Waste Reduction
at Washington Hospital,
Fremont CA
www.WHHS.com
WHHS Green Team Members

- Safety
- Environmental Services
- Engineering
- Infection Control
- Nursing
- Purchasing/Materials Management
- Risk Management
- Laboratory
- Pharmacy
- Physician Liaison
- Community Relations
- Rehabilitation Services
- Radiology
- Senior Management
- Food Services/Dietary
- Employee Health
- Information Technology
- Operating Room
- Executive Assistants
- Finance
- Laundry
- Strategic Planning
- Biomedical Engineering

Green Team Mission Statement

To create a collaborative force to facilitate stewardship of our resources, by promoting and facilitating ideas and solutions to help improve the ecological well-being of our community and institution.

Washington Hospital

Visit us on the Hospital Intranet
And read the Board of Director’s Statement of Environmental Goals

Green Team

Rev 3/23/14
WHHS is working to be Green!

We are:
- Standardized on Recycled copy paper
- Using Reusable Sharps Containers
- Serving healthier food (local/organic)
- Reusing and recycling electronic equipment
- Recycling Mixed Paper & Cardboard
- Food Composting
- Recycling plastic and glass from cafeteria and patient floors via FNS
- Participating in the Materials Management annual swap for supplies
- Using Reusable pads
- Recycling worn linens for use as rags
- Donating medical equipment & supplies
- Recycling Toner/Inkjet cartridges
- Providing shuttle service to train station
- Recycling batteries & fluorescent lamps
- Recycling pulse oximeter probes
- Employing Reusable Sterilizer containers
- Installed water-free urinals
- Replacing water jugs with filter systems to reduce plastic bottles

SUSTAINABILITY
Meeting the needs of the present without compromising the ability of future generations to meet their own needs.

Brundtland definition - 1987 Report of the World Commission on Environment and Development

We have:
- Eliminated Silver by moving to Digital Radiology
- Eliminated all glutaraldehyde and ethylene oxide
- Eliminated ALL Styrofoam from the Cafeteria
- Virtually eliminated Mercury
- Replaced dishwasher for energy/water savings
- Replaced Washer Decontaminator in Central Services
- Implemented Pharmaceutical Waste Drop Off Program
- Implemented Integrated Pest Management Program
- Implemented Wageworks Commuter Benefits Program
- Introduced compostable takeout containers
- Undergone energy audits
- Purchased Microfiber mops
- Received LEED Silver certification for new hospital wing (still in planning stages)
- Reduced energy consumption by replacing motor and pump controls
- Replaced refrigeration units with energy efficient models

We will:
- Continue to affirm our commitment to promoting healthier communities both locally and globally.
- Continue to implement processes and procedures that improve the sustainability of our operations.
- Seek new and innovative ways to improve environmental performance through conservation, purchasing, reduction, re-use and recycling programs.
- Partner with others in the community to safeguard the environment.
- Educate our employees and the community on ways to be green at work and green at home.

Washington Hospital Green Initiative striving for
“Planet Friendly Healthcare”

2014 Practice Green Health GREENHEALTH PARTNER FOR CHANGE AWARD
2012 Practice Green Health GREENHEALTH PARTNER FOR CHANGE AWARD
STOP 2011 Making MedicineMercury Free Award
2011 Practice Green Health PARTNERSHIP AWARD
2010 Practice Green Health PARTNER RECOGNITION AWARD
Toner/ Cartridge Recycling

- Mailroom
  - Empty printer cartridges only!!!
  - Please recycle

- Recycle your small printer cartridges here
### Paper vs. Toner Cartridges

<table>
<thead>
<tr>
<th>Month</th>
<th>Toner</th>
<th>Paper</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nov-12</td>
<td>132</td>
<td>1,865</td>
</tr>
<tr>
<td>Dec-12</td>
<td>159</td>
<td>2,435</td>
</tr>
<tr>
<td>Jan-13</td>
<td>137</td>
<td>2,652</td>
</tr>
<tr>
<td>Feb-13</td>
<td>127</td>
<td>3,499</td>
</tr>
<tr>
<td>Mar-13</td>
<td>129</td>
<td>2,058</td>
</tr>
<tr>
<td>Apr-13</td>
<td>102</td>
<td>2,766</td>
</tr>
<tr>
<td>May-13</td>
<td>174</td>
<td>3,214</td>
</tr>
<tr>
<td>Jun-13</td>
<td>79</td>
<td>3,340</td>
</tr>
<tr>
<td>Jul-13</td>
<td>189</td>
<td>1,849</td>
</tr>
<tr>
<td>Aug-13</td>
<td>102</td>
<td>2,150</td>
</tr>
<tr>
<td>Sep-13</td>
<td>77</td>
<td>1,883</td>
</tr>
<tr>
<td>Oct-13</td>
<td>115</td>
<td>2,813</td>
</tr>
<tr>
<td>Nov-13</td>
<td>87</td>
<td>1,582</td>
</tr>
<tr>
<td>Dec-13</td>
<td>58</td>
<td>2,183</td>
</tr>
</tbody>
</table>

