

# 2011 Stakeholder Outreach and Responsiveness Summary

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## *Proposed Construction and Demolition Recommendations in Seattle's Comprehensive Solid Waste Management Plan*

### **1 Introduction**

In September 2011, Seattle Public Utilities (SPU) coordinated a series of stakeholder presentations to notify and gather feedback from construction trade associations, property managers, recycling haulers and processing facilities about proposed recommendations for new construction and demolition (C&D) recycling programs and requirements. The suite of proposed recommendations will work towards the goal of increasing the recycling rates of C&D materials in Seattle from the current rate of 61% to 70% by 2020. The recommended programs and requirements are included in SPU's draft *Comprehensive Solid Waste Management Plan – Picking up the Pace Toward Zero Waste*, and include the following:

- Continue promotional and technical support for industry-driven programs such as LEED and Built Green
- Continue promotion of deconstruction as an alternative to demolition
- Expand support for voluntary salvage assessment services
- Implement an 'advanced' recycling facility certification program, in cooperation with local industry and other solid waste planning jurisdictions
- Phase in a disposal ban for targeted recyclable C&D materials as end markets become well established (metal, cardboard, clean wood, carpet, plastic film wrap, new construction gypsum scrap, tear-off asphalt roofing shingles)

This package of programs was approved by the SPU and Department of Planning and Development (DPD) Directors and the Mayor's Offices, but needed an in-depth stakeholder discussion as part of the required Draft Comprehensive Solid Waste Management Plan public review process.

### **2 Goals**

The primary goals of the 2011 stakeholder engagement process included the following:

- Identify and implement effective mechanisms for informing stakeholders of the recommendations and gathering their input
- Identify and conduct outreach to a comprehensive group of target audiences including the following professions and trade associations that represent them:
  - construction and demolition contractors
  - roofing contractors
  - haulers
  - processing facilities

- property cleanup companies
- carpet manufacturers, carpet distributors, installers and flooring contractors
- property managers
- end users of recycled construction materials
- Gather feedback on the feasibility, timing and adequacy of recycling end markets for proposed individual material disposal bans

In addition to these primary goals, SPU also identified an opportunity to collaborate with King and Snohomish Counties to present a cross-jurisdictional picture of goals, strategies and requirements for increasing C&D recycling in the greater region. This opportunity supported secondary goals of creating clarity about C&D requirements for businesses that work in the City and both Counties in a streamlined and efficient manner.

### **3 Outreach Tools and Tactics**

At the initiation of the stakeholder engagement process, a variety of outreach tools and tactics were considered and reviewed to identify those that would reach the greatest number of stakeholders effectively. The following describes the process in selecting outreach tools and tactics; the selected mechanisms, those that were considered but not selected, and project tools and marketing.

#### **3.1 Outreach Planning Meetings**

SPU worked with a consultant team to assess, organize and implement the outreach process. At a kickoff meeting with SPU, the team identified the target audience groups and reviewed a variety of possible outreach strategies, including the following:

- A series of presentations with an overview of general recommendations and a focus on individual targeted banned materials
- A combined forum presentation covering general recommendations and all targeted banned materials
- Short presentations at existing industry events or meetings
- Newsletter articles to relevant industry journals or trade associations
- A live and recorded webinar or webinar series
- Website with comment form or survey to collect feedback
- Different methods of reaching the target audience, including direct emails, emails to various industry distribution lists and phone calls

At the initial meeting the team also identified the opportunity to include a multi-jurisdictional approach and invited representatives from King and Snohomish County to participate as presenters.

Subsequent planning meetings confirmed the following outreach mechanisms:

- A half-day forum covering general recommendations and all targeted banned materials
- Shorter presentations at industry events or trade association meetings (length of time dependent on meeting schedule availability)

- Newsletter articles
- Website with short survey to collect feedback

The team decided that the single forum approach was the most efficient way to share information with a diverse group of stakeholders. Shorter presentations would also be given to interested construction trade associations and newsletter articles would be created to advertise the presentations. A short survey for “C&D Professionals” would be created as part of the general public survey posted on the SPU website page for the draft Solid Waste Plan.

Prior to the forum event, the full team, including SPU, DPD, representatives from King and Snohomish Counties, and the consultant met to review the draft Power Point presentation and discuss how the presentation could be modified for shorter presentations.

### 3.2 Scheduling and Marketing Outreach Activities

The SPU and consultant team scheduled the half day forum for September 29<sup>th</sup> at the Associated General Contractors of Washington (AGC) offices in Seattle, which offered a convenient location, parking, and built-in event advertising through the AGC Education Foundation. The late September date was selected as it allowed ample time for marketing the event while still providing time for forum participants to formally submit comments to SPU on the draft Solid Waste Plan.

