled organic materials.</p> <p>Relates to Recommendations 2, 4, and 6.</p>	<p>The Agricultural Climate Action Team Implementation Working Group recommends adding carbon rich organics to the soil as one of the easiest ways to sequester carbon and build soil health. A possible incentive to increase carbon sequestration on agricultural land includes developing a carbon credit market for farmers.</p>
<p>ORG I: (new) Technical assistance, research and/or capital expense funds support the development of at least two biomass-to-energy and co-products “organic refinery” projects.</p> <p>Relates to all Recommendations.</p>	<p>New technology and project development needs state support (regulatory and financial), to be viable in the short time frame envisioned by the state.</p>
<p>ORG J: (new) Technical assistance, research, and/or capital expense funds support the development of at least two biomass-to-fuel and co-products “organic refinery” projects.</p> <p>Relates to all Recommendations.</p>	<p>New technology and project development needs state support (regulatory and financial), to be viable in the short time-frame envisioned by the state.</p>
<p>ORG K: (new) Organics recovery (including landscaping and food scraps) occurs in 50% of all state and local government buildings and institutions, including the Capitol Campus. Require state, local agencies and institutions to use compost as a landscape management tool to reduce pesticide and water use.</p> <p>Relates to Recommendations 1 and 2.</p>	<p>State and local agencies (not just Ecology) should be modeling desired behavior. Food scraps from institutions such as prisons and schools often equal 50% or more of their daily waste. Capturing these food scraps for recycling would dramatically decrease waste in landfills and methane emissions from uncontrolled anaerobic decomposition. Support from Operations and Management divisions to change job descriptions and add training, will facilitate organics collection and processing through janitorial contracts.</p>
<p>ORG L: (new) Statewide recycling of organics is standard practice, supported by efficient collections and increased infrastructure.</p> <p>Relates to Recommendation 2.</p>	<p>The Climate Action Team recommends requiring organics recovery and processing. Supporting infrastructure development provides opportunity for some communities to collect organics for recycling.</p>
<p>ORG M: (new) Major retailers promote the use of non-synthetic, natural yard care and pest control products, including compost.</p> <p>Relates to Recommendation 3 and overlaps with EPP and MRW.</p>	<p>Synthetic pesticide and fertilizer use may contaminate organic residuals collected for recycling. While increasing education for consumers is imperative to establish a demand for alternatives to synthetic pesticides and fertilizers, the opportunity to purchase the alternatives must also exist.</p>

Making Green Building Practices Mainstream

YEAR 2035 GOALS

1. GREEN BUILDING PRACTICES ARE MAINSTREAM

2. REUSE OF BUILDINGS AND RECYCLING OF CONSTRUCTION MATERIALS ARE NORMAL BUSINESS PRACTICES

3. BUILDINGS AND MATERIALS ARE DESIGNED FOR HUMAN, ECONOMIC AND ENVIRONMENTAL HEALTH

Recommendations – All Unchanged (except for adding commercial buildings to GB 5)

GB 1 - Coordinate and facilitate partnerships to implement the green building action plan.

GB 2 - Lead by example in government.

GB 3 - Provide incentives that encourage green design, construction, and deconstruction, and begin removing disincentives.

GB 4 - Expand capacity and markets for reusing and recycling construction and demolition materials.

GB 5 - Provide and promote statewide residential and commercial green building programs.

GB 6 - Increase awareness, knowledge and access to green building resources.

GB 7 - Encourage innovative product design.

Milestones	Rationale
GB A: (modified) Washington continues to be a leader in green building.	Washington is already a leader in green building. It is important we continue to push the envelope for the built environment to become even more sustainable.
GB B: (modified) All new state-funded buildings continue to meet or exceed green building requirements.	Due to funding and educational limitations, we need to continue to work with agencies affected by the State’s green building mandate to ensure they have tools to meet or exceed the requirements within the budgets they have been allocated.
GB C: (modified) Government continues to identify and remove regulatory barriers to green building.	The built environment offers potential solutions to a number of environmental challenges. It is important we continue to remove regulatory barriers that could prevent green building from becoming mainstream practice.
GB D: (modified) 10% of all certified green building projects achieve credits for the use of salvaged materials; the use of existing building stock; and/or at least 75% waste diversion during construction.	The waste reductive capacity of green building promises thousands of green jobs across Washington. Continued efforts are needed to build markets for salvaged and recycled building materials. It is also important for the construction industry to see the importance of an expanded recycling infrastructure in the State.
GB E: (modified) Green buildings occupy 15% of the total market share for new construction in Washington.	Increasing market share is one of the most quantifiable means for seeing the efficacy of outreach and education efforts. This growth is a key measure of our success.

