S.B. County Supervisors Not Well Served

SANTA BARBARA COUNTY STAFF PRESENTS ERRONEOUS AND MISLEADING INFORMATION TO SUPERVISORS IN SUPPORT OF PLASTIC BAG BAN AGENDA

By Anthony van Leeuwen, 5 December 2013

Introduction

At the 15 October 2013 Santa Barbara County Supervisors board meeting, the Santa Barbara County Public works Department, Resource Recovery and Waste Management Division (RRWMD) requested Supervisors to receive and endorse the draft Single-Use Plastic Bag Ban Ordinance for the unincorporated area of Santa Barbara County and to direct staff to initiate review of the Ordinance pursuant to the California Environmental Quality Act (CEQA). In addition, Supervisors were requested to designate the County Public Works Department, Resource Recovery and Waste Management Division (RRWMD) as the CEQA Lead Agency. Supervisors approved the request by a vote of 3 to 2.

Public Works staff made a short viewgraph presentation to County Supervisors titled "*Regional Implementation of Single Use Plastic Bag Ban*". The viewgraph presentation, consisting of 26 slides, was later modified to support the 21 November 2013 Notice of Preparation (NOP) Scoping Meeting in preparation of the draft EIR. (SB County Public Works Resource Recovery and Waste Management Division, 2013)

Comments on the viewgraph presentation apply to both presentations although the focus will be on the version of the presentation given to the Santa Barbara County Supervisors.

The Issue

A considerable amount of misinformation surrounding the subject of plastic bag bans crept into the presentation made by Public Works to County Supervisors and therefore this paper will examine the misinformation in order to set the record straight. More than likely Public Works staff did not do the required homework to validate or to critically examine the data presented. When staff are first assigned to do the ground work for preparation of plastic carryout bag ordinance they do not necessarily have the experience to analyze and spot bad information. So this article is not intended to condemn Public Works staff who prepared the presentation but to demonstrate how easily bad information can creep in with good intentions.

This article is intended to be a warning to City and County Officials to be wary of information provided by staff and that YOU need to do your own homework, particularly when you are dealing with political issues, so that you can recognize erroneous and misleading information.

This article discusses 9 slides in the presentation that contain erroneous, misleading, or incomplete information.

Why is this important?

The public expects city and county officials to make the very best decisions they can regarding issues that come before them. They expect decision makers to make "informed" decisions based upon the facts and the very best information available. The public understands too well that when decisions are made based upon flawed information more than likely the decision will not be the right one. It is an established fact that Decision Makers cannot make good decisions based upon bad information! It can't get any simpler than that. Good public policy must be based upon solid facts, the law, and the California and U.S. Constitutions.

Presentation: Regional Implementation of Single Use Plastic Bag Ban

The presentation consisting of 28 slides was presented to the Board of Supervisors on 15 October 2013 and intended to be a very brief overview of the plastic bag ban and associated issues. Our contention is that the presentation contained wrong and deceptive information, omitted important facts, and failed to thoroughly examine and evaluate data in pursuit of a preconceived agenda.

Figure 1. Slide 2 Title of Presentation

Figure 1, above contains the title of the presentation "*Regional Implementation of Single Use Plastic Bag Ban*" and is included here for reference only.

Slide 8: Bag Ban History – California

The slide in Figure 2 communicates the message that the population in the unincorporated area of Santa Barbara County uses an estimated 531 plastic carryout bags per person for an estimated total of 228 Million plastic carryout bags.

FACT: The slide in Figure 2 is factually **incorrect** and **misleading**. The slide clearly identifies the unincorporated area of Santa Barbara County. Using population statistics from the California Department of Finance the unincorporated area of Santa Barbara County has a population of 136,167 persons as of 1 January 2013. (California Department of Finance, 2013) To calculate the number of plastic carryout bags in the unincorporated area of the county we would multiply the population of the unincorporated area by 531 plastic carryout bags per person yielding **72,304,677** plastic carryout bags and **NOT** the **228,000,000** as shown in the slide.

Figure 2. Slide 8. Bag Ban History - California

If you multiply the population of Santa Barbara County of 429,200 persons by 531 plastic carryout bags per person per year then you get **227,905,200** or **228,000,000** plastic carryout bags per year. It is clear that the slide refers to the quantity of bags per year for the entire county and NOT the unincorporated area. This slide **misleads** County Officials and the public to believe that there are more plastic bags used in the unincorporated area of the county than there really are!

