**Resources for Chapter 8. Purchasing, Waste, and Recycling**

## 2010 iCAP purchasing and waste strategies:

* Avoid environmentally irresponsible products and corporations by using carbon indicators in coordination with other universities, with minimum recycled content standards.
* Charge purchasing entity (dept. etc.) costs of disposal of consumed products, and use full-cost accounting and life-cycle analysis structures for major purchases.
* Commission a detailed food and non-food consumption and waste study that outlines current data, future projections, and strategies for minimizing consumption and meeting those projections with locally derived resources
* Develop zero-waste campus policy by 2012, with incentives or fees.
* Eliminate purchase of non-recyclable material when suitable substitutes exist.
* Expand reuse of durable goods, through a cataloging system and working for legislation to change law to allow the University to resell used goods to the public.
* Incorporate a large-scale food composting project by 2012.
* Increase waste diversion to 75% by 2020. (for non-construction and demolition waste?)/apply LEED to smaller projects.
* Recycle additional items, such as glass and additional plastic categories, possibly with a bottle or can deposit program.

## FY13 summary of iCAP Progress:

The iCAP committed to adopting a long-term Zero Waste campus policy by 2011, and increasing waste diversion to 75% by 2020. The investigation into Zero Waste has shown that officially we have passed the 75% diversion rate, but that does not represent the original understanding which excluded animal and yard wastes.

* Waste Audits – The Illinois Sustainable Technology Center, in the Prairie Research Institute, has been hired to do detailed Waste Audits at four pilot locations around campus. These are Swanlund, Henry Admin, the Illini Union Bookstore, and the Alice Campbell Alumni Center.
* Zero Waste Coordinator – A half-time academic hourly Zero Waste Coordinator was hired in Fall 2013 to focus efforts on behavior change of individuals related to recycling and waste management.
* Sustainable Procurement – This is an area that has not been directly addressed yet for campus.
* The 2010 iCAP recommended development of a zero-waste campus policy, with incentives or fees. While the Campus Administrative Manual policy for “Recycling, Recycled Products Procurement, and Waste Reduction” refers to the iCAP, it does not yet have an implementation system for realizing the waste reduction vision. It also does not yet have buy-in from the purchasing and strategic procurement staff on campus.
* Water Fountain Retrofits – There are water bottle fillers being added to water fountains throughout campus, so building occupants can utilize refillable water bottles and reduce the use of disposable
* Commission a detailed food and non-food consumption and waste study that outlines current data, future projections, and strategies for minimizing consumption and meeting those projections with locally derived resources. – waste audits were performed by Housing
* The 2010 iCAP included the strategy to “*incorporate a large-scale food composting project by Dec 2012.*” An effort to create a large-scale food waste composting site began with a feasibility study in Fall 2011, with funding from the Office of Sustainability (now iSEE). Upon completion of the feasibility study and the food waste audits from Dining Services, a DCEO Food SCRAP grant was applied for along with funding from the SSC. A recycling assistant was hired to oversee implementation of this project, and fully develop the financial and operational business plan. However, upon completion of the business plan, it became apparent that additional funding would be needed, the operations would cost more annually than the cost avoidance from reduced landfill tipping fees, and the education/engagement aspects of composting would not be possible with the proposed system. Considering the plans for vermin-composting at the Sustainable Student Farm and an anaerobic digester on South Farms, the large-scale food waste composting project was cancelled.
* The iCAP also recommended that campus “*recycle additional items, such as glass and additional plastic categories, possibly with a bottle or can deposit program, and increase recycling rate from 50% to 75% by 2020.”* To investigate options for increased recycling, the Office of Sustainability (now iSEE) funded a graduate research assistant to report on the current recycling and waste management practices for campus. The resulting report is a detailed analysis of current practices through the end of FY12. The report includes a number of opportunities for improved waste management.
* The University Dining Services catering operation has a relatively large amount of glass bottles to dispose of each year. At the end of FY13, they started working with Green Purpose, LLC to collect and recycle the glass. This is the only existing glass recycling on campus.
* Purchasing items not yet addressed:
	+ Eliminate purchase of non-recyclable material when suitable substitutes exist.
	+ Charge purchasing entity (dept. etc.) costs of disposal of consumed products, and use full-cost accounting and life-cycle analysis structures for major purchases.
	+ Avoid environmentally irresponsible products and corporations by using carbon indicators in coordination with other universities, with minimum recycled content standards.
	+ Incorporate carbon costs into food products sold on campus.
* Property Accounting items not yet addressed:
	+ Expand reuse of durable goods, through a cataloging system
	+ Expand reuse of durable goods, by working for legislation to change law to allow the University to resell used goods to the public.

