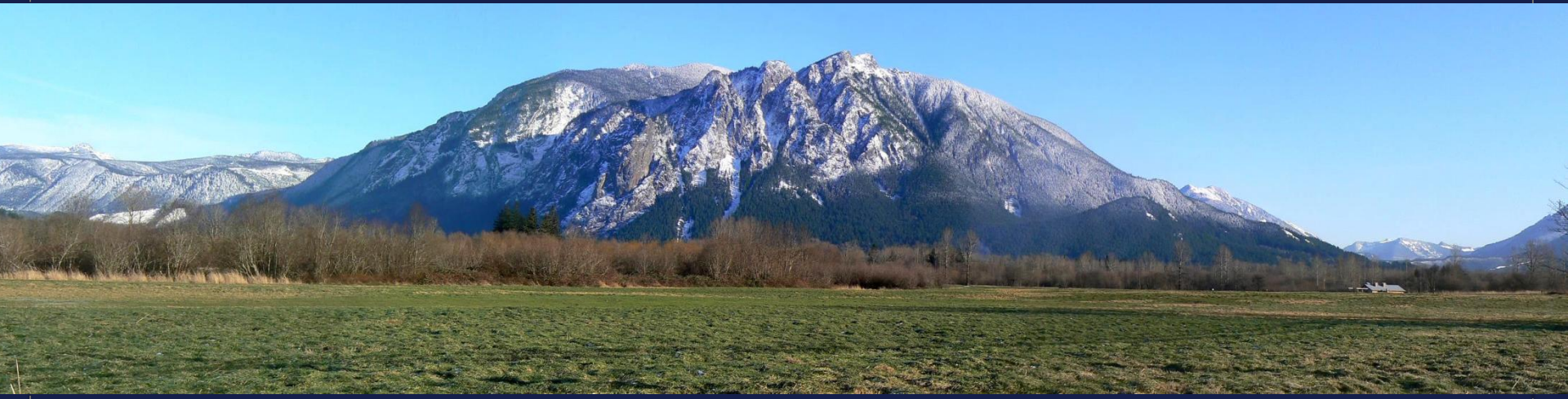


Photo courtesy of Dave Battey

Development of an Energy and Sustainability Element and Sustainability Action Plan

Workshop 3: Waste Reduction, Recycling, and Environmentally Preferable Purchasing

Why prepare this Comp Plan Element?

The sticks – state requirements.

- **Statewide greenhouse gas emission reduction goals.**
- **Statewide fossil fuel use reduction goals/mandates.**
- **Sustainability requirements for public buildings receiving state funding.**
- **Grant eligibility.**

The ethics – It's the right thing to do.

- **We value the quality of life in North Bend and care about preserving its future.**
- **We have a role to play in addressing local and global environmental issues.**

Preparedness – the early-bird factor.

- **Change is inevitable – those prepared come out ahead.**
- **Very real consequences of climate change for North Bend:**

Where are we in this series?

- April 12: Introduction to series, fossil fuel, water, and electrical energy use and conservation.

- May 10: Green building and site-specific low impact stormwater management

- This workshop: Waste reduction, recycling and environmentally preferable purchasing

- Next workshop: Greenhouse gas emissions (July 12)

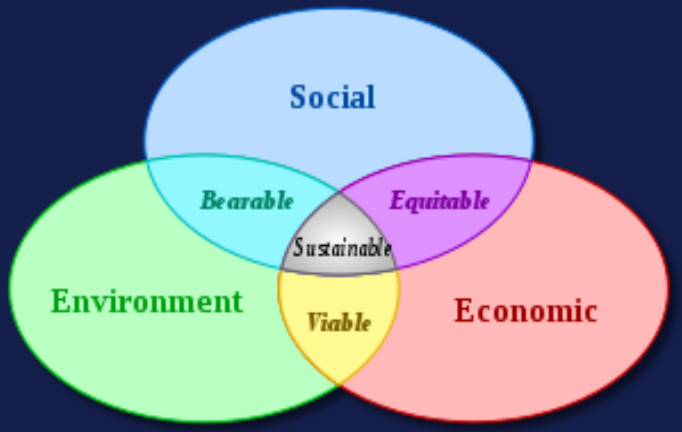
- Taking notes – will come back with amendments to draft following workshops.

Essential keys to success in North Bend:

- **Simple – easy to understand and implement**

- **Economic – Small city staff and budget constraints**

- **Efficient - Minimize regulatory and time burdens**



WASTE REDUCTION

Waste Reduction – Where does our waste go?

Cities contract with haulers to collect all waste.

- **Recycling** goes to recycling processing centers operated by the waste haulers, sorted, and shipped for sale to resource purchasers.

Republic Services Materials Recovery Center, Seattle.
Photo from Seattle Business Journal

- **Compostable waste** goes to Cedar Grove Composting, a private company, which turns the waste into compost for sale in stores.

Cedar Grove Composting Center
Photo from Seattle PI

Waste Reduction – Where does our waste go?

