

Recycling Technical Assistance Case Study – Noble Horizons
Salisbury, Connecticut
September 30, 2008

BACKGROUND

As part of the USDA Rural Utilities Services grant received by the Northeast Recycling Council, Inc. (NERC), NERC conducted a walk-through waste assessment on September 26, 2007 to assist Noble Horizons with further developing recycling at their facility.

Noble Horizons provides four different levels of elder care. This 104 acre site consists of 49 independent living cottages, 19 assisted living hotel rooms, and 91 rooms for skilled nursing care. Noble Horizons clientele ranges from 46 to 102 in age.

GENERAL OBSERVATIONS

- 1) The Noble Horizons' administrative staff is dedicated to improving recycling at the facility and working to make the facility more environmentally sustainable. Two staff members attended NERC's Recycling Makes Sen\$e Workshop prior to the site visit.
- 2) The recycling program has a solid foundation, and with some additional education and efficiencies in collection, the facility would realize greater diversion rates and potential cost savings.

SITE-SPECIFIC OBSERVATIONS AND RECOMMENDATIONS

Cottages

Observations

- 1) Residents are provided with recycling collection services for paper and beverage containers.
 - a. Storage sheds have shelves for newspapers and round trashcans in which to place beverage containers.
 - b. Cottage residents, with separate garages, are asked to place recyclables on shelves in their garage above the trashcan.
 - c. Facility employees collect materials and transport them back to the main storage area prior to removal by a local hauler.
- 2) Facility employees spend unnecessary time and labor removing plastic bags in which beverage containers are placed in the recycling bins by residents.
- 3) There is no signage on the recycling shelves or containers.
- 4) There is limited educational outreach to residents.

Recommendations

- 1) Place signage on all shelves and recycling containers in the storage sheds. Include instructions and reminders for residents to remove materials from bags before placing in bins or on shelves.
 - a. This will increase efficiency of the materials collection by facility staff and help to lower labor costs.
- 2) Provide all residents with a "Recycling Reminder." See *Attachment A*.
 - a. The "Reminder" should be included in the residents' informational packet.
 - b. The "Reminder" should clearly advise residents to take newspapers and beverage containers out of plastic bags before placing them in recycling bins or on shelves.

Disclaimer: This material is based upon work supported under a grant by the Rural Utilities Service, United States Department of Agriculture. Any opinions, findings, and conclusions or

recommendations expressed in this material are solely the responsibility of the authors and do not necessarily represent the official view of the Rural Utilities Service.

- 3) Consider providing cottage residents with reusable bags or small recycling bins to store beverage containers or papers for recycling.
 - a. This will encourage more recycling and reduce contamination and labor time by eliminating non-recyclable plastic bags.

Other Living Areas

Observations

- 1) Residents are not provided bins in the hotel rooms due to limited generation of materials and space concerns.
 - a. Housekeepers are given the option of taking materials out of trashcans.
- 2) Recycling storage bins are generally well placed in the facility for housekeeping to use.
 - a. Some trash bins in use were recycling bins at some point and blue in color. Several recycling bins were not blue.
 - b. Space constraints in some housekeeping closets limit room for bins.
- 3) Recycling storage bins were not labeled, or just had the word "recycling" handwritten on them.
- 4) Nursing stations have recycling bins and shred containers.
 - a. Recycling bins were lined with plastic trash liners.
 - b. Recycling bins were not labeled.
 - c. There was confusion at some of the nursing stations as to which bins were for beverage containers and which were for paper.
 - d. Printers and copiers had bins located next to them.
- 5) Some administrative offices did not have recycling bins.
- 6) There were no beverage container recycling bins in the building entrances or foyer.
- 7) The facility has a limited ongoing education program for staff or new hires.

