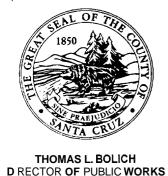
0111



County of Santa Cruz

DEPARTMENT OF PUBLIC WORKS

701 OCEAN STREET, ROOM 410, SANTA CRUZ, CA 95060 (831) 454-2160 FAX (831) 454-2385 TDD (831) 454-2123

AGENDA: OCTOBER 2,2001

September 20, 2001

SANTA CRUZ COUNTY BOARD OF SUPERVISORS 701 Ocean Street Santa Cruz, California 95060

SUBJECT: COUNTY PACKAGING ORDINANCE

Members of the Board:

Chapter 5.46 of the County Code (Code) establishes policy goals for businesses in the unincorporated areas of the county to 1) voluntarily reduce by 50 percent the amount of non biodegradable, non recyclable, and non returnable packaging used and 2) voluntarily eliminate the use of polystyrene foam packaging (PSF). The Code establishes a July 1, 2001, date for compliance with these packaging goals and requires that a report be submitted to your Board concerning the degree to which these voluntary goals have been attained.

As in previous years, Public Works arranged for Ecology Action, as part of its solid waste public awareness services contract with the County, to conduct a survey of businesses in the unincorporated areas of the county on the above packaging issues. A copy of the survey report is attached for your Board's information. Based on the results of the survey, it appears that within the unincorporated area of the county the packaging goals of Chapter 5.46 are being met by about three out of four businesses (77 percent) for the first goal. However, the survey results indicate that the goal of eliminating the use of polystyrene foam food packaging is being met by only two out of three businesses (66 percent). These numbers are higher than the results from the previous survey in 1998, reflecting an increased commitment to the use of environmentally friendly food packaging.

Chapter 5.46 also provides for a subsequent Code amendment, based on this evaluation, to shift from voluntary compliance to a prohibition on PSF food packaging use if the County's goal is not met. This prohibition would go into effect through the adoption of an ordinance containing a finding by your Board that the goal has not been met. However, Public Works does not recommend such action at this time as we believe progress can continue to be made on a voluntary basis. Rather, we suggest that the County's solid waste public education services on this issue (provided by contract with Ecology Action) continue and focus on the remaining goal of eliminating the use of polystyrene foam food packaging. Accordingly, Chapter 5.46 should be amended to extend the target date for goal attainment to the year 2004. A copy of the proposed ordinance amendment is included with this letter.

It is therefore recommended that the Board of Supervisors take the following action:

- 1. Accept and file this report on voluntary compliance with the packaging reduction goals of Chapter 5.46 of the Santa Cruz County Code.
- 2. Consider adoption of the attached ordinance in concept and refer the ordinance to the Environmental Coordinator for California Environmental Quality Act review.
- 3. Direct the Public Works Department to return the ordinance to the Board for final adoption on or before December 11,2001.

Yours truly,

THOMAS L. BOLICH Director of Public Works

DdG:mg

Attachments

RECOMMENDED FOR APPROVAL:

County Administrative Officer

copy to:

Public Works

California Public Interest Group

Clerk of the Board

County Administrative Office

County Counsel

County Environmental Health Services

County Health Officer Dominican Hospital

Each City

Ecology Action of Santa Cruz

Elected Representatives to the Integrated Waste Management Local Task Force

Food and Nutrition Services Local Schools Food Services

Santa Cruz Area Chamber of Commerce

Santa Cruz Area Restaurant Association

Unincorporated Areas Chambers of Commerce

113

Santa Cruz County Environmentally Acceptable Packaging Ordinance

Final Status Report

Prepared For The County of Santa Cruz Public Works Department

August 20,2001

Ecology Action of Santa Cruz

Contents

I.	Background	1
11.	Methodology	
	Data Extrapolation & Evaluation	
111.	Findings	3 3
	Trends	5
W	Conclusions	6



BACKGROUND 01 14

Chapter 5.46 of the Santa Cruz County Code (herein referred to as 'the ordinance') establishes a policy for solid waste management as regards packaging use in the unincorporated area of Santa Cruz County. It specifies discontinuation of the use of polystyrene foam (PSF) packaging in businesses, and use of at least 50 percent, by volume, reusable, recyclable, or biodegradable packaging in each food service establishment. These specifications are voluntary pending their successful attainment, in the absence of which they may become mandatory prohibitions. The deadline for voluntary compliance has been extended six times, and now stands at July 1,2001. The Public Works Director is directed to report on the level of compliance within 90 days of that target date. This study is pursuant to that directive.