<p>GB F: (modified) Washington offers degree and certificate programs in green building-related trades statewide.</p>	<p>Building a green economy and creating green jobs is dependent on a work-force that is knowledgeable on the installation and maintenance of cutting edge green technologies. Students must be provided tools in school to enter the green work-force. Washington has an opportunity to lead the country with the development of green curriculum in the trades.</p>
<p>GB G: (new) At least five buildings are built to the Living Building standard in Washington.</p>	<p>The Living Building standard was developed by the Cascadia Region Green Building Council. It is a carbon neutral building standard. As we continue to reach toward climate change mitigation, the Living Building is the next step in the built environment.</p>
<p>GB H: (new) At least 50% of all local governments in Washington have adopted green building policies or incentives.</p>	<p>If green building is to be mainstream in Washington State, governments must see the importance of these practices for their own projects. Encouraging local governments to require green building helps them lead by example in the communities they serve.</p>
<p>GB I: (new) A certification system for green building materials effectively provides verification that products are manufactured in compliance with product stewardship and sustainability principles.</p>	<p>Currently, there is tremendous confusion in the market place as to what exactly is a green product. To ensure quality and eliminate green-washing, a third-party verification that addresses key environmental factors in the manufacture and sale of products is essential.</p>
<p>GB J: (new) Authorities adopt policies that require low-impact development (LID) strategies to be integrated into building design and maintenance.</p>	<p>Low-impact development strategies, a green building tool central to effective storm-water management, can help meet Puget Sound Partnership goals. LID techniques also help further organics management goals.</p>
<p>GB K: (new) Energy use in public buildings meets or exceeds Architecture 2030 goals.</p>	<p>To meet Climate Change goals, publicly owned and operated buildings must reduce energy use to the greatest degree possible. The public sector has the responsibility to lead by example and demonstrate to Washington residents that our goals are achievable.</p>

Measuring Progress Towards Beyond Waste

YEAR 2035 GOALS

1. A PERFORMANCE-INDICATOR SYSTEM HAS BEEN DEVELOPED TO MEASURE PROGRESS TOWARD BEYOND WASTE
2. DATA GAPS HAVE BEEN IDENTIFIED, SIGNIFICANCE DETERMINED AND GAPS FILLED IN
3. EXISTING DATA COLLECTION HAS BEEN STRENGTHENED AND SUPPLEMENTED

These are all new as all recommendation and milestones for the first 5 years of the plan were met.

Recommendation DATA 1: (new) Consolidate all related and useful data collection efforts in both solid waste and hazardous waste programs and develop a comprehensive data tracking and evaluation system for Beyond Waste and other environmental activities.

Milestones	Rationale
DATA A: (new) The majority of solid and hazardous waste staff work plans include ties to indicators. The agency sees indicator work as tied in with performance measures.	It is important for staff to understand how their works fits in with the BW Plan. This will help with BW implementation.
DATA B: (new) A waste characterization study is completed every 4 years. (same as SW F)	It is critical to understand what remains in landfills, not just what is reported as recycled, so we can determine where to focus our future efforts. Solid waste composition studies provide valuable information to government and private sector managers and planners. When evaluated with waste volumes, composition information helps determine the total availability of materials for recycling, helps determine waste stream quality, provides data for trends analysis to determine effectiveness of waste reduction and recycling programs, and gives a look at consumer preferences. Waste characterization studies should be done every 4-5 years, due to growing population, changing demographics and behaviors. Studies will provide a benchmark for many of the Beyond Waste indicators and allow us to determine recycling and diversion rates for individual materials.