Recommendations

- 1) Hotel Rooms - While residents do not generate a significant amount of recyclables, there may be more generated than realized. Also, Connecticut law requires recycling of paper and beverage containers by **all** businesses and residents. A system where residents are provided with reusable tote bags or a paper file tray would work for short-term in-room storage. Residents could also be asked to set recyclable materials on a desk for collection at the end of the day. Housekeeping staff should not be expected to remove materials from the trash.
- 2) Consistency in the appearance of the recycling bins used is crucial for reducing or eliminating confusion and contamination. Since the facility already has some blue recycling bins, it is important that all the others be the same color. Non-blue containers can be painted blue. *No blue receptacles should be used for trash.*
- 3) For locations with limited space for recycling bins, consider using reusable bags that can be placed on the floor or mounted on the walls. These can also attach easily to housekeeping carts for collection from rooms.
- 4) All bins should be labeled for recycling. Labels should clearly state what materials go into the bin. *See sample labels in the Recycling Makes Sen\$e Guide*
[http://www.nerc.org/documents/town_business/recycling_makes_sen\\$e_guide.pdf](http://www.nerc.org/documents/town_business/recycling_makes_sen$e_guide.pdf)
- 5) Paper recycling bins should not be lined with plastic. This is a waste of plastic bags and potentially leads to confusion over what bins are for paper recycling and which are for trash. Again, whether desk-side or storage, all bins should be labeled for recycling.
- 6) Depending on the costs for shredding materials and labor/space required for paper recycling bins at each nursing station, it may make sense to eliminate the paper recycling bins at the stations

and simply have all paper shredded. Savings could be accrued through reduced labor and space savings.

- 7) Separate collection of magazines and newspapers may still be required. Ask your hauler.
- 8) To make employee participation easy, all offices should have desk-side recycling bins.
- 9) A beverage container recycling bin would be a positive addition to the entrance/foyer areas of the facility. Not only do these bins capture beverage containers brought in by guests, they help to promote the facility's recycling efforts. A sign above the bins could explain Noble Horizon's "greening" efforts.
- 10) A bin designed for collecting beverage containers is recommended to reduce contamination. The key is to have a lid with a hole large enough just for a soda can or small plastic beverage bottle. Place a small trash bin next to it for trash.
- 11) All employees should be trained regarding acceptable materials for recycling and the appropriate bins for each material. A recycling program memo should be provided to all employees and all employees should be required to attend a short training (perhaps held in conjunction with a regular staff meeting). Housekeeping staff should be included in the trainings. The memo should also be included in new employee training materials. *See the NERC Toolkit, mentioned above, for a sample training memo template.*
- 12) Consider including recycling and other environmental issues as ongoing topics for brief discussions at staff meetings. Regular updates on how the program is going, cost savings, recycling tonnages, environmental benefits, etc., will help to encourage greater participation. If employees feel they have input into program improvements, they will be more likely to participate.

Other Areas

Observations

Staff Lounge

- 1) Bins for trash and recycling were both gray and just had "trash" and "recycling" hand-written on them.
- 2) There is a small, blue unmarked recycling box for newspaper and magazine recycling.

Kitchen

- 1) Kitchen recycling containers were not labeled or just had "recycling" hand-written on them.

Gazebo Area

- 1) One of the bins outside is designated for recycling, however it looks like the other trashcans and is not labeled.

Trash and Recycling Room

- 1) Different colored bins were used for both trash and recycling. At least one bin used for recycling was labeled trash. A blue bin was being used for trash.
- 2) There was some signage on the walls for recycling, but too low for good viewing and not material-specific.
- 3) The wood enclosure for cardboard was not labeled.
- 4) Newspaper was placed loose on the ground.
- 5) Mixed paper, including candy boxes, was found in the trash.

Recommendations

- 1) Perhaps blue tape or some blue paint could be affixed to the front of all recycling bins. Alternatively or in addition, blue laminated signs would work well. Signs should clearly state whether the recycling bin is for paper or beverage containers. Signs should be simple, but list acceptable and non-acceptable materials.

- 2) Consider using carts on wheels that can be serviced by the recycling hauler as storage. The carts can simply be rolled out on collection day.
- 3) Signage on walls should be eye-level. In the Trash and Recycling Room, signage should be placed above the area where the materials are to be stored—"Cardboard," "Newspapers," and "Beverage Containers."
- 4) Reusable woven mesh bags would work well for storing newspaper. These bags will hold a significant volume, while not being too heavy to lift when full.
- 5) The proper storage of all materials should be reviewed with personnel responsible for bringing materials to the storage areas and those collecting materials. Safety issues and proper lifting techniques should be included as well.
- 6) Check with the Fire Marshall to ensure that the recycling storage room is in proper compliance with local fire codes. A fire extinguisher should be kept in the room at all times.
- 7) Continue ongoing employee education on the types of paper and other materials acceptable for recycling.