## iCAP Portal procurement and waste projects:

1. [Waste Minimization](https://icap.sustainability.illinois.edu/project/waste-minimization)
	1. [Decrease Wasteful Practices through Behavior Change](https://icap.sustainability.illinois.edu/project/decrease-wasteful-practices-through-behavior-change)
		1. [Annual International Sustainable Electronics Competition](https://icap.sustainability.illinois.edu/project/annual-international-sustainable-electronics-competition)
		2. [RecycleMania](https://icap.sustainability.illinois.edu/project/recyclemania)
		3. [Water Fountain Retrofit](https://icap.sustainability.illinois.edu/project/water-fountain-retrofit)
		4. [Zero Waste Game Day Fall 2014](https://icap.sustainability.illinois.edu/project/zero-waste-game-day-fall-2014)
	2. [Establish a Net Zero Waste Plan and Policy](https://icap.sustainability.illinois.edu/project/establish-net-zero-waste-plan-and-policy)
		1. [Waste Stream Characterization Study](https://icap.sustainability.illinois.edu/project/waste-stream-characterization-study)
		2. [Zero Waste Plan for ISTC](https://icap.sustainability.illinois.edu/project/zero-waste-plan-istc)
	3. [Increase Recycling Rates](https://icap.sustainability.illinois.edu/project/increase-recycling-rates)
		1. [Campus-Wide Bottle/Can Deposit Program](https://icap.sustainability.illinois.edu/project/campus-wide-bottlecan-deposit-program)
		2. [Encourage Departments and Individuals to Use Recycling Bins](https://icap.sustainability.illinois.edu/project/encourage-departments-and-individuals-use-recycling-bins)
		3. [Implement Solutions for Special Recyclables](https://icap.sustainability.illinois.edu/project/implement-solutions-special-recyclables)
			1. [Pallet Recycling](https://icap.sustainability.illinois.edu/project/pallet-recycling)
			2. [Address Electronic Waste (e-waste)](https://icap.sustainability.illinois.edu/project/address-electronic-waste-e-waste)
			3. [Battery Recycling](https://icap.sustainability.illinois.edu/project/battery-recycling)
			4. [ChemCycle](https://icap.sustainability.illinois.edu/project/chemcycle)
			5. [Glass Recycling at Housing Catering Services](https://icap.sustainability.illinois.edu/project/glass-recycling-housing-catering-services)
			6. [Glove Recycling](https://icap.sustainability.illinois.edu/project/glove-recycling)
			7. [Lamp & Ballast Recycling](https://icap.sustainability.illinois.edu/project/lamp-ballast-recycling)
			8. [Mill Shop Sawdust Recycling](https://icap.sustainability.illinois.edu/project/mill-shop-sawdust-recycling)
		4. [Increase Recycling through the WTS](https://icap.sustainability.illinois.edu/project/increase-recycling-through-wts)
	4. [Recycling for the Quad](https://icap.sustainability.illinois.edu/project/recycling-quad)
2. [Reuse Surplus Goods and Valuable "Waste"](https://icap.sustainability.illinois.edu/project/reuse-surplus-goods-and-valuable-waste)
	1. [Allow Salvage of Campus Buildings Before Demolition](https://icap.sustainability.illinois.edu/project/allow-salvage-campus-buildings-demolition)
	2. [Legislation to Resell Surplus Goods Publicly](https://icap.sustainability.illinois.edu/project/legislation-resell-surplus-goods-publicly)
	3. [Surplus Catalog](https://icap.sustainability.illinois.edu/project/surplus-catalog)
		1. [Department-to-Department Durable Good Transfers](https://icap.sustainability.illinois.edu/project/department-department-durable-good-transfers)
		2. [iStores Surplus Database](https://icap.sustainability.illinois.edu/project/istores-surplus-database)
3. [Sustainable Procurement](https://icap.sustainability.illinois.edu/project/sustainable-procurement)
	1. [Develop Sustainable Purchasing Policies](https://icap.sustainability.illinois.edu/project/develop-sustainable-purchasing-policies)
		1. [Adopt Environmental Indicators to Guide Purchasing Standards](https://icap.sustainability.illinois.edu/project/adopt-environmental-indicators-guide-purchasing-standards)
		2. [Full-Cost Accounting and Life-Cycle Analysis](https://icap.sustainability.illinois.edu/project/full-cost-accounting-and-life-cycle-analysis)
		3. [Incorporate Disposal Costs of Products](https://icap.sustainability.illinois.edu/project/incorporate-disposal-costs-products)
		4. [Minimum Recycled Content Standards](https://icap.sustainability.illinois.edu/project/minimum-recycled-content-standards)
	2. [Sustainable Purchasing Practices](https://icap.sustainability.illinois.edu/project/sustainable-purchasing-practices)
		1. [Sustainable Building Materials](https://icap.sustainability.illinois.edu/project/sustainable-building-materials)
		2. [Dishware at Dining Services Locations](https://icap.sustainability.illinois.edu/project/dishware-dining-services-locations)
		3. [Green Cleaning Products and Practices](https://icap.sustainability.illinois.edu/project/green-cleaning-products-and-practices)
		4. [Recycled- Content Goods](https://icap.sustainability.illinois.edu/project/recycled-content-goods)