Slide 10: Single Use Plastic Bag Litter

The Santa Barbara County Public Works Department is to be commended for coordinating Coastal Clean Up Day in September 2013. Coastal Cleanup Day provides an opportunity for ordinary citizens to be involved in cleaning up beaches and associated areas on a volunteer basis. We commend the Santa Barbara County Public Works Department and all those citizens who volunteered to make our community better.

The slide in Figure 3 communicates the message that 403 plastic carryout bags were collected from 23 beach areas during the 2013 Coastal Clean Up Day.

FACT: The slide in Figure 3 is **incomplete**. In Figure 3, we learn a total of 403 plastic carryout bags were collected from 23 beach areas or approximately 17.6 bags per beach area. The slide should have

included a statement that 403 plastic carryout bags represent only **0.000176%** of **228 million** plastic carryout bags used in the county per year. Since the Coastal Clean Up Day occurs only once per year, this slide shows how **miniscule** the problem with plastic bag litter really is! When you take this statistic and compare it to the fact that only 0.6% of roadside litter is plastic bags of all types, a fraction of which is plastic grocery bags, you begin to understand that the plastic bag litter problem is much smaller than portrayed by Proponents of a Bag Ban. (Stein, 2012)

Figure 3. Slide 10 Single-Use Plastic Bag Litter

If a coastal cleanup day was held every day of the year and 403 bags were found each and every day for a total of 147,095 bags per year, it would only represent 0.065% of 228 Million. **The slide in Figure 3 clearly shows that plastic bags are a very small problem and not a problem that rises to the level that requires or demands a ban**!

Slide 11: Single-Use Plastic Bag Recycling

The slide in Figure 4 communicates the message that efforts to encourage recycling of plastic carryout bags has not worked and that CalRecycle only reports a 5% recycling rate for plastic carryout bags.

FACT: The slide in Figure 4 is **deceptive** by **omitting critical information**. The bullet suggests that because the recycling rate is only 5% that plastic carryout bags should be banned. However, the reason for the low recycling rate is conveniently omitted in order to further a political agenda!

In an article titled "*Plastic Bag Recycling Rate - A Non-Issue*" the author explains why the recycling rate of plastic bags is low. (van Leeuwen, Plastic Bag Recycling Rate - A Non-Issue, 2013) The plastic carryout bag with its handles, that can easily be tied together to secure the contents, is one of the most reused and repurposed items that comes into the household. Studies show that the reuse rate of plastic bags is between 76% and 92%. (Edwards & Fry, 2011) (APCO Insight, 2007) With such a high reuse rate, it follows that the recycling rate would be low, particularly when a large proportion of these bags are used

to dispose of trash and end up in the landfill in lieu of a plastic trash bag. Plastic carryout out bags used as trash bags and disposed of in the landfill filled with trash are not available for recycling, a simple fact that many so-called Bag Ban proponents are unable to grasp or purposely ignore. (van Leeuwen, Plastic Bag Recycling Rate - A Non-Issue, 2013)

It should be noted that empty plastic carryout bags should be recycled through the In-Store Recycling Bin at your local grocery store or if disposed in the trash, should be bagged with other trash, just like shredded paper from your paper shredder must be bagged to prevent windblown litter.

Figure 4. Slide 11. Single-Use Plastic Bag Recycling

Slide 12: Single-Use Plastic Bag Recycling

The slide on Figure 5 communicates the message that recycling of plastic carryout bags is challenging because plastic bags jam sorting machinery at recycling activities and that the value of recycled plastic bags on the market is very low making it uneconomic to process.

FACT: The slide in Figure 5 is **misleading** by **omitting critical information**. The following apply:

Recycling Sorting Machinery

The fact that curbside recycling of plastic carryout bags results in entanglement in sorting equipment is not a reason to ban plastic carryout bags.

The sorting equipment at recycling facilities are being jammed not only by plastic carryout bags, but by all sorts of plastic bags (newspaper bags, produce bags, frozen food bags) and plastic wrap (wrap from toilet paper, bottled beverages, bottled water, packaged products), and from all sorts of materials (blankets, hoses, ropes or other strapping materials) which are all responsible for jamming sorting machinery. (Terry, 2007) A ban on plastic carryout bags will not prevent all jams of sorting machinery at recycling facilities or expensive breakdowns. Educating the public that plastic bags and wraps and other

prohibited materials may not be put in the curbside recycling bin would be a much better solution to the problem. (van Leeuwen & Williams, The Lies, Myths, Half-Truths, and Exaggerations of Ban Ban Proponents, 2013)

Figure 5. Slide 12 Single Use Plastic Bag Recycling

It should also be noted that automated sorting machines for recycled materials are relatively new, engineers will continue to improve on designs for a newer generation of machines that are not susceptible to breakdowns from plastic film and materials wrapping around rotating shafts or jamming the machine in some other manner. With the prestigious University of California, Santa Barbara (UCSB) located in Santa Barbara County why not challenge the UCSB students and faculty to develop new processes for recycling and reclaiming plastics and redesigning sorting machines to prevent entanglement of plastic film in the rotating components of those machines!

