ZERO WASTE VASHON

VASHON GREEN EVENT TIPS

BY ZERO WASTE VASHON and collaborators

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1. INTRODUCTION

Question: Why plan a green event?

Answer: To conserve resources, reduce landfill waste, and demonstrate a commitment to preserving a sustainable quality of life for Vashon and our world. Further, you will educate the community and event-goers by providing a waste reduction model for others to follow.

Every year, thousands of tons of recyclable or otherwise usable items such as organic materials (including food waste) are unnecessarily taking up vital landfill space in King County, the greater Puget Lowlands and elsewhere, and generating methane gas, a greenhouse gas, by not being properly processed. Community events can generate large volumes of empty bottles, cans, and plastic cups that can easily be recycled. By encouraging sustainability and alternatives to single use items, using water filling stations, and developing recycling systems at events, it is possible to reduce waste, help extend the life of our landfills, and thereby improve the environment. The purpose of this is to provide advice and resources for event recycling and compost management on Vashon Island and elsewhere in King County, WA. In addition, we have also included our guidance on holding a "zero waste" event. A short summary of sustainability perspectives and related issues can be found in Appendix 1, and the section 6. glossary defines related terminology.

Zero Waste Vashon adheres to the Global Waste Hierarchy commonly referred too as the 5 R's – *Rethink, Reduce, Refuse, Reuse, and Recycle*.

Waste prevention and **Reduction** are at the top of the hierarchy and are the most favorable solutions because they minimize the generation of waste products. Prevention and reduction have the least environmental and economic life cycle costs as they eliminate collecting or processing materials. **Reuse** is the second most desirable option, involving using materials again and again without any structural change. Reusing materials can require collection but little or no processing. The third level, **recovery** of waste, is separated into 2 categories: materials and energy. Recovery of materials includes **recycling** and **compost-**

ing, generally requiring a collection system and a method of material processing or conversion into a new product. Recovery of energy typically involves incineration and the production of ash. **Final disposal in a landfill** is always a last resort, and should only be considered once all other possibilities have been fully explored. The last in the hierarchy and least favorable is **landfill disposal**, although some pre-treatment may be necessary, depending on the presence of hazardous materials in the mix.

2. Home Events

(please note this section is necessarily short as our focus is on community events; the reader is referred to oneglassjar.com, Siobhan McComb's zero waste advice blog)

2.1 Self Organized

Try and prevent food waste in advance of the event by learning the best methods for preparing and storing fruits and vegetables, and asking friends to bring containers or provide them for leftovers. Instead of using disposable tableware, serve food on real, reusable/washable dishware, flatware, and use cloth instead of paper napkins. If needed, borrow dish sets and utensils from friends or Vashon's No-Trash-Stash at Karen Biondo's Farm, or go to Granny's for a special holiday set.

2.2 Catered

In selecting a Catering company to provide food and beverages for your home event, it is critical to engage early on to understand the catering companies' standard practices and clearly define expectations regarding waste handling, dishware, recycling, and relaxed issues.

3. Community Events

During the initial phases of event planning, discuss your environmental commitment and formulate a suitable goal statement, such as: "*We are committed to reducing the environmental impact of this event and supporting sustainability, which is aligned with this organization's core values*."

Event leaders and staff must be committed to making sustainability a priority and understand that environmental issues such as litter and air pollution impact guest experience and the overall quality of the event. Begin by making a formal, written commitment to the key sustainability goals and publicize this information on your event website to educate guests during the event with maps, posters, banners, and announcements so they can contribute to a successful event.

Encourage guests to take these and related actions to participate in your event's sustainability goals:

1. Walk, bike, carpool, or bus to the event.
2. "Bring your Own" cups, napkins, plates, utensils, and reusable water bottles (use water-filling stations), etc.
3. Recycle clean & dry cans, plastic bottles and paper/cardboard
4. Compost food waste and use compostable containers (?), if present. Do not compost liquids, remove if present.
5. Prevent litter by never overfilling trash or recycling containers.

Vashon residents have access to curbside recycling service at home, and can also use the Vashon Recycling and Transfer Station (VRTS, operated by King County), and are accustomed to having recycling options available. Many Vashon residents feel a strong moral obligation to reduce, reuse, and recycle. Implementing recycling for the first time will likely require additional effort, but will become routine with experience. Depending on the size and type of event you are planning, adding recycling to your event can be accomplished without incurring much additional cost and effort using available resources on Vashon Island.

The following simple steps will help you successfully recycle at your next event.

3.1. Step 1: Identify your waste stream: What is a recyclable resource? What is trash? What potential trash can be prevented by substituting washable flatware, tableware, napkins, etc.? Can you ask participants to bring their own

flatware, utensils, water bottles, cups and napkins and even pack out their own waste (as long as you can be assured they dispose of it properly)?