## Questions from the STARS report:

The technical manual for STARS is online at <https://stars.aashe.org/pages/about/technical-manual.html>.

Our report is online at <https://stars.aashe.org/institutions/university-of-illinois-urbana-champaign-il/report/2013-07-31/>. The credit references listed below, are connected with the online report, except that the credits below are from the STARS 2.0 version, and the online report is version 1.2.

|  |  |
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| **Credit** | **Reporting Field** |
| AC-8.1 | *Is the institution utilizing the campus as a living laboratory in the following areas?* |
| AC-8.1.11 | Is the institution utilizing the campus as a living laboratory in the area of Purchasing? |
| AC-8.1.12 | A brief description of how the institution is using the campus as a living laboratory for Purchasing and the positive outcomes associated with the work |
| AC-8.1.15 | Is the institution utilizing the campus as a living laboratory in the area of Waste? |
| AC-8.1.16 | A brief description of how the institution is using the campus as a living laboratory for Waste and the positive outcomes associated with the work |
| OP-8.16 | A brief description of the institution's program to replace energy-consuming appliances, equipment and systems with high efficiency alternatives |
| OP-8.18 | A brief description of any vending machine sensors, lightless machines, or LED-lit machines employed by the institution |
| OP-12.1 | Does the institution have an institution-wide stated preference to purchase computers and/or other electronic products that are EPEAT registered or meet similar multi-criteria sustainability standards for electronic products? |
| OP-12.2 | A copy of the electronics purchasing policy, directive, or guidelines |
| OP-12.3 | The electronics purchasing policy, directive, or guidelines  |
| OP-12.4 | A brief description of steps the institution has taken to ensure that the purchasing policy, directives, or guidelines are followed |
| OP-12.5 | Does the institution wish to pursue to pursue Part 2 of this credit (expenditures on EPEAT registered electronics)? |
| OP-12.6 | *Expenditures on EPEAT registered desktop and laptop computers, displays, thin clients, televisions, and imaging equipment:* |
| OP-12.6.1 | Expenditures on EPEAT Bronze desktop and laptop computers, displays, thin clients, televisions, and imaging equipment |
| OP-12.6.2 | Expenditures on EPEAT Silver desktop and laptop computers, displays, thin clients, televisions, and imaging equipment |
| OP-12.6.3 | Expenditures on EPEAT Gold desktop and laptop computers, displays, thin clients, televisions, and imaging equipment |
| OP-12.7 | Total expenditures on desktop and laptop computers, displays, thin clients, televisions, and imaging equipment |
| OP-12.8 | The website URL where information about the institution's electronics purchasing policy, directive, or guidelines is available |
| OP-13.1 | Does the institution have an institution-wide stated preference to purchase third party certified cleaning and janitorial products? |
| OP-13.2 | A copy of the green cleaning product purchasing policy, directive, or guidelines |
| OP-13.3 | The green cleaning product purchasing policy, directive, or guidelines |
| OP-13.4 | A brief description of steps the institution has taken to ensure that the purchasing policy, directives, or guidelines are followed |
| OP-13.5 | Does the institution wish to pursue Part 2 of this credit (expenditures on cleaning and janitorial products)? |
| OP-13.6 | Expenditures on Green Seal and/or UL Environment (EcoLogo) certified cleaning and janitorial products |
| OP-13.7 | Total expenditures on cleaning and janitorial products |