The primary objective was to survey food businesses in the unincorporated area to determine the level of compliance with the ordinance, and report our findings to the Integrated Waste Management Coordinator, Dan deGrassi. The survey was conducted in June-August, 2001 by Ecology Action staff. The project was led by Ecology Action Research Director Victor Aguiar. This is the seventh such survey Ecology Action has completed for the County.

Additional tasks were to research packaging alternatives, promote environmentally acceptable packaging, and provide assistance to businesses in understanding and complying with the ordinance. To this end: a brochure was revised and sent to all applicable businesses and institutions, and Ecology Action staff fielded inquiries from businesses that came in response to informational mailings and during the survey.

When adopted in 1989, the ordinance applied only to food service establishments (FSEs), defined as businesses or institutions which sell or give food or drink to the final consumer. In 1991, the Board of Supervisors amended the ordinance (ord. 4143), extending its request for the elimination of PSF packaging to *all* unincorporated-area businesses. Non-food businesses (NFBs) have been surveyed three times, in 1992,1995, and 1998, while FSEs were studied in each of the six previous surveys.

The first four surveys (1990,1991,1992, and 1994) used a sampling size of twenty percent of the FSE population, and have indicated an overall compliance rate of 60-70%. In 1995, to provide an accurate picture on which to base solid observations and recommendations, the goal was set to survey as many applicable businesses and institutions as possible in the available time. In 1998, Ecology Action reverted to surveying twenty percent of the population. This was because the increased sampling used in 1995 showed little difference in the fiial results, and the additional time invested offered very little additional insight or information. Twenty percent of the population, therefore, was targeted for surveying this year (92 of 462 FSEs). Ten of these businesses were targeted for on-site visits to establish face-to face contact, answer questions, and record anecdotal Observations.

Owing to the high level of compliance found among NFBs and the minimal impact of their packaging on the local waste stream, Ecology Action was directed not to include NFB analysis in the current study.

It is important to point out that the new services offered under the current contract between the County and Waste Management have had an impact on this survey. This was discussed in the report submitted in September 1998, following the last survey, and bears repeating here. Specifically, plastic food containers that were previously defined as non-environmentally acceptable packaging have now been redefined as recyclable. Before November, 1997 only #1 and #2 plastic bottles could be classified as recyclable by the ordinance definition. Waste Management and the County now accept plastic containers #1-7, which includes virtually all plastic containers.

Additionally, Ecology Action has determined that waxed paper food packaging shall now be defined as biodegradable.

These two redefinitions have had the effect of shifting the balance so that most food packaging items now meet the ordinance criteria for environmentally acceptable packaging. Those food packaging items that remain defined as non-EAP include: polystyrene foam, which is now

recyclable with Waste Management, but is targeted specifically in the ordinance for discontinuation of its use; rigid plastic plates and bowls, which are not accepted by Waste Management (they accept only *containers*); plastic lids; foil and paper laminated wrappings, bags and lids; and plastic films, straws, and stirrers.

METHODOLOGY

Food Service Establishment Population

There is a high degree of turnover in the FSE population. A casual observation reveals that some ten percent per year go out of business to be replaced by new businesses. Another five percent change ownership or location.

Because of this, it has been necessary to update the list before each survey. The list of FSEs for this program was obtained on diskette from the County Environmental Health Services database for food service health permits. This information was then imported into Ecology Action's packaging ordinance database.

Survey Criteria

The primary goal of this process is to evaluate compliance with the ordinance for each FSE. The process for doing this was established in the 1991 survey and is described here.