The Vashon Transfer Station has updated flyers available describing all acceptable materials. Acceptable compostable materials are available on the Cedar Grove Compost Facility website. Work with the vendors to use the most sustainable items and eliminating single use items. Create a list of most the most common items that vendors, exhibitors and guests will need to dispose of during your event, and communicate with them expectations in advance. What kind of beverages and food will vendors be selling? Will exhibitors be giving away items? How will vendors and exhibitors be bringing in their wares? Develop appropriate guidelines that meet your particular goals.

The most common recyclable materials generated at events include plastic water and soda bottles, aluminum cans and cardboard from vendors, and other items such as pamphlets, fact sheets and other printed information; an event with educational booths might generate higher amounts of paper as attendees tend to pick up the information as they walk by and dispose of it later after they read it.

3.2. Step 2: Plan for collection What type of Bins are needed? How many bins are needed?

The Vashon Recycling and Transfer Station (VRTS) accepts mixed or “commingled” recycled materials. This means that guests **will not** need to sort their recycling by material, except removing food waste & liquids. Clean and dry plastic bottles, aluminum cans, cardboard, paper, cartons and glass bottles can be mixed together; and therefore, you will only need to provide four types of containers - landfill trash, recycling, food waste, and a system for collecting and disposing of liquids. We suggest the use of 5 gallon plastic pails for food waste, eventually destined for pig farms or compost facilities (organic waste is accepted at the VRTS for a small fee; it is currently hauled to Cedar Grove Compost in Maple Valley).

If you are planning a new event or are not able to obtain historical waste information, you can use the following as rough guidelines for the recommended minimum number of bins based on event size. Note that for events with a large

layout, additional bins may be necessary to space waste collection throughout the event space. By adding recycling bins, much less landfill trash will be collected than without recycling. Recycling and trash bins are available in many sizes, ideally with 30 to 65 gallon capacities, the larger ones equipped with lids, handles and 2 wheels.

~50-100 attendees: 2-3 recycling bins, 2-3 trash bins, 2-3 compost (food waste) pails/buckets
~500-1,000 attendees: 5 recycling bins, 5 trash bins, 3-5 compost (food waste) pails/buckets

~10,000-25,000 attendees: 25 recycling bins, 25 trash bins, 10-20 compost (food waste) pails/buckets

Trash / Recycling Bin Specifications

No matter what style trash and recycling bins are used, each should be clearly labeled and distinctly different. It is important that visitors be able to easily distinguish between trash and recycling disposal options at a glance. Trash and recycling containers should be labeled using both written words and illustrations to show what types of materials are acceptable for recycling/trash. Additionally, guests are more likely to recycle when trash containers are labeled with the word, “Landfill” as opposed to “Trash” or ”Garbage”.

Waste Bin Placement

Place trash, recycling, and compost containers next to each other. If trash and recycling containers are spread apart, even by a few feet, guests will put all of their waste in the closest container whether or not it is appropriate. Research has shown that 36 feet is the distance people are willing to walk to dispose of waste. Littering becomes more common when a guest has to actively seek out waste receptacles. Make it easy for your guests, label each container prominently (use Words and Graphics) so there is no guess work required..

When deciding on placement of trash and recycling containers, consider the following:

Place more containers in areas where higher volumes of waste will be expected such as near concession areas, restrooms, entrances and exits.

If guests are restricted from taking beverage containers out of the event space, place recycling and trash containers at the exit.

If vendors will generate large amounts of cardboard, consider providing additional recycling containers solely for cardboard.

Lining your waste containers with bags using the following color scheme will help ensure staff/volunteers do not inadvertently dispose of materials in the wrong dumpster: Clear bags for recycling, Black bags for trash, Green biodegradable (such as BioBags) for composting.

3.3. Step 3: Staffing

It is possible to implement a successful recycling program at an event without additional staff than the number of people usually required. However, with extra help, you can ensure that guests do a better job of sorting and recycling waste. Ideal staffing follows:

Position: Waste Manager **-** Oversees all event waste-related issues throughout planning process and during the event.

Position: Station Recycling Ambassador – Customer-service focused individuals tasked with assisting guests on how to properly recycle and answering questions, such as assure recycled items are clean and dry.

Position: Vendor Recycling Assistant **-** Customer-service focused individuals tasked with assisting vendors, exhibitors and sponsors with recycling practices.

Position: Container Monitor **-** Checks recycling and/or trash containers throughout the event to ensure they do not become overly full and result in litter.

Position: Hauler **-** A private company or volunteer with a truck to move all of an event's combined recycling and trash to the appropriate end-points.

Note: Diane Emerson, Vashon Chamber of Commerce, and ZWV have assembled a Vashon Green Event Recycling Station Kit which is available for loan from the Vashon Chamber of Commerce. See Appendix 2 for additional details.

3.4. Step 4: Guest Education

In order to successfully recycle at an event, guests must be able to easily understand how to properly use the recycling and trash containers. Events are notorious for having poorly sorted trash and contaminated recycling which is troublesome when recycling arrives at the recycling plant. This problem typically occurs because event guests do not understand what materials to put into each container.