| OP-13.8 | Has the institution's main cleaning or housekeeping department(s) and/or contractor(s) adopted a certified low-impact, ecological (“green”) cleaning program? |
| OP-13.9 | A brief description of the institution’s low-impact, ecological cleaning program |
| OP-13.10 | A copy of the sections of the cleaning contract(s) that reference certified green products |
| OP-13.11 | The sections of the cleaning contract(s) that reference certified green products |
| OP-13.12 | The website URL where information about the institution’s green cleaning initiatives is available |
| OP-14.1 | Does the institution have an institution-wide stated preference to purchase office paper that has recycled content and/or is certified to meet multi-criteria sustainability standards for paper? |
| OP-14.2 | A copy of the paper purchasing policy, directive or guidelines |
| OP-14.3 | The paper purchasing policy, directive or guidelines |
| OP-14.4 | A brief description of steps the institution has taken to ensure that the purchasing policy, directives, or guidelines are followed  |
| OP-14.5 | Does the institution wish to pursue Part 2 of this credit (expenditures on office paper)? |
| OP-14.6 | *Expenditures on office paper with the following levels of post-consumer recycled, agricultural residue, and/or FSC certified content:* |
| OP-14.6.1 | Expenditures on 10-29 percent post-consumer recycled, agricultural residue, and/or FSC certified content office paper |
| OP-14.6.2 | Expenditures on 30-49 percent post-consumer recycled, agricultural residue, and/or FSC certified content office paper |
| OP-14.6.3 | Expenditures on 50-69 percent post-consumer recycled, agricultural residue, and/or FSC certified content office paper |
| OP-14.6.4 | Expenditures on 70-89 percent post-consumer recycled and/or agricultural residue content and/or FSC Mix label office paper |
| OP-14.6.5 | Expenditures on 90-100 percent post-consumer recycled and/or agricultural residue content and/or FSC Recycled label office paper |
| OP-14.7 | Total expenditures on office paper  |
| OP-14.8 | The website URL where information about the paper purchasing policy, directive, or guidelines is available |
| OP-15.1 | Does the institution have an institution-wide stated intent to support disadvantaged businesses, social enterprises, and/or local community-based businesses? |
| OP-15.2 | A copy of the policy, guidelines or directive governing inclusive and local purchasing |
| OP-15.3 | The policy, guidelines or directive governing inclusive and local purchasing |
| OP-15.4 | Does the institution wish to pursue Part 2 of this credit (inclusive and local expenditures)? |
| OP-15.5 | The percentage of total purchases from disadvantaged businesses, social enterprises and/or local community-based businesses |
| OP-15.6 | The website URL where information about the institution’s inclusive and local purchasing policies and/or program is available |
| OP-16.1 | Does the the institution employ Life Cycle Cost Analysis (LCCA) as a matter of policy and practice when evaluating energy and water-using products and systems? |
| OP-16.2 | Does the institution employ LCCA as a matter of policy and practice across the operations of the entire institution (i.e. all divisions)? |
| OP-16.3 | A brief description of the LCCA policy(ies) and practice(s) |
| OP-16.4 | The website URL where information about the institution’s LCCA policies and practices is available |
| OP-17.1 | How many of the institution’s business partners are covered by policies, guidelines and/or agreements that require adherence to minimum environmental standards? |
| OP-17.2 | How many of the institution’s business partners are covered by policies, guidelines and/or agreements that require adherence to minimum standards governing employee wages, benefits, working conditions and rights? |