Other Topics Discussed

1. Recycling hauling services was also discussed with staff. In response, NERC provided sample tips and language for bid specifications and a sample Request for Proposals for recycling hauling services. *See Attachments B and C.*

Actions Taken by Noble Horizons

- Developed a Green Team, which includes the: Administrator, Assistant to the Administrator, Director of Environmental Services, and the Assistant Director of Environmental Services for Housekeeping and Laundry.
- Developed a recycling fact sheet to be used as an educational hand-out for clients and staff.
- Conducted a waste sort and left piles of separated materials on a table for educating staff and clients.
- Held a recycling meeting with the cottage residents to talk about recycling and encourage them to participate in the facility's recycling program.
- Purchased an additional 70 10-gallon gray recycling bins for each cottage and white with green lettering recycling labels to be placed on all non-blue recycling containers throughout the facility.
- Reorganized and cleaned the recycling storage room so that it is easier to use.
- Purchased caddies to place under the large trash receptacles in the recycling storage room to make it easier to wheel them out to the truck on pick up day.
- Placed laminated recycling signs at eye level. More containers for holding the stored recyclables were purchased to accommodate the different materials collected. The bind for flat cardboard was re-secured. Hardware was also installed to hold brooms, etc. in an upright position to free up floor space.
- Placed laminated recycling signs in other public use areas for staff and in the copy room so all users will know where to place their recyclables.

Attachment A. Noble Horizons Resident Recycling Reminder

PLEASE RECYCLE

Mixed Paper

- Newspaper and magazines
- Junk mail
- Mixed Paper, including white and colored paper
- Envelopes (windows and clasps OK)



Preparation Tips

- Staples are okay.
- Labels are okay.
- Any color ink is okay.
- No food wrappers or soiled paper.
- Please—no trash or food waste!
- **PUT PAPER IN PAPER GROCERY BAG FOR COLLECTION.**

Container Recycling

- Glass jars and bottles
- Aluminum cans
- Steel (tin) cans
- Plastic bottles (e.g., beverage containers--soda, water, milk; and detergent bottles)



Preparation Tips

- Empty all food and liquid. Rinse if necessary.
- Lids and labels are okay.
- No polystyrene (Styrofoam) trays or containers, plastic packaging, plastic bags, or film plastic.
- Please—no trash or food waste!
- **REMOVE BEVERAGE CONTAINERS FROM PLASTIC BAGS AND PLACE DIRECTLY IN THE RECYCLING BINS.**

Please Recycle! Join Noble Horizons as they work to help keep our environment clean and healthy. We appreciate your participation!

(NOTE: A separate instruction sheet for residents with garages should be developed, specifying the placement of materials on the shelf in their garage.)

Attachment B. Suggested Tips and Language for Recycling Services Bid Specifications

The following suggestions may be helpful when discussing collection options with a potential hauler or in developing bid specifications. Consult the “Selecting a Recycler” and “Understand the Dollars and Cents of Waste Management.”

sections of the Recycling Makes Sen\$e Guide for additional information

[http://www.nerc.org/documents/town_business/recycling_makes_sen\\$e_guide.pdf](http://www.nerc.org/documents/town_business/recycling_makes_sen$e_guide.pdf)

- 1) Know the facility’s waste stream and generation amounts.
 - Talk with other healthcare facilities in the region to see what they pay for services and discuss the services they have.
- 2) Determine the waste management needs for the facility.
 - Consistency and reliability of service.
 - Cost of service.
 - Flexibility of service—to add more bins, increased collection frequency, or add other materials for recycling.
 - Aesthetics of containers.
 - Types of materials to be collected (now and future possibilities).
 - Length of contract.
 - Ability to modify waste hauling contract to negotiate downward service requirements to reflect increased recycling.
- 3) Include in the bid or request for proposals (RFP):
 - A brief description of the facility, including the locations of recycling containers.
 - Monthly tonnages of each material generated.
 - Times for materials to be collected (e.g., in the early am, two days per week).
 - Equipment you have and need (e.g. storage bins).
 - Length of contract and cancellation provisions.
 - Any particular requirements you have of the contractor (e.g., insurance information, waste license numbers, references, etc.).
- 4) Identify container and collection options.
 - Ask vendors to review all options for containers. This will help in providing options when expanding or modifying the recycling efforts.
 - Does or should the facility lease, own, or lease to own containers?
 - Who does the maintenance on the containers?
 - Who sanitizes the containers and how often?
 - Does the facility want to change the size, style, or color of the recycling containers?
 - Does pick-up frequency need to be modified?
 - Are container signs adequate?
 - If using a compactor, ask for pressure gauges on compacting dumpsters to know when they are full.
 - Make sure that all equipment meets OSHA safety standards.
- 5) Inquire about the additional collection services of the hauler.
 - Contact person to assist with program development, improvement, employee trainings, etc.