The ordinance sets two standards, the first of which is the elimination of PSF packaging. This is a 'yes or no' question, and easy to evaluate. Secondly however, the ordinance sets a standard in terms of the *volume* of packaging. It was therefore necessary to establish volumes for the different food packaging products in use. It was also necessary to establish which products meet the criteria for "returnable, recyclable, or biodegradable" as set forth in the ordinance. The latter objective was achieved by the following means:

- 1) "Returnable" packaging would be an item such as a reusable bottle provided by an FSE directly to the consumer, which the FSE would accept back for reuse.
- 2) "Recyclable" products were identified as those for which a reliable opportunity to recycle exists in Santa Cruz County, as identified by current listings in the *Where To Recycle Guide* (which is continually kept current and comprehensive). Items meeting criteria for both biodegradability *and* recyclability are classified as recyclable, because recycling 18 more resource efficient than biodegradation or composting.
- 3) **As** mentioned above, the ordinance specifies that "biodegradable" packaging may consist, no more than 5% by volume, of "synthetic or plastic" coating. Paper products with synthetic coatings were evaluated by establishing the percentage by volume of paper and plastic in each item, based on weight-to-volume figures provided by Peter Cocotas and Rob Clarke of the Materials Sciences program of the Division of Technology at San Jose State University.

Data Extrapolation and Evaluation

Volumes for the different food packaging products were calculated from figures provided on manufacturers' specification sheets, and are expressed throughout this study in terms of cubic feet. The volume that materials would occupy in a landfill was chosen by the Public Works Department and Ecology Action as the most significant interpretation of the term "volume" as used in the ordinance. It was assumed for most products that this would be approximately 80% of the volume of cases as shipped to FSEs. The remaining 20% would be air and secondary packaging (the box, plastic bags, etc.). Exceptions to this assumption were made in the case of products that would be packed densely, such as paper bags. A figure of 95% was used for such products. All volumes were converted to figures per 1000 items for each product.

A form was used to record numbers of different items used by FSEs. Surveyors filled these forms out for FSEs that were visited or contacted in telephone follow-up, and FSE operators filled them out if they were returned by mail. Products that meet ordinance criteria are identified by gray shading. A spreadsheet was developed to match the survey form and to calculate the volume of

products for each FSE in four categories: biodegradable, recyclable, non-EAP, and PSF. PSF volume for each FSE was included as part of the non-EAP volume. The resulting totals from each category were transferred to corresponding fields in the master database for each FSE.

FINDINGS

Inconsistencies and Inaccuracies

The body of information needed to accurately evaluate compliance with this ordinance by FSEs is exceedingly elusive. Most often, operators honestly do not know the quantities and volumes of packaging items used. At this stage, the Board of Supervisors has not chosen to require operators to maintain detailed records for purposes of the ordinance. It is therefore the job of Ecology Action to interpolate the figures we receive and give the most complete picture possible, accounting for all known factors.

Operators do not routinely keep records of which packaging is subject to the ordinance and which is not. For instance, a bakery which supplies food both retail (subject to the ordinance) and wholesale (not subject to the ordinance) will probably have to analyze sales records to determine how many boxes are sent to each sector. Or a grocery store may use the same small paper bags for a fresh baked item (subject to the ordinance) as it uses for bagging small, prepackaged items (not subject to the ordinance). A restaurant may use aluminum foil both as a wrapping for take-out items (subject to the ordinance) and for refrigeration of prepared foods (not subject to the ordinance).

In addition, reporting on mailed-in survey forms was sometimes incomplete. Operators recorded numbers of cases of packaging items rather individual packaging items on a few surveys, and on ten others neglected to indicate the time period (day, week, month, or year).

Telephone follow-up to resolve these issues would be difficult to achieve, time-consuming, and unreliable. It could not be justified, since the substantial effort required would produce little change in countywide results. Ecology Action took all of these issues into account when recording data, making adjustments when they were appropriate.

There is also the matter of non-respondents to the mail survey. 82 surveys were mailed and 28 returned. This return rate is comparable to that occurring in previous surveys. **As** before, non-respondents were interviewed by phone (when a phone number could be found) and their packaging data recorded. Ironically, these phone interviews yield more accurate data. This is because the interviewer has the opportunity to assure that the data requested is understood by the subject business operator, addressing some of the problems mentioned above. A lower sample size and the additional time required for phone interviewing are the negative impacts of non-responding businesses.