In-Store Recycling Program

The slide in Figure 5 also **omits** important and essential information about the plastic bag recycling program mandated by the State of California through AB 2449 and SB 1219. Grocery stores recycle plastic bags and pass the cost of doing so to customers. Trucks that deliver groceries to local stores, instead of leaving empty take recycled cardboard and plastic bags back to their distribution centers for further consolidation and transport to recyclers and thereby avoiding transportation charges.

In the event a ban on plastic carry out bags is implemented in the unincorporated areas of Santa Barbara County, retail stores will no longer be required by law to maintain their plastic bag recycling program since they no longer distribute plastic carryout bags. In San Francisco the plastic carry out bag ban has led grocery stores to shut down their plastic bag recycling programs. (Fink, 2011)

As consumers no longer have the option to recycle plastic bags and plastic film at the retail store and using the curbside recycling bin is not a good option because plastic bags and plastic film jam sorting

equipment, consumers may lose access to the only successful facility for recycling plastic carryout bags and other plastic bags and wraps resulting in more plastic going to the landfill instead of being recycled.

Market Value Of Recycled Plastic Bags And Film

The slide in Figure 5 suggests that because the market value of recycled plastic bags and plastic film is low, that recycling of plastic carryout bags is unprofitable.

The slide ignores the larger issue is that millions of products and components are made from plastic and millions of products are wrapped in plastic packaging and plastic film. The sheer amount of material that is plastic and disposed of cries out for new processes to reuse and recycle this material into new products. If plastic is not recycled and reused this material will end up in the landfill.

Education

Furthermore, the public needs to be educated about bringing unused and clean plastic bags and wraps to the retail stores' In-Store Recycling Bin for recycling vice the curbside recycle bin.

Slide 14: Experience in Other Jurisdictions

The slide in Figure 6 communicates the message that little data about bag usage exists before the bag ban. In addition, the slide cites that in San Jose reusable bag usage went up from 4% to 62%, and that customers who chose not to use bags went up by more than 100%, and that the average disposable bags per customer went down from 3 to 0.3. Furthermore the slide indicates that paper bag use went down in LA County over 20%.

Figure 6. Slide 14 Experience in Other Jurisdiction

FACT: The slide in Figure 6 contains **misleading** and **false information**.

In Figure 6, the first bullet states that little data is available documenting bag use before bans. This statement is **correct** but there is one study available that documents bag usage before and after

enactment of a plastic carryout bag ordinance. That study was conducted by Team Marine, a student environmental group at Santa Monica High School. These high school students conducted observations of 50,400 grocery store patrons over a period of 19 months spanning from ten months prior to the Santa Monica Plastic Bag Ban to twelve months after. Team Marine subsequently published their report in March 2013 and an update in May 2013. This report included observations from before the ban, immediately after the ban and up to 1 year after the ban was implemented. Team Marine reported that shoppers choosing No Bags went up from 15% to 36%, paper bags went up from 5% to 29%, and reusable bags went up from 10% to about 35%. (Team Marine, 2013)

The County of Santa Barbara should have used the Team Marine study for bag usage rather than the misleading data from the City of San Jose!

City of San Jose Information

The first bullet: "*Reusable bags up from 4% to 62%*" is **incorrect** and **misleading**. The numeric quantities of 4% and 62% are **incorrect** due to internal inconsistencies within San Jose documents reporting the Pre Ban and Post Ban bag use. (Romanov, 2012) Unfortunately the wrong numeric quantities are repeated on this slide. **Appendix A** "*City of San Jose Pre and Post Store Observations Summary*" contains spreadsheet data from the City of San Jose and shows reusable bag use going from 3.1% to 64.4%. (City of San Jose, 2013) Normally, one would conclude that this represents an increase, but each number merely represents the proportion of reusable bags compared to all other bags counted. The actual quantity of reusable bags observed Pre Ban was 265 and Post Ban was 1194, only 4.5 times more bags Post Ban than Pre Ban. The **Appendix B** "*Analysis of San Jose Pre and Post Bag Ban Data*" shows that when the bag use quantities are adjusted for 1000 customers Pre Ban and 1000 customers Post Ban, that reusable bags went up from 92 to 549 or by a factor of 5.97 or 495%. An increase of 3.1% to 64.4% is misleading because it would suggest that the use of reusable bags increased by a factor of 20.78, when in actuality reusable bag use increased by the much smaller factor of 5.97. Hence, the data presented is **misleading** giving a **false impression** that the bag ban is <u>much more successful than it really is</u>!