Recommendation DATA 2: (new) Update and review existing indicators on an annual basis. Develop and implement an evaluation process for all working indicators. Eliminate non-useful/non-viable measures, and/or add potential new measures.

Milestones	Rationale
DATA C: (new) An evaluation process and recommendations for working indicators are in place.	Evaluate the indicators at least every 5 years. Determine if they are still adequately answering key questions on BW progress or whether we need new or different indicators.

Recommendation DATA 3: (new) Indicators, when viewed as a whole, give us a clear picture of progress towards Beyond Waste.

Milestones	Rationale
DATA D: (new) Use indicators to drive policy—inside and outside the agency---by adequate analysis of the underlying trends and projections. Connect indicators upwards to other program or agency measures, and downwards to staff work plans, and establish relevant goals.	This is the overall goal of the BW progress report. It is important to evaluate whether this goal is met.

Recommendation DATA 4: (new) Continue to expand communication strategy for Beyond Waste Progress Report within Ecology and externally.

Milestones	Rationale
DATA E: (new) The progress report receives publicity both internally and externally.	The progress report is an important communication tool for the Beyond Waste Plan. A marketing strategy would increase the audience and impact of the indicators.

Recommendation DATA 5: (new) Enhance the Consumer Environmental Index (CEI).

Milestones	Rationale
DATA F: (new) Annual updates of the CEI as it currently exists are completed.	The CEI model is a complex and comprehensive tool that focuses on consumer spending patterns and their impacts. As consumer spending changes and drives the markets and thus manufacturing, the model tracks the impacts “up-the-pipe” to demonstrate impacts of changes in consumers’ behaviors. The CEI model draws on various data sources which need to be updated on an annual basis to maintain the CEI-related indicators in their present form.
DATA G: (new) A strategy to enhance the CEI is in place and enhancements are in progress.	The CEI model is a complex and comprehensive tool that focuses on consumer spending patterns and their impacts. The CEI was conceived as to be expandable and as more data becomes available new line items can be added. To complete this model, new house construction, government spending, and agricultural impacts and spending patterns need to be added in the future.

Current Hazardous Waste System Issues: Pollution Prevention (P2)

YEAR 2035 GOALS

1. PLAN EARLIER

2. MORE IMPLEMENTATION

3. PLAN BETTER

4. BETTER ACCESS

Recommendation HW 1: (modified) Encourage P2 planners to address hazardous substance use including toxicity and risk in their plans. Additionally, encourage P2 planners to address EPP, solid waste, and water reductions.

Milestones	Rationale
HW A: (unchanged) Most P2 plans comprehensively address hazardous substance use.	Ecology has done a lot of work on addressing how to incorporate hazardous substance use into the P2 planning process, including involving outside stakeholders as part of the Toxics Reduction Advisory Committee (TRAC). We now need to work to implement the TRAC recommendations.

Recommendation HW 2: (modified) Develop guidance on acceptable EMS and environmental reporting systems.

Milestones	Rationale
HW B: (modified) Guidance on acceptable EMS and environmental reporting systems has been developed.	There is still a need for guidance on the EMS and environmental reporting systems.

Recommendation HW 3: (modified) Improve P2 plan quality and relationships with P2 planners, including work to ensure P2 plans are implemented.

Milestones	Rationale
HW C: (modified) Most P2 planners design and implement high quality plans. Relationship with P2 planners continues to improve.	We need to do more work to ensure these high quality plans are implemented. Strong relationships with P2 planners will assist with both the development of high quality plans as well as with P2 plan implementation.

Recommendation HW 4: (new) Encourage P2 planners to develop an energy management program to identify and implement conservation measures or renewable energy opportunities that lead to greenhouse gas reduction.

Milestones	Rationale
HW D: (new) The majority of P2 planners implement effective energy management and related measures that result in continuous improvement opportunities and emissions reductions.	When a facility is examining P2 possibilities, it makes sense to also examine energy conservation and related measures since the two are often connected. This would naturally be done via an EMS or a sustainability plan. Ecology should encourage actions that lessen climate change impacts and other conservation measures whenever possible.