| OP-17.3 | A copy of the policies, guidelines, and/or agreements with the institution's business partners (or a representative sample) |
| OP-17.4 | The policies, guidelines, and/or agreements with the institution's business partners (or a representative sample) |
| OP-17.5 | A brief description of programs and strategies institution has implemented to ensure that the guidelines are followed, including a brief description of instances when the guidelines have changed purchasing behavior, if applicable |
| OP-17.6 | The website URL where information about the institution’s guidelines for its business partners is available |
| OP-22.1 | *Waste generated:* |
| OP-22.1.1 | Materials recycled, performance year |
| OP-22.1.2 | Materials composted, performance year |
| OP-22.1.3 | Materials reused, donated or re-sold, performance year |
| OP-22.1.4 | Materials disposed in a solid waste landfill or incinerator, performance year |
| OP-22.1.5 | Materials recycled, baseline year |
| OP-22.1.6 | Materials composted, baseline year  |
| OP-22.1.7 | Materials reused, donated or re-sold, baseline year |
| OP-22.1.8 | Materials disposed in a solid waste landfill or incinerator, baseline year |
| OP-22.8 | A brief description of when and why the waste generation baseline was adopted |
| OP-22.9 | A brief description of any (non-food) waste audits employed by the institution |
| OP-22.10 | A brief description of any institutional procurement policies designed to prevent waste |
| OP-22.11 | A brief description of any surplus department or formal office supplies exchange program that facilitates reuse of materials |
| OP-22.12 | A brief description of the institution's efforts to make materials available online by default rather than printing them |
| OP-22.13 | A brief description of any limits on paper and ink consumption employed by the institution |
| OP-22.14 | A brief description of any programs employed by the institution to reduce residence hall move-in/move-out waste |
| OP-22.15 | A brief description of any other (non-food) waste minimization strategies employed by the institution |
| OP-22.23 | The website URL where information about the institution’s waste minimization initiatives is available |
| OP-23.1 | Materials diverted from the solid waste landfill or incinerator |
| OP-23.2 | Materials disposed in a solid waste landfill or incinerator  |
| OP-23.3 | A brief description of programs, policies, infrastructure investments, outreach efforts, and/or other factors that contributed to the diversion rate, including efforts made during the previous three years |
| OP-23.4 | A brief description of any food donation programs employed by the institution |
| OP-23.5 | A brief description of any pre-consumer food waste composting program employed by the institution |
| OP-23.6 | A brief description of any post-consumer food waste composting program employed by the institution |
| OP-23.7 | *Does the institution include the following materials in its waste diversion efforts?* |
| OP-23.7.1 | Does the institution include paper, plastics, glass, metals, and other recyclable containers in its waste diversion efforts? |
| OP-23.7.2 | Does the institution include food donations in its waste diversion efforts? |
| OP-23.7.3 | Does the institution include food for animals in its waste diversion efforts? |
| OP-23.7.4 | Does the institution include food composting in its waste diversion efforts? |
| OP-23.7.5 | Does the institution include cooking oil in its waste diversion efforts? |
| OP-23.7.6 | Does the institution include plant material composting in its waste diversion efforts? |
| OP-23.7.7 | Does the institution include animal bedding composting in its waste diversion efforts? |
| OP-23.7.8 | Does the institution include batteries in its waste diversion efforts? |