- Weight or volumes reported on a monthly basis.
- Designated time and days of service and/or on-call service.
- Designated response time for on-call or emergency pickups.
- Cleanup of collection area.
- Name of recycling facility, landfill, transfer station, MRF or incinerator used for contract.
- How are collection costs determined — flat fees, fee per pickup or per size of container, fee per ton or volume?

6) Consider whether you want companies to bid on trash and recycling separately. Using one company for both may be a convenient option. However, having two separate companies may help you save more on overall waste disposal.

7) Send the RFP to as many companies as possible, including the current hauler.

8) If none of the bids received is satisfactory, call the one or two top contenders to let them know their bid is being considered and negotiate with them.

9) Set-up a pre-bid meeting

- Review contract specifications.
- Take potential haulers on a tour of the facility.

10) Establish an “out” in the final contract

- If the contractor fails to meet contract needs.
- If the service needs modifying.

11) Additional considerations

- Work with purchasing agents to get language that supports recycling placed in contracts that are already written or in new bids as they go out.
 - Construction work or renovation work can include contracts that include green or sustainable building language, and recycling of construction debris.
 - Contracts for the vending machines should include recycling language.
 - Contracts for food service providers should include provisions requiring reusable and recyclable packaging be used for all materials generated from the contract.
- Work with suppliers to receive supplies in reusable/returnable shipping containers. Encourage suppliers to limit packaging materials.

Source: *Pick Up Savings: Adjusting Hauling Services While Reducing Waste*, EPA Headquarters; November 1998.

Attachment C. Sample Bid Request for Recycling Services

Request for Proposals for Recycling Services

The _____ ("facility") is currently soliciting bids for removal of collected recyclable materials. Your bid response must conform to the conditions and specifications as stated in this bid package. Any exceptions to the listed conditions and/or specifications must be clearly identified. Deviations from the specifications may be cause for rejection of your bid. The facility reserves the right to accept or reject any or all bids.

This facility is a _____ bed long-term care facility with _____ employees. We recognize that the facility has special waste needs not encountered in other settings. The diversity of our non-infectious waste stream is somewhat different than regular MSW and therefore, the potential for recycling and waste reduction is great. We are seeking a working partnership with a vendor to maximize our current recycling efforts and to expand to other materials during the course of the agreement.

This facility intends to award to the vendor that best addresses the overall needs of the facility from both a service and cost perspective. As part of the review process, a careful evaluation will be made of each bidder's financial statements and references. Any award resulting from this bid process will be subject to the facility and the successful vendor entering into a signed written agreement.

Interested parties must submit their bids to _____ no later than _____ at 4:00 P.M. Any bid received after such date and time will be rejected and returned to the bidder.

Pre-Bid Meeting. There will be a formal pre-bid meeting held on _____ in _____ at the facility. Interested parties must attend this meeting. A representative from the facility will take interested vendors on a tour of the institution to demonstrate our current recycling systems.

Proposal Format. Bids shall be submitted in a sealed envelope, plainly marked "Proposals for Recycling". Each bid must be signed and returned to _____ by the designated time.

General Terms and Conditions

1. *Contract Period.* The term of this contract will be for the time period October 1, 200_ through September 30, 20_. The contract may be renewed for one full year subject to mutual agreement of both parties.

2. *Scope.* This contract shall be to provide pick-up and hauling services, on predetermined schedules, for recyclable goods and items to composted.

3. *System for Removal of Recyclables.* The facility shall provide its own in-house collection containers for recyclables. The facility currently rents a _____ cubic yard, recycling container used for corrugated cardboard. The container is emptied X times every X weeks. X , ____-gallon carts on wheels are used for collection of non-confidential office paper, including newspapers and magazines. These are emptied X times every X weeks. X , 90 gallon toters are used for the collection of beverage containers. These containers are emptied X times every X weeks. The facility also contracts for secure document destruction services.

Bids submitted on the enclosed form, should outline costs for rental of similar containers or a compactor and the associated hauling charges.

Vendor's containers and equipment must be compatible with current space, mechanical and electrical facilities available. Any additional requirements needed to operate a vendors equipment must be provided for and by the vendor.