Survey Results

70 FSEs were successfully surveyed, producing a sample size of 15% of the total population of 462 identified unincorporated-area FSEs. They included 28 mail responses, 33 telephone follow-ups, and 9 site visits. FSE Compliance breakdown is as follows:

	# of FSEs	% of respondents
Complete compliance	45	64.3%
Compliance w/ Part (A) only (PSF elimination)	1	1.4%
Compliance w/ Part (B) only (50% or more EAP)	9	12.8%
Non-complying (with either part)	15	21.5%

These figures add up to represent data for the full survey population of 70 FSEs. The 45 businesses in complete compliance include 5 FSEs (7%) which use no disposable food packaging at all.

2001 Food Service Establishment Survey Report by Supervisorial District

0117

Figures in cubic feet of estimated packaging used per month Note: Survey data is from unincorporated-area businesses only

		Bio	Recy	Non EAP	<u>PSF</u>	Compliance		
FSEs Operating	in District	1						
		130.0	99.5	79.3	55.4	12 d 23 FSEs complying	3	
FSEs Operating	in District	2						
		80.7	29.1	71.7	124	11 of 13 FSEs complying	3	
FSEs Operating	in District	3						
		424	169.7	21.8	11.4	4 d 5 FSEs complying		
FSEs Operating	in District	4						
		49.2	380.4	357.2	213.1	7 d 13 FSEs complying		
FSEs Operating	FSEs Operating in District 5							
		108.6	60.8	146.3	104.1	11 of 16 FSEs complying	g	
Countywide Sun	nmary							
-	-	<u>Bio</u>	Recy	Non EAP	<u>PSF</u>		Complianc	<u>e</u>
		411	739	676	396	Total Volume: 1826	Complete: 45	(64%)
		Total vo	olumes ider	ntified in thi	s survey		50% EAP: 50 PSF 46	(71%) (66%)
Projected Countywic	de Volume To	tals:						
70 FSEs in Survey 160 FSEs in Unincorporated County 15 of 70 FSEs complying		2699	4858	4443	2605	Estimated volume of food packaging used by unin- corporated-area FSEs: 12000		

Most significantly, the figures show a compliance rate of 64% for complete compliance, up from 50% in 1998, and 66% for PSF elimination, up from 50% in 1998. It was, however, reported in 1998 that compliance had decreased since the previous surveys. In our conclusions in Section IV we offer likely explanations for this change.

As mentioned above, the redefinition of plastic containers as recyclable and waxed paper packaging as biodegradable have made PSF the predominant packaging material not meeting ordinance criteria. Indeed, this is why only one business surveyed failed to comply without using PSF (Safeway, using a large quantity of non-biodegradable paper/plastic wrapping).

13% of respondents are using PSF, but still comply based on volume. Since PSF is a **high** volume material, this suggests that not much is used by these FSEs, and review of the data bears that out. It would impose only minimal cost and reorganization for these businesses to switch and comply.

Final calculations produce a figure of 1826 c.f./ month of total food packaging used by FSEs in the survey. This leads to an estimate of 12,000 c.f./month used in the entire unincorporated area. The breakdown is 23% biodegradable, 40% recyclable, and 37% non-EAP (PSF comprising 15% of total packaging). Volumes are presented in the table above.

		Non-EAP			
Biodegradable	Recyclable	(includes PSF)	PSF		
411	739	676	396		
		Total volume:	1826		
Volumes projected to entire unincorporated area:					
Biodegradable	Recyclable	Non-EAP	<u>PSF</u>		
2699	4858	4443	2605		
		Total volume:	12,000		

While the primary focus was to gather data, comments and questions were recorded as well during visits and phone interviews. As before, cost and insulation are significant factors in operators' decisions to use PSF. Follow-up calls to suppliers confirmed that prices for paper packaging are still two to four times PSF prices. A representative of Ledyard, the primary food packaging supplier for the county, had stated in 1998 that the price increase is ironically the result of increased demand, though he believes that a large part of that demand comes from overseas. The insulation issue actually compounds this problem — customers will sometimes use a second paper cup to avoid burning their hands. Manufacturers have also introduced "coffee sleeves" designed to slip over cups to decrease heat transfer. Both these solutions produce additional cost to FSEs and additional solid waste.