The second bullet: "*No bag option* up more than 100%" while true **deceptively obscures** that the number of customers who chose the "No Bag" option more than <u>tripled</u> and went up from 12.9% Pre Ban to 43.5% Post Ban, an increase of 237%.

Not shown on the slide is that the City of San Jose also reported paper bag usage going from 11.9% to 33.3% even though the total number of paper bags observed <u>decreased</u> from 1008 to 617. When survey data is adjusted to 1000 customers Pre Ban and Post Ban, including those who choose the No Bag option, paper bags used <u>decreased</u> by **19%**. If survey data is adjusted to 1000 customers who used bags before and after the ban, there is a **24.6% increase** in paper bags used. In other words, for customers who continue to use bags there is an increase in paper bags used. The large number of customers who **rejected** the ordinance and chose to use the No Bag option instead impacted bag usage results.

<u>City of San Jose Bag Usage Survey Validity Questioned</u>. The city of San Jose sampled 2,869 shoppers Pre Ban and 2,173 Post Ban. The City of San Jose counted total shoppers, shoppers who used No Bags, and

then counted the total number of bags used by type: plastic, paper, and reusable. The city should have counted the number of shoppers who used each of the different bag types instead in order to assess how well shoppers accepted the ban and the shift to reusable bags.

What is particularly troubling is the type of stores that were surveyed before and after the ban. While grocery stores and department stores were surveyed before the ban, predominantly grocery stores were surveyed after the ban. Our contention is that the disproportion between grocery and departments stores in the surveys before and after the bag ban distorted the survey results. Appendix B, Page B-2, shows the stores and date each store was surveyed.

LA County Information

Los Angeles County claimed that paper bag use decreased over 20%. This number is fictitious as Los Angeles County had no statistics available concerning paper bag use prior to the bag ban. Save The Plastic Bag Coalition (STPB) submitted a Public Records Act Request to LA County requesting copies of all documents, reports, and information about paper bag use in LA County in 2009 prior to the bag ban. LA County responded by stating that no relevant documents were found. The fact that LA County had no data on paper bag use before the ordinance took effect is documented in objections to the City of Los Angeles Environmental Impact Report (EIR) by STPB. The inclusion of the statement that paper bag use decreased over 20% in LA County is a **deceptive** attempt to **hide the fact** that paper bag use increases in areas with plastic bag bans. (City of Los Angeles, 2013, pp. 372-375) For example, in the City of Santa Monica paper bag use increased from 5% to 29%. (Team Marine, 2013)

Slide 15: Experience in Other Jurisdictions

The slide in Figure 7 communicates the message that San Jose saw an 89% reduction of plastic carryout bags in storm drains, 60% reduction in creeks, and 59% reduction in streets and neighborhoods.

FACT: The information presented on the slide in **NOT creditable**. The city of San Jose conducted litter surveys which according to the authors of an article titled "*Rebuttal of the San Jose Bag Ban Results*" was unscientific and flawed. The authors made the following observations: (Williams & van Leeuwen, 2013)

- The cleanup locations measured before and after the ban were NOT the same areas! Since historical cleanup data for these sites is not known, there is no way to determine if these sites represent multi-year accumulations of litter that would skew results.
- The percentage figures cited in the memorandum do not reflect a true reduction in plastic bag litter. The figures represent a reduction in the proportion of plastic bags to other litter instead.
- Evaluating ALL of the data shows that NON-PLASTIC BAG litter was also reduced by approximately 30% to 40% in the same comparisons. This is a confirmation that the comparison locations and/or criteria is flawed, or were influenced by other unexplained factors. There was no attempt to mention or address this serious statistical error.
- The storm drain reductions are based upon too small a sample size to provide a creditable number. Twenty-three (23) storms drains catch basins outfitted with trash capture devices is too small a sample size for a city the size of San Jose. There was no attempt to discuss the

status of storm drain trash capture devices in the City of San Jose and whether all planned devices have been installed.