In early July, SPU and the consultant team began contacting trade organizations to identify opportunities to deliver presentations about the proposed recommendations at regularly scheduled events, learn of opportunities to notify members through newsletters, and to notify the organization about the September 29<sup>th</sup> half day forum. The table below shows all industry organizations contacted through the marketing phase of the project:

<b>Organization</b>	<b>Target Audience</b>
<b>American Institute of Architects, Seattle</b>	<i>Architects, Builders</i>
<b>Associated Builders and Contractors</b>	<i>Construction Contractors</i>
<b>Associated General Contractors</b>	<i>Construction Contractors</i>
<b>Building Owners and Managers Association of Seattle King County</b>	<i>Property Managers</i>
<b>Cascadia Green Building Council</b>	<i>Green Building Advocacy</i>
<b>Construction Materials Management Association</b>	<i>Construction Contractors</i>
<b>Master Builders Association of King and Snohomish Counties</b>	<i>Construction Contractors</i>
<b>Northwest EcoBuilding Guild</b>	<i>Green Building Professionals</i>
<b>Northwest Building Salvage Network</b>	<i>Building Salvage and Deconstruction, Haulers</i>
<b>Northwest Wall and Ceiling Bureau</b>	<i>Contractors, Manufacturers, Dealers</i>
<b>Roofing Contractors Association of Washington</b>	<i>Roofing Contractors</i>
<b>Seattle Building and Construction Trades Council</b>	<i>Construction Contractors</i>

Organization	Target Audience
Washington Floor Covering Association	<i>Carpet/Flooring Installers and Manufacturers</i>
Washington State Office of Minority and Women's Enterprises	<i>Construction Contractors, Haulers, Manufacturers</i>

In addition to organizations, phone calls and over 500 emails were sent to the following groups of stakeholders for which an email distribution list or contact roster existed:

- State Women and Minority Business Enterprises (WMBE) list for Construction and Cleanup Companies
- Plastic film generators located in Seattle
- Carpet industry contacts
- 2010 Stakeholder Group (over 25 contacts who participated in stakeholder interviews concerning the proposed C&D regulations in late 2010/early 2011. The group included general contractors for residential, commercial and deconstruction, salvage and reuse businesses, and C&D processing facilities.)
- Affordable Housing Authorities/Organizations (Habitat for Humanity, Enterprise Community Partners, King County Housing Authority, Beacon Development, Interim CDA)
- Junk haulers
- Roofers
- King County LinkUp contacts

### 3.3 Project Documents and Tools

The following documents and tools were developed or referenced as part of the stakeholder engagement process:

#### Developed

- Newsletter articles
- Master Power Point presentation (version for half-day presentation and shorter presentations)
- Targeted end market materials presentation (version for half-day presentation and shorter presentations)
- Website
- Online survey for feedback
- Calendar of events scheduled
- Template announcement/invitation emails
- Roster of presenters from SPU, DPD, King and Snohomish Counties

#### References

- SPU's Draft Comprehensive Solid Waste Management Plan

- Existing stakeholder contact lists/rosters

## 3.4 Summary of Outreach Events and Participation

### 3.4.1 Presentations

Ten presentations were delivered by SPU, with the majority of them supported by King and Snohomish County co-presenters. Around 100 stakeholders attended an in-person event between 6/1/11 and 10/6/11.

<b>Outreach Event</b>	<b>Date</b>	<b>Format</b>	<b>Audience</b>
<b>Seattle Solid Waste Advisory Committee (SWAC)</b>	6/1/11	Presentation: <i>Gabriella Uhlar-Heffner, SPU</i>	8 Participants <i>Citizen advisory committee</i>
<b>Building Salvage Network hosted by Second Use Building Materials (Seattle)</b>	9/7/11	2-hour meeting: <i>Gabriella Uhlar-Heffner, SPU</i> <i>Shirli Axelrod, SPU</i> <i>Tom Gannon, SPU</i> <i>Joel Banslaben, SPU</i> <i>Kinley Deller, King County</i> <i>Michelle Miller, King County</i> <i>Bernard Meyers, Snohomish County</i> <i>Sego Jackson, Snohomish</i>	6 Participants <i>Salvage and Reuse industry business owners/representatives</i>
<b>Master Builders of King and Snohomish Counties (Seattle)</b>	9/14/11	Breakfast Meeting: <i>Gabriella Uhlar-Heffner, SPU</i>	8 Participants <i>Residential builders, contractors, professionals</i>
<b>SPU Utility Services – Key Account Representatives (Seattle)</b>	9/15/11	30 min presentation: <i>Gabriella Uhlar-Heffner, SPU</i>	10 Participants <i>Customer Service Branch</i>
<b>Office of Women and Minority Business Enterprises (OWMBE) (hosted by Small Business Administration in Seattle)</b>	9/20/11	2-hour presentation: <i>Gabriella Uhlar-Heffner, SPU</i> <i>Shirli Axelrod, SPU</i> <i>Tom Gannon, SPU</i> <i>Joel Banslaben, SPU</i> <i>Kathleen Petrie, DPD</i> <i>Kinley Deller, King County</i> <i>Kris Beatty, King County</i> <i>Bernard Meyers, Snohomish</i>	3 Participants <i>Hauler, Construction Contractor, Carpet Installer</i>
<b>State Flooring Association</b>	9/20/11	Brief update during regular meeting: <i>Shirli Axelrod, SPU</i>	100 participants <i>Flooring professionals</i>
<b>Association of General Contractors (AGC) (Seattle)</b>	9/22/11	2-hour presentation: <i>Gabriella Uhlar-Heffner, SPU</i> <i>Tim Croll, SPU</i>	12 Participants <i>Construction Contractors</i>