- **Solid waste** in King County (excluding Seattle), goes to the Cedar Hills Regional Landfill.
  - 920 acres in Maple Valley, operated by King County Solid Waste Division
  - Only remaining landfill in King County.
  - Receives over 800,000 tons of solid waste annually.
  - Originally anticipated to reach capacity and close in 2012.
  - Extended to 2018 through waste reductions.
  - When it closes, County will need to export waste to out-of-county facility.

Cedar Hlls Regional Landfill.
Photo from King County Solid Waste Division

Waste Reduction – Broad Trends:

New landfills difficult to site, very costly to build and operate.

Recycling and composting greatest way to extend landfill life and to reduce and recover costs.

- 2008 Cedar Falls Waste Study found that 75% of material received at landfill was either recyclable, compostable, or re-usable.
- King County SWD has goal of "zero waste" by 2030.
- Primary focus of reduction is on Compostables. 30% of waste is food scraps and food soiled paper. This is the largest single-source of material going to the landfill.

Composting greatest way to reduce methane emissions.

- Methane emissions from landfills alone represent 5.2 percent of all United States greenhouse gases. *(Institute for Local Self-Reliance)*
- Methane has a global warming potential 25 times more potent than CO2.

Waste Reduction – Broad Trends:

Recycling = Tremendous Resource Savings and Energy Savings:

- Each person generates 4.5 pounds of garbage per day. This adds up to 90,000 pounds in a lifetime – In King Co., this is enough to fill Safeco Field 33 times. *(King Co. Solid Waste Division)*

- Approximately 1 billion trees worth of paper are thrown away every year in the U.S. *(Recycling-revolution.com)*

- Each ton (2000 pounds) of recycled paper can save 17 trees, 380 gallons of oil, three cubic yards of landfill space, 4000 kilowatts of energy, and 7000 gallons of water. This represents a 64% energy savings, a 58% water savings, and 60 pounds less of air pollution! *(Recycling-revolution.com)*

- Every glass bottle recycled saves enough energy to power a 100-watt lightbulb for 4 hours. Every aluminum can recycled saves enough energy to power a computer or TV for 3 hours. *(King Co. Solid Waste Division)*

- On average, it costs $30 per ton to recycle trash, $50 to send it to the landfill, and $65 to $75 to incinerate it. *(Recycling-revolution.com)*

Waste Reduction – New Frontiers

Commercial organic waste, including food and compostable paper waste.

- Controlled waste stream = technically easy.
- Private Market
  - Burgerville chain, Oregon and Southern WA - Goal to recycle and compost 85% of all waste. Uses compostable cups, straws, lids, food wrappers.
- Municipal Requirements:
  - Seattle and Issaquah: Require food service businesses to use recyclable or compostable food containers and utensils.
  - Seattle: Dining areas must provide recycling and composting bins.

Photo from Demotix.com

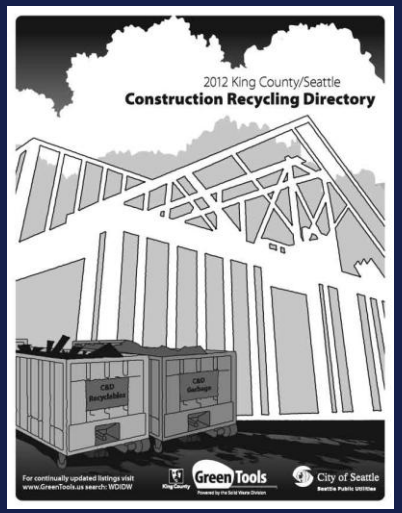
Photo from KATU News, Portland

Waste Reduction – New Frontiers

Construction and Demolition Waste

- The construction dumpster - existing paradigm.
- Only about 20% of C&D waste is not recyclable.
- King Co. Goal – 85% diversion by 2020 for its own projects.
- Seattle – As part of zero-waste strategy, hopes to eventually ban disposal of most C&D materials.

Photo from Department of Ecology



Waste Reduction – City of North Bend:

How are we doing????

In 2011, North Bend residents:

- recycled 32% of our total waste (33% county-wide)
- composted 16% of our total waste (22% county-wide)

Waste Reduction – North Bend efforts:

New contract with Republic Services

- Yard and food waste recycling now a part of residential waste service
- Curbside recycling of electronic waste and small appliances (with call ahead).
- Curbside recycling of food oils, fats and motor oils.
- 15 special yard waste events per year in addition to curbside pickup.

City participating in King County Recycle More Campaign

- TV, radio, online and print ads
- Booth at Block Party
- Newsletter articles

Waste Reduction – North Bend efforts:

Special Recycling Events:

- Twice-monthly yard waste collection at PW. (Saturdays)
- Annual special recycling event in April (grant funded)
  - Appliances
  - Electronics
  - Scrap metal
  - Tires
  - Batteries

Municipal Operations:

- Secure shredding and recycling of office paper
- Regular co-mingled recycling from office use
- City doesn't currently offer recycling at public parks
  - Concern about staff time / proper public use

Waste Reduction policies:

ES Goal 10: Reduce waste and increase recycling and waste diversion in City operations and in the community.

