

ADDENDUM TO THE
SOURCE REDUCTION AND RECYCLING ELEMENT
AND THE
HOUSEHOLD HAZARDOUS WASTE ELEMENT
CITY OF MOUNTAIN VIEW

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ADDENDUM TO SRRE AND HHWE FOR THE CITY OF MOUNTAIN VIEW

INTRODUCTION

Comments were received on the City of Mountain View SRRE and HHWE from several different sources. Part 1 of the Addendum addresses those comments which require only clarification or explanation. Part 2 addresses those comments which require changes to the SRRE and/or HHWE.

All comments are addressed on a component by component basis. The organization that submitted the comment is noted in parenthesis following each comment.

Comments were received from the organizations listed below. The abbreviations to be used to designate the organization that submitted each comment is shown in parenthesis.

- California Integrated Waste Management Board (CIWMB)
- City of Mountain View (City)
- City of Palo Alto (Palo)
- County of Santa Clara (County)
- Foothill Disposal Company (FDC)
- Mission Trail Waste Systems (Mission)
- The Sutta Company (Sutta)
- Technical Advisory Committee of Santa Clara County (TAC)
- IntelliCorp (Intell)

In some instances, changes have not been noted for each specific reference throughout the document in which text or tables may be affected. However, in all instances, the information presented in this Addendum supersedes that provided in the SRRE and HHWE.

The sections of the Education and Public Information Component attached to this Addendum replace corresponding sections in the preliminary draft. The attached revisions incorporate those comments received regarding this Component.

This Addendum, and the previously circulated preliminary draft SRRE and HHWE, comprise the final draft SRRE and HHWE. After adoption by the City, but prior to transmittal to the County, documents will be consolidated.

PART I

GENERAL COMMENTS

Comment: It appears that the City is planning to cooperate with the County of Santa Clara, other city governments, and independent contractors on a number of programs. The final SRRE and HHWE should include some documentation of any agreements entered into. Examples of documentation would include a Joint Powers Agreement, or a Memorandum of Understanding. While the Board encourages a regional approach to waste management issues when possible and appropriate, the City must note that each jurisdiction is ultimately responsible for the implementation of their own program. (CIWMB)

Response: The SRRE recommends that the feasibility of a multi-jurisdictional or County-wide approach be considered in the development of some programs, for example the Intermediate Processing Facility (IPF) for recyclable materials, the Yard Waste Composting Facility, etc. The City has not at this time entered into any agreements of this nature, therefore no documentation can be provided.

The City is aware that it is responsible for implementation of its own programs, and for meeting the diversion goals mandated by AB939. Whether or not this is possible using a multi-jurisdictional approach will be determined during program implementation.

The multi-jurisdictional approach as outlined in the HHWE is in the preliminary stages of development and the only documentation to date has been provided in Attachment 3 to that document.

Comment: In the development of the final documents, please remember that they should provide for flexibility by including contingency plans and alternatives. In this way, a jurisdiction will be prepared for unforeseen possibilities or problems that may come up as the plan is implemented. (CIWMB)

Response: Contingency plans have been included in each component under "Contingency (Remedial) Measures".

Comment: Please include a discussion of seasonality, and its impact on the City's generated, disposed and diverted waste in the SWGS, as required by Section 18722(i)(2). (CIWMB)

Response: Please see Appendix 1, page 3 and Figure 1.

Comment: 1. For the Source Reduction, Recycling, Composting, and Special Waste Components, the alternatives are not evaluated by the criteria required by the regulations. The criteria are stated, but they are not used in the text to comprehensively evaluate the alternatives. (Palo)

Response: The criteria have been evaluated for each component in Rating Tables. Please see Table II-2 (Source Reduction), Table III-2 (Recycling), Table IV-2 (Composting), Table V-2 (Special Wastes).

Comment: 2. For the Source Reduction, Recycling, Composting, and Special Waste Components, costs are not clearly stated. A summary chart listing programs, costs, staffing and anticipated recycling amounts would be useful. The logical place to put this chart would be in the Executive Summary. (Palo)

Response: This information is provided in Tables II-3, III-4, IV-4 and V-3 by component and consolidated into Table VIII-4. Summary tables of diversion quantities are provided in Table IX-1. Summary of staffing is provided in Table IX-3.

Comment: Your plan is designed to provide maximum benefits to your local garbage franchisee, Foothill Disposal Company, at the expense of private, local recyclers. While it is clear that working with one franchisee eases Mountain View's attempt to comply with AB 939, the City's citizens will end up paying a higher price for services that could be provided at a lower cost. (Sutta)

Response: The SRRE identifies FDC as the service provider only when new services are strongly related to its franchise agreement with the City of Mountain View. The SRRE encourages competition for implementation of expanded or new future programs as indicated in the Recycling Component, page III-17, Competition Among Solid Waste Providers.

EXECUTIVE SUMMARY

Comment: p.5 Add "mattress recovery at public dump" to list of existing recycling activities.
p.8 In Special Waste, include existing mattress recovery. (City)

Response: The mattress recovery program is considered special wastes and is addressed in the Executive Summary as an existing special waste program on page ES-8, para. 5.

SOLID WASTE CHARACTERIZATION COMPONENT

Comment: White goods: Assemblyman Eastin has introduced a bill (AB 1760, 1991) which, if signed into law, would prohibit the disposal of white goods in California's landfills. As a result, white goods would no longer be "normally disposed" in California landfills, a basic prerequisite for counting any waste type toward diversion. Therefore, it is advisable to plan for this possibility by estimating achievement of diversion goals both with and without counting diverted white goods. (CIWMB)

Response: The criteria used for estimating diversion rates was to calculate diversion of those waste types normally disposed in landfills as of the preparation of this document. To try to anticipate future laws prohibiting specific waste types from disposal in landfills would prove to be an impossible task. This could range from the state-wide law now in consideration to ban disposal of white goods as mentioned, to possible future County and local laws prohibiting disposal of plastics (as considered in Contra Costa County), to yard waste (as considered in many local jurisdictions), etc.

Comment: It would be helpful to the reader of this report if, when the reader is first referred to a specific table, that it be noted that all tables are in one section, following Chapter IX. (CIWMB)

Response: Tables will be included within the appropriate component sections in the final printing of the SRRE, therefore this notation will not be necessary.

SOURCE REDUCTION COMPONENT

Comment: For the waste types specified in AB 1820 (i.e., ag wastes, inert solids, scrap metals and white goods), the SWGS must indicate whether the diversion programs for these waste types were operating as of January 1, 1990, before these waste types can be counted toward diversion. (CIWMB)

Response: Waste diversion figures were primarily derived from a Waste Diversion Study in the City of Mountain View conducted by EMCON Associates (Appendix 3). This study reflects wastes diverted for 1990. In all cases, some of the diverted wastes were normally disposed of in landfills as of 1/1/90.

Comment: Source Reduction: Please provide the calculations, and explanation of the methodology used for estimating tons of diapers, textiles and leather diverted from landfills. (CIWMB)

Page II-3.4 (used goods; grocery bags): Please provide summary explanations for the methodologies used to derive conversion factors, or give a complete reference for each, as required by section 18722(f)(1). (CIWMB)

Response: These methodologies and calculations are provided in Appendix 3, Waste Diversion Study, EMCON Associates.

Comment: Page II-4. Please provide calculations for the estimate of source reduction achieved by 2-sided copying, and explain any assumptions used, as required by section 18734.2 (CIWMB)

Response: Calculations and assumptions are provided in the Source Reduction Component, page II-4, Section B.3, paragraph 3.

Comment: p.9 School Programs should be changed as follows. Delete all text beginning with "The efficiency" and insert: "The City of Mountain View plans the following in-school recycling education programs:

-Completion of a Source Reduction and Recycling Education Packet for grades K-6, which includes hands-on curriculum activities, worksheets aligned with the California test of Basic Skills, and student fun sheets such as mazes, puzzles, etc., produced by staff in cooperation with Norcal.

-Teacher workshops to introduce and distribute the packet in future years with possible expansion to grades 7-12.

-Evaluation and enhancement of existing packet in future years, with possible expansion to grades 7-12.
(City)

Response: This section is intended to provide suggestions to consider to maximize program efficiency through use of existing curricula materials and regional cooperation, and is therefore not the most appropriate section for the inclusion of your comments. These comments have been addressed in the revised Education and Public Information Component which is a part of this Addendum. However, the references to these types of programs are presented in a more general manner so as to allow the City some flexibility during implementation.

Comment: This component does not adequately identify the tasks necessary for implementation of the selected programs as required by CCR section 18733.5. Implementation tasks for the short-term and medium-term planning periods need to be included in the final SRRE as required by CCR section 18733.5(c). In addition, CCR section 18733.5(d) requires the identification of known costs, revenues, and revenue sources necessary for implementation of selected source reduction programs. (CIWMB)

Response: This information has been provided. For tasks necessary for implementation of source reduction programs, see Table II-4. For costs necessary for implementation of source reduction programs, see Table II-3. For revenue sources necessary for implementation of source reduction programs, see Funding Component and Table VIII-5.