To prevent this common problem at an event, take the following steps:

- Provide information on recycling procedures on the event website, map or other literature.
- Make announcements from stage reminding guests how to properly recycle.
- Trash and recycling containers should be labeled using written words and illustrations to show what types of materials are acceptable for recycling/trash. This methodology has been proven to result in higher recycling rates than using written words alone. Additionally, the guests are more successful recycling when trash containers are labeled with the words, “Landfill” as opposed to “Trash” or ”Garbage”.
- Event staff should be educated in advance, understand and be able to answer questions regarding the recycling process and guidelines.

3.5. Step 5: Vendor Education

It is easy to focus on guest experience so much so that vendors are overlooked as a potential major contributing sources of trash and recycling materials. Vendors, exhibitors and sponsors commonly leave behind a large quantity of cardboard boxes, food containers such as jugs or jars, spent cooking oil, and organic materials. All bulk packaging non-recyclable materials such as rubber bands,

produce tags, plastic bags, tape, and twist ties must be removed from the organic waste stream. Educating vendors should begin long before the event, with communication and assistance continuing throughout the event:

- Communicate your event's sustainability goals and recycling system to your vendors well in advance of the event in a clearly written concise document.

- Discourage vendors, exhibitors and sponsors from giving away a lot of brochures or any promotional item that is not long-lasting. Guests take free items, regardless of whether they are actually desired. These items then become litter or simply are thrown away when they return home. Make exhibitors aware of your goals and encourage them to give thoughtful consideration to the items they distribute. Promotional giveaways that help guests lead a more sustainable lifestyle are highly recommended such as a reusable water bottle or shopping bag, as long as they are of sufficiently quality to prevent premature disposal.

- Notify vendors of recycling availability and procedure prior to the event and, as described above in the "Staffing" section with the help of a Vendor Recycling Assistant; also let them know about the (possible) availability of water filling stations eliminating the need for plastic water bottles.

Recommend that vendors select and purchase food service packaging that is recyclable, compostable, or reusable. For example, vendors should be encouraged to sell beverages in cans or bottles instead of fountain beverages in non-recyclable cups.

Vendors selling bottles, cans and other recyclables should post signs reminding customers to recycle these items. It is best if vendors sell products with less packaging to reduce overall event waste. For example, a vendor selling corn could sell it on a stick instead of on a stick and on a plate. Vendors should only provide the utensils required for the type of food sold. For example, avoid providing prepackaged sets of cutlery for sandwiches or items that only require a fork or a spoon. Also avoid individually wrapped cutlery as the plastic wrap is unnecessary waste and are easily blown away by wind, becoming litter. Vendors should provide condiments in large reusable tubs with pumps, or only provide

condiment packets upon request. Distribution of paper napkins should be controlled by providing a small number upon request. This methodology will prevent customers from taking more than they will use, creating unnecessary waste.

If selling fountain beverages, vendors can help to minimize waste and reduce costs by providing a discount on beverages for customers using reusable cups or bringing their own reusable bottle. Consider incentivizing vendors to follow these policies by giving prime booth placement to those who have made an environmental commitment, and offer awards for those who meet your green standards.

3.6. Step 6: Waste Disposal & Hauling

Depending on the size of your event, you have several options for waste disposal.

1) For smaller events, you may be able to dispose of your landfill and recycling in your curbside collection bins. Food Waste could go in your backyard compost bin or be taken to VRTS for composting.

2) You can also self-haul the landfill, recycling and compostable materials to the VRTS. Charges will apply for Landfill waste and Compostable Food waste, recycling is still free.

3) You can contract with Murray Disposal (Waste Connections), or other Service to supply large dumpsters for the event for a nominal charge. If this is the case for your event, dumpsters should be clearly labeled “landfill” or “recycling” and event staff or volunteers should be trained to know what type of material to deposit into each dumpster. Larger events should consider renting compacting dumpsters to save space and reduce the number of times collection is required.

4) You could minimize waste disposal by alerting guests in advance that the event strives to be zero waste; they can contribute by bringing their re-usable containers and pack out any trash they generate, as long as you can be assured of its proper disposal.

4. ZERO-WASTE EVENTS

It is possible to host a “zero waste” event where there is little or no trash generated and sent to the landfill by minimizing food waste and associated waste through composting and use of reusable items (cloth napkins, washable plates, glasses, utensils).

Composting is nature’s way to recycle (biodegrade) plant and animal material (things that were once living or made from things that were once living) into a soil-like material or “compost.” Compost is rich in nutrients and beneficial microorganisms and is an excellent soil conditioner that also sequesters carbon. Natural healthy soils contain some composted material. While there are other ways to recycle food scraps (eg., pig feed), composting is the most common one used for the types of compostable wastes collected at events.