The information in Figure 7 comes straight from a City of San Jose memorandum and is often quoted by Bag Ban Proponents. (Romanov, 2012)

Figure 7. Slide 15 Experience in Other Jurisdictions

The first bullet "89% reduction of plastic bags in storm drains" is **questionable**. The 89% figure is based upon a reduction of 71 plastic bags (80 plastic carryout bags Pre Ban to 9 bags Post Ban) in 23 storm drain catch basins outfitted with trash capture devices. The City of San Jose has a "storm water collection system that includes more than 1,150 miles of storm sewer pipelines, 29,900 storm drain inlets, 1,500 storm outfalls, and over 4,500 miles of curb and gutter". (City of San Jose, 2012) When you consider that the claim of an 89% reduction in plastic bags is based upon the results from only 23 storm drain catch basins as being representative of the entire San Jose storm drain system is simply **NOT creditable**. (Williams & van Leeuwen, 2013)

Slide 17. Our Ordinance – Key Components

The slide in Figure 8 communicates the message that a Recyclable Paper Bag will cost 10-cents.

FACT: The information on Slide in Figure 8 is **incomplete** and **misleading**. There are a minimum of four different paper bag sizes commonly used in grocery stores. The slide shows only one size of bag for which a fee of 10-cents would be charged. What about the other sizes of paper bags? Will a fee be charged for them as well or only the particular size bag pictured? The proposed ordinance does not clarify this and as written requires a fee on every paper bag issued. The proposed ordinance should clarify if all paper bags or just a particular size paper bag is subject to the paper bag fee. An opportunity to communicate important information to the public and to decision makers was omitted.

Figure 8. Slide 17 Our Ordinance - Key Components

Slide 20. Our Ordinance – Key Components

The slide in Figure 9 communicates the message that reusable bags are commercially available and their use is encouraged.

Figure 9. Slide 18 Our Ordinance - Key Components

FACT: The information presented in Figure 9 is **incomplete** and **deceptive**. The pictured "green reusable bag" is more than likely made from Polypropylene (PP) and is NOT recyclable. Also missing from the slide is a statement that the recycling rate for this Reusable Bags is 0%. This makes plastic carryout bags with a 5% recycling rate of a much better option!

The definition for a Recyclable Paper Carryout Bag in the proposed ordinance includes the requirement that the bag "*is accepted for recycling in the curbside programs in the county*". Why is a similar requirement not listed for Reusable bags?

The most common reusable bags are made from Polypropylene (PP) or from Cotton. At the current time there is no recycling facility in the United States that will accept bags made from PP and no composting facility that will accept cotton bags. This means that the recycling rate for these reusable bags is zero percent and at end of life will be disposed of in the landfill. Reusable bags made from High Density Polyethylene (HDPE) or Low Density Polyethylene (LDPE), a thick plastic bag, are recyclable in the In-Store Recycling bins. (Greene, 2011)

By adding the requirement that stores only sell reusable bags that are recyclable in the local community would help the county move towards the Zero Waste goal. While shoppers are still free to purchase and use PP or Cotton bags on the internet or in other communities, stores subject to the ordinance would sell only Recyclable Reusable Bags. The county should seriously consider adding this requirement to the ordinance.

Slide 20. Our Ordinance – Stores Affected

The slide in Figure 10 communicates the message that not all bags and not all stores are affected by the proposed ordinance. In particular the first bullet identifies product bags and Produce bags that are not included as part of the ban.