4. *Recyclable Items and Collection System.* The facility takes pride in its recycling program and expects continued growth in those efforts in the future.

A. *The facility currently collects* the following materials for recycling and expects all bidders to be able to handle these materials immediately:

- Mixed office paper, including white office paper, colored paper, and junk mail
- Newsprint and magazines
- Corrugated cardboard
- Metal, glass, and aluminum food and beverage containers

B. *Additional materials for recycling or composting* would be an option for future collection.

At the Pre-Bid meeting, specifics of this aspect of our recycling efforts will be discussed and reviewed. As with all pick-ups requested in these specifications, pickups for these items must take place on pre-scheduled dates and times.

5. *Cleanup.* It will be the vendor's responsibility to keep the area (15 feet) around each recycling container free from waste spills and debris during the term of the agreement.

6. *Contamination.* The bidder should clearly outline quality standards for all materials collected and levels of acceptable contamination. A process should be clearly outlined for notification to the facility of the contamination of collected materials beyond the acceptable standard. When contamination occurs, the vendor is expected to take steps to assist and cooperate with the facility in developing a solution to the problem.

7. *Reporting.* The facility will require regular monthly reports, by material type, as to quantities recycled and revenues generated. These reports must be submitted in duplicate to the Purchasing Office by the tenth (10) day of the following month.

8. *Schedule to be maintained.* All schedules, as mentioned in these specifications, will be strictly adhered to. At varied times, additional pickups may be needed and those will be scheduled through and with the Housekeeping Department. Any changes in the pre-established schedule must be coordinated and approved through the Housekeeping Department. A back-up system for collection of any and all materials must be demonstrated by all bidders.

9. *Insurance.* As stated below, the contractor shall provide proof of insurance with their proposal. The contractor shall secure, pay for, and maintain in effect such insurance during the contract period to protect the facility from claims under:

- Workers compensation acts
- Property and bodily injury (including death)
- General liability and product liability coverage with limits of not less than \$1 million <or standard amount>.
- Hold harmless agreement. The contractor shall save and hold harmless the facility from and against all suits for claims that may be placed upon alleged injury (including death) to any person or property that may occur or that may be alleged to have occurred, in the course of the

performance of this contract, whether such claim be made by an employee of the contractor or a third person, and whether or not it shall be claimed that the alleged injury (including death) was caused through a negligent act or omission of the contractor. And at their own expense, the contractor shall defend any and all such actions, pay all charges and charges of attorneys, and all costs and other expenses arising there from.

10. Cancellation. The facility reserves the right to cancel the contract at any time during the life of the contract if the performance of the contractor is determined to be unacceptable by the facility. Unacceptable performance includes, but is not limited to, missed pick-ups, inadequate reporting or not meeting other obligations herein under. The cancellation procedure will be in the form of two (2) written notices from the facility. The first notice is to advise the contractor of the unsatisfactory performance and to request corrective action. The final notice sent after thirty (30) days if corrective action is unsuccessful, will specify the date of cancellation of the contract.

11. Reference list. Each vendor is required to submit a list of three current customers that the vendor has been doing business with for a minimum of three (3) years. The list must include duration and scope of contract, contact person and telephone number. The facility may choose to verify this information with those listed.

12. Hauling charges. Charges and associated costs should be based upon current facility recycling specifics referenced in .3 and .4 above.

13. Payment. Terms of payment will be net 30 days, upon the approval of the invoice by the Director of Housekeeping. All invoicing submitted must include supporting documentation, as to the break down of all charges to be paid.

Bidder's Form. All bids must be submitted on this form. Bidders are free to include any other supporting documentation they feel better explains or enhances their bid. Blank lines indicate that the vendor does not charge for a particular service or does not expect to bill for any additional fees associated in providing that service. If a vendor does not provide a particular service, that must be indicated in that blank line.

1. Cost to the Facility

A. Cardboard

Container rental	Per Month
Collection fee	Per Haul

B. Office paper

Container rental	Per Month
Collection fee	Per Haul

C. Beverage containers

Container rental	Per Month
Collection fee	Per Haul

Adapted from Waste Reduction Manual for Hospitals and Health Care Facilities, written by Environmental Excellence Resources, a service of the Environmental Excellence Campaign and Bridging The Gap, Inc. http://www.apskc.org/Health_Care_Waste_Reduction_Manual.pdf