Current Hazardous Waste System Issues: Compliance with DW Regulations

YEAR 2035 GOALS

1. BUILD ON EXISTING RELATIONSHIPS

2. IMPROVE INFORMATION AVAILABILITY

3. PROMOTE RECYCLING

Recommendation HW 5: (new) The number of local and state compliance inspectors will increase so staffing levels are sufficient to inspect LQGs and MQGs every 3 years and to provide most counties with local source control inspectors.

Milestones	Rationale
HW E: (new) Compliance violations are lower for sites re-inspected within three years, than at sites not re-inspected for more than five years.	Studies show more frequent inspections result in fewer compliance violations. If we are going to clean up Puget Sound and other Washington waters, it is essential more inspections are conducted. According to studies, a consistent 3 year inspection schedule should increase compliance.

Recommendation HW 6: (new) Additional user-friendly information is available to inspected facilities on how to comply with the Dangerous Waste regulations (tools include web, web training, training or inspectors, etc).

Milestones	Rationale
HW F: (new) Businesses use the additional compliance information available and have a better understanding of compliance with the regulations.	As the number of businesses in the state grows due to population growth, we need more efficient ways to disseminate accurate compliance information.

Recommendation HW 7: (new) Work towards safer management of SQG (small quantity generator) wastes. Various optional approaches should be considered.

Milestones	Rationale
HW G: (new) Fewer environmental problems result from how SQG's manage their wastes.	SQG wastes can be as toxic and dangerous as LGQ wastes; they are just generated in smaller quantities. Since there are fewer rules and oversight of these wastes, there is great potential for mismanagement and resulting environmental problems. We need to explore better ways to manage these wastes.

Current Hazardous Waste System Issues: Permitting/Corrective Action

YEAR 2035 GOALS

1. ENSURE FULL FINANCIAL RESPONSIBILITY

2. ACQUIRE MORE TECHNICAL ASSISTANCE

3. EDUCATE THE PUBLIC

4. TRANSFORM EXISTING TSDS

Recommendation HW 8: (new) Ecology management will work with appropriate local health authorities to gain greater oversight for Treatment, Storage and Disposal facilities (TSDs) currently permitted in part by local government.

Milestones	Rationale
HW H: (new) Ecology staff can inform the public that an entire TSD operates in a safe manner, not just the state permitted sections of a TSD.	To ensure adequate environmental protection and to make sure future problems do not arise, Ecology needs more oversight authority for TSD's that are permitted by local government.

Recommendation HW 9: (new) Ecology staff continues to ensure all state permitted TSD's are operated in a safe manner.

Milestones	Rationale
HW I: (new) No new Corrective Action (CA) sites are created at permitted TSDs and hazardous waste facilities.	We need to break the cycle of on-going clean-ups and prove to others it can be done.

Recommendation HW 10: (new) Ecology continues to make progress on the goal to have environmental contamination under control at HWTR permitted corrective action sites by 2020.

Milestones	Rationale
HW J: (new) Ecology is on track to have environmental contamination under control at 95% of the HWTR permitted corrective action sites by 2020.	The goal is to have final cleanup remedies constructed by 2020 at 95% of the facilities believed to need CA. This is Ecology's agreement with EPA. It makes sense to include in the state's long-term plan.

Recommendation HW11: (new) Ecology staff, through technical assistance and permitting authority, will work to encourage safe hazardous waste recycling at TSD facilities. This includes ensuring that current recycling is being done in a safe manner, as well as encouraging additional recycling.

Milestones	Rationale
HW K: (new) All existing facilities that recycle hazardous waste comply with existing environmental regulations.	In the past some hazardous waste recycling facilities caused environmental problems and even became Superfund sites. We need to ensure the environment is protected at existing hazardous waste recycling facilities.

HW L: (new) More recycling opportunities exist at TSD facilities (including used oil processors and recyclers) and facilities do this additional recycling a safe manner.

We need additional hazardous waste recycling to reach our goal of Beyond Waste.