Interviewed respondents were uniformly cooperative and willing to offer the needed information. Many had not heard of the ordinance before the mailing announcing this survey, but most were easily engaged in the topic and interested to know of the County's investigation into food waste composting with biodegradable packaging. There was no antagonism directed at interviewers as there has been on a few occasions in past surveys. In some cases it was clear that this courteous participation indicated an understanding of the issues involved, and in at least two cases respondents stated they would gladly change packaging to comply. In other cases this capitulation stemmed more likely from polite deference to a government-sponsored study. Two respondents reported that packaging materials used by their businesses were controlled by corporate policy (Carl's Jr. & Beacon), and that any requests or requirements regarding packaging would need to be addressed to the parent company.

Trends

Comparison with previous surveys is essential to establishing any trends that may have developed over the years. The most significant observation, of course, is that the percentage of complying FSEs had steadily increased through 1995, dropped off in 1998, and rebounded in the current survey.

The following table outlines compliance percentages established in the seven FSE surveys for the two goals:

Year	PSF Elimination	50% Min. EAP	Complete Compliance
1990	47%		
1991	72%	66%	59%
1992	72%	73%	63%
1994	63%	69%	59%
1995	79%	74%	69%
1998	50%	77%	50%
2001	66%	77%	64%

The results this year may suggest that the results in 1998 were a statistical anomaly, or they may mean that the compliance rate has rebounded.

Many consumers and businesses remain unconvinced that paper is any better than plastic. William Rathje's popular work has left the impression that decomposition doesn't really happen in modem landfills. If this is true, then what advantage does biodegradable packaging offer? Rathje's work is somewhat misunderstood, since decomposition does happen in landfills. It happens slowly enough, though, that no measurable increase in landfill life from decomposition can be expected by replacing plastic waste with paper waste. Nor is food-contaminated paper waste ever likely to be, in an economically sound way, recyclable.

When this issue is raised, we first point out that biodegradability is important where litter is concerned, since paper waste will degrade much faster than plastic. Secondly, we explain that, in the long term, food-contaminated paper waste can and should be composted in a municipal cornposting facility.

CONCLUSIONS

Enforcement of mandatory Compliance, as provided for in the ordinance, would be difficult and expensive, while being politically unpopular in the business community. For the future, we would recommend retaining the voluntary nature of the ordinance, increasing outreach to the business community to promote compliance, and carrying out an annual public recognition program for exemplary businesses. For the time being, plastic food packaging is likely the most commonly recycled type since Waste Management's current contract. Should a declining market for these plastics someday result in discontinuation of that recycling service (as many recycling professionals believe it will), then those plastics would no longer meet ordinance criteria, as they do now. If necessary, action can be taken to further address this portion of the waste stream. Also, assistance to businesses in waste reduction, as provided in Ecology Action's program, will address many of the issues raised in this study.

Composting of food-contaminated paper packaging offers a viable alternative which could be incorporated somehow into the yard waste collection program. **As** the County has recognized and discussed, it would therefore serve waste management goals, as well as the credibility and spirit of this ordinance, to implement separation of food and food-contaminated waste for composting as soon as possible. In some cases, backyard composting of food-contaminated paper waste can also be encouraged.

As mentioned in the 1998 report, with the move away from PSF packaging among NFBs, Ecology Action is unsupportive of retaining policy goals for NFBs in the ordinance. This is especially true since most of their packaging is shipped out of the county. The County may, however, wish to monitor developments in the packaging industry to identify those that would have an impact on waste management and environmental issues within the county.

The survey has helped to increase awareness of the ordinance and the issues involved. Willingness to contribute and cooperate is the prevailing attitude among operators of these establishments. Along with continued development of a system for diverting food and food-contaminated biodegradable waste, future efforts by the County should include continued research to identify alternative products as they are developed and marketed, followed by promotion of these products for use by county businesses.