Comment: CCR section 18733.6 requires that this component quantifies waste diverted in volume or weight, and in percent of total waste generated. (CIWMB)

Response: See Table I-2.

Comment: p.7: para 2, the DoHS "CA Waste Exchange" information should also be in the HHWE. (City)

Response: The clearinghouse described in this section is to assist businesses and other institutions, not household waste generators of hazardous wastes. Therefore, this reference is more properly suited for the SRRE than the HHWE.

Comment: Why are educational programs and informational programs, such as curriculum, tech. assistance to businesses, waste audits, included under Source Reduction when these programs will address recycling in addition to source reduction. (City)

Response: Source reduction requires necessary behavior and purchasing changes that are best effected by educating and informing waste generators, therefore education is specifically stressed in the Source Reduction Component. The EPI Component also states that source reduction information should be included in all materials along with information regarding all of the other components (recycling, composting, etc.).

Technical assistance to businesses and waste audits can also assist businesses in implementation of recycling programs. As mentioned in the Source Reduction Component, recycling will most times be addressed during a source reduction waste audit.

Comment: Page II-22 & 24: The proposed drought-resistant landscape ordinance is a creative source reduction option, but may be difficult to enforce if and when the drought ends. (County)

Response: Drought-resistant landscaping ordinance was proposed not as a result of the current drought (which may end), but as a result of local climate conditions which have shown cyclical and repeating patterns of drought conditions. As noted in art II of this Addendum in comments regarding the Source Reduction Component, the SRRE has been changed to reflect that this program is to provide drought tolerant landscape guidelines rather than to establish a City Ordinance.

Comment: II-2 Section A-3. Food waste will be a very difficult waste category to reduce on a local level. Should this material be a targeted waste reduction stream or an item which should be targeted for recycling/composting in the long term? (FDC)

Response: Food waste can be successfully targeted for source reduction through technical assistance and/or waste audits for restaurants and grocery stores, etc. Also, as suggested, food waste is a targeted waste material for composting in the medium term.

Comment: II-5 National source reduction efforts cannot count toward local source reduction goals. National efforts may reduce the amount of waste produced per person, thus effecting the total amount of waste which will be taken to landfills. (FDC)

Response: Section B.4 National Activities, was included in the Source Reduction Component as an example of the effects to be achieved through source reduction efforts. As national, state and/or county policies are made which decrease specific waste types generated in the City of Mountain View which would normally be disposed in the landfill, source reduction will have occurred and may be counted toward diversion goals.

Comment: II-6 City of Mountain View staff, Santa Clara County staff, trade groups, and nonprofit organizations are not capable of providing solid waste audits. In order to perform an actual waste audit, the load being audited must be sorted and then weighed according to classification. To the best of our knowledge, only Foothill Disposal has the capability and authority to perform legal solid waste audits within the City of Mountain View. Foothill Disposal routinely provides solid waste audits for many of its recycling customers. (FDC)

Response: There are several different approaches currently used to perform waste audits for businesses, ranging from "do-it-yourself" completion of forms to having specialists in the field of solid waste management to complete a waste audit and make recommendations. Although the local waste hauler is certainly an option for businesses to consider when a waste audit is to be performed, it is certainly not the only option technically available to businesses.

Comment: Page II-6: Waste Surveys: Is there a standard used by all groups involved in waste surveys? Would different individuals/groups get different answers from the same input data? (TAC)

Response: There is not a standard approach to waste audits currently, though there are certainly many organizations who feel that their approach should be the standard adopted by the industry. It is possible that different recommendations could be derived from the same data, by different organizations or even by the same organization. When all other factors are carefully considered (availability of local markets, transportation costs, effects on materials flow for that business, etc.) varying recommendations can result. As long as the person(s) conducting the waste audit is reputable and has a clear understanding

of solid waste management issues, the recommendations should provide positive results.

RECYCLING COMPONENT

Comment: This component does not adequately identify the tasks necessary for implementation of the selected programs as required by CCR section 18733.5. Implementation tasks for the short-term and medium-term planning periods need to be included in the final SRRE as required by CCR section 18733.5(c). In addition, CCR section 18733.5(d) requires the identification of know costs, revenues, and revenue sources necessary for implementation of selected source reduction programs. (CIWMB)

Response: This information has been provided. For tasks necessary for implementation of selected recycling programs, please see Table III-5. For identification of known costs for implementation of selected recycling programs, please see Table III-4. For necessary revenues and revenue sources for implementation of selected recycling programs, please see the Funding Component and Tables VIII-4 and VIII-5.

Comment: p. 5, para. 1 - add mattresses.
p. 8 - add mattresses to on-site landfill collection.
p. 30 - under collection, add mattresses. (City)

Response: Mattresses are considered special waste. The mattress recovery program at the Mountain View public dump has been included in the Existing Condition Section, and has been selected as a continuing program, in the Special Waste Component.

Comment: The small company and property manager of a small office complex must be accommodated in Mountain View's plan. I am concerned about the establishment of city franchised secondary material collectors or recyclers. Many of the smaller companies will not be able to generate the volume of material to make servicing worth while to the franchised collector/recycler. However, if the volume of waste from all the small companies were totaled, that amount of waste become significant and will contain a fair quantity of secondary materials. (Intell)

- Response:** Accommodations for small commercial/industrial generators have been included in the recycling component: 1) "Subsidies are necessary, however, in order to provide service to lower volume generators of recyclables,..." (pg. III-27); and, 2) small commercial/industrial generators "...will try to share refuse service with neighboring businesses in order to eliminate one collection per week and qualify for low cost recyclable collection." (pg. III-28). In other words, the City will allow small contractors to collect recyclables under a free market arrangement, and provide subsidized franchised service when the free market cannot.
- Comment:** There also must be incentive for the small companies and property managers of commercial property to comply with Mountain View's plan. I do not believe that disposal fees will be enough of an incentive for the small company or property manager of a small office complex. (Intell)
- Response:** Meeting the diversion goals as mandated by AB 939 will be an expensive process. Through effective public education and information, waste generators will become aware of the environmental incentives of source reduction and recycling. Through a differential rate structure which subsidizes recycling and charges refuse generators heavily, behavioral patterns will change.
- Comment:** III-7 According to this, only five companies are authorized to collect paper in Mountain View. Currently, there are other non-licensed paper collectors operating within the limits of Mountain View. (FDC)
- Response:** As stated in this section, these are the only companies with City authorization to collect paper.
- Comment:** III-12 Two-Stream Co-mingled. Two stream co-mingled recyclables cannot be efficiently or effectively sorted at curbside. In order to maximize collection efficiency, all recyclables must be sorted at a MRF or and IPF. (FDC)
- Response:** It is agreed that efficiency of collection is reduced when any sorting is done at curbside, however, it is practical in some circumstances. Two-Stream Commingled Collection in this SRRE does not make use of a curbside sort alone, but as a first sort prior to delivery of materials to a processing facility. This initial curbside sort, though reducing collection efficiency, is offset by maximizing materials' marketability and value.

- Comment:** III 17-18. Competition Among Solid Waste Service Providers. Competition will reduce costs associated with commercial collection. Unfortunately, it will also cause residential rates to increase. Currently, Foothill Disposal runs residential collection at a loss, the remainder of the funds are made up in the commercial sector. By placing commercial collection out to bid, issuing a subfranchise, or a hauling license to outside bidders, Foothill Disposal will lose revenue and be forced to increase residential collection rates in order to meet its operating expenses. (FDC)
- Response:** AB 939 will have a resounding and far-reaching economical effect on the solid waste management industry, some of which no one can foresee at this time. The SRRE does not deny that there will be future cost increases for collection and disposal, however the authors of this plan believe that increased competition may help to reduce these increased costs, and should be considered during implementation of each program.
- Comment:** III 18-26 Evaluation of Alternate Programs. This section is seriously flawed. According to this section, Source Separated Recyclable products have a greater value than Commingled Recyclables which have been sorted at an IPF or MRF. Foothill Disposal believes that this section is based upon assumptions and not factual evidence. Based upon corporate experience, segregated recyclables commodities produced by a MRF or IPF have superior market value to Source Separated Recyclables collected at the curb. (FDC)
- Response:** The advantages and disadvantages of commingled vs. source separated collection systems have always been a point of controversy in the solid waste management industry. These advantages and disadvantages are clearly presented in this SRRE. An industry-wide evaluation of materials collected commingled vs. materials collected source separated, indicates that commingled materials contain a higher level of contaminants. Residents have a tendency to treat commingled recycling receptacles as "trash cans" and these contaminants effect the entire load collected by that truck and risk rejection, or lowered revenues, at the materials market. At this time, MRFs and IPFs do not have the proven track records at effectively eliminating all contaminants.
- Comment:** III-27 High grade and computer paper are essentially the same. The various grades of computer paper delineated in the P.S. 90 standards are subsets of high grade paper (pulp substitutes). This information is considered common knowledge among all well versed recycling personnel. (FDC)

Response: Computer paper is included in High Grade Paper in Section C.3 Materials Markets of the Recycling Component. Though this information is common knowledge among well versed recycling personnel, the audience of this SRRE does not always fall within that category. For this reason, plus the fact that computer paper is a large quantity waste category in Mountain View and an easily recognizable high grade paper, it was felt that it merited specific mention.