4.1. Step 1: Know your waste stream

What is compostable? What is recycling? What is trash?

Consider what items the food vendors will be selling and make a list of the compostables that will be generated as a result. Taking corn cobs as an example, customers will need to dispose of the cob in addition to the wooden stick and any wrapping or plate used for serving it. The inedible cob, wooden stick, napkins and other paper products would be accepted as composting. If the corn was vended using an aluminum foil wrapping or an EPS (expanded polystyrene) aka “Styrofoam” plate, these items are not normally recyclable or compostable and would need to be disposed of in the trash (note Nadine Edelstein’s First Sunday Vashon Styrofoam Recycling program accepts clean, dry, tape-free EPS as well as other foams and plastics; no type 7, however). Nevertheless, a customer buying an elephant ear served on a paper plate will only have to dispose of a paper plate and napkins and any leftovers, all of which are compostable.

When guests mistakenly place non-compostable items into the composting container, problems result at the compost facility. High contamination levels could result in the rejection at the facility and diversion to the landfill. With planning and coordination, it is possible to nearly eliminate trash and avoid the potential for guests to contaminate the composting or recycling waste streams. Minimize contaminants by working with vendors to eliminate their use in the event. For example, compostable service ware is now available as an alternative to traditional plastic versions. Paper products can be composted in place of Sty-

rofoam or aluminum foil. All bulk packaging such as rubber bands, produce tags, plastic bags, tape, and twist ties must be removed from the compostable stream.

Compostable service ware

Compostable service ware (plates, containers, cups, straws, napkins and cutlery) makes it easier to collect food scraps for recycling at composting facilities because the service ware can be placed along any uneaten food into the compostables containers, as long as the materials are on the list of Cedar Grove's acceptable materials.

The following are generally considered compostable:

• Paper or cardboard that is not coated with regular plastic such as paper napkins and pizza boxes,

- Paper and cardboard coated with wax,
- Paper and cardboard coated with compostable plastic,
- Variable types of compostable plastic,
- Compostable plastics are derived from plant starches. These plastics look like any other plastic with the exception of special labeling.
- If you chose to use the VRTS, follow Cedar Grove Compost facility's guidelines for compostable materials.

In addition, the Biodegradable Products Institute (BPI) provides third party verification that a product is able to be composted at a commercial facility. Look for certified paper and compostable plastic products that carry this label (see Glossary "compostable" entry for details). Some manufacturers may have certified their products without clearly labeling their product, choosing instead to put certification information on product specification sheets and/or their website. BPI has a catalog of companies and the products that have been certified, which offers an easy way to verify if the product you intend to buy is compostable (see Glossary "compostable" entry for details).

- Don't confuse "bio-based" and "biodegradable" labeling with "compostable" labels. Compostable items degrade at the same rate as other organic materials (yard wastes, manures, food scraps); whereas, items labeled as bio-based or biodegradable might not biodegrade quickly enough to be considered compostable.

4.2. Step 2: Plan for collection

A third container for compostables will need to accompany trash and recycling to dispose of food waste and items such as napkins, paper plates, wax-paper wraps, and other service ware that are considered compostable. These containers must also be labeled with the kind of food scraps and other compostables that are acceptable. If you contract with an organics waste hauler, they can provide information on the items that are acceptable at the compost processing facility if not using the VRTS. Organics waste haulers can also transport the organic waste to other compost processing facilities for processing. These companies may be able to provide specialized containers that are leak proof and monitor them throughout the event.

4.3. Step 3: Staffing

Include food waste/composting training as part of the positions described for staffing recycling.

It is strongly advised that zero waste efforts are implemented when it is possible to have recycling ambassadors at the recycling stations helping attendees clearly sort compostable items correctly. Whereas people are more familiar with traditional recycling, zero waste efforts are not yet mainstream and mistakes are common as people learn how to distinguish between composting, recycling and trash. Diane Emerson, Vashon Chamber of Commerce, and ZWV have assem-

bled an Event Recycling Station Kit which is available for borrowing from the Chamber. See Appendix 1 for additional details. Staff should also document the systems in photographs and diagrams, characterize the waste mix and quantify it.

4.4. Step 4: Guest education

It is very important that containers are labeled clearly with text and images of acceptable materials so that Recycling Ambassadors can help attendees sort items correctly. This is also a great opportunity to educate attendees on what is and isn't compostable.

4.5. Step 5: Vendor education

Include information on how vendors are expected to participate in your new composting program by modifying the type of materials they use to serve food and where to deposit food waste throughout the event.

4.6. Step 6: Hauling

Discuss with the organics hauler if they will be using a large organics container to consolidate all the compostables. If so, the container should be labeled as "Food Scraps / Compostables / Organics Only." The container must be leak proof and, ideally, locked to prevent people from putting regular trash or recyclables in it.