<b>Outreach Event</b>	<b>Date</b>	<b>Format</b>	<b>Audience</b>
		<i>Shirli Axelrod, SPU  Hans Van Dusen, SPU  Joel Banslaben, SPU  Kinley Deller, King  County  Kris Beatty, King County  Kathleen Petrie, DPD  Bernard Meyers,  Snohomish</i>	
<b>Association of General Contractors (AGC) Education Foundation</b> (Seattle)	9/29/11	5-hour Stakeholder Forum: <i>Gabriella Uhlar-Heffner, SPU  Shirli Axelrod, SPU  Hans Van Dusen, SPU  Kinley Deller, King  County  Kris Beatty, King County  Kathleen Petrie, DPD  Bernard Meyers,  Snohomish  Greg Mackey, Snohomish</i>	25 Participants <i>Building industry stakeholders</i>
<b>Sound Transit</b> (Seattle)	10/5/11	Presentation: <i>Tim Croll, SPU  Vicky Beaumont, SPU  Gabriella Uhlar-Heffner, SPU  Hans VanDusen, SPU</i>	6 Participants <i>Sound Transit engineers and planners</i>
<b>Associated Builders and Contractors of Western Washington (ABC)</b> (Bellevue)	10/6/11	Roundtable Presentation: <i>Gabriella Uhlar-Heffner, SPU  Shirli Axelrod, SPU  Tom Gannon, SPU  Kathleen Petrie, DPD  Kinley Deller, King  County  Sego Jackson,  Snohomish  Greg Mackey, Snohomish  Michelle Caulfield,  Cascadia Consulting</i>	12 Attendees - <i>Construction Contractors, Roofer, Architect, Hauler</i>

### 3.4.2 Newsletter Announcements

<b>Newsletter</b>	<b>Date</b>	<b>Format</b>	<b>Audience</b>
<b>Associated Builders and Contractors of Western Washington (ABC)</b>	8/3/11 9/7/11	Newsletter	<i>Building Industry Stakeholders</i>
<b>Association of General Contractors (AGC)</b>	8/18/11	Education Forum Announcement	<i>Building Industry Stakeholders</i>
<b>Master Builders of King</b>	8/22/11	Newsletter	<i>Building Industry</i>

<b>and Snohomish Counties</b>	and 10/3/11		<i>Stakeholders</i>
<b>NW EcoBuilding Guild</b>	9/7/11	Newsletter	<i>Green Building Industry Professionals</i>
<b>Office of Women and Minority Business Enterprises (OWMBE)</b>	9/7/11	Electronic posting of event	
<b>Roofing Contractors Association of Washington</b>	8/26/11 9/11/11	Newsletter	<i>Roofing Contractors</i>

### 3.4.3 Online Outreach

SPU developed a webpage dedicated to sharing the Draft Comprehensive Solid Waste Plan and collecting feedback. The website, [www.seattle.gov/util/solidwasteplan](http://www.seattle.gov/util/solidwasteplan), was live on August 5<sup>th</sup>, 2011 and included an email link and contact information to submit feedback about the plan recommendations.

### 3.4.4 Media and Press

Several articles from outside authors were published as a result of the outreach efforts, including the following:

- *MBA Comments on Proposed Solid Waste Plan Revisions*, October 3, 2011. Master Builder’s Association ‘Environment’ page. <http://www.masterbuildersinfo.com/index.cfm?/Members/Issue-Advocacy/Environment/page/MBA-Comments-on-Proposed-Solid-Waste-Plan-Revisions>
- *Seattle cutting construction, demolition waste*. October 6, 2011. Seattle Daily Journal of Commerce, by Katie Zemsteff.