**Total:** 1,667 Toner, 34,289 Paper

**AVE/MO:** 119 Toner, 2,449 Paper

**Toner:** Cartridges returned (lags actual usage)

**Paper:** Reams of all types of paper issued

*EPIC GO LIVE was July 1, 2013*
**Recycling Bins**

**TRASH**
- Food and coffee grounds
- Containers soiled with food
- Napkins and paper towels
- Plastic eating utensils & straws
- Coffee creamers & stirrers
- Foil & cellophane wrappers
- Styrofoam or paper cups & lids
- Cold drink cups & plastic lids

**RECYCLE**
- Newspapers & magazines
- Plastic & glass bottles
- Aluminum & tin cans
- Milk & TV Dinner Cartons
- Juice Boxes/Cardboard packages
- Clean plastic food containers
- Plastics #1-#7 NOT Styrofoam
优PPT整理发布
Reusable Sharps Containers

Washington Hospital Healthcare System and the GREEN TEAM

Education
March 24/25
Go-live
March 29

Hospital Sharps Disposal Management
Congratulations, Washington Hospital Healthcare System for preventing waste with reusable produce totes and sharps containers, and for collecting recyclable and compostable materials hospital-wide. These are just a few of many practices your team has put in place to cut costs, reduce waste, and protect the environment.
## Waste CY 2014

<table>
<thead>
<tr>
<th></th>
<th>TONS</th>
<th>Cost/Ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRASH</td>
<td>763</td>
<td>$250</td>
</tr>
<tr>
<td>RECYCLING</td>
<td>18</td>
<td>$221</td>
</tr>
<tr>
<td>COMPOST</td>
<td>122</td>
<td>$124</td>
</tr>
</tbody>
</table>

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Tons</td>
<td>903</td>
</tr>
<tr>
<td>Recycling / Compost</td>
<td>140</td>
</tr>
<tr>
<td>Recycling / Compost</td>
<td>15%</td>
</tr>
</tbody>
</table>

**TOTAL $ SAVINGS:** $16K 8%
Environmental Excellence Award Metrics Report
Washington Hospital

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>METRIC</th>
<th>2013 FACILITY DATA</th>
<th>2012 BENCHMARK REPORT DATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waste</td>
<td>% Recycling as a percent of total waste</td>
<td>22.59%</td>
<td>31%</td>
</tr>
<tr>
<td></td>
<td>% RMW as a percent of total waste</td>
<td>6.51%</td>
<td>9%</td>
</tr>
<tr>
<td></td>
<td>Pounds of RMW per staffed bed/day</td>
<td>–</td>
<td>2.7 lbs</td>
</tr>
<tr>
<td></td>
<td>Pounds of total waste per patient day</td>
<td>37.73 lbs</td>
<td>45.1 lbs</td>
</tr>
</tbody>
</table>
2014 data for 2015 PGH award

<table>
<thead>
<tr>
<th>RMW Waste Metrics Table</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Staffed Beds:</strong></td>
</tr>
<tr>
<td>156</td>
</tr>
<tr>
<td><strong>Adjusted Patient Days:</strong></td>
</tr>
<tr>
<td>76642</td>
</tr>
<tr>
<td><strong>Patient Days:</strong></td>
</tr>
<tr>
<td>57017</td>
</tr>
</tbody>
</table>

Pounds of RMW per Staffed Bed per Day (Last year, the bulk of the data fell in the range between 1.2 and 3.0 lbs of RMW/staffed bed/day)

1.71

Pounds of RMW per Adjusted Patient Day (Last year, the median value was 1.43 lbs of RMW per APD)

1.27

Pounds of RMW per Patient Day (Last year, the data indicated the average was 3.0 pounds of RMW per patient day)

1.71

For comparison purposes, based on data submitted from last year’s Award winners, the median value was 1.9 pounds of RMW per staffed bed per day (the bulk of the data fell in the range between 1.2 and 3.0 lbs of RMW/staffed bed/day). The median value for pounds RMW per patient day was 44 (with the bulk of the data falling between 34.8 and 58.9 lbs of RMW per patient day).
## WASTE SEGREGATION GUIDELINES