Comment: III 27 - 28 Increase commercial collection rates to subsidize competition among haulers and promote recycling in the commercial sector. Permitting nonfranchised waste haulers is a direct violation of Foothill Disposal's franchise agreement with the City of Mountain View. As discussed earlier in pages III-17-18, collection charges in the residential sector will inevitably increase due to lack of revenue by Foothill Disposal. (FDC)

Response: The SRRE must outline a solid waste management plan that spans the next 15 years, not just the current collection and processing agreements in which the City may be involved. Permitting non-franchised recyclable haulers is not a violation of the franchise agreement.

Comment: III-31-36 Material Markets. This information is considered sensitive. Quoting recycling prices is very dangerous. The state of the material is not defined in these paragraphs. Is the material processed and therefore a commodity or is it loose/unprocessed and considered a recyclable material. This is very important. Currently, the City of Mountain View and Foothill Disposal do not have the ability to sell recyclables on the open market as commodities ready for consumption by an end user. Another problem is that specific paper brokers and buyers are mentioned by name. This greatly reduces the impartiality which should be associated with a document of this type. (FDC)

Response: The SRRE has stated that materials markets are volatile and can be expected to reflect dramatic changes in prices based on a broad range of conditions. This section is informational and provides existing market conditions only, as stated. The information presented about specific brokers and buyers is public knowledge and effectively outlines those local markets currently available. This description, including specific names, is required by regulations.

Comment: An area of concern centers on section 4, page III-17, entitled "Competition Among Solid Waste Service Providers." The intent of this section is not entirely clear. There has been a shift in the solid waste industry and nearly all hauling companies are now involved in some form of recycling and many business opportunities are appearing because of recent legislation.

The second paragraph of this section attempts to mix the general public and the non-profit sector with integrated waste management activities and financial review. The point of this should be clarified.

Competition will not be impeded by long term contracts. Contracts can be written with provisions for unforeseen windfalls due to high market prices, or revenues can be shared. In addition, long-term contracts are necessary for bank funding of capital equipment. (Mission)

Response: As knowledge of, and concern with, solid waste management issues increases, competition to provide collection, processing, and other services will broaden far beyond that which has traditionally been available for consideration by the public sector. One difference which most likely will occur, and has already occurred on a minimal level, is the increased involvement of the public and non-profit sectors in these issues on some level. The intent of this section is simply to inform the City that non-traditional options can, or will be, available and should be considered.

The last paragraph on page III-17 does not state either a negative or positive reaction to the effect of long-term contracts. It states only that many jurisdictions are not taking the time to fully evaluate the needs of the City before entering into agreements, due to the pressures felt by the short timelines mandated by AB 939. A thorough and concise evaluation may, in fact, indicate that a long-term agreement is in the best interests of the City's established goals. It is imperative to program successes in the long-term that the time be taken to complete such an evaluation.

Comment: The estimated time Mountain View will have to subsidize recyclable commodities, three to four years in this plan, are overly optimistic. There is only one recyclable commodity mill in the entire State that is in the planning stage, while capacity on the West Coast is not predicted to rise for at least a decade. This means the cost of subsidy may be two- or three-times what they are predicted to be in your SRRE. (Sutta)

- Response:** The SRRE recognizes that there will be an initial flux of recyclable materials for a limited existing market as a result of AB 939. Increased stimulation of market development by such policies as the Market Development Zone Program make the predictions stated in the SRRE reasonable.
- Comment:** Predicted diversion goals, as presented in your SRRE, have been manipulated to make it look like Mountain View will achieve AB 939's goals on time and on budget. Giant one-time increases in reduction are both unconvincing and indicative of fabrication. (Sutta)
- Response:** The diversion goals as presented in the SRRE are based on industry experience and are realistic given the expansion of existing programs and the implementation of new programs. It has been historically proven that increased volumes of recyclables are diverted during the initial implementation phase of programs.
- Comment:** The total plan outlined for Industrial and Commercial Recycling is simplistic and undermanned. Hauling loose corrugated in a truck is too expensive to make economic sense, regardless of subsidy. (Sutta)
- Response:** The plan selected call for six trucks and drivers to be committed to commercial/industrial recycling by the medium-term. This is definitely adequate personnel and equipment for the purpose, as noted by other commentors. All OCC will not be hauled loose. Compactors and small balers may be used to densify OCC at the point of generation if economic.

COMPOSTING COMPONENT

- Comment:** General Comments Regarding Collection of Compostable Items. Based on past experience and research of various composting programs, we have determined that collection of compostable items in bags poses a problem in any

composting program. Bags are a major contaminant. Not only are the bags themselves a contaminant, the bags hide other contaminants. Composting of food waste or In-Vessel Composting is an excellent waste reduction goal; but, we are unaware of any In-Vessel Composting facilities presently operating or proposed In-Vessel facilities. Due to permit problems, high expense and difficult vector control, we do not foresee any of these facilities opening in the future. (FDC)

Response: As stated in the SRRE, the bag collection program will be a pilot program that will determine advantages and disadvantages of the bag collection system. Insufficient data currently exists on yard waste collection methods due to the short time of operation of most programs and the limited number of programs operating. Should sufficient data exist prior to implementation of the pilot program, this data will be taken into consideration.

In-Vessel Composting was not a selected program for the City of Mountain View. Information given for this method of composting was for evaluation of alternatives only.

Comment: The detailed section on composting was very interesting. The promotion of composting and other on-site yard waste management programs is particularly commendable. The plan covers the initial use of City generated compost on Shoreline Park. If the city plans to market excess compost, there is the possibility of competing for the same markets as surrounding jurisdictions. (TAC)

Response: The competition for markets is indeed going to be great for compost, as for all other recyclable materials, as a result of the mandates of AB 939. The SRRE outlines the necessity for establishing quality standards, as well as identifying end users, in order to be best prepared for the competitive market. However, the SRRE does not rely on marketing excess compost. Shoreline is capable of absorbing 100% of the compost produced for many years.

SPECIAL WASTE COMPONENT

Comment: p. 2: #4 - - does Mountain View have any water treatment sludge? (City)

- Response:** Table V-1 shows some generation of this Special Waste, however, it is not counted at this time as this waste is not currently listed in regulations. This section of the SRRE was intended to be informational.
- Comment:** p. 4: Ash - - what about fireplace ash from residents? (City)
- Response:** Though fireplace ash does exist, it is not "sortable" from the waste stream unless the bag system for compostables is implemented.
- Comment:** Page V-4: The proposed plan for tire diversion relies on acceptance by Oxford Tire Recycling in Union City. Since many jurisdictions in Northern California plan to use the same service, jurisdictions need to ensure the Oxford can indeed handle the resulting quantity of tires. (County)
- Response:** Current market evaluation has determined that Oxford Tire Recycling has a large unfulfilled current demand for tires. As with all other recyclable materials, an influx of materials may be created by AB 939. A combination of continual monitoring and evaluation of all programs, and the increased attention to development of new markets, will cover this eventuality.

FUNDING COMPONENT

- Comment:** Page VIII-8 lumps all programs together for a total of 2.4 million dollars in the short-term planning period. The component must include a recap of all component program costs and revenue sources that were discussed in the individual component program sections. (CIWMB)
- Response:** Please see Tables VIII-4 and VIII-5.
- Comment:** As required by California Code Regulations Section 18746, the funding component must identify all program costs and revenue sources for planning, development, and implementation by fiscal year. In order to show sufficient flexibility to allow for unexpected developments, the component needs to compare City-specific program costs versus revenues. The component should also include a discussion regarding revenue projections and discuss those

amounts which may be obtained from the additional user-fee modifications.
(CIWMB)

Response: All program costs and projected revenue requirements are shown in Table VIII-4 by calendar year (California Code Regulations Section 18746 does not specify that these figures should appear by fiscal or calendar year). User fees will provide all required revenue, unless a County-wide landfill fee is implemented.

Comment: p. 10: More clarification is necessary about why there is a 20% contingency and where the additional 20% buffer comes from, resulting in costs potentially 60% of those shown. Can the funding estimates be more accurate than this 40% uncertainty? (City)

Response: The use of a zero figure for materials resale revenues builds in a contingency funding factor, as well as the City practice of including a 20% line item contingency in capital project budgeting. The material resale revenue is highly uncertain over the period budgeted, and cannot be estimated with more certainty.