## 4 Feedback Collected

The following section summarizes discussions surrounding several key issues addressed during the outreach events. It also includes comments found in individual letters and E-mails sent to SPU during the public comment period. *Those documents have not been reproduced here but can be obtained by contacting Gabriella Uhlar-Heffner of Seattle Public Utilities (SPU) at (206) 386-9772.*

Comments are summarized by the following theme categories:

### Existing Policy

- Use of “90/10” Rule for enforcing “Illegal Hauling” by third party haulers
- Exercise of flow control over disposal of residuals from processing

### Basis for New Policy

- Reliability of Recycling Survey data
- Voluntary versus Non-Voluntary Approaches

## Proposed New Programs

- Applicability of landfill disposal bans
- Need for flexibility
- Cost of compliance for small projects
- Coordination needed between agencies
- Need for permitting and economic development support
- One versus two or multiple collection containers
- Third Party Certification costs to smaller facilities
- Classification of new waste reduction and recycling technologies
- Non-regulatory approaches for encouraging greater recycling
- Focus more on residual from processing and less on facility diversion percentages
- Adequacy of local mixed recycling infrastructure in Seattle

## Proposed New Program Implementation

- Space restraints for multiple recycling containers

## Material Specific Disposal Ban Questions

- Wood – pallet take back program suggestion
- Carpet – specific end market question
- Asphalt Paving– applicability of a landfill disposal ban to gravel pits
- Concrete – specifications may limit use, possible development of stockpiles
- Plastic Film – viability of existing end markets and definition of “clean”
- Tear-Off Asphalt Shingles – existing market oversupply issues and challenges of finding end markets for other types of roofing materials

*SPU responses in highlighted text*

## 4.1 Existing Policy

### **4.1.1 The “90/10 Rule” remains a controversial policy element with stakeholders looking for regulatory approaches that incentivize rather than potentially penalizing recycling activities (From the 9/22 AGC meeting and 9/29 Stakeholder’s Forum):**

In prior C&D stakeholder meetings, the issue of the third party hauling of C&D containers with less than 90% recyclable material in them was prominent. This topic of what constitutes a recycling container that can legally be hauled by a third-party recycler (and not the City-contracted hauler in the case of Seattle or the franchised hauler in the case of Snohomish and King Counties) was again raised particularly during the September 29 C&D Stakeholder Forum which had a diverse audience of recyclers and processors. The “90/10” rule for measuring the amount of contamination in a recycling container was covered under the “Existing Policies and Programs” part of the presentation given by the respective agencies. Audience questions regarding this existing policy in the City of Seattle, King and Snohomish County focused on:

- whether this assessment was based on weight or volume,

- the methods used to calculate the percentage (visual inspection, weighing of loads, etc.),
- how in-depth the inspections were to justify a load that did not meet the 90/10 rule (are bags opened, are loads dumped or just viewed from the top, etc.), and
- the type of training given to inspectors assessing the loads.

In addition, some stakeholders were concerned that there is limited customer protection from a processor claiming that a load does not meet “90/10” rule requirements, or that it contains too much contaminated non-recyclable material.

*County and City staff responded that the inspections of recycling containers are visual: the 90% recyclable content is estimated by volume, not on a weight basis. Problem loads under the 90/10 rule to date are grossly over the 10% ‘incidental’ garbage or non-recyclable C&D threshold, rather than just a few percentage points over the threshold. Containers with more than 10% non-recyclable materials can be either self-hauled by the contractor, or hauled by the City’s contracted hauler of C&D for disposal (or the franchised hauler in the case of King and Snohomish Counties).*

One industry stakeholder commented that hauling oversight is the only way to monitor the 10% rule and meet future facility certification diversion requirements.

#### 4.1.2 Why doesn’t the City of Seattle currently exercise flow control over the residuals from processing? (From the 9/29 Stakeholder’s Forum):

A question was asked why the City of Seattle does not exercise flow control over the residuals from processing which often end up being landfilled in non-designated disposal sites.

*It was explained that currently Seattle, in contrast to Snohomish County, does not currently monitor the destinations for residuals from processing. However, Seattle does tax material bound for disposal, including residuals from processing (plus end-uses not considered recycling or beneficial use such as alternative daily cover or industrial waste stabilizer). With the proposed future disposal bans, there will be more of a focus on the fate of residuals to ensure they do not contain significant amounts of banned materials.*

#### 4.1.3 Our jobsite specifications often require a 75% recycling rate for demolition due to the large amount of concrete often involved. What is a feasible requirement for new construction? (From the 10/5 meeting with Sound Transit staff):

*SPU will research the recovery of different materials on LEED and Built Green job sites and share that data with Sound Transit staff so they can set their recycling rates for different types of projects.*

## 4.2 Basis for New C&D Policies

### 4.2.1 Annual Recycling Survey data reported to the City of Seattle by haulers and processors may not fully reflect the true recycling rate for metal (from the 9/29 Stakeholder’s Forum):

Participants were surprised by the relatively low percentage of metals recycled (51%) as reported to the City of Seattle by processors and haulers for the 2010 Annual Recycling Survey.

It was noted that many contractors and demolition companies recycle, sell, or reuse metals directly from the job site to a metal recycler rather than sending it as part of a mixed or source separated load to processing facilities, because of the high market value of metals.

*It may be that the metal recycling reported by C&D haulers and recyclers is being counted as coming from commercial and not construction site sources. SPU may revise its licensed recycler 2011 Recycling Annual Report form to indicate the origin of materials such as metal, cardboard and plastic film, which can come from either commercial or construction sources.*

#### **4.2.2 Why the big difference in recycling levels reported for King County versus the City of Seattle? (From the 9/29 Stakeholder's Forum):**

Participants wondered why King County reported a 2009 C&D recycling rate of 76% while Seattle reported a 58% recycling rate for that year.

