



ENGINEERING AND FACILITIES DEPARTMENT

ZERO WASTE MANAGEMENT PROGRAM

The university adheres to the principle of environmental protection through proper waste management. This is the philosophy behind the operation of the Zero Waste Management (ZWM) Program

Vision and Mission

The ZWM of UPHSD envisions that if environmental education and awareness as part of the individual's habit was formed from pre-school to college, majority of the Filipinos would realize a sense of responsibility in taking care, protecting and enhancing the environment.

Cognizant of the vision and mission of the university, ZWM of UPHSD can be the best vehicle in educating and preparing an environmentally conscious citizenry who shall work for the protection and improvement of the environment, thereby ensuring sustainability and economic efficiency in processing the hospital and school garbage resources.

Environmental Policy

The University of Perpetual Help System DALTA is an environmentally responsible school, providing quality education to a varied clientele in a manner that best conserves resources, while maintaining high standards of customer services and fulfilling its role as a good corporate citizen in the global community.

Garbage Collection and Disposal

Generally, garbage that is collected from the area is sorted and segregated at source, following the guidelines being implemented by the ZWM Program of the institution. Recyclable items like paper, plastics and iron/metal are placed in a separate trash bag and brought to the storage area for processing.

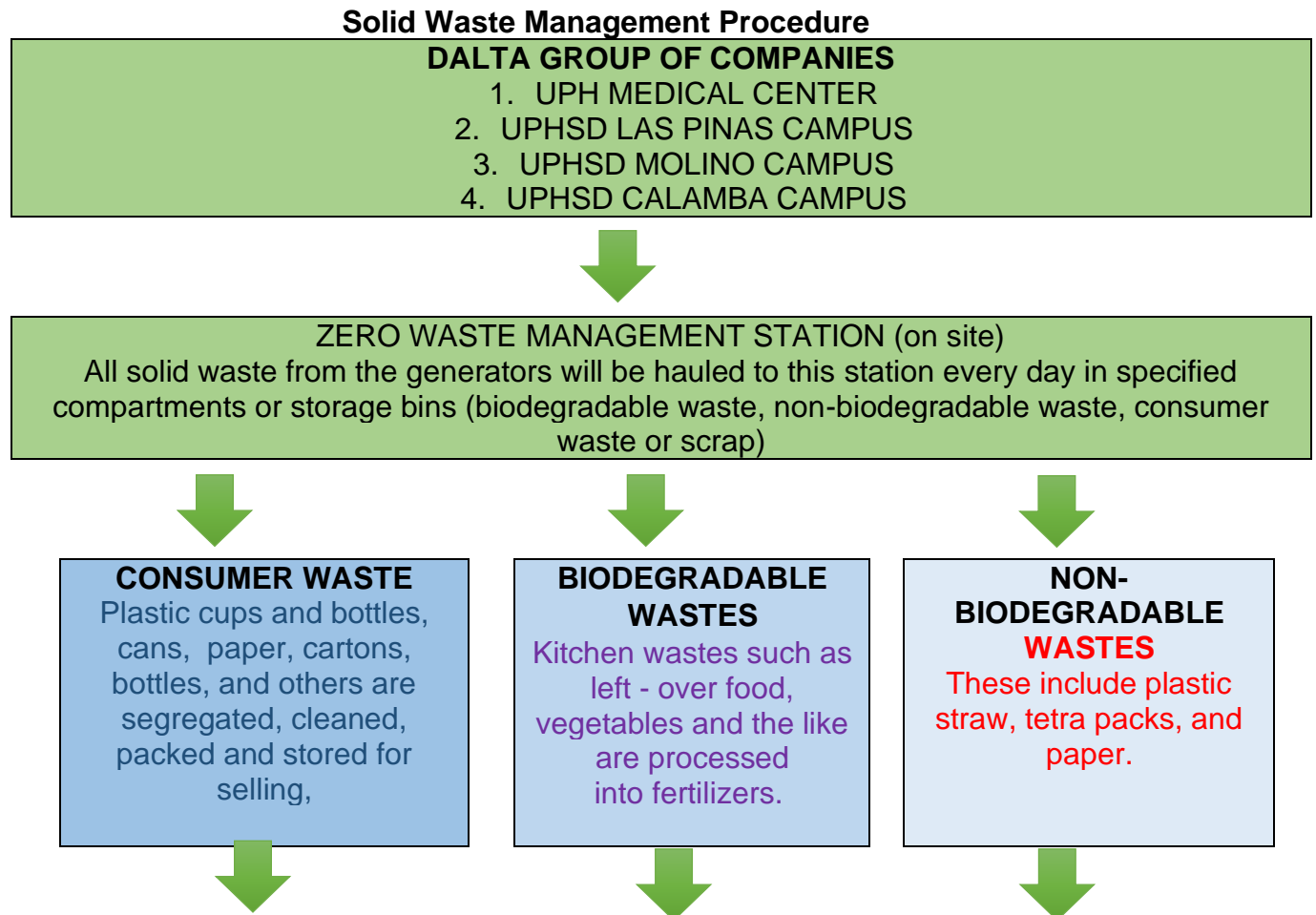
Residual wastes, or garbage that cannot be re-processed anymore are brought to the Waste Collection Bin located at the Markees Parking, where this will be stored and collected by accredited hauler/s for disposal to designated land fill/dump site. Hauling is usually done twice a week.

