

FINAL REPORT on

**The Use Of A Special Event To
Educate The Attendees To Separate
Compostables From MSW**

Participants:

**PGA
Carver County
BFI
NRG Processing Solutions**

Funding provided by:

**Solid Waste Management Coordinating Board
Carver County**

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Purpose

In June 2001, the Solid Waste Management Coordinating Board (SWMCB) sponsored an evaluation of solid waste management in the regional area through a Citizen's Jury. The Citizens' Jury recommended that 19% of the Metro Area's integrated solid waste management goal be achieved through source separated organics composting (SSOC).

The SWMCB provided opportunities to promote this recommendation through pilot projects. This pilot project is proposed for SWMCB's "Case Study #3: Special Event" where a special event is used to educate attendees to separate compostables from MSW. The 2002 PGA Championship ran from August 12 – 18, 2002 in Chanhassen, MN. This tournament provided an ideal framework to evaluate the potential success of special event separation and collection of source-separated organic materials (SSOM).

Prior to the project, the known barriers to special event organics recovery included education of the attendees, establishing the need for similar programs, transportation costs and the need for more receptacles and degradable bags.

The goal of the PGA Project was to design and implement a successful system for recovery of organics at a special event. Specific goals outlined were:

1. To demonstrate the feasibility of organic source separation at special events.
2. To increase the amount of SSOM that is recovered, composted and marketed from a special event.
3. To educate people on the benefits of composting organics.
4. To implement a readily transferable system for source-separation of organics at special events.
5. To identify further opportunities, barriers, and/or challenges to separation and collection of organics at special events.
6. To reduce the amount of waste going to landfills.

Project Description

The 2002 PGA Championship was held August 12-18, 2002 (Monday – Sunday) at the Hazeltine National Golf Course in Chanhassen, MN. The original project proposed the collection of source separated organic materials from the Wanamaker Sports Bar Tent including food waste and non-recyclable paper in separate containers lined with biodegradable bags. Wanamaker staff was

instructed about which bags to use in which containers and about the difference between compostable and non-compostable materials. Details on the biodegradable bags are detailed in Table 1.

Table 1 Biodegradable Bag Specifications

NUMBER	SIZE	COST/BAG	MANUFACTURER
540	65 gal	\$0.79	Polargruppen
1600	55 gal	\$0.86	BioCorp

25 gallon cardboard containers for the use of Wanamaker customers were labeled with signs listing which materials were to be deposited in which containers (Attached to this report). 30 cubic yard roll off containers were located outside of the Wanamaker tent. The smaller containers inside the Tent were emptied into the roll off containers.

Cardboard was also separated in the Wanamaker Tent and collected in a 30 cubic yard roll off. This material was recycled.

Materials generated the Monday and Tuesday were not transported to the NRG PS Empire Facility due to the Department of Health preventing collection of waste materials within close proximity to areas where food was being consumed. BFI transported the materials from the Wednesday through Sunday to Empire where they were processed and composted. Non-compostables in the loads, mainly plastic soda bottles and aluminum cans, were separated on the picking line. Other non-compostables included plastic cutlery and salad containers – these will be screened out during the final screening of the finished compost. The compostable fraction was mixed with yard waste and composted in the in vessel system at Empire.

Data

Table 2 outlines specific data collected from the event.

Table 2 Data Collected During the August 2002 PGA Tournament

PARAMETER	QUANTITY	DESCRIPTION
Number of days	7	August 12-18, 2002
Total tons of garbage generated at the event	750	
Total number of visitors per day	17,000	
Number of degradable bags used	2140	See Table 1
Number of loads delivered to Empire	8	In 30 cy roll offs
Total tons processed	12.28	70% food waste, 30% cardboard/paper
Tons rejects removed	0.27	10% pop cans, 90% plastic bottles
Total tons composted	12.01	Generated in 5 days
Percentage of total composted	98%	
Percentage of non-compostables	2%	
Cost of additional containers	\$240	
Cost savings for the generator	0	
Cost increase for the generator	\$1,113.80	Extra hauling distance
Estimated tonnage of finished compost	2.40	5:1 (feedstock:finished product)

PROJECT EVALUATION

Although an overall success, the Project did not proceed as initially anticipated. The Department of Health would not allow uncovered containers in close proximity to food preparation and consumption. Therefore, materials generated the first 2 days of the tournament were not transported to the Empire Facility for composting.

In addition, the Wanamaker staff proved to be too busy to focus on careful separation of materials and use of different bag types in different containers. Rapid turn over of staff was also a factor. Given these factors and after visually evaluating the contents of the waste generated, the PGA Ecology Committee staff decided to modify the plan by using degradable bags in all containers (except recyclables) and bring all material generated to the Empire Facility.

Processing at the Facility proceeded as anticipated.

LESSONS LEARNED AND RECOMMENDATIONS

- 1. *It is important to work with vendors up front to use paper rather than plastic or Styrofoam and to use containers for recyclables and organics, eliminating the “waste” container altogether.*** The waste generated at the Wanamaker Tent was higher in organics than originally anticipated. This was due in part to the fact that the PGA used paper products (trays, cups) rather than plastic or styrofoam. This also resulted in the processing of a higher percentage of materials at the compost facility with fewer rejects than would otherwise have been possible.
- 2. *It is important to evaluate a project as it progresses and to make adjustments to the plan if necessary.*** After evaluating the materials generated, staff determined that nearly all of the material was compostable. The program was adjusted so that all material was brought to Empire for processing. This resulted in more material being composted than would otherwise have been under the original plan.
- 3. *Consult the appropriate county office in the planning stages of a project.*** Two days worth of material was not composted because the Department of Health would not allow an open roll off container near the Wanamaker Tent.
- 4. *It is important that normal operations are streamlined as much as possible and interrupted as little as possible.*** The use of 2 different types of bags (compostable and non-compostable) was problematic and confusing to staff.
- 5. *Degradable bags are stronger than originally anticipated and can be used more widely than originally thought.*** The degradable bags performed very well – bags did not break as they were torn off of rolls or during transport to the Empire Facility.
- 6. *Work with metropolitan county transfer stations and haulers to facilitate staging of organic materials to processing facilities.*** If the infrastructure for the transfer of materials from Carver County to the Empire Facility had been in place, the generator would have

realized a cost savings from composting rather than landfilling the waste generated. The extra cost incurred was for hauling of materials.

7. ***Disseminate a case study paper for this project to other special events planning teams to encourage the implementation of similar programs. Suggestions: The Metrodome, Xcel Energy Center, county fairs, convention centers, etc.***

CONCLUSION

Goals 1, 2, 5 and 6 were successfully achieved. Organics can be recovered from a special event. We learned what worked and what didn't given the fast-pace and focus of event staff and participants. Barriers/challenges to these types of programs were identified (see Project Evaluation and Lessons Learned and Recommendations above) and had it not been for the pilot project, the amount of waste generated would have been landfilled.

It is unclear how aware the general attendee was of the project (Goal #3). One suggestion would be for surveys to be conducted at the time of the event.

Implementation of a readily transferable system for source-separation of organics at special events (Goal #4) was not per se achieved. However, we did learn that source-separation at such events may not be crucial to successful composting of waste generated at special events if vendors are required to use paper products and to recycle plastic bottles.