5. CONCLUSIONS

Additional resources can be found in section 7 below. Quantification of the waste stream during the event in terms of volume or mass of different materials, as well as documenting the system in photographs and diagrams are important for designing future events and should be included in the system. Zero Waste Vashon staff are available to assist in providing additional advice to ensure successful recycling. Please refer to the ZWV website or contact steven.bergman@zerowastevashon.org or any members of the ZWV board for additional information.

6. GLOSSARY OF TERMS

A*ccessibility*-usability of a product, service, environment or facility by people with the widest range of capabilities.

Carbon footprint - a measure of the amount of greenhouse gas (GHG) emissions that are released within the boundaries of study. A carbon footprint is often measured in the units of kg or tonnes of CO_2e (e=equivalent). A true carbon footprint starts at the cradle and measures the release of GHG emissions throughout a supply chain or life-cycle.

Compostable - ASTM D6400, D6868 and/or Biodegradable Products Institute (BPI) certification as "compostable", meaning that a product will biodegrade completely, quickly and safely-similar to yard trimmings and food scraps in a municipal compost system. To locate products that carry this certification, see: https://bpiworld.org/CertifiedCompostable. For a list of compostable items accepted at the Cedar Grove Compost facility in Maple Valley (the current destiny of organic waste deposited at the Vashon Transfer Station), see: https://cedar-grove.com/compostable/accepted-items.

Composting - A mixture of organic substances such as organic food waste, paper fibers, and yard waste that will decompose and be used to enrich soil. Composting creates a valuable resource out of waste instead of paying to dispose of this material in a landfill.

Commingled - aka mixed stream - In reference to recycling, mixed or commingled streams are those that do not require sorting of recycled materials based on material such as clean & dry plastic, metal, and paper. Mixed or commingled recycling can be placed into one container and sorted at a later time at a recycling plant.

Contamination - Non-recyclable items that have been deposited into a recycling container, or non-organic materials placed in an organic waste container.

Generated - In reference to recycling, "generated" materials are those that are discarded by event participants (exhibitors, staff, and guests).

Hauler - the entity hired to transport trash/ recycling or compost material from the event site to the appropriate end destination (transfer station, composting facility, pig farms, recycling plant, or landfill).

ISO 20121 (International Sustainable Events Standards)- Events can take a heavy toll on our resources, society and the environment by generating significant waste, putting a strain on local resources (eg., water or energy), or creating tensions in local communities. This standard can make an event sustainable, no matter its type or size.

Life cycle assessment (LCA)- also known as life cycle analysis, includes a variety of environmental impact categories, beyond carbon footprint, such as toxicity, eutrophication, acidification, water depletion, resource depletion, etc.

Sustainable Development- development that meets the needs of the present without compromising the ability of future generations to meet their needs; it is about integrating the goals of a high quality of life, health and prosperity with social justice and maintaining the earth's capacity to support life in all its diversity. These social, economic and environmental goals are interdependent and mutually reinforcing.

VRTS - King County's Vashon Recycling and Transfer Station where commingled (free) and organic waste (min. fee-$12 for <320 lbs.) can be recycled on Vashon.

Waste streams - Describes all materials discarded at an event, many of which are valuable resources.

Waste Hierarchy - a tool used in the evaluation of processes that protect the environment alongside resource and energy consumption ranked from most favorable to least favorable.[1] The hierarchy establishes priorities based on current sustainability standards.[1] To be sustainable, waste management cannot be solved only with one-dimensional solutions and require an integrated circular approach.[2] " *(modified from wikipedia)*

Zero Waste - Any one-time program, occasion or event that reduces waste by preventing 90% or more of trash from entering landfills through use of recycling, composting, and conservation.

7. Additional Resources

7.1. Selected Brochures & Pamphlets (after Kansas City Green Event Planning Guide, 2013)

Recycling for Festivals and Special Events (Center for Energy and Environmental Education, School of Health, Physical Education and Leisure Sciences, University of Northern Iowa)

It's Easy Being Green! A Guide to Planning and Conducting Environmentally Aware Meetings and Events (United States Environmental Protection Agency, Solid Waste and Emergency Response, EPA530-K-96-002)

Don't Throw Away That Food: Strategies for Record-Setting Waste Reduction (United States Environmental Protection Agency, Solid Waste and Emergency Response, EPA-530-F-98-023)

Recycling At Your Event: Recycling Advocates Guide to Reducing Waste at Any Event or Conference (Recycling Advocates, P.O. Box 6736, Portland OR 97228-6736; 503-777-0909; e-mail: info@recyclingadvocates.org; www.recyclingadvocates.org)

Exhibitor Recycling: Oregon Convention Center; The Blues Go Green: Waterfront Blues Festival reduces waste by 50 percent, Waste Prevention and Recycling at Conferences and Meetings(Metro Regional Environmental Management Dept., 600 NE Grand Ave., Portland, OR 97232-2736; contact: Genya Arnold, Promotion Outreach Planner, 503-797-1700; www.metro-region.org).