Current Solid Waste System Issues: SW Authorities and Local Planning Issues

YEAR 2035 GOALS (NEW)

1. Local plans and programs prioritize waste reduction.

2. The solid waste regulatory structure facilitates eliminating wastes and toxics.

Recommendation SW 1: (unchanged) Encourage inclusion of Beyond Waste into local plans.

Milestones	Rationale
SW A: (modified) Reducing the volume and toxicity of waste is a goal of all solid waste plans. At least 75% of planning jurisdictions have implemented activities in at least one initiative or issue area, and 50% of planning jurisdictions have implemented activities in two or more initiative or issue areas (green building, EPP, organics, etc.).	Keep intent; update goal based on progress and planner's suggestions.

Recommendation SW 2: (unchanged) Revise local planning guidelines.

Milestones	Rationale
SW B: (modified) Solid waste planning guidelines are up to date and concurrent with the Beyond Waste vision, principles, and RCW 70.95.010.	Keep intent; update language to reflect that revising guidelines may not be a one-time occurrence (or may not be done before the plan update is out).

Recommendation SW 3: (unchanged) Expand assistance to local planning jurisdictions.

Milestones	Rationale
SW C: (modified) Locals tap into well-trained and highly skilled TA staff proficient in planning, Beyond Waste priorities, and local issues and opportunities.	Keep intent; update language to include a more comprehensive planning approach.

Recommendation SW 4: (unchanged) Collaborate with local government.

Milestones	Rationale
SW D: (modified) Incentives are built into the Coordinated Prevention Grant (CPG) program to leverage implementation of high priority BW projects, local plans that incorporate Beyond Waste, and assistance to transition planning jurisdictions towards the BW vision.	Keep intent; but add focus on helping smaller jurisdictions with transitional BW projects.

Recommendation SW 5: (unchanged) Ensure responsibilities are clear.

Milestones	Rationale
SW E: (modified) Solid waste laws and regulations are being updated to support the Beyond Waste Vision.	Keep intent; but change timeframe. Amending and creating new regulations will be a long-term endeavor.

Current Solid Waste System Issues:

Waste Reduction, Recycling and the Technical Nutrient Cycle

YEAR 2035 GOAL (NEW)

1. Materials in the technical nutrient cycle are continually recycled in closed-loop systems.

Recommendation SW 6: (unchanged) Characterize Washington's solid waste streams.

Milestones	Rationale
SW F: (modified) A waste characterization study is completed every four years. (same as DATA B)	To enhance waste stream analysis, it is crucial to understand what remains in landfills, not just what is being recycled.

Recommendation SW 7: (modified) Plan for a stronger recycling system and technical nutrient cycle, to increase green jobs, promote local manufacturing with recycled feedstock, and reduce greenhouse gas emissions.

Milestones	Rationale
SW G: (modified) A strategy is in place for strengthening the technical nutrient cycle. This supports sustainable products, producer responsibility and a sustainable economy.	The term technical nutrient cycle needs clarification, which will be done in the glossary. We want to increase the connection between product stewardship, EPP and the technical nutrient cycle. This will also lead to a more sustainable economy and provide green jobs.
SW H (new) All state agencies and other governments recycle.	There is still room for state agencies and other governments to lead by example.
SW I: (new) Statewide recycling is standard practice for commercial and residential generators, supported by efficient collection and increased infrastructure.	In addition to working on the advanced technical nutrient cycle, we need to strengthen the existing recycling system. Mandatory recycling, in areas with sufficient populations and access to markets, was proposed by the Climate Action Team BW Implementation Working Group. Recycling is an important strategy to reduce greenhouse gas emissions.

Recommendation SW 8: (new) Encourage manufacturers, retailers and other businesses to reduce packaging materials and wastes.

Milestones	Rationale
SW J: (new) At least two manufacturers or retailers have made efforts to reduce packaging.	This is a recommendation of the CAT BW Implementation working group. Also there was much cal from staff to increase our focus on packaging.

Recommendation SW 9: (new) Educate the public and business on the benefits and practice of waste reduction and recycling.

Milestones	Rationale
SW K: (new) Education efforts that promote waste reduction and recycling are in place and complement local and regional efforts.	Both staff and locals) have called for more focus on education.