### WASHINGTON HOSPITAL HEALTHCARE SYSTEM

#### WASTE SEGREGATION GUIDELINES

<table>
<thead>
<tr>
<th>TRACe CHEMOTHERAPY WASTE</th>
<th>PHARMACEUTICAL WASTE</th>
<th>HAZARDOUS WASTE</th>
<th>NON-HAZARDOUS PHARMACEUTICAL LIQUIDS</th>
<th>SOLID WASTE (TRASH)</th>
<th>SHARPS</th>
<th>REGULATED MEDICAL WASTE</th>
<th>REGULATED MEDICAL WASTE FOR INCINERATION ONLY</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Chemotherapy Container</strong></td>
<td><strong>Blue</strong></td>
<td><strong>Black &amp; White (RCRA)</strong></td>
<td><strong>Hopper/Toilet/Sink</strong></td>
<td><strong>Black Plastic Garbage Bag in Green Barrel</strong></td>
<td><strong>Sharps Containers</strong></td>
<td><strong>Red Biohazard Bag in Liner in Gray Tub</strong></td>
<td><strong>Red Biohazard Bag In Red Tub</strong></td>
</tr>
<tr>
<td>Examples:</td>
<td>- Nitroglycerin tablets, patches, solutions, ointment, spray</td>
<td>- Paper &amp; plastic wrappers, packaging, boxes, computer paper, office waste</td>
<td>- Large volume parenterals or oral liquids which contain:</td>
<td>- Nuclear Medicine</td>
<td>Examples:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Gowns (if soiled with trace chemotherapeutic agent)</td>
<td>- Nitroglycerin tablets, patches, solutions, ointment, spray</td>
<td>- Paper &amp; plastic wrappers, packaging, boxes, computer paper, office waste</td>
<td>- Vitamins:</td>
<td>- Nuclear Medicine</td>
<td>- Saturated or grossly soiled disposables, i.e., bloody gauze, dressings, lap pads, OB and surgical per-n-pads, gloves and PPE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Chemotherapy gloves</td>
<td>- Nitroglycerin tablets, patches, solutions, ointment, spray</td>
<td>- Paper &amp; plastic wrappers, packaging, boxes, computer paper, office waste</td>
<td>- Electrolytes, such as potassium chloride, calcium gluconate, magnesium sulfate</td>
<td>- Nuclear Medicine</td>
<td>- Containers, catheters or tubes with fluid blood or blood products not discarded or flushed, i.e., blood sets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Masks (if soiled with trace chemotherapeutic agent)</td>
<td>- Nitroglycerin tablets, patches, solutions, ointment, spray</td>
<td>- Paper &amp; plastic wrappers, packaging, boxes, computer paper, office waste</td>
<td>- Lactated ringers</td>
<td>- Nuclear Medicine</td>
<td>- Dialyzers &amp; tubing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Barriers</td>
<td>- Nitroglycerin tablets, patches, solutions, ointment, spray</td>
<td>- Paper &amp; plastic wrappers, packaging, boxes, computer paper, office waste</td>
<td></td>
<td>- Nuclear Medicine</td>
<td>- Microbiology specimens, used culture plates, tubes, bottles &amp; devices</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- IV chemotherapeutic agent tubing</td>
<td>- Nitroglycerin tablets, patches, solutions, ointment, spray</td>
<td>- Paper &amp; plastic wrappers, packaging, boxes, computer paper, office waste</td>
<td></td>
<td>- Nuclear Medicine</td>
<td>- Blood spill clean-up materials</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Empty chemotherapy bags/bottles</td>
<td>- Nitroglycerin tablets, patches, solutions, ointment, spray</td>
<td>- Paper &amp; plastic wrappers, packaging, boxes, computer paper, office waste</td>
<td></td>
<td>- Nuclear Medicine</td>
<td>- Placentas</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Empty chemotherapy drug vials</td>
<td>- Nitroglycerin tablets, patches, solutions, ointment, spray</td>
<td>- Paper &amp; plastic wrappers, packaging, boxes, computer paper, office waste</td>
<td></td>
<td>- Nuclear Medicine</td>
<td>- Surgical tissue &amp; pathological specimens</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Controlled substances requiring a witness for waste record.</td>
<td>- Nitroglycerin tablets, patches, solutions, ointment, spray</td>
<td>- Paper &amp; plastic wrappers, packaging, boxes, computer paper, office waste</td>
<td></td>
<td>- Nuclear Medicine</td>
<td>- Suction canisters placed in individual Red Biohazard Bag tied with a gooseneck knot</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For additional information, see Hospital Infection Control Manual and Waste Management Plan, OSHA Bloodborne Pathogen Standard, State Regulations or Administrative Code.

WASTE SEGREGATION GUIDELINES 2011– HazMat Committee Approved 12/2010 Revised 1/21/11, 3/30/11, 4/18/11, 1/16/12; 1/21/13, 5/21/14
WHHS O.R. RECYCLABLES

Cardboard Packaging & Paper
Plastics #1-7 (no Styrofoam)
Resources

The Northern California (NorCal) Sustainable Healthcare Group. We are a group of dedicated individuals seeking to further sustainability initiatives in hospitals and healthcare.
Subscribe: norcalshg-subscribe@yahoogroups.com

Practice Greenhealth is the nation’s leading health care community that empowers its members to increase their efficiencies and environmental stewardship while improving patient safety and care through tools, best practices and knowledge.
www.practicegreenhealth.org

StopWaste is a public agency responsible for reducing the waste stream in Alameda County. We help local governments, businesses, schools and residents reduce waste through: Source reduction and recycling, Market development, Technical assistance, and Public education
www.stopwaste.org
Thank You!

Paul W. Kelley, CBET

Director of Biomedical Engineering,
Green Initiative and Asset Redeployment

Paul_Kelley@whhs.com 510-791-3493