7.2.2. Selected Organizations and Individuals (after Kansas City Green Event Planning Guide, 2013) *These organizations or individuals are familiar with or are actually responsible for event recycling for one or more large events.*

Bridging The Gap, 435 Westport Rd., #23, Kansas City, MO 64111; 816-561-1087; www. bridgingthegap.org; e-mail: choose@bridgingthegap.org. Environmental consultants and organizers of waste reduction and recycling. Keep Kansas City Beautiful, a program of Bridging The Gap, coordinates the Green Event program for greater Kansas City.

Center for Energy and Environmental Education, School of Health, Physical Education and Leisure Services, University of Northern Iowa, Cedar Falls, Iowa

50614-0293, contact: Rick Stinchfield, 319-273-2573; e-mail: Rick.Stinchfield@uni.edu. Recycling organizers for several community events.

BRING Recycling, P.O. Box 885, Eugene, OR 97440-0885, contact: Julie Daniel, 541-746-3023; e-mail: info@bringrecycling.org; www.bringrecycling.org. Recycling organizers of the Oregon County Fair, Art in the Vineyard & other events.

Del Mar Fairgrounds, 22nd District Agricultural Association, Concessions Dept. P.O. Box 2668, Del Mar, CA, contact: Nancy Strauss, 858-792-4218. Recycling and waste reduction organizers for Fairgrounds events.

University of Colorado Environmental Center,, CU Environmental Center 207 UCB Boulder, Colorado 80309; contact: Marianne Moulton, Asst. Dir., 303-492-8308; email, ecenter@colorado.edu; www.ecenter.colorado.edu. Recycling organizers for the Bolder Boulder Marathon & 10K, campus concerts, etc.

City of San Francisco Recycling Program, 1145 Market St., #401, San Francisco, CA, contact: Ed Cooney 415-554- 3437; www.sfrecycles.org.

United States Environmental Protection Agency, Region 7, 901 N. 5th St., Kansas City KS 66101, 913-551-7003. Call for information on how to join Waste Wise, Energy Wise, WAVE and other no-cost waste prevention and energy conservation programs. To order brochures, pamphlets and documents call toll-free 1-800-490-9198 or see website: www.epa.gov.

Metro Regional Center, 600 NE Grand Ave., Portland, OR 97232-2736, contact: Genya Arnold, Promotion Outreach Planner, 503-797-1700; www.metro-region.org. Website contains a helpful article entitled Waste Prevention & Recycling at Conferences & Meetings, also available in hard copy brochure form.

National Recycling Coalition, 1727 King St., Suite 105, Alexandria, VA 22314-2720; 703-683-9025, e-mail: NRCInfo@nrc-recycle.org; www.nrc-recycle.org

Recycling Advocates, P.O.Box 6736, Portland, OR 97228-6736, contact: Kate Wells, 503-777-0909; E-mail:info@ recyclingadvocates.org; www.recyclingadvocates.org

Colorado University Environmental Center, Special Event Recycling Program, Campus Box 207, UMC 331, Boulder, CO 80309, contact: Marianne Moulton, 303-492-8308; www.colorado.edu.curecycling.

Eno River Association, 4419 Guess Rd., Durham, NC 27712, contact: Judy Stafford, 919-544-5324; www. enoriver.org. Organizers of the "Trash-Free" Festival for the Eno.

Community Recycling Network, contact: Andy Rock; e-mail: info@crn.org.uk; website: www.crn.org.uk. Creators of the Reusabowl Project using washable crockery and cutlery at public events.

Keep America Beautiful, Inc., website: www.kab.org. Tips on organizing litter-free festivals and events.

The Cygnus Group, www.cygnus-group.com. A website designed to provide information regarding the most efficient and effective ways to reduce waste and conserve resources, including access to the Use Less Stuff Report.

7.2. Commercial Products, Businesses (after Kansas City Green Event Planning Guide, 2013) *These businesses offer recycled-content or reusable promotional products, environmental services or other event recycling-related items. Please note that the listing below does not indicate an endorsement by ZWV and as the list may be out of date. The reader is urged to practice due diligence in evaluating these products.*

Adapt, 13618 Lemay St., Van Nuys, CA 91401-1114; 888-782-6974; www.adaptadspecialty.com; e-mail: yberke@aol.com. Carry a broad range of recycled content promotional products.

Amazing Recycled Products, P.O.B. 312, Denver, CO 80201; 800-241-2174; e-mail: amazing@amazingrecycled.com, website: amazingrecycled.com. Carry a large spectrum of products made from recycled materials.

BioCorp, Inc., 8890 Autumn Oaks Dr., Rockford, MN 55373; Toll Free 888-206-5658; e-mail: info@BiocorpUSA. com; website: http://www.BiocorpUSA.com. Manufacturers of ReSourceWare, biodegradable plastic tableware and biodegradable collection bags.