Municipal Operations Policies:

ES 10.1 Reduce waste production and increase recycling and waste diversion in City operations, in public parks, and other public places.

ES 10.2 Place recycling containers adjacent to garbage containers in all areas where public waste receptacles are provided. Ensure that recycling containers are clearly indicated for recycling purposes only to discourage disposal and mingling of trash with recyclables.

ES 10.3 Develop operating procedures to ensure that outdoor recycling pickup and management by City personnel is time and energy efficient.

ES 10.4 Ensure that public events and festivals include recycling and food waste composting bins.

Continued…

Waste Reduction policies (continued):

Community Policies:

ES 10.5 Reduce waste production and increase recycling rates in the community.

ES 10.6 Ensure that solid waste contracts provide complete and convenient opportunities for resident participation in recycling and waste diversion, including curbside pickup of comingled recycling and food and yard waste recycling. Ensure that these services are available to single and multi-family homeowners, apartment residents, and businesses alike.

ES 10.7 Provide periodic special hazardous waste collection events, to ensure proper recycling or disposal of materials not suitable for curbside pickup.

ENVIRONMENTALLY PREFERABLE PURCHASING

Environmentally Preferrable Purchasing

"The procurement of goods and services that cause less harm to humans and the environment than competing goods and services that serve the same purpose."
(Executive Order 13423, 13514, Federal Leadership in Environmental, Energy and Economic Performance, 1993)

What does it typically include?

- Energy / Fuel Efficiency
  - Low-energy use fixtures / appliances
  - Energy Star certified
  - Fuel efficiency standards
- Sustainable Materials
  - Low toxicity
  - Recycled / Recyclable content
  - Sustainably and/or locally sourced content

Environmentally Preferable Purchasing - State Requirements

RCW 43.19 (1965)

Provides a broad legislative basis for state purchases of recycled-content, locally-sourced content, and energy-saving products.

RCW 43.19A (1991)

Requires state agencies and local jusisdictions (purchasing supplies greater that $500,000 annually) to establish EPP policies. Requires Dept. of Enterprise Services to provide model EPP ordinances and guidelines for jurisdictions.

RCW 43.19A.022 (2011)

Requires state agencies to purchase one hundred percent recycled paper for use in printers and copiers

Executive Order 04-01 (2004)

Directs state agencies to adopt measures to reduce the use of equipment, supplies, and other products that contain persistent, bioaccumulative, or toxic (PBT) chemicals.

Environmentally Preferable Product Certification Programs:

- Energy Star
  - Appliances and electronics

- Forest Stewardship Council
  - Wood and paper products / lumber

- Design for the Enviroment
  - Cleaning products, chemicals

- LOTS of greenwashing programs!

Environmentally Preferable Purchasing– Within City operations:

(No current policies or programs)

Resource Consumption and Env. Purchasing – Proposed Policies:

ES Goal 9: Reduce unnecessary consumption, and the environmental and human health impacts of the resources used in City operations.

Policies:

ES 9.1 Develop an environmentally-preferable purchasing strategy for municipal equipment, vehicles, office supplies, and other products purchased by the City, that considers durability, environmental and carbon footprint, local sourcing, waste reduction, minimization of toxic and hazardous substances, and other sustainability measures.

ES 9.2 Purchase recycled, reused or refurbished supplies, equipment and vehicles for City departments where appropriate.

ES 9.3 Substitute, reduce, and where possible, eliminate the use of toxic materials in municipal operations, such as synthetic fertilizers, pesticides, preservatives, solvents, and other materials that have negative environmental and human health impacts.

Continued…

Resource Consumption and Env. Purchasing – Proposed Policies (ctd.):

ES 9.4 Whenever possible, extend the useful life of products and buildings through repairs and remodels rather than replacement.

ES 9.5 Give priority to implementing actions that save both costs and resources. For example, provide pitchers of tap water rather than bottled water for City meetings and functions.

ES 9.6 Reduce the City's use of paper by encouraging or requiring double-sided printing where appropriate.

ES 9.7 Begin implementing paperless City Council meetings through the use of laptop computers and electronic packet delivery.

Resource Consumption and Env. Purchasing – Proposed Policies (ctd.):

ES Goal 5: Ensure careful stewardship of the City's finances and resources in pursuing sustainability in City operations.

Policies:

ES 5.1 Utilize measures of sustainability that bring the greatest cost benefit ratio, or "bang for the buck," rather than those that have the greatest "wow" factor.

ES 5.2 In choosing materials or equipment for municipal operations, consider long-term operational costs over short term capital expenditures.

ES 5.3 Maintain existing municipal equipment and facilities in optimal condition to reduce the need for costly repairs or replacement.

ES 5.4 Support the purchase of used rather than new vehicles and equipment that otherwise meet energy and resource conservation objectives.

Additional thoughts and discussion?