*Unfortunately, the City and County cannot at this time adequately explain the differences between the reported 2009 recycling rates. King County receives their data from the State Department of Ecology (DOE) from individual companies for Seattle and King County. There is some adjustment that usually needs to be made to the DOE data for "C&D Debris" tonnage and wood that is not identified as far as county of origin.*

*The City of Seattle requires licensed recyclers, processors and haulers operating in the City to submit a Recycling Annual Report. Processors who are located outside of the City are not legally required to submit Seattle's Recycling Annual Report, though the tonnage sent to those facilities is usually captured through the hauler's reports. A coordinated region-wide C&D facility certification program will help tremendously in being able to reconcile C&D tonnage data.*

#### **4.2.3 Why couldn't existing voluntary and industry-driven programs get us to 70% recycling for C&D in Seattle? (From the 9/22 AGC meeting):**

A question was asked if existing programs alone could get Seattle to the proposed 70% C&D recycling target for the City as a whole.

*The City's recycling analysis show that an expansion of existing voluntary programs plus facility certification can yield around 65% C&D recycling by 2020 for the City as a whole. Existing incentives programs such as LEED or Built Green, coupled with DPD Priority Green requirements for waste diversion, are effective for large projects requiring a new construction, demolition or alternation permit. However, most roofing and many small remodeling projects do not require building permits, so incentive approaches tied to the building permit would not be effective strategies for that audience.*

## 4.3 Proposed New Programs and Regulations

### 4.3.1 Business stakeholders are appreciative that the policies are inclusive of residential customers (from the 9/29 Stakeholder Forum):

Business stakeholders expressed relief that the proposed disposal bans would impact both residential and commercial customers, as they often feel they bear the brunt of the regulatory burden.

### 4.3.2 Stakeholders recommend that the City build in flexibility to the bans based on end market volatility (from the 9/29 Stakeholder Forum):

Flexibility in the rules for all banned materials should be considered. The City should be regularly checking the end market viability for banned materials to make sure the demand of the recycled products covers the cost of storage and recycling. Wood and concrete were two materials that specifically came up with potentially volatile end markets, though any material could have a changing end market that could impact the feasibility of a material ban. Stakeholders are interested in knowing how the City might handle market volatility, and how they would communicate any changes in a ban. They recommend that the ban include this approach upfront.

*SPU will build flexibility into its future C&D disposal ban ordinance to address end-market volatility for certain commodities, sudden closures of recycling facilities, or the loss of major recycling and/or beneficial use end markets.*

### 4.3.3 Will these recycling requirements increase costs to the contractor? How much room can we give contractors in developing our job specifications? (10/5 meeting with Sound Transit staff):

This question was asked in relation to developing project specifications and if contractors can be given the end goal and then flexibility in figuring out how to achieve that end results specific to each job site situation.

*Seattle does not anticipate a contractor cost increase from complying with the proposed disposal bans, since tip fees at recycling facilities are less than the tip fee for disposal. This could become an issue if contractors need to transport materials outside of Seattle because of a lack of certified processing facilities within Seattle. SPU will continue to work with the private sector to ensure adequate processing capacity--either in or within close proximity to Seattle--and that those facilities meet certification goals and standards.*

### 4.3.4 The City needs to evaluate the economic impact on builders of any new regulation particularly those already doing Built Green Projects (from the 9/14 meeting with the Master Builders):

Concerns were raised regarding the economic impact of proposed disposal bans on smaller contractors in particular as well as those already engaged with Built Green projects. It was pointed out that there are additional handling costs associated with on-site sorting and this

should be taken into consideration. It was also noted that often it is better to have all materials in one container for many space constrained situations.

*Many individual project variables make it difficult to predict the overall economic impact on contractors. Such variables include type of project (new construction, remodel, demolition), project size, types of materials generated, and the location and type of facility the contractor currently uses for disposal.*

*Case studies and contractor interviews conducted 5 years ago documented a cost savings for large projects that have a recycling element (2006 SPU “Current Management Practices for C&D and Recommendations for Increased Recovery Report “). The report mentioned concrete and metal were the usual materials separated out for recycling by a wide range of construction contractor types (large as well as smaller subcontractors). Concrete and metal are also always reported as being recycled for LEED and Built Green projects from any type of job site.*

*Subcontractors are commonly responsible for hauling and disposing of materials generated during their part of a project. Future focus groups with dry wall contractors, roofers, carpet installers and other groups should be held to identify any barriers they may have to complying with proposed future disposal bans on carpet, gypsum and tear-off asphalt shingles.*

*There will also be a special focus on the smaller contractors who currently use the City’s transfer stations for disposal of construction waste (mostly from remodeling projects). They typically pay a disposal rate of \$145/ton. SPU will encourage those customers to use certified private recyclers and private transfer stations for C&D waste disposal where possible. Tip fees at the private recycling facilities and transfer stations are generally less than at the City stations, even with longer transportation costs factored in.*