The Solid Waste Process



As a matter of institutional policy, waste segregation starts at source, meaning at the offices, classrooms, laboratories, canteens, and other areas in the campus. There are color-coded waste bins stationed in strategic areas in the campus: green for *biodegradable*, black for *non-biodegradable*, and yellow for infectious/hazardous wastes.

Housekeepers collect the garbage from the different sources, segregate the recyclable from residual, and dispose the residual wastes to the designated receptors until these are collected by accredited hauler twice a week. The recyclables are brought to the ZWM Central Sorting Station where these are cleaned and stored before these are sold to waste buyers. The detailed solid waste process flow is described below:





UNIVERSITY OF PERPETUAL HELP SYSTEM DALTA



CONSUMER WASTES (SELL)

Segregated consumer wastes are now subject to sale thru bidding to different junk shop owners.

BIODEGRADABLE (FERTILIZERS)

All biodegradable wastes are now subject to grinding and drying process for conversion into fertilizers.

NON-BIODEGRADABLE (LIVELIHOOD PROGRAM)

All non-biodegradable waste are used as materials for decorations, bags and others as part of our likelihood



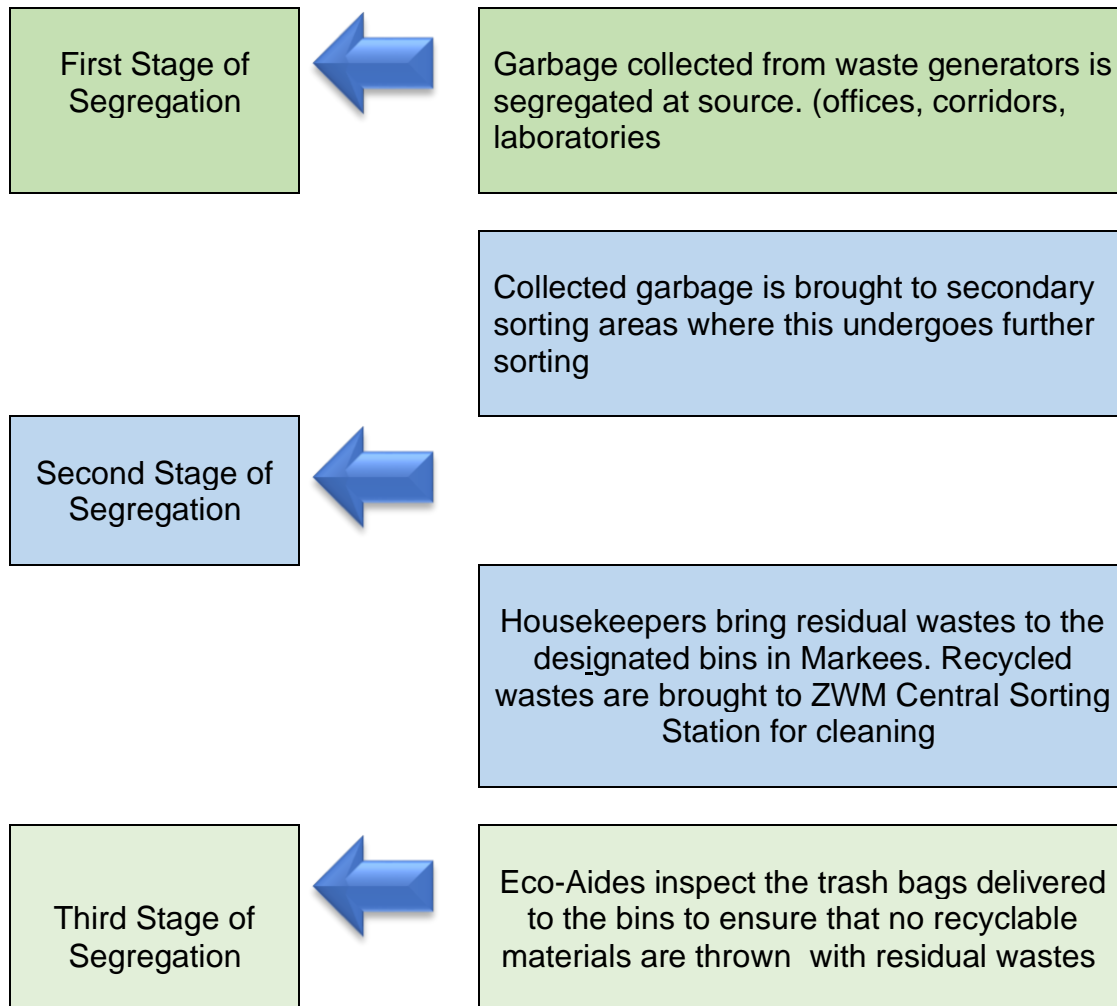
RESIDUAL WASTES

All residual wastes from the final segregation of biodegradable, non-biodegradable and infectious hazardous. Consumer wastes are hauled by accredited hauler's of the Local Government Unit and or private hauling enterprises for disposal.



Three-Stage Segregation Process

Garbage collected from the campus passes through *three stages of segregation*. Preliminary segregation is done at source, where big items such as cartons, pet bottles, and the like are removed and placed in a collector's bin or large garbage bags. These are in turn brought to secondary sorting areas where more thorough segregation is done. The last stage of the segregation process occurs in the garbage depository where the final inspection is undertaken by the Zero Waste Eco-Aides before the garbage truck arrives.



Three Stages of Waste Segregation in UPHSD Las Piñas Campus



The 5S Program

Along with the implementation of ZWM practices is the promotion of the so-called 5S Program in all departments and colleges in the university. The 5S practices are described in the following chart:

Matrix of 5S Practices

Japanese	English	Tagalog	Brief Explanation
SEIRI	Sort	Suriin	Remove and dispose unnecessary items
SEITON	Systematize	Silipin	Re-arrange necessary items in the work area
SEISE	Sweep	Simutin	Clean the workplace
SEIKETSU	Sanitize	Siguraduhin ang kalinisan	Maintain good housekeeping