Comment: More detail is needed in the area of contingency funding; is the 20% that has been calculated into the cost figures designated for solid waste programs, or may it be used elsewhere within the City budget if needed? (CIWMB)

Response: Please see above comment. The 20% contingency is designated for solid waste programs.

INTEGRATION COMPONENT

Comment: CCR section 18748(a) states that "The Integration Component shall explain how the Source Reduction, Recycling, Composting, and Special Waste components combine to achieve the 25% and 50% mandates. The City of

Mountain View's SRRE does not adequately address the requirements of this section. The final element will need to show an integration of all the components and explore how they combine and complement one another. In addition, this component will need to explain how priorities between components were determined. Most importantly, the implementation schedule does not adequately reflect all necessary tasks for program implementation. The schedule is supposed to reflect major program implementation tasks through the year 2000, but Figure IX-1 stops in 1997. In addition, the schedule is not time-specific enough: The schedule should include incremental steps and anticipated date of achievement of the diversion mandates.

Response: Table IX-1 shows how all components combine to achieve 25% and 50% diversion mandates.

The discussion in the Integration Component shows how all components combine to effectively complement one another for a total integrated solid waste plan based on the four criteria discussed.

Priorities between components weren't established. The plan deliberately pursues all approaches to diversion with equal emphasis, according to the four criteria discussed.

No significant implementation tasks occur after 1996/97. The programs are then on-going. This "early" date for achieving 50% is prudent in that it allows one year for program operational data to be obtained (1998), and one final year (1999) for the City to achieve 50% prior to 1/1/2000.

The incremental steps for implementation are shown in Tables II-4, III-5, IV-5 and V-4.

HOUSEHOLD HAZARDOUS WASTE ELEMENT

Comment: Page 15 (Types and Amounts of HHW Diverted) The final SRRE should provide more detail on the load checking program such as operational

procedures, waste handling and disposal methods, and enforcement measures taken against violators. (CIWMB)

Response: An extensive operational document for the overall load checking program does exist. It has been previously submitted to the Local Enforcement Agency and the CIWMB.

Comment: Page 16. (Periodic Drop-off Events) The final SRRE should identify the disposal methods and sites for the waste collected during the drop-off events. (CIWMB)

Response: Please see page 17, Section 1.4 - Management of HHW Diverted From Landfill Disposal in 1990.

Comment: Page 14, para 1: This paragraph states that the amount of HHW generated in Mountain View is not known. It appears from the Section 18751(c) of the regulations that jurisdictions are supposed to estimate amount of HHW currently being disposed illegally. If the waste characterization studies do not provide this information, perhaps an estimate could be made using results of a waste characterization study from another jurisdiction. (County)

Response: Based on the waste characterization study performed in 1990 in the City of Sunnyvale, 0.1% of the residential waste stream disposed was HHW. When applied to the tonnage of residential waste generated in Mountain View, 32 tons per year of HHW may be disposed of in Mountain View each year.

PART II

CHANGES TO DOCUMENT

GENERAL COMMENTS

Comment: Comments were received from several sources indicating that it would be more convenient if the Tables were included within the appropriate component sections rather than in a separate section at the end of the document.

Response: The tables will be included within the appropriate component sections in the final printing of the SRRE.

Comment: Clerical and grammatical corrections to the document were received from several sources.

Response: These corrections have been made and will be reflected in the final printing of the document.

EXECUTIVE SUMMARY

Comment: p. 7: % diversion for composting in para. 2 is not consistent with Table IV-3. (City)

Response: Page ES-7 - Composting, paragraph 1:
Change short-term diversion **from 5.3% to 8.0%**.
Change medium-term diversion **from 12.3% to 9.3%**.

Comment: Page ES-6: Please identify "the Sunnyvale facility" mentioned in the sentence mid-page. (CIWMB)

Response: Page ES-6 - Recycling, paragraph 3:
Change "the Sunnyvale facility" to "City of Sunnyvale Recycling Yard".

Comment: Page ES-7: Composting: Please note that combustion (transformation) may count (after 1995) up to a maximum of 10% toward the 50% diversion goal (PRC sec. 41783). (CIWMB)

Response: **Delete:** "This option is rejected in the SRRE because combustion does not count as a diversion credit."
Add: "Although combustion (transformation) may count up to 10% of the 50% diversion goal in the medium-term planning period, this option has not been selected due to the uncertainty of the acceptance of this option as diversion and because state-mandated diversion goals may be achieved in the City of Mountain View without consideration of this option."

Comment: p. 10 Gross cost is \$1.5 million in short term, and \$5 million in medium term. (City)

Response: Change Page ES-10 - Funding, paragraph 1, sentence 1 to read as follows:

"The estimated annual gross cost of all selected programs is \$1.5 million in 1995 and \$5.0 million in 2000."

SOLID WASTE CHARACTERIZATION COMPONENT

Comment: Board staff have concluded from the discussion in the SRRE that the City has used national per-capita generation rates to determine the composition of the City's generated and disposed waste. Board staff have mentioned in meetings with 3E Engineering staff that this strategy is not acceptable for determining a jurisdiction's waste composition. A jurisdiction may use a comparable jurisdiction's composition data, but must follow the requirements for the use of such data as stated in sections 18722(k)(4) and 18724(c). (CIWMB)

Response: The methodology used for determining waste composition in Mountain View is not as described in the CIWMB comment. As stated in the SRRE, waste composition for the commercial, industrial, and self-haul sectors was based on quantitative field analysis conducted in Mountain View by Cal Recovery Systems, Inc., in 1989 (appendix 2 of the SRRE). Only the residential sector waste composition was based on materials flow calculations performed by Franklin Associates. Franklin applied jurisdiction specific data to their national data base in order to arrive at a residential composition specific to the City of Mountain View.

In previous discussions with the Board, 3E Engineering was advised to present this methodology to the Board for review. Though 3E Engineering feels that this data does provide jurisdiction-specific waste composition figures as required by the regulations, the Board's comment has indicated that this methodology will not be accepted in the final SRRE.

Therefore, in the best interest of the City of Mountain View, 3E Engineering has accepted the Board's recommendation to use data from a comparable jurisdiction. The attached Tables represent the revisions in residential waste composition figures as a result of the application of comparable jurisdiction data. The residential sector waste stream composition is deemed comparable to that in the neighboring City of Sunnyvale. Composition data in Sunnyvale is available from a quantitative field analysis performed in 1990 during preparation of the Sunnyvale SRRE. Residentially, Sunnyvale and Mountain View are deemed similar on the basis of their average household income (\$43,900 in Mountain View; \$49,600 in Sunnyvale) and their average household size (2.13 in Mountain View; 2.36 in Sunnyvale). These demographic data are those reported for 1990 in "ABAG Projections '90, Forecasts for the San Francisco Bay Area to the year 2005".

Further, upon revision of the waste composition figures, 3E Engineering discovered that the tonnage figures used for corrugated cardboard and mixed paper for the commercial sector were inadvertently taken from the Franklin Associates work rather than the Cal Recovery quantitative field analysis. These figures have been corrected.

The waste composition, quantity of material projected to be diverted, and program selection, are not altered significantly based on these changes in source data for Mountain View waste composition. This is because the Franklin Associates approach, whether acceptable from a regulatory perspective or not, yielded results approximately the same as those obtained through quantitative field analysis. The major difference is in quantities of OCC generated and diverted in the commercial sector. This change leads to a revised SRRE projection that the City will just achieve 25% diversion by 1995, and very slightly exceed 50% diversion by 2000. We believe that the selected programs will result in higher diversion percentages than these, but based on the CIWMB recommendation, the data used result in minimal compliance rather than the 2-3% 'extra' diversion projected in the preliminary draft.

Comment: Page I-1: In the second paragraph, last sentence, the correct citation is section 18722(i)(2)(C). (CIWMB)

Response: Page I-1 - Solid Waste Characterization Component, paragraph 2: Change citation **from** "section 18724(c)" **to** "18722(i)(2)(C)".

Comment: Please provide in the SWGS an estimate of the in-place volume for the aggregate waste disposed, as required by section 18722(f)(4).

Response: The estimate of the in-place volume for the aggregate waste disposed is 185,600 cubic yards. This is based on the in-place refuse density of 1200 pounds per cubic yard.