*SPU welcomes further input on what resources can be offered to the private sector to make sure that complying with the proposed disposal bans does not become an economic burden. Certainly, past contractor surveys have highlighted the critical need to have a robust recycling infrastructure in place locally.*

*Finally, it is acknowledged that finding the space for several types of containers is often difficult on space-constrained Seattle job sites. SPU will consider a one-container option but only if it is hauled by the City contracted hauler and the material is sorted at a certified “dirty” material recovery facility (MRF).*

#### 4.3.5 Overlapping and Conflicting Government Regulations (from the 9/14 meeting with Master Builders and 9/29 Stakeholder Forum):

Coordination is needed between all agencies involved in any aspect of permitting. Contractors might lack space for multiple collection containers, for example, due to restrictions on placing containers in the public right-of-way.

*SPU has been working over the past years with DPD in developing a set of C&D recycling initiatives that are not burdensome on construction contractors yet are effective at increasing*

*recovery rates. We agree that more work can potentially be done with the Seattle Department of Transportation on street use restrictions and fee structure.*

**4.3.6 The City should coordinate with business development organizations and any other agencies that will be involved in permitting. (From the 9/29 Stakeholder’s Forum):**

Participants at the 9/29 Forum noted that by using a ban as one policy vehicle, businesses may be either incentivized or discouraged from doing business in the City, and recommended the City offer permitting and economic development support.

*City and County solid waste and building department staff are identifying financial mechanisms and permitting assistance with the City and County Offices of Economic Development as well as the State Department of Commerce for businesses interested in developing more local recycling infrastructure or recycling end markets. Business resources may also be available.*

**4.3.7 Clarity is needed on whether the City would authorize a one box option for all recyclable and non-recyclable C&D since many job sites struggle with the space requirements for having separate bins for recycling and non-recyclable C&D for disposal (from the 9/29 Stakeholder Forum):**

At the 9/29 C&D Stakeholder Forum participants were unclear about whether a one box collection option for all C&D generated on-site would be permitted under the proposed disposal bans. The one box collection option has appeal for many Seattle job sites where space and logistics make having a separate recycling and disposal container challenging. One stakeholder recommended the City coordinate with haulers to accept piles of material placed next to the waste bin, in lieu of two bins, since this can take up less space and doesn’t require an additional container fee. Another added that for space constrained construction job sites or remodeling activities within a commercial building it may be worthwhile to pay more for just one bin that accepts everything which could be sorted at a material recovery facility permitted to accept “dirty” loads of C&D for sort line recycling.

*SPU responded that the one bin option is under consideration, but only if the City-contracted hauler (Waste Management) hauls the box it goes to a certified ‘dirty MRF’ that has the capacity and ability to process the load in accordance with future recycling requirements. The materials ban will still be in effect, even for a one bin option if it becomes available.*

King County projects currently require two bins (one bin for recycling, one bin for waste). The County has recently launched the Clean Bin campaign to recognize job sites that are properly using the two bin system with high diversion rates. King County also notes that on job sites with more space, three bins (one for phase appropriate source-separated materials, one for commingled recycling and one for waste) is another way to reach high diversion rates, though this may be challenging for space-constrained job-sites in Seattle. King County has also discussed the idea of smaller bins, or nested bins with haulers to come up with solutions for space constrained sites.

Snohomish County also requires two bins, one for garbage and one for C&D recycling and has an enforcement policy with fines in place.

**4.3.8 Third party facility certification is beneficial, yet it should not include fees that are a burden to smaller facilities and should be sufficiently regulated to ensure compliance (from the 9/29 Stakeholder’s Forum):**

Several stakeholders commented that while they applauded the 3<sup>rd</sup> party certification approach, in order for it to be successful it should not pose additional cost burdens to the facility in order to achieve the certification. Additionally, in order for the industry to view the certification as valid, the City should allocate sufficient staffing to regulate certification compliance.

*The cost and adequacy of third party certification services will be researched in 2012. Recently the national Construction Materials Recycling Association (CMRA) established its own guidance document for verifying C&D processing facility inflows and outflows, as well as its own third party certification arm. This should help reduce the cost of this type of monitoring and service.*

**4.3.9 Be careful and specific in selecting and using new waste reduction and recycling technology definitions that may be approved or banned as part of market development (from the 9/29 Stakeholder Forum):**

One industry comment received noted that many new technologies and terms can cause confusion, and if not addressed very specifically, this poses risks that beneficial new technologies may be miss-categorized or grouped together with older technologies that have additional regulatory burdens.