Current Solid Waste System Issues: Disposal—Yesterday, Today, and Tomorrow

YEAR 2035 GOALS

1. CLOSED LANDFILLS ARE ADDRESSED 2. LANDFILLS MEET COMPLIANCE REQUIREMENTS 3. FACILITIES ARE STATE-OF-THE-ART 4. DISPOSED MATERIALS ARE RECOVERED

Recommendation SW 10: (modified) Identify closed and abandoned **landfills** statewide.

Milestones	Rationale
SW L: (modified) All jurisdictional health departments have a completed inventory of closed and abandoned landfills.	Keep this milestone, but clarify in the glossary which landfills qualify as closed and abandoned (pre-304). Added focus on jurisdictional health departments as the leaders on this effort. Notification of property owners was moved to the next milestone.
SW M: (modified) Closed and abandoned landfills have been marked on official records, and all property owners have been notified.	Procedures to mark sites on official records will likely be unique to each jurisdiction so focus was taken off developing one method. Added notification of property owners from above milestone. Also, clarify in the glossary which landfills qualify as closed and abandoned (pre-304).

Recommendation SW 11: (modified) Evaluate and prioritize problems at closed **and abandoned landfills**.

Milestones	Rationale
SW N: (modified) Jurisdictional health departments have developed lists of prioritized closed and abandoned landfills and their problems.	No action yet on milestone; but the intent is still pertinent. Added focus on jurisdictional health departments as the leaders on this effort. The term “problems” was purposefully left broad.

Recommendation SW 12: (modified) Develop feasible and responsible processes for addressing priority **closed and abandoned landfills**.

Milestones	Rationale
SW O: (modified) Processes for addressing priority closed and abandoned landfills are developed with at least one pilot cleanup site underway.	No action yet on milestone; still pertinent as written.

Recommendation SW 13: (modified) Identify funding to address priority **closed and abandoned landfills**.

Milestones	Rationale
SW P: (modified) Cost estimates for addressing highest priority closed and abandoned landfills cleanup sites have been developed, along with a list of funding options.	No action yet on milestone; still pertinent as written.

Recommendation SW 14: (unchanged) Ensure that existing disposal facilities comply with requirements.

Milestones	Rationale
SW Q: (modified) Regulators conduct evaluation of compliance and financial assurance on a regular basis. Action plans are in place to bring non-compliant facilities into compliance	Clarify intent of the action plan. Clarify in glossary that this milestone is for 304, 350, 351, and exempt landfills, both open and closed.

Recommendation SW 15: (unchanged) Continually reduce disposal and transfer impacts on human health and the environment, Coordinate with efforts on climate change, Puget Sound and other Washington waters, and reducing toxics threats work.

Milestones	Rationale
<p>SW R: (modified) Research and recommendations on long-term disposal and transfer impacts and requirements is ongoing.</p> <p>Statement of Action: Proposed specific steps include:</p> <ul style="list-style-type: none"> • Addressing emerging disposal impacts of new materials and new information regarding disposal impacts. • Establishing a schedule to regularly assess disposal and transfer facility requirements and propose changes, as needed, to ensure adequate public health and environmental protection. • Having a regularly updated inventory of disposal and transfer infrastructure, including environmental impacts. 	Clarification is needed on this recommendation and milestone. Many of the specific steps listed under the current recommendation are. Proposed changes are more in line with the background paper, which focused on disposal infrastructure, emerging unsafe materials, and re-examining disposal requirements.

**Current Solid Waste System Issues:
Financing Solid Waste for the Future**

YEAR 2035 GOAL (NEW)

1) A stable and long-term solid waste financing system is in place

Recommendation SW 16: (unchanged) Evaluate financing for the solid waste system, including moving towards Beyond Waste, in consultation with SWAC and interested parties.

Milestones	Rationale
SW S: (modified) Another report has been developed with State SWAC, or other similar group, providing options and recommendations for financing the solid waste system, and waste reduction and recycling programs in particular, in support of the Beyond Waste vision.	Emphasize moving to the next stage of the research to find a variety of finance system options that meet the needs of stakeholders.