Direct Access International, Inc., EMED Co., Inc., P.O. Box 369, Buffalo, NY 14240-0369; 800-442-3633, emedco.com; e-mail: customerservice@emedco.-com. Specialists in innovative signage and safety communication.

Energy & Environmental Concepts, Inc., 325 S. Spruce St., Traverse City, MI 49684; 800-968-9998

Green Hotels Association, P.O. Box 420121, Houston, TX 77242-0212; 713-789-8889, www.greenhotels.com

Green Restaurant Association, 38 Harold St Sharon, MA 02067; 858-452-7358; e-mail: gra@dinegreen.com; www.dinegreen.com

Home & Planet, 25 E. 3rd Bethlehem, PA 18015; toll-free 1-877-966-1009; www.homeandplanet.com; email: homeandplanet@fast.net. Gifts, furniture, accessories, tableware.

Keep America Beautiful, Inc.; www.kab.org. Has specialty products pertaining to litter-free messages.

J. Wilbur Company, Kansas City, MO; 816-421-7050; Toll Free 800-421-7050; www. jwilbur.com; email: customercare@jwilbur.com. Provide a broad range of promotional items and services.

Rainbow Eco Specialties, Bldg. 9, Ste 82, 1275 Bloomfield Ave., Fairfield, NJ 07004; 800-564-6748; e-mail: rainbowenv@aol.com. Promotional and educational products made from recycled materials.

Direct Access International, 301 Broadway, Ste 403, Riviera Beach, FL 33404; 800-811-7383; fax 561-863-5507; e-mail: daccess@flips.net. Manufacturers of 100% recycled content apparel and accessories.

Royal Resource Management Corporation, 1709 Highway #7, Brougham, Ontario, Canada L0H 1A0, contact: Jack McGinnis, Vice President, Technical Services 905-427-0009; Toll Free 888-312-1000 ext. 315; e-mail: jack.mcginnis@royalresource.com. Technical consultants for large event recycling; did recycling at 1996 Olympic Games.

Windsor Barrel Works, P.O. Box 47, Kempton, PA 19529; 610-736-4344. Attractive outdoor recycling receptacles made of recycled materials.

The Plastic Lumber Company, 115 W Bartges St Akron OH, 44311; 330-762-8989; e-mail: sales@ plasticlumber.com; www.plasticlumber.com; e-mail: sales@plasticlumber.com. Signs, furniture and recycling containers from plastic lumber.

Successful Events, P.O. Box 64784, St. Paul, MN 55164-0784, Toll Free 800-896-9221. Carry a broad range of award and promotional items.

Stan Miller and Associates, 25955 Aurora Rd., Cleveland, OH 44146; 800-211-5850; www.millerpromotions.com. Carry a broad range of award and promotional items.

Weisenbach Specialty Printing, Inc., 437 Holtzman Ave., Columbus, OH 43205-1604; 800-778-5420; e-mail: weisart@ beol.net. Recycled-content T-shirts and other promotional items.

Appendix 1. Sustainability Perspectives

In the USA, over 20% of consumer-level food is annually wasted (Buzby & Hyman, 2014; Conrad et al., 2018). The U.S. Dietary Guidelines Advisory Committee recognized the relationship between consumer behaviors, waste disposal, and the sustainability of various food groups in order to improve long-term food security (USDGAC, 2015). Food waste directly impacts resource conservation and food security, with growing environmental and economic costs, resulting in the need for communities to transition to more sustainable practices (eg., Thyberg & Tonjes, 2016). An estimated quarter of the produced food supply is lost or wasted within the food supply chain; the production of this lost food globally has been estimated to account for 24% of total freshwater resources used in food production, 23% of global cropland, and 23% of global fertilizer use (Kummu et al., 2012), meaning the carbon footprint of the average meal could be decreased by a third if food waste was eliminated.

The U.S. National Environmental Policy Act of 1969 (NEPA), defined the main goal of sustainability to: “create and maintain conditions, under which humans and nature can exist in productive harmony, that permit fulfilling the social, economic, and other requirements of present and future generations.” A “sustainable approach” is systems-based and seeks to understand the interactions among the three sustainability pillars: environmental, social, and economic in an effort to better understand the consequences of our actions. Sustainable solutions to many current problems protect the environment, strengthen our communities, and foster individual well being.

In 1987, the UN World Commission on Environment and Development (Brundtland Commission) defined “sustainable development” as: “…development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”

The National Academies convened a landmark study on Sustainability in 1996-1998 and published the synthesis volume “Our Common Journey: A Transition toward Sustainability,” which drew on nearly 375 reports of the National Research Council and hundreds of other published works, as well as the results of eight meetings, two summer studies, three workshops, a public symposium, and two commissioned studies.

Sustainable and other climate-crisis actions are immediately needed; one recent study estimated that delayed action will cost the world over $26 trillion by 2030 as well as much unnecessary loss of life (Global Commission on the Economy and Climate, 2018).