Comment: Page I-2: Please identify in the final solid waste generation study (SWGS) where the 1722.7 tons of unidentified waste is disposed. Also, please identify how this waste is distributed among waste type quantities generated, disposed, or diverted. (CIWMB)

Special Waste Disposed: Please specify in the final SRRE where the special wastes that aren't accepted at the Newby Island or City of Mt. View Landfills are landfilled. If this waste is not disposed at a permitted facility, then the tons generated or diverted cannot be counted in the SWGS. (CIWMB)

Response: The waste in question is identified in the Special Waste Component (See Table V-1). It is composed of auto shredder waste, litter collected by CALTRANS, tires, and asbestos. As requested by the CIWMB in another comment, auto shredder waste from autos generated in Mountain View will not be counted in the Final Draft SRRE, since shredding does not take place in Mountain View. The litter collected by CALTRANS was disposed at the Zanker Road Landfill in 1990. The tires are transformed by Oxford Tire Recycling in their permitted facility in Westley, CA. The asbestos tonnage is disposed in permitted landfills since it is on record with the Department of Health Services. The exact landfills are not known.

Comment: Please include a title page to what appears to be Appendix 3. (CIWMB)

Response: Will appear in final document.

Comment: Page I-4: Total diversion is estimated to be 10,926 tons; while 11,062 tons is given on Page I-1. The difference is small, but why aren't the numbers identical? Please explain, or correct, if appropriate. (CIWMB)

Response: Page I-4 - Section C.1 Diverted Waste Composition and Quantity, paragraph 2:

Change 1990 estimated total diversion **from** 10,926 tons **to** 11,062 tons.
(Note: The 10,926 ton figure did not include diversion from existing source reduction programs.)

Comment: pg. 2: Tonnage numbers in para. 3 are different from Table I-1 (rounded?). (City)

Response: Page I-2, Section B.1 Disposed Waste Composition and Quantity, paragraph 3:
Change residential refuse that is disposed **from** 32,000 tons **to** 32,108 tons.
Change commercial refuse that is disposed **from** 26,400 tons **to** 26,292 tons.

SOURCE REDUCTION COMPONENT

Comment: To use comparable data for estimating the quantity of backyard composting in Mt. View, one must list the major similar characteristics between the comparable jurisdiction and the City, as required by section 18724(c). It would also be useful to see a copy of the survey used, and to include a discussion of how it was conducted, especially as a value of 70% seems rather high. (CIWMB)

Response: The backyard composting figures presented on page II-3 were not intended to be that of a "comparable jurisdiction", but rather the results of an industry survey estimating backyard composting activities in a Bay Area City. It was felt that this estimate (2% of homeowners compost in their backyards) was a reasonable estimate. Your comment of 70% refers to the percentage of materials that are composted in each household, which is also believed to be reasonable.

However, given the Board's comment, the 2% source reduction diversion has been excluded from this plan. All appropriate tables have been changed to reflect this exclusion. The Final SRRE will not refer to backyard composting as an existing condition.

Delete: Page II-3, Section B.1 - Residential Activities, paragraph 4 which reads: "Yard waste diverted through home composting.....".

Comment: Purchasing used versus new tires can not be counted toward source reduction. However, if a jurisdiction can estimate the number of tires generated from sources within the jurisdiction that are retreaded or reused, instead of being disposed in a landfill used by the jurisdiction, then that amount of tires may be counted toward a jurisdiction's diversion goals. (CIWMB)

Response: The quantity of used or retread tires generated in the jurisdiction is unknown. However, the quantity of those tires that were purchased (instead of being disposed) can be estimated and is the basis for the calculations.

Page II-4, Section B.3 Commercial and Industrial Operations, paragraph 2:

Delete: "The use of new tires can be reduced by reusing tires that have some of their original tread on them and by retreading used tires".

Add: "The quantity of tires disposed in the landfill can be reduced by the purchase of used or retread tires".

Comment: pg. 20: In D.1, para 1 -- Mild quantity based user fees are feasible, and planned, for the short-term. (City)

Response: Page II-20, Section D.1 Economic Incentives and Disincentives - Tipping Fee Increases and Quantity Based Fees, paragraph 1 - Delete: "Implementation of this activity is not feasible in the short-term planning period due to the nature of the City's existing utility billing system."

Comment: p.23: The school curricula bullet should read: School curricula and teacher workshops. (City)

Response: Page II-23, Section E.1 Education Through Technical Assistance and/or Promotions, Bullet 5:
Add "teacher workshops" to school curricula bullet.

Comment: p. 24: E.4 -- The City currently has landscape guidelines, which include drought tolerant considerations, that applies to new development. This program should focus on expanding these guidelines, and not institute an ordinance. The name of the program and the description should be revised to reflect this change. (City)

Response: Page II-24: Section E.4 Regulatory Programs--Change to read as follows:
"No regulatory programs for source reduction are selected at this time".

The current City drought tolerant landscape guidelines will be included in the Source Reduction Component as an existing condition and as a selected program.

RECYCLING COMPONENT

Comment: p.5: Curbside recycling -- add that residents have the option of using self-purchased recycling bins instead of burlap bags. (City)

Response: Page III-5 - Residential Curbside Recycling, paragraph 1, sentences 2 and 3, change to read as follows:
 "FDC collects newspaper, aluminum and tin cans, plastic (PET) bottles, glass jars and bottles in burlap bags (**residents have the option of using self-purchased recycling bins**). Used motor oil is also collected. Residents source separate glass jars and bottles into one bag (**or bin**), aluminum and tin cans and PET bottles into another burlap bag (**or bin**), and newspapers into brown paper sacks (**or bins**) or tied with string."

Comment: p. 7: Commercial recycling -- FDC collects mixed white and color, but not any other kinds of mixed. (City)

Response: On page III-7, Commercial Recycling, change reference to mixed paper to read "mixed white and color paper".

Comment: p. 26: Second bullet from top---add on-truck shredders. (City)

Response: Page III-26 - Second bullet from top - Change to read as follows:

"On-truck compactors **and shredders** for reducing the volume that HDPE and PET require on board.

Comment: p. 33: Steel can markets - - add a sentence about the copper mining market for steel cans, stating that some cities use this market because detinning is not available in certain regions. (City)

Response: Page III-34, 2nd paragraph from top, add:

"In the absence of regional detinning facilities, some jurisdictions have found end users for this material in the copper mining industry".

Comment: III-26 Battery collection should not be integrated with recycling collection programs.

Response: References to the collection of batteries will be excluded from the Recycling Component and addressed only in the HHWE.

Comment: III-6 Foothill Disposal sponsors the Mountain View phone book recycling program, not the City of Mountain View. The phone book recycling program was initiated by Vanessa Weiss of Pac-Bell in conjunction with Foothill Disposal. (FDC)

Response: Add the following sentence to the last paragraph on page III-6: "This phone book recycling drive is co-sponsored by Foothill Disposal Company and Pacific Bell".

Comment: III-9 Section B.3 Planned Recycling Programs. The proposed 25% reduction in rates has been rejected and a variable rate structure has been approved. The actual rebate percentages have not been determined at this time. (FDC).

Response: Page III-9 - Section B.3 - Planned Recycling Programs: Change to read as follows:

"Recycling Discount: Commercial and industrial generators will be given the option to separate recyclable materials from other garbage and receive a discount on collection of these loads of mixed recyclables. Foothill Disposal is presently meeting with staff to work out details of an agreement to make this possible."

COMPOSTING COMPONENT

Comment: Page 14-23 Number 7. Food Waste Collection and Composting. This program should not be listed under "Selected Programs" if the City has not selected it. The text states that this program will be implemented "if needed or desirable." The program should be moved to a "Contingency" section for programs that will be implemented in the medium term planning period if

additional diversion programs are determined to be necessary in order to achieve the mandated diversion goals. (CIWMB)

Response: Due to the changes in the tonnage figures as discussed in the Waste Generation Study of this addendum, the food waste collection and composting program becomes a Selected Program and references to implementation will reflect this.

However, it should be noted that the City may exercise the option of not implementing any program selected in this Plan if mandated diversion goals can be met without the implementation of specific programs.

SPECIAL WASTE COMPONENT

Comment: p. 4: Tires, para 2 -- No tires are disposed at Newby Island (because Foothill does not collect them) or the public dump. Additionally, we will probably have to pay to have tires removed from the dump. (City)

Response: Page V-4 - Section B.4 Tires - Paragraph 1: Change to read as follows:

"The City of Mountain View landfill accepts tires for disposal for a fee, but stockpiles them at the site rather than burying them. When a sufficient quantity is stockpiled, the tires are currently sold or donated to a tire recycler or burn plant, **however, in the future, it may be necessary to pay to have the tires hauled away.** This service is advertised in The Mountain View Recycling Newsletter, and The View."

Page V-4 - Section B.4 Tires - Paragraph 2: Change Sentence 1 to read as follows:

"At present, almost all tire wastes generated in Mountain View that are not disposed of at the Mountain View landfill are likely delivered to Oxford Tire Recycling (OTR) of Northern California in Union City."

Comment: p. 4: Asbestos -- Note that the public dump accepts, at their discretion, only non-friable asbestos. (City)

Response: Page V-4: Section B.3 Asbestos - add at end of paragraph: "The public dump only accepts non-friable asbestos".