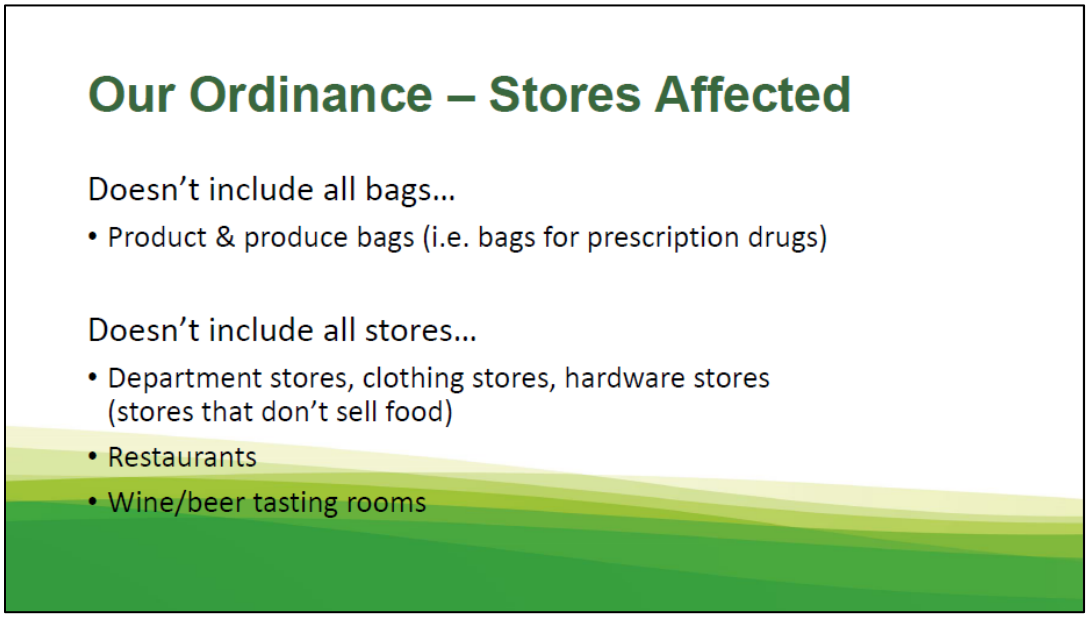

Figure 10. Slide 20, Our Ordinance - Stores Affected

FACT: The information in Figure 10 is **incomplete**. The statement "Doesn't include all bags …" fails to identify that plastic carryout bags come in different sizes. For example, there are small bags that can contain a purchased greeting card and very large plastic bags that can hold pillows, rugs, clothes, or other large items. For example, Target is a department store that also sells a line of groceries and is

therefore subject to the bag ban ordinance. Target also carries small plastic carryout bags and very large plastic bags. Are all of these plastic carryout bags also banned under the ordinance? The ordinance indicates that all plastic carryout out bags are banned and does not clarify whether that only applies to those plastic carryout bags commonly used in grocery stores or to all sizes of plastic carryout bags.

An opportunity to communicate important information to the public and to decision makers was omitted.

Conclusion

While RRWMD may have intended the presentation to be a brief overview of the proposed bag ban, a total of 9 out of 26 slides or 34.6% had questionable content. Content that is misleading, erroneous, and incomplete and appears to promote a preconceived political agenda.

The amount of misinformation included in the presentation is not conducive to good government. Our contention is that Santa Barbara County Supervisors were not well served by county staff because of the erroneous and misleading information contained in the presentation.

About The Author

*Anthony van Leeuwen is the founder of the **Fight The Plastic Bag Ban** website and writes extensively on the subject. He holds a bachelors and Master's degree in Electronics Engineering and has over 40 years of experience working in the federal government.*

Bibliography

APCO Insight. (2007, March). *National Plastic Shopping Bag Recycling Signage Testing.* Retrieved November 23, 2013, from Bag The Ban: http://www.bagtheban.com/assets/content/bag-recycling-signage-testing.pdf

California Department of Finance. (2013, May). *E-1 Population Estimates for Cities, Counties, and the State - January 1, 2012 and 2012.* Retrieved December 1, 2013, from California Department of Finance: http://www.dof.ca.gov/Research/demographic/reports/estimates/e-1/view.php

City of Los Angeles. (2013, May). *Final Environmental Impact Report - Single-Use Carryout Bag Ordinance.* Retrieved August 18, 2013, from City of Los Angeles: http://www.lacitysan.org/pdf/2013/CF-11-1531_FEIR.pdf

City of San Jose. (2012, November). *City of San Jose Storm Sewer System Report 2011-2012.* Retrieved December 2, 2013, from City of San Jose City Clerk Website: http://www3.sanjoseca.gov/clerk/CommitteeAgenda/TE/20121105/TE20121105_d4atta.pdf

City of San Jose. (2013, October 20). *Pre and Post Store Observations Summary 12.11.12.* San Jose.

Edwards, C., & Fry, J. M. (2011, February). *Life cycle assessment of supermarket carrier bags: a review of the bags available in 2006.* Retrieved from United Kingdom Environmental Agency: http://a0768b4a8a31e106d8b0-50dc802554eb38a24458b98ff72d550b.r19.cf3.rackcdn.com/scho0711buan-e-e.pdf

Fink, L. (2011, March 30). *Plastic Bags Aren't Evil.* Retrieved December 1, 2013, from R>ricochet Website: http://ricochet.com/main-feed/Plastic-Bags-Aren-t-Evil

Greene, J. (2011). *Life Cycle Assessment of Reusable and Single-use Plastic Bags in California.* California State University, Chico, Sustainable Manufacturing Program. Chico: California State University Chico Research Foundation.