SHITSUKE	Self-Discipline	Sariling kusa	Imbibe the value of discipline among workers
Seiri (Sort) Remove unnecessary items and dispose them <ol style="list-style-type: none"> 1. Make work easier by removing obstruction 2. Avoid getting disturbed by unnecessary items 3. Eliminate unnecessary items 4. Prevent accumulation of unnecessary items 		Some Seiri Practices <ol style="list-style-type: none"> 1. Sorting and evaluation criteria 2. Disposal tags 3. Designated storage area 4. Disposal procedure 5. Akafuda Operation 6. Material list 	
Some Seiton Practices <ol style="list-style-type: none"> 1. Place goods for the first-in-first-out retrieval 2. Store goods for the first-in-first-out retrieval 3. Have a fixed location for everything 4. Label items and their locations systematically 5. Mark everything separately 			
Some Seiso (Sweep) Practices			



Clean your workplace completely

1. Easily detect defect and unsafe areas
2. Avoid equipment damage/s
3. Keep workplace organized, safe and free from obstructions

Some Seisei Practices

1. Bis Seico (Clean-up) Day
2. 3-5 minutes cleaning day
3. Assign owner to each machine
4. Combine cleaning with inspection
5. Make daily maintenance points clean by providing visible instruction
6. Provide necessary tools for critical points of cleaning
7. Prevent causes of dust and dirt
8. CLAYGO (clean as you go)

Composting

The ZWM of UPHSD Las Piñas Campus initiated the improvised Mobile Composting Units that are hoped to address the following objectives:

- ❖ To lessen the amount of residual waste. To directly ease the burden of waste disposal.
- ❖ To save resources. To reduce pollution. To develop home-made fertilizers for our gardens.
- ❖ To save resources
- ❖ To reduce pollution
- ❖ To develop home-made fertilizers for our gardens

Old trash bins/waste receptacles are used as compost bins. Soil is added to waste materials such as leaves, twigs and left over food. Each compost becomes ready for harvest when the materials become dark brown, brittle and without foul odor.

COMPOSTING AREA

Picture of Composting Area

Sample of a compost bin in UPHSD - Las Piñas Campus



UNIVERSITY OF PERPETUAL HELP SYSTEM DALTA



Livelihood Program

Many of the wastes generated in the school are utilized as raw materials for the production of home decors, clothing, bags, and accessories. For example, telephone directories are woven into paper flowers. Tarpaulins and zesto packs are sewn to become bags. Plastic soft drink bottles are made into table top decors and even Christmas trees. Finished products are sold to students and employees at very nominal prices.