Comment: If auto bodies are not permitted for disposal in landfills used by the jurisdiction, and therefore, are "disposed" in non-permitted facilities such as wrecking yards, then auto bodies as a waste type need not be counted toward a jurisdiction's waste generated or disposed quantities. Auto shredder residue is a separate waste type, and need be counted by a jurisdiction only if this type of waste is generated within the jurisdiction. If this City has such a facility, the method for calculating the amount of auto shredder waste noted in Appendix F is not acceptable. (CIWMB)

Response: Auto bodies were not counted as a waste type (see Table V-1). Auto shredder residue has been changed from counted to not counted (as shown on the revised Table V-1 attached) and has been excluded from the appropriate tables as a generated and disposed waste.

DISPOSAL FACILITY CAPACITY

Comment: Page VII-1: Mountain View has a contract with BFI's Newby Island Landfill for disposal of franchised solid waste through November 1, 1993. Since this date falls within the short term planning period, city plans for obtaining long term disposal capacity should be described. (County)

Response: A 35-year contract with Waste Management for the use of the Kirby Canyon Landfill has just been signed with the City of Mountain View. The Disposal Facility Capacity Component will be changed to reflect this fact.

Comment: Page VII-1: Disposal of self-hauled residential waste is described for the short and medium term planning periods. Describe plans for obtaining long term disposal capacity (beyond 1999) for self-hauled residential waste. (County)

Response: Self-hauled residential waste will be taken to a transfer station and then transferred to Kirby Canyon Landfill in the long-term.

Comment: Page VII-2: There is a discrepancy in the description of the fill area footprint of the Vista site. Page VII-2 lists fill area as approximately 84 acres, containing approximately 2500 cubic yards of remaining permitted disposal capacity. In Table VII-3 the listed permitted footprint is approximately 70 acres and remaining capacity is approximately 15,000 cubic yards. This discrepancy in disposal site information should be clarified or corrected.

Response: The correct description of the fill area footprint of the Vista site is that fill area is approximately 84 acres, containing approximately 15,000 cubic yards of remaining permitted disposal capacity.

HOUSEHOLD HAZARDOUS WASTE ELEMENT

Comment: p. 15,16. Tons collected at 1990 HHW events on P. 15 (14.4) does not equal the sum of the tons reported on p. 16 (18.2). Page ES-2 states 14.4 tons. Should these be equal? If so, please correct. (City, County)

Response: Upon further review of calculations as a result of this comment, it was discovered that inadvertent errors were made on Attachment 2 - CIWMB Form 303.

Section A. Flammable Subtotal: Change from 18987.8 to 19576.7.

Section E. Miscellaneous: Total Waste Collected - Change from 28846.8 to 33646.7.

Based on these revisions, the correct tonnage diverted as shown on Table 2.1 (page 15) and Table 2.2 (page 16) is 16.8 tons.

The breakdown of tonnages collection by event is changed as follows:

April 21 - 4.7 Tons
 July 14 - 2.6 Tons
 Dec 13 - 9.4 Tons

Comment: Page 15, para 2: A reference is made to the types and amounts of HHW collected at city-sponsored events which serviced the City of Mountain View and two other communities. We suggest that this sentence be re-worded to clarify that the amounts of HHW found on CIWMB Form 303 refer only to HHW collected from residents of Mountain View and not the residents of the other communities. (County)

Response: Change Section 2.2 - Types and Amounts of HHW Diverted, paragraph 1, to read as follows:

The types of HHW and amounts collected by city-sponsored collection events and programs which service the City of Mountain View in 1990 are shown on the CIWMB Form 303 "Household Hazardous Waste Collection Information". Though these events service two other neighboring communities, the figures shown on Form 303 indicate HHW collected from residents of the City of Mountain View only.

Comment: References to curbside motor oil collection in Table 6.1, "Implementation Tasks and Schedules" and Table 6.2, "Costs for Selected Programs, refer only to continuation of existing programs and does not address expansion of this program. If programs are to be expanded, the implementation schedule and a cost estimate should indicate this. (County)

Response: Page 51 - Alternative 5, 2nd sentence: Delete "and expanded".

TABLE I-1: QUANTITY OF DISPOSED WASTE
(Tons/Year)

	Residential	Commercial	Industrial	Self-Haul	Total	Percentage of Total
Newby Island Landfill						
Winter	8027	6573	5400	0	20000	22%
Spring	7706	6310	5184	0	19200	22%
Summer	8188	6704	5508	0	20400	23%
Fall	8188	6704	5508	0	20400	23%
Total at Newby Island	32108	26292	21600	0	80000	90%
Mountain View Vista Site				9000	9000	10%
Other (b)				210.7	210.7	0%
Total	32108	26292	21600	9210.7	89210.7	100%
% of Total	36%	29%	24%	10%	100%	

Notes: (a) Tonnage figures are for 1990. Seasonal breakdowns are based on 1989 data.

(b) Other waste includes wastes that are generally not disposed at the Newby Island and Mountain View Landfills. These include asbestos, tires and highway litter. See Table V-1 for details.

Table I-2: SOURCE REDUCTION QUANTITIES
(Tons/Year)

WASTE TYPE	RESID. TONS	COMM. TONS	INDUST. TONS	SELF-HAUL TONS	DIVERTED TONS	PERCENT DIVERSION
PAPER	0.9	18.5	0.0	0.0	19.4	0.0
corrugated containers	0.9	0.0	0.0	0.0	0.9	0.0
mixed paper	0.0	0.0	0.0	0.0	0.0	0.0
newspaper	0.0	0.0	0.0	0.0	0.0	0.0
high grade ledger	0.0	18.5	0.0	0.0	18.5	0.0
other	0.0	0.0	0.0	0.0	0.0	0.0
PLASTIC	0.0	0.0	0.0	0.0	0.0	0.0
HDPE	0.0	0.0	0.0	0.0	0.0	0.0
PET	0.0	0.0	0.0	0.0	0.0	0.0
film	0.0	0.0	0.0	0.0	0.0	0.0
Other	0.0	0.0	0.0	0.0	0.0	0.0
GLASS	0.0	0.0	0.0	0.0	0.0	0.0
refillable containers	0.0	0.0	0.0	0.0	0.0	0.0
CA redemption	0.0	0.0	0.0	0.0	0.0	0.0
other recyclable	0.0	0.0	0.0	0.0	0.0	0.0
other non-recyclable	0.0	0.0	0.0	0.0	0.0	0.0
METAL	0.0	0.0	0.0	0.0	0.0	0.0
aluminum cans	0.0	0.0	0.0	0.0	0.0	0.0
bi-metal	0.0	0.0	0.0	0.0	0.0	0.0
ferrous metal & cans	0.0	0.0	0.0	0.0	0.0	0.0
non-ferrous metals	0.0	0.0	0.0	0.0	0.0	0.0
white goods	0.0	0.0	0.0	0.0	0.0	0.0
other	0.0	0.0	0.0	0.0	0.0	0.0
YARD WASTE	0.0	0.0	0.0	0.0	0.0	0.0
OTHER ORGANICS	425.3	0.0	0.0	12.6	437.9	0.4
food waste	0.0	0.0	0.0	0.0	0.0	0.0
tires & rubber	0.0	0.0	0.0	12.6	12.6	0.0
wood waste	0.0	0.0	0.0	0.0	0.0	0.0
crop residue	0.0	0.0	0.0	0.0	0.0	0.0
manure	0.0	0.0	0.0	0.0	0.0	0.0
textiles & leather	267.2	0.0	0.0	0.0	267.2	0.3
other	158.1	0.0	0.0	0.0	158.1	0.2
OTHER WASTE	0.0	937.0	0.0	0.0	937.0	0.9
inert solids	0.0	937.0	0.0	0.0	937.0	0.9
HHW & containers	0.0	0.0	0.0	0.0	0.0	0.0
SPECIAL WASTE	0.0	0.0	0.0	0.0	0.0	0.0
ash	0.0	0.0	0.0	0.0	0.0	0.0
sewage sludge	0.0	0.0	0.0	0.0	0.0	0.0
industrial sludge	0.0	0.0	0.0	0.0	0.0	0.0
asbestos	0.0	0.0	0.0	0.0	0.0	0.0
auto shredder waste	0.0	0.0	0.0	0.0	0.0	0.0
auto bodies	0.0	0.0	0.0	0.0	0.0	0.0
other	0.0	0.0	0.0	12.6	12.6	0.0
Totals	426.2	955.5	0.0	12.6	1394.3	1.4

TABLE I-4: GENERATION AND DIVERSION RATE (1990)