| OP-23.7.9 | Does the institution include light bulbs in its waste diversion efforts? |
| OP-23.7.10 | Does the institution include toner/ink-jet cartridges in its waste diversion efforts? |
| OP-23.7.11 | Does the institution include white goods (i.e. appliances) in its waste diversion efforts? |
| OP-23.7.12 | Does the institution include laboratory equipment in its waste diversion efforts? |
| OP-23.7.13 | Does the institution include furniture in its waste diversion efforts? |
| OP-23.7.14 | Does the institution include residence hall move-in/move-out waste in its waste diversion efforts? |
| OP-23.7.15 | Does the institution include scrap metal in its waste diversion efforts? |
| OP-23.7.16 | Does the institution include pallets in its waste diversion efforts? |
| OP-23.7.17 | Does the institution include motor oil in its waste diversion efforts? |
| OP-23.7.18 | Does the institution include tires in its waste diversion efforts? |
| OP-23.8 | Other materials that the institution includes in its waste diversion efforts |
| OP-24.1 | Construction and demolition materials recycled, donated, or otherwise recovered |
| OP-24.2 | Construction and demolition materials landfilled or incinerated  |
| OP-24.3 | A brief description of programs, policies, infrastructure investments, outreach efforts, and/or other factors that contributed to the diversion rate for construction and demolition waste |
| OP-25.1 | Does the institution have strategies in place to safely dispose of all hazardous, special (e.g. coal ash), universal, and non-regulated chemical waste and seek to minimize the presence of these materials on campus? |
| OP-25.2 | A brief description of steps taken to reduce hazardous, special (e.g. coal ash), universal, and non-regulated chemical waste |
| OP-25.3 | A brief description of how the institution safely disposes of hazardous, universal, and non-regulated chemical waste |
| OP-25.4 | A brief description of any significant hazardous material release incidents during the previous three years, including volume, impact and response/remediation |
| OP-25.5 | A brief description of any inventory system employed by the institution to facilitate the reuse or redistribution of laboratory chemicals |
| OP-25.6 | Does the institution have or participate in a program to responsibly recycle, reuse, and/or refurbish all electronic waste generated by the institution? |
| OP-25.7 | Does the institution have or participate in a program to responsibly recycle, reuse, and/or refurbish electronic waste generated by students? |
| OP-25.8 | A brief description of the electronic waste recycling program(s) |
| OP-25.9 | A brief description of steps taken to ensure that e-waste is recycled responsibly, workers’ basic safety is protected, and environmental standards are met |
| OP-25.10 | The website URL where information about the institution’s hazardous and electronic-waste recycling programs is available |
| PA-2.47 | Does the institution have formally adopted plans to advance sustainability in Purchasing? |
| PA-2.48 | Do the Purchasing plan(s) include measurable objectives? |
| PA-2.49 | A brief description of the plan(s) to advance sustainability in Purchasing |
| PA-2.50 | The measurable objectives, strategies and timeframes included in the Purchasing plan(s) |
| PA-2.51 | Accountable parties, offices or departments for the Purchasing plan(s) |
| PA-2.57 | Does the institution have formally adopted plans to advance sustainability in Waste? |
| PA-2.58 | Do the Waste plan(s) include measurable objectives? |
| PA-2.59 | A brief description of the plan(s) to advance sustainability in Waste |
| PA-2.60 | The measurable objectives, strategies and timeframes included in the Waste plan(s) |
| PA-2.61 | Accountable parties, offices or departments for the Waste plan(s) |