Appendix 2. Recommendations for 2020, from the 2019 Vashon Strawberry Festival Recycling Team (by Diane Emerson and collaborators) *[with additional notes from ZWV]*

These are recommendations to the Chamber of Commerce from the recycling team. It will be up to the Chamber to determine which, if any, of these recommendations to implement for the 2020 Strawberry Festival.

1. **It is recommended to encourage vendors to NOT hand out water bottles** or boxed water. Approximately 90% of the recycling was water bottles and boxed water cartons. Instead, we suggest that organizers purchase two water stations, and also encourage booth renters to have a couple of gallons of tap water available to people who visit the booth, but no free cups or containers. It is further suggested that water bottles can be sold at cost, and that no logos be on the water bottles, so people will more likely keep and re-use them. We picked up a number of high quality re-usable water bottles thrown into the trash. We believe it was because they were given away, and because they had business logos on them.
2. **It is recommended to coordinate the recycling effort early** on in the process, beginning Fall 2019, or no later than February 2020, to work with the many people who contribute to the waste stream: food vendors, the Sportsman's Club, and any groups who want to hand out water in any form. This will give the lead time necessary to work more closely with the Boy Scouts on trash collection, Granny's metal utensils, and line up people with compost bins and pigs to take the compostable paper and food waste.
3. **No Compostable Plastic.** It is recommended that all vendors and anyone giving items away understand that in Vashon's system for the next few years, compostable plastic is considered trash. It is only compostable in an off-island commercial compost facility. Neither the transfer station nor curbside pickup accepts it for composting, nor is it recyclable. Paper-based cups, plates and bowls have a better chance of being composted in island home and farm composting systems.

4. **We suggest having 2 recycling stations again**, with one well-trained person at a time in each booth, sorting and cleaning. All other staff and volunteers should be in the street, picking up recyclables, food waste, and compostables to bring back to the recycling stations for processing.

[*nota bene-ZWV suggests more than two recycling stations for an event as large as Strawberry Festival as long as they can be properly monitored.]*

5. **We suggest that on the street, we have a cluster of 3 containers every 500 to 1000 feet**: A Black trash can, a Blue recycling bin with only the recycling logo on it, and a container, probably a 6-gallon bucket, for compostables or food waste. We saw clearly that Festival visitors don't take the time to read signage, and have only a second to recognize a trash or recycling bin. They can do that with these color cues. Blue is the standard color for recycling, Black for trash. A food waste container of some sort will keep some of the food waste from contaminating the recycling, or being thrown into the trash. Staff and volunteers can go through the trash just ahead of the Boy Scouts, and rescue recycling and compostable items. This would be the Rescue Recycling Team. They can bring the recycling bins back to a recycling station for detailed sorting and cleaning. They can bring the compostables/food waste buckets back to the recycling stations to remove inappropriate items. Just like the Scouts, the recycling team can replace the full recycling bins and compostable buckets with empty containers, so there is always one ready to use by the public.

[*nota bene-ZWV suggests a closer spacing of recycling clusters, perhaps every 100-200 ft and clearly marked]*

6. **It is recommended to include food vendors in the effort**. Food vendors were pretty good about bringing their cardboard to the main recycling area in the large parking lot across from the Ace Service Center, but they trashed a lot of recycling and food. It is recommended that the roving recycling rescue team collect recyclables and food waste from food vendors too.

[*nota bene-ZWV suggests the Chamber provide food vendors with details describing an effective system for recycling food waste and other materials in advance of the event, perhaps making it part of the vendor agreement.]*

7. **It is suggested that the Chamber include promotion of recycling** along with other information on the 2020 Strawberry Festival and encourage people to bring their own water bottles.

[*nota bene-ZWV suggests the Chamber follow the lead of The Sheepdog Classic and designate the event Zero Waste.]*

8. **Make it fun!** Consider having a basketball hoop for the public to toss clean and ready recycling into the recycling bin. A team member would keep a lid on the hoop until the potential recycled item was approved. This would provide an opportunity for education, as well as fun.
9. **"In Bin" Examples.** People were having trouble accepting that they could put their trash AND recyclables in the 'In Bin". So it is suggested to place examples In the back of the 'In Bins': a bottle, a can, a clean napkin, clean paper plate, and a non-gross example of food so people can quickly see what can go into the 'In Bin'.

[*nota bene-ZWV believes a single "In Bin" is really confusing for attendees and a step backward as people are accustomed and trained to have at least two bins. Having only one bin defeats any opportunity to educate the public if somebody is going to go through the trash and pick out the recycling.]*

Recycling flags, bins and other materials used in the 2019 Strawberry Festival Recycling Stations are available to other groups on Vashon when they want to recycle this way at events. This Vashon Green Event Kit may additionally incorporate dishes and glassware and more, for running completely zero waste events. Contact the Vashon Maury Island Chamber of Commerce to borrow these materials for events that do not conflict with the 2020 Strawberry Festival.

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