WASTE TYPE	DISPOSED TPY (a)	DIVERTED TPY (b)	GENERATED TPY	PERCENT OF TOTAL WASTE STREAM	PERCENT OF WASTE TYPE DIVERTED
PAPER	37271.6	2918.0	40189.6	2.9	7.3
corrugated containers	10714.9	644.4	11359.3	0.6	5.7
mixed paper	11987.9	12.2	12000.1	0.0	0.1
newspaper	5444.7	2083.0	7527.7	2.1	27.7
high grade ledger	4904.9	178.4	5083.3	0.2	3.5
other	4219.3	0.0	4219.3	0.0	0.0
PLASTIC	7252.4	17.7	7270.1	0.0	0.2
HDPE	742.6	0.0	742.6	0.0	0.0
PET	185.0	16.5	201.5	0.0	8.2
film	3004.7	0.0	3004.7	0.0	0.0
Other	3320.0	1.2	3321.2	0.0	0.0
GLASS	5333.8	1203.9	6537.7	1.2	18.4
refillable containers	2.1	8.8	10.9	0.0	80.7
CA redemption glass	481.6	1060.4	1542.0	1.1	68.8
other recyclable	3742.1	134.7	3876.8	0.1	3.5
other non-recyclable	1107.9	0.0	1107.9	0.0	0.0
METAL	3992.2	316.7	4308.9	0.3	7.3
aluminum cans	419.7	127.0	546.7	0.1	23.2
bi-metal	0.0	0.0	0.0	0.0	0.0
ferrous metal & cans	2696.4	161.1	2857.5	0.2	5.6
non-ferrous metals	457.1	5.3	462.4	0.0	1.1
white goods	64.2	23.3	87.5	0.0	26.6
other	354.7	0.0	354.7	0.0	0.0
YARD WASTE	14766.4	28.2	14794.6	0.0	0.2
OTHER ORGANICS	16490.5	727.4	17217.9	0.7	4.2
food waste	4507.3	0.0	4507.3	0.0	0.0
tires & rubber	481.6	72.1	553.7	0.1	13.0
wood waste	6730.2	230.0	6960.2	0.2	3.3
crop residue	0.0	0.0	0.0	0.0	0.0
manure	0.0	0.0	0.0	0.0	0.0
textiles & leather	481.6	267.2	748.8	0.3	35.7
other	4289.7	158.1	4447.8	0.2	3.6
OTHER WASTE	3891.9	5687	9578.9	5.7	59.4
inert solids	3859.8	5687.0	9546.8	5.7	59.6
HHW & containers	32.1	0.0	32.1	0.0	0.0
SPECIAL WASTE	210.7	0.0	210.7	0.0	0.0
ash	0.0	0.0	0.0	0.0	0.0
sewage sludge	0.0	0.0	0.0	0.0	0.0
industrial sludge	0.0	0.0	0.0	0.0	0.0
asbestos	130.0	0.0	130.0	0.0	0.0
auto shredder waste	0.0	0.0	0.0	0.0	0.0
auto bodies	0.0	0.0	0.0	0.0	0.0
other	80.7	12.6	93.3	0.0	0.0
Totals	89209.4	10898.9	100108.3	10.9	

(a) From Table I-5.

(b) From Tables II-1, III-1 and IV-1 (Same numbers as I-2 and I-3)

TABLE I-5: QUANTITY AND COMPOSITION OF DISPOSED WASTE

WASTE TYPE	RESIDENTIAL		COMMERCIAL		INDUSTRIAL		SELF-HAUL	
	fraction	tons/year	fraction	tons/year	fraction	tons/year	fraction	tons/year
PAPER	0.408	13100	0.543	14277	0.446	9625	0.029	270
corrugated containers	0.059	1894	0.149	3918	0.227	4903	0.000	0
mixed paper	0.135	4335	0.203	5337	0.107	2316	0.000	0
newspaper	0.082	2633	0.092	2419	0.018	393	0.000	0
high grade ledger	0.009	289	0.099	2603	0.093	2013	0.000	0
other	0.123	3949	0.000	0	0.000	0	0.029	270
PLASTIC	0.076	2440	0.117	3076	0.080	1736	0.000	0
HDPE	0.008	257	0.006	158	0.015	328	0.000	0
PET	0.004	128	0.002	53	0.000	4	0.000	0
film	0.030	963	0.053	1393	0.030	648	0.000	0
Other	0.034	1092	0.056	1472	0.035	756	0.000	0
GLASS	0.044	1413	0.075	1974	0.086	1857	0.010	90
refillable containers	0.000	0	0.000	2	0.000	0	0.000	0
CA redemption glass	0.015	482	0.000	0	0.000	0	0	0
other recyclable	0.024	771	0.060	1578	0.065	1394	0.000	0
other non-recyclable	0.005	161	0.015	394	0.021	463	0.010	90
METAL	0.037	1188	0.052	1367	0.054	1167	0.029	270
aluminum cans	0.006	193	0.007	184	0.002	43	0.000	0
bi-metal	0.000	0	0.000	0	0.000	0	0.000	0
ferrous metal & cans	0.026	835	0.033	868	0.046	994	0.000	0
non-ferrous metals	0.002	64	0.010	263	0.006	130	0.000	0
white goods	0.002	64	0.000	0	0.000	0	0.000	0
other	0.001	32	0.002	53	0.000	0	0.029	270
YARD WASTE	0.255	8188	0.051	1341	0.080	1728	0.381	3510
OTHER ORGANICS	0.169	5426	0.146	3835	0.218	4709	0.274	2520
food waste	0.086	2761	0.046	1206	0.000	0	0.059	540
tires & rubber	0.015	482	0.000	0	0.000	0	0.000	0
wood waste	0.011	353	0.031	815	0.195	4212	0.147	1350
crop residue	0.000	0	0.000	0	0.000	0	0.000	0
manure	0.000	0	0.000	0	0.000	0	0.000	0
textiles & leather	0.015	482	0.000	0	0.000	0	0.000	0
other	0.042	1349	0.069	1814	0.023	497	0.068	630
OTHER WASTE	0.011	353	0.016	421	0.036	778	0.254	2340
inert solids	0.010	321	0.016	421	0.036	778	0.254	2340
HHW & containers	0.001	32	0.000	0	0.000	0	0.000	0
SPECIAL WASTE	0.000	0	0.000	0	0.000	0	0.023	211
ash	0.000	0	0.000	0	0.000	0	0.000	0
sewage sludge	0.000	0	0.000	0	0.000	0	0.000	0
industrial sludge	0.000	0	0.000	0	0.000	0	0.000	0
asbestos	0.000	0	0.000	0	0.000	0	0.014	130
auto shredder waste	0.000	0	0.000	0	0.000	0	0.000	0
auto bodies	0.000	0	0.000	0	0.000	0	0.000	0
other	0.000	0	0.000	0	0.000	0	0.009	81
Totals by sector	1.000	32108	1.000	26291	1.000	21600	1.000	9211

TABLE II-1: CURRENT SOURCE REDUCTION BY PROGRAM

Programs	Quantity (tons)	Material Type
Diaper laundering services	158.1	Other Organics
Thrift Shops	267.2	Textiles and Leather
Senior Center Paper Grocery Bag Reuse	0.9	Corrugated Paper
Copy shops and City offices using double - sided photocopiers	18.5	High Grade Ledger
Estimate of reused tires based on interviews with used tire collectors	12.6	Tires
City Crew Reuse	937	Inert Solids (concrete and asphalt)
Total Source Reduction:	1394.3	Tons in 1990

TABLE III-3
 RECYCLING PROGRAM DIVERSION PROJECTIONS
 CITY OF MOUNTAIN VIEW

Current Recycling	AL	Glass	Other Metal	PET	HDP	ONP	OCC	Mixed Paper	HG Paper	White Goods	Inert Solids	Tires	Total	% of Total Generation
Residential	0	327	63	0	0	0	600	12	160	5	0	60	1227	1.23
Comm. & Ind.	0	0	50	0	0	0	0	0	0	18	4750	0	4818	4.81
Self-Haul	127	1204	166	17	0	2083	644	12	160	23	4750	60	9245	9.24
TOTAL CURRENT														
Short-Term Recycling Programs														
Expand MF Residential +	23	543	53	6	39	1646	0	0	0	517	0	0	2826	2.82
Phase I Commercial/Industrial	0	1040	0	0	0	0	3087	536	923	0	0	0	5586	5.58
Downtown Drop-off Center	10	30	0	1	0	40	8	0	0	0	0	0	89	0.09
TOTAL SHORT-TERM	33	1613	53	7	39	1686	3095	536	923	517	0	0	8501	8.49
TOTAL CURRENT & SHORT-TERM	160	2817	220	24	39	3769	3739	548	1083	540	4750	60	17746	17.73
Medium-Term Recycling Programs														
Expand Residential	15	142	11	2	4	373	947	2168	0	52	0	0	3713	3.71
Phase II Commercial/Industrial	0	1040	0	0	0	0	3087	2143	692	0	0	0	6963	6.96
TOTAL MEDIUM-TERM	15	1182	11	2	4	373	4034	4310	692	52	0	0	10675	10.67
GRAND TOTAL	175	3999	230	26	42	4141	7773	4858	1776	591	4750	60	28422	28.40

- NOTES: (1) MF diversion assumed equal to SF diversion based on 50/50 ratio of SF to MF residences.
 (2) Residential recovery of 15% of HDPE, as a new material, is assumed in the short-term.
 (3) New residential materials in the medium-term are mixed waste paper and OCC; 50% recovery is assumed.
 (4) Phase I routes are assumed to recover 35% of OCC, and recyclable glass; 7% of mixed waste paper; and 20% of HG paper.
 (5) Phase II routes are assumed to recover an additional 35% of OCC and recyclable glass, plus 28% of mixed waste paper and 15% of HG paper.
 (6) Since C/I routes are only expected to recover only approximately 35% of mixed MRF recovery of additional quantities is feasible.
 (7) Total Mountain View Generation = 100088
 (8) Other materials will be commingled with listed materials, but are not projected since it is difficult to determine where waste surveys will find economical diversion opportunities. Plastics are likely to offer some opportunities.