Romanov, K. (2012, November 20). *Bring Your Own Bag Ordinance Implementation Results and Actions To Reduce EPS Foam Food Ware.* Retrieved August 12, 2013, from City of San Jose: http://www3.sanjoseca.gov/clerk/CommitteeAgenda/TE/20121203/TE20121203_d5.pdf

SB County Public Works Resource Recovery and Waste Management Division. (2013, October 15). *Regional Implementation of Single Use Plastic Bag Ban.* Retrieved November 26, 2013, from County of Santa Barbara: https://santabarbara.legistar.com/LegislationDetail.aspx?ID=1484631&GUID=A569A3D8-B816-4537-8291-BFACC3214D21&Options=&Search=

Stein, S. R. (2012). *ER Planning Report Brief: Plastic Retail Bags in Litter.* Retrieved from Environmental Resources Planning, LLC: http://www.erplanning.com/uploads/Plastic_Retail_Bags_in_Litter.pdf

Team Marine. (2013, May 8). *The Effects of the Plastic Bag Ban on Consumer Bag Choice at Santa Monica Grocery Stores.* Retrieved August 18, 2013, from Team Marine: http://www.teammarine.org/wp-content/uploads/2013/05/Grocery-Store-Bag-Research_Press-Release-12-13.pdf

Terry, B. (2007, October 8). *Recycling Part 2: Lessons from the Davis Street Transfer Center - See more at: http://myplasticfreelife.com/2007/10/recycling-part-2-lessons-from-davis/#sthash.ojyGOAe8.dpuf.* Retrieved from My Plastic Free Life: http://myplasticfreelife.com/2007/10/recycling-part-2-lessons-from-davis/

van Leeuwen, A. (2013, November 23). *Plastic Bag Recycling Rate - A Non-Issue.* Retrieved from Fight The Plastic Bag Ban: http://fighttheplasticbagban.files.wordpress.com/2013/11/plastic-bag-recycling-rate-a-non-issue.pdf

van Leeuwen, A., & Williams, D. (2013, August 11). *The Lies, Myths, Half-Truths, and Exaggerations of Ban Ban Proponents.* Retrieved from Fight The Plastic Bag Ban: http://fighttheplasticbagban.files.wordpress.com/2013/08/theliesmythshalftruthsandexaggerationsofbagbanproponents.pdf

Williams, D., & van Leeuwen, A. (2013, August 23). *Rebuttal of the San Jose Bag Ban Results.* Retrieved from Fight The Plastic Bag Ban: http://fighttheplasticbagban.files.wordpress.com/2013/10/san_jose_bag_ban_report_rebuttal.pdf

APPENDIX A
City of San Jose
Pre and Post Store Observations Summary

YR.	# of Customers Observed	# of Paper Bags	# of Plastic Bags	# of Reusable Bags	Total Bags	% of Total Bags that were Paper	% of Total Bags that were Plastic	% of Total Bags that were Reusable	Ave. # Bags per Customer	Ave. # Single-Use Bag per Customer	Customers No Bag/Hand Carry Items	% of Customers No Bags/Hand Carry Items
2009S	1057	641	2542	115	3298	19.4%	77.1%	3.5%	3.12	3.01	60	5.7%
2010W	705	208	3598	77	3883	5.4%	92.7%	2.0%	5.51	5.40	67	9.5%
2010S	1107	159	1064	73	1296	12.3%	82.1%	5.6%	1.17	1.10	243	22.0%
PRE	**2869**	**1008**	**7204**	**265**	**8477**	11.9%	85.0%	**3.1%**	**2.95**	2.86	**370**	**12.9%**
2012S	1068	317	28	550	895	35.4%	3.1%	61.5%	0.84	0.32	419	39.2%
2012F	1105	300	15	644	959	31.3%	1.6%	67.2%	0.87	0.29	526	47.6%
POST	**2173**	**617**	**43**	**1194**	**1854**	33.3%	2.3%	64.4%	**0.85**	**0.30**	**945**	**43.5%**

Data reformatted from the original file provided by the city of San Jose named: Pre_Post_Stor_Observations_Summary12.11.12.xlsx

"To assess behavior change in bag use. City staff conducted visual observations of customers at retail stores before and after the ordinance went into effect. City staff observed shoppers leaving selected retail stores for one hour and counted the number and type of bags, or absence of a bag, that customers used to cany their purchases. Visual observations were made at a variety of store types, including grocery stores, pharmacies, and general retailers in different San Jose neighborhoods at the same stores both before and after implementation of the BYOB Ordinance." **City of San Jose Memorandum, Kerrie Romanow To Transportation and Environment Committee, dated 20 November 2012.**