ORDINANCENO.	
--------------	--

0120

ORDINANCE AMENDING CHAPTER 5.46 OF THE SANTA CRUZ COUNTY CODE REGARDING ENVIRONMENTALLY ACCEPTABLE PACKAGING MATERIALS

The Board of Supervisors of the County of Santa Cruz ordains as follows:

SECTION I

Section 5.46.030 of the Santa Cruz County Code is hereby amended to read as follows:

5.46.030 Establishment of Packaging Goals.

- A. Use of Polystyrene Foam in Packaging Materials. It shall be a policy goal of Santa Cruz County that no retail food establishment shall package food or beverages in any food packaging and that no other business establishment shall package any product in any package which utilizes polystyrene foam; or purchase, obtain, keep, distribute, or sell for home or personal use, or give, serve, or otherwise provide to customers any food or other packaging which utilizes polystyrene foam. The County of Santa Cruz shall encourage, on a voluntary basis, the elimination of all food and other packaging which utilizes polystyrene foam, on or before July 1, 2004.
- B. Use of Recyclable and Biodegradable Packaging Materials. It shall be a policy goal of the County of Santa Cruz that the food packaging in which foods or beverages are provided to customers in retail food establishments shall be either biodegradable, recyclable, or returnable. The County of Santa Cruz shall encourage, on a voluntary basis, the reduction of non biodegradable, non recyclable, or non returnable food and beverage packaging used by retail food establishments within Santa Cruz County, to the maximum extent possible, on or before July 1, 2001 July 1, 2004, and so that, at a minimum, and by that date, no less than 50 percent, by volume, of each retail food establishment's food packaging, in which food or beverages are provided to customers, shall be either biodegradable, recyclable or returnable.

SECTION II

Section 5.46.040 of the Santa Cruz County Code is hereby amended to read as follows:

5.46.040 Review of Attainment of Packaging Goals.

- **A.** Within ninety (90) days after July 1, 2001 July 1.2004, the County Public Works Director shall report to the Board of Supervisors concerning the degree to which the policy goal established by Section 5.46.030 (**A**) has been attained. Upon a finding by the Board of Supervisors that the goal has not been attained, the prohibitions contained in Section 5.46.045 (**A**) shall apply. The finding required by this section shall be made by the adoption of an appropriate ordinance, based upon the report called for in Section 5.46.040 (**A**), after a public hearing.
- B. Within ninety (90) days after July 1, 2001 July 1. 2004, the County Public Works Director shall report to the Board of Supervisors concerning the degree to which the policy goal established by Section 5.46.030 (B) has been attained. Upon a finding by the Board of Supervisors that the goal has not been attained, the prohibitions contained in Section 5.46.045 (B) shall apply. The finding required by this section shall be made by the adoption of an appropriate ordinance, based upon the report called for in Section 5.46.040 (B), after a public hearing.

SECTION III

Section 5.46.0450 of the Santa Cruz County Code is hereby amended to read as follows:

5.46.045 Food Packaging Prohibitions

- A. Provided that a finding has been made pursuant to Section 5.46.040 (A), and commencing on March 1, 2002; March 1. 2005, no retail food establishment shall package food or beverages in any food packaging which utilizes polystyrene foam; or purchase, obtain, keep, distribute, or sell for home or personal use, or give, serve, or otherwise provide to customers any food or other packaging which utilizes polystyrene foam, except as provided in Section 5.45.050 of this chapter.
- B. Provided that a finding has been made pursuant to Section 5.46.040 (B), and commencing on March 1, 2002, March 1. 2005, no less than 50 percent, by volume, of each retail food establishment's food packaging, in which food or beverages are provided to customers shall be either biodegradable, recyclable or returnable.

SECTION IV

This ordinance shall take effect on the 31st day after the date of final passage.

PASSED AND ADOPTED this day of,2001, by the Board of Supervisors of the County of Santa Cruz by the following vote:					
AYES:	SUPERVISORS				
NOES:	SUPERVISORS				
ABSENT:	SUPERVISORS				
ABSTAIN:	SUPERVISORS				
Attest:		Chair of the l	Board of Supervisors		
Clerk of the Board					

APPROVED AS TO FORM:

Chief Assistant County Counsel

DISTRIBUTION:

California Public Interest Group

Clerk of the Board

County Administrative Office

County Counsel

County Environmental Health Services

Public Works, Solid Waste Division

Dominican Hospital

Each City Manager

Ecology Action of Santa Cruz

Integrated Waste Management Local Task Force

Food and Nutrition Services

Local Schools Food Services

Santa Cruz Area Chamber of Commerce

Santa Cruz Area Restaurant Association

Unincorporated Area Chambers of Commerce

pckm.wpd