*SPU conducts life cycle cost analysis on alternative waste processing methods and would welcome specific information regarding new technologies for specific commodities in evaluating if they should be classified as recycling, beneficial use or disposal*

**4.3.10 A few stakeholders were interested in investigating approaches that would use reduced costs for recycling as an incentive in lieu of the 90/10 rule or disposal bans. (from the 9/29 Stakeholder Forum):**

*Financial incentives are already in place through much lower tip fees at recycling facilities versus solid waste transfer stations. Taxes also apply to non-recyclable waste.*

**4.3.11 Focusing on facility residual processing in lieu of diversion percentages remains a preferred option for some stakeholders (from the 9/29 Stakeholder Forum):**

Discussed at great length during the 2010 Stakeholder Involvement process, the topic of regulating residuals from processing in lieu of diversion percentages is favored by many. Even though residuals are taxed, more emphasis on reducing residuals and tracking where they end up may help better meet the end goals. (See comment 4.1.2)

*The facility certification process as currently envisioned will involve both a required diversion percentage requirement by facility category (source separated recycling, “commingled” recycling and MRF at solid waste transfer station), and sampling of the residual from the sort lines for C&D loads delivered for processing.*

#### **4.3.12 Concern about the adequacy of recycling infrastructure in Seattle for materials subject to disposal bans (from 9/7 meeting with the NW Building Salvage Network):**

One point raised during the 9/7/11 discussion with NW Building Salvage Network members is that for increased deconstruction activities to take place there should be an adequate number of mixed recycling facilities located within or close to Seattle in order reduce transportation costs.

*The proposed disposal bans on targeted C&D materials should spur more private sector interest in developing mixed or even source-separated, recycling facilities within or close to Seattle.*

### **4.4 Proposed New Program Implementation**

#### **4.4.1 Individual project support for successful implementation of policies will help projects with small sites or challenging operational logistics (from 9/29 Stakeholder Forum):**

An operator of a large hotel undergoing a full renovation while maintaining operations in downtown Seattle noted that the current regulations (two bins) and proposed regulations present logistical challenges. Many sites in Seattle likely have similar space constraints, such as one loading dock responsible for removing waste and recycling, while still accepting incoming materials for the renovation and ongoing operations.

*Both SPU and King County noted that on-site technical assistance can be arranged, meeting as needed with owners, general contractors and property managers, to help identify support opportunities. Stakeholders expressed interest in seeing more job-site contractor training for how to meet requirements for individual job sites, as requirements change and programs are rolled out.*

#### **4.4.2 Create specific guidelines for banned materials (from the 9/29 Stakeholder Forum):**

One comment regarding implementation of disposal bans noted that guidelines about percent of load and size of particles not allowed should be created. Some banned material may be too small to be easily sorted into separate containers, and having this knowledge upfront would be helpful for compliance.

*In 2012 guidelines will be developed regarding the threshold for banned materials in disposal containers at job sites and in processing facility residual. Seattle and King County will undertake a sampling study at C&D processing facilities, on a voluntary basis, which should help develop such a guidance document.*

#### **4.4.3 There is support for the City leading adequate education and outreach efforts through various programs and support prior to implementing bans (from the 9/22 AGC meeting and 9/29 Stakeholder Forum):**

In general, respondents acknowledged the City's efforts to proactively prepare the market, customers and industry for bans through development of educational offerings, outreach, and programs that offer support.

## 4.5 Material Specific Disposal Bans

### 4.5.1 Wood

- Consider developing a 'Pallet Take Back' policy instead of focusing on wood recycling.
- If Seattle Steam is still using wood chips, publicize how wood waste can be directed straight to this end user.
- Regular monitoring of the wood end market should be a part of the ban, as the end markets can fluctuate greatly.

*SPU is aware of the volatility of end markets for clean wood with the impending closure of the Kimberly Clark co-generation boiler in Everett. We will consider pushing back the proposed date for a disposal ban on clean wood from 2013 to 2014. More market development for recycling, rather than fuel end uses of clean wood, is most likely needed.*

*SPU will also focus in 2012 on identifying and promoting the reuse of salvageable lumber. A "pallet take back" policy is a good suggestion as well.*

### 4.5.2 Carpet

- Investigate market development for using recycled carpet as underpinnings for green roof square containers. This is a current end use, but does not appear to be done locally.
- A focused education, inspection and enforcement component for the carpet ban is needed to avoid health hazards from contaminated materials that are very often placed in carpet rolls prior to delivering to a recycling facility.

*SPU and King County have developed an education document now available entitled "2011 Carpet Removal Best Practices for Carpet Recycling" that addresses this issue of remodeling project debris ending up in removed carpet rolls. It is posted on King County's Link-Up website (<http://your.kingcounty.gov/solidwaste/linkup>) and will be distributed to flooring professionals as carpet installers and remodeling contractors.*

### 4.5.3 Asphalt Paving

Stakeholders needed clarification about what the asphalt paving ban requires, and if it pertained to asphalt that is dumped in a gravel or sand pit.