APPENDIX A
City of San Jose
Pre and Post Store Observations Summary

Bag Observation Locations		DATE OF PRE BAN SURVEY			DATE OF POST BAN SURVEY	
STORE	**LOCATION**	**Summer 2009**	**Winter 2010**	**Summer 2010**	**Spring 2012**	**Fall 2012**
Trader Joe's	635 Coleman Ave	7/9/2009	1/7/2010		3/27/2012	10/23/2012
Safeway	1300 West San Carlos Ave.	7/9/2009	1/13/2010		3/27/2012	10/23/2012
Su Vianda	727 East Santa Clara St.	7/13/2009	1/11/2010			
Lucky's	2980 E. Capitol Expressway	7/21/2009	1/19/2010		3/27/2012	10/23/2012
PW Market	5205 Prospect Rd	7/16/2009	1/21/2010			
Mi Pueblo	1745 Story Rr.	8/7/2009	1/22/2010		3/27/2012	10/23/2012
Ranch 99	1688 Hostetter Rd.	8/13/2009	1/7/2010		3/27/2012	10/23/2012
Food Maxx	Parkmoor Ave.		1/22/2010			
Lion Market	1710 Tully Rd.		2/3/2010			
International Food Bazaar	2052 Curtner Ave.		1/12/2010			
Walgreens	440 Blossom Hill Road			7/13/2010		
Target	2161 Monterey Hwy			7/14/2010	3/27/2012	10/23/2012
Ross	11 Curtner Avenue			7/14/2010		
CVS	1685 Tully Road			7/21/2010		
Eastridge Mall	Eastridge Loop			7/22/2010		
TJMAXX	5353 Almaden Expy			7/23/2010	3/27/2012	10/23/2012
Ross	5353 Almaden Expy			7/23/2010		
Bed Bath & Beyond	5353 Almaden Expy			7/23/2010		
Westfield Valley Fair Shopping Mall	2855 Stevens Creek Blvd.			7/28/2010		
Office Max	1130 Blossom Hill Road			8/12/2010		
Oakridge Mall	925 Blossom Hill Road			8/5/2010		

Data reformatted from the original file provided by the city of San Jose named: Bag_Survey_Locations.xlsx

Analysis of San Jose Pre and Post Bag Ban Data

Survey Year	Total Customers Observed	Customers With No Bag	Customers Who Use Bags	Qty. of Paper Bags	Qty. of Plastic Bags	Qty. of Reusable Bags	Total Bags
2009S	1057	60	997	641	2542	115	3298
2010W	705	67	638	208	3598	77	3883
2010S	1107	243	864	159	1064	73	1296
Pre Ban	**2869**	**370**	**2499**	**1008**	**7204**	**265**	**8477**
Percent	**100%**	**12.9%**	**87.1%**	**11.9%**	**85.0%**	**3.1%**	**100%**
2012S	1068	419	649	317	28	550	895
2012F	1105	526	579	300	15	644	959
Post Ban	**2173**	**945**	**1228**	**617**	**43**	**1194**	**1854**
Percent	**100%**	**43.5%**	**56.5%**	**33.3%**	**2.3%**	**64.4%**	**100%**
Adjusted per 1000 customers Pre Ban and Post Ban							
Pre Ban	**1000**	**129**	**871**	**351**	**2511**	**92**	**2955**
Post Ban	**1000**	**435**	**565**	**284**	**20**	**549**	**853**
Percent Increase/Decrease				**-19%**	**-99%**	**495%**	**-71%**
Adjusted per 1000 customers who used bags Pre Ban and Post Ban							
Pre Ban	**1148**	**148**	**1000**	**403**	**2883**	**106**	**3392**
Post Ban	**1770**	**770**	**1000**	**502**	**35**	**972**	**1510**
Percent Increase/Decrease				**24.6%**	**-98.8%**	**816.9%**	**-55.5%**

NOTES:

(1) The number of customers surveyed pre-ban exceeds the number of customers surveyed Post Ban.

(2) The number of customers who chose No Bags increased from 12.9% to 43.5%.

(3) When statistics adjusted to 1000 customers Pre and Post Ban Paper Bag use decreased 19%, Plastic Bag use decreased 99%, and Reusable Bag use increased 495%.

(4) When statistics are adjusted to 1000 customers Pre and Post Ban who used bags, Paper Bag use increased 24.6%, Plastic Bag use decreased 98.8%, and Reusable Bag use increased 816.9%.

(5) For every 1000 customers Post Ban 435 chose the NO BAG Option.

(6) The San Jose Bag Survey only counted total customers, customers who chose No Bag and the quantity of Plastic bags, Paper Bags, and Reusable Bags used.