*The City clarified that the ban is for asphalt disposal in landfills. Asphalt paving that ends up in a gravel pit would not constitute recycling. Whether such "fill" applications could be classified as "beneficial Use" would depend on the permitting status of the activity in site specific situations.*

### 4.5.4 Concrete

- While concrete may currently have high recycling rates, limited or seasonally dependent end-uses may pose future challenges for maintaining these high rates and support for recycled concrete market development is needed.
- Recyclers and those motivated to use recycled concrete are also challenged by limitations in specifications.

- The seasonality of paving markets and limitations on the use of rubble as fill material can both result in concrete recyclers needing to stockpile material.
- Even though concrete recycling rates are high, the proposed ban may create strain on recyclers unless product demand increases. Market development for products that specify recycled concrete is a possible solution to address this challenge.
- Once the Asphalt Paving, Bricks and Concrete (ABC) ban is in place in 2012, stakeholders recommended that policy makers keep informed of the changing specifications and market readiness for recycled concrete products – if the market is constrained then the ban implementation schedule may need reevaluation.

*The issues relating to end markets for recycled concrete aggregates are acknowledged. There are Washington State Department of Transportation restrictions on the use of crushed concrete aggregate in fill situations due to its high pH levels and water quality concerns. Recycled concrete aggregate is commonly used in the manufacture of Portland cement up to a certain threshold (50% in the Standard City of Seattle specification for recycled concrete). While the demand for concrete aggregates may have been reduced in recent years due to economic factors, the availability of gravel aggregate from quarry sites may be in short supply in the future.*

*SPU and King County will keep in touch with State, City and County Department of Transportation staff regarding standard specifications for recycled concrete aggregates and project specific procurement of concrete for road base, sidewalk and building projects. Similar end market concerns have not been received regarding limitations on the amount of recycled asphalt pavement that can be used in new asphalt paving mixes.*

#### 4.5.5 Plastic Film

- There is some concern about the viability of existing end markets for plastic generated in the City. A comment submitted by an industry stakeholder recommended the City remain receptive to considering alternative technologies as possible markets for the growing volume of difficult to recycle material which can include plastic film and bags
- The City will need to define “clean” – should it exclude the plastic film covering up curing concrete and hillsides at construction sites?

*A primary local end market for clean plastic film is the New Wood facility in Elma, Washington where it is a component in the manufacturing process. A disposal ban on plastic film will need to be very specific about the types of film wrap and sheeting – at this time it would probably not include the sheeting placed on hillsides or covering up curing concrete because of contamination issues.*

#### 4.5.6 Tear-Off Asphalt Shingles

- One contractor submitted a comment that aside from tear-off asphalt shingles, other roofing material has been very challenging to find an end market. This is a market that could be developed.
- One industry stakeholder noted that the market is somewhat oversaturated with asphalt shingles, and has encountered times when recyclers will not accept tear-off shingles due

to oversupply or equipment. They recommended the City be proactive in making sure outlets are available to handle the asphalt supply that will result from the ban.

*The disposal ban for tear-off asphalt shingles is proposed to be effective in 2014 though this will be dependent upon the WA State Department of Transportation adopting specifications on the use of the shingles in hot mix paving applications. The current market for this material is for private roadway paving projects. The 2014 implementation date will likely be delayed if significant end markets do not develop and processing capacity is still very limited.*

#### **4.5.7 End Uses for Other C&D Materials**

It was mentioned that in order to achieve the goal of zero waste the City should focus on finding end-use, processing facilities and take-back programs for other common C&D materials such as ceiling tiles, fiberglass insulation of all types, colored rigid insulation boards and EPS Styrofoam

*SPU will have a consultant focus on the available market end-uses and the collection/processing infrastructure for these new construction materials in 2012. The manufacturers will most likely need to be contacted regarding City and County interest in having such infrastructure developed locally.*

#### **4.5.8 Needed Support for Market Development in General**

While the bans are great developments, what work is SPU doing to promote end markets? If there are no end markets, the bans will not make any difference.

*SPU and King County are working closely with the State Department of Commerce and local Economic Development agencies on identifying and developing the end markets, and needed collection and processing infrastructure, for targeted commodities. Recently these commodities have included those generated from construction job sites, such as carpet, tear-off asphalt shingles and clean wood. This has been accomplished through a variety of programs – such as King County’s Link-up Program for businesses, processors and commodity end users, the Industrial Synergy Project plus commercial sector educational outreach on recycling and resource conservation conducted through SPU’s Resource Venture contract.*

*Both Seattle and King County are also very active in the Northwest Product Stewardship Council to foster producer responsibility on the part of manufacturers.*

*In addition, the city’s purchasing power has been leveraged to promote demand for recycled products and the recycling of discarded materials. The City of Seattle Purchasing Office recently initiated a contract for public agencies nationwide through the US Communities purchasing collaborative. The contract requires carpet recycling, and purchasing recycled-content products consistent with NSF/ANSI-140-Gold standards for carpet. For several years already, City of Seattle jobs require the recycling of removed carpet. The same requirement applies to Washington State agencies.*