TABLE IV-3
COMPOSTING PROGRAM DIVERSION PROJECTIONS
CITY OF MOUNTAIN VIEW

Current Composting	Yard Waste (tons)	Wood Waste (tons)	Food Waste (tons)	Total Tons	% of Total Generation
Residential	28	0	0	28	0.03
Comm. & Ind.	0	230	0	230	0.23
Self-Haul	0	0	0	0	0.00
TOTAL CURRENT	28	230	0	258	0.26
Short-Term Composting Programs					
Expand Christmas Tree Program	12	0	0	12	0.01
Wood & Brush Drop-off and Mulching	1935	1215	0	3150	3.15
Wood and Brush Collection and Mulching	2251	2514	0	4765	4.76
TOTAL SHORT-TERM	4198	3729	0	7927	7.92
TOTAL CURRENT & SHORT-TERM	4226	3959	0	8185	8.18
Medium-Term Composting Programs					
Yardwaste Collection and Composting	7384	0	0	7384	7.38
Food Waste Collection and Composting	0	0	1984	1984	1.98
TOTAL MEDIUM-TERM	7384	0	1984	9367	9.36
GRAND TOTAL	11610	3959	1984	17552	17.54

- NOTES: (1) Christmas tree recovery is estimated at 35% of residential trees, 25% of commercial trees.
(2) Brush Drop-off estimate is based on recovery of 30% of self-haul, and 10% of residential yard waste.
Wood recovery is estimated at 90% of self-haul wood waste.
(3) Brush collection recovery is estimated at 20% of residential, commercial, and industrial yard waste, and wood recovery is estimated at 50% of commercial and industrial wood waste.
(4) Yard waste collection and composting recovery is estimated at 50% of residential, commercial, industrial, and self-haul yard waste.
(5) Food Waste Collection recovery is estimated at 50% of residential and commercial food waste.
(6) Total Waste Generation used in this table: 100088 Tons

TABLE V-1: QUANTITY OF SPECIAL WASTES

Waste Type	Counted(1) (tpy)	Not Counted (tpy)
Ash	0	---
Sewage Sludge	---	7750 (wet)
Industrial Sludge	0	---
Asbestos	130 (4)	---
Auto-Shredder Waste	---	1512
Auto Bodies	---	5320
Other		
Tires	76.5 (5)	---
Dead Animals	Indeterminate (5)	---
Water Treatment Sludge	---	350 (6)
Flood Channel Dredge Spoils	---	5100 (6)
Street Sweepings	1601 (5)	---
Litter Collected by CALTRANS	4.2	---

- (1) "Counted" waste is included in the determination of "generated" waste in this document. Tonnages counted are disposed in landfills other than Newby Island or Mountain View unless noted.
- (2) Sludge is not counted as a generated solid waste in accordance with Section 41781 (b)(5) of the California Public Resources Code which is inoperative as of October 1, 1991.
- (3) Auto bodies are not counted as generated solid waste because they are normally not disposed in landfills.
- (4) Approximate tonnage pending provision of 1990 tonnages by the Department of Health Services.
- (5) Tonnage disposed (except Tires transformed) are included in Newby Island and Mountain View Landfill tonnages.
- (6) Approximate tonnages based on incomplete records. Not counted at this time due to uncertainty in the estimate. An unknown percentage of these materials historically has been landfilled; the remainder sun dried and used as fill dirt or soil amendment.

TABLE IX-1: INTEGRATED DIVERSION PROGRAM PROJECTIONS

YEAR	SOURCE			TRANSFOR- MATION	TOTAL
	REDUCTION	RECYCLING	COMPOSTING		
1990	1.4%	9.2%	0.3%	0.0%	10.9%
1991	1.4%	9.2%	0.3%	0.0%	10.9%
1992	1.4%	10.4%	0.3%	0.0%	12.0%
1993	1.6%	14.3%	1.5%	0.0%	17.4%
1994	2.0%	17.7%	5.3%	0.0%	25.0%
1995	2.4%	17.7%	8.2%	0.0%	28.3%
1996	2.8%	22.0%	11.1%	0.0%	35.9%
1997	3.2%	28.4%	15.6%	0.0%	47.1%
1998	3.7%	28.4%	16.4%	0.0%	48.5%
1999	4.2%	28.4%	17.5%	0.0%	50.1%
2000	4.2%	28.4%	17.5%	0.0%	50.1%

- Notes:
- (1) Diversion numbers are shown as mass fractions of the entire projected waste stream in each year.
 - (2) Diversion shown has been estimated from component tables on a program by program basis. However, the projections are allocated in the following fashion:
 - 40% of a program's estimated additional diversion is applied in the start-up year.
 - the remaining 60% is applied in the following year.
 - (3) The percentages shown are cumulative.

PUBLIC EDUCATION

AND INFORMATION COMPONENT

CHAPTER VI:
PUBLIC EDUCATION AND INFORMATION COMPONENT VI-2

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CHAPTER VI: PUBLIC EDUCATION AND INFORMATION COMPONENT

INTRODUCTION

Education and public information is one of the most important components of a Source Reduction and Recycling Element. The public needs to be made aware of the importance of managing solid waste. An education and information program must be based on the requirements of the other components. Integrating the components is critical because the overall approach to solid waste management must be balanced in order to meet the needs of the jurisdiction and the requirements of the state.

The ultimate goal of public education is behavior change. Successful implementation of the source reduction, recycling, and composting components depends on the effectiveness of public education and information in changing behavior. To increase and maintain long-range community support and involvement in efforts to reduce waste, recycle and compost, an active and comprehensive public education program should emphasize the following principles:

- **"Know thy population."** Periodic demographic analyses keep the public education program appropriately designed and targeted for Mountain View's population and subpopulations.
- **Target communications.** Preparing and disseminating information to target specific groups is more likely to influence behavioral change than mass media communications. The more personal the message, the more effective it will be.
- **Modeling.** It is important for the City and Mountain View community opinion leaders to set the example for other institutions, businesses and residents to follow. People learn from people. Neighborhood block leaders, co-workers, classroom teachers and business leaders are all effective role models. Using role models in both mass media and grassroots organizing is a cost-effective way to influence behavior.
- **"Feedback is the Breakfast of Champions."** Monitoring and frequent reporting of the progress of source reduction, recycling and composting increases public

participation and helps to reinforce these habits over time. Provide specific details about any problems that need correction and give the public credit for progress achieved.

- **Integrate source reduction, recycling and composting into all aspects of community life.** Relate the Source Reduction and Recycling Element objectives to Mountain View's existing positive issues and images. Appeal to public sentiment by making waste reduction a part of Mountain View's positive community identity.
- **Tap existing information exchange networks, rather than create whole new methods for disseminating information.** The most cost-effective means to distribute information is to use the many newsletters, bulletin boards, meeting announcement times, etc. that already exist in Mountain View.
- **Consider timing for the population intended for the information.** For example, point-of-purchase is the most appropriate time to provide information about source reduction. Point-of-disposal is an effective time to provide information about recycling and increased costs in garbage disposal. Some programs are seasonal while others must be implemented in a sequential order.
- **Consistent, repetitive messages and graphic images.** These should be maintained over time to develop a strong program identity and for optimum cost-effectiveness.
- **Practical "how-to" information must be stressed always.** The environmental reasons for source reduction, recycling and composting are secondary.
- **The effectiveness of printed materials is defined by the context in which the public receives them.** We do not want to produce more junk mail. Person to person delivery of materials is the most effective in changing behavior.
- **Trained front line staff.** Front line staff -- truck drivers, recycling center workers, City receptionists -- whoever deals with the public must be well trained to explain how to reduce, reuse, recycle and compost.

A. GOALS AND OBJECTIVES

This component documents current education and public information activities for the City of Mountain View and describes how participation in source reduction, recycling, and composting activities will be stimulated through implementing new education and public information programs and expanding existing ones.

Establishing clear goals and objectives for educational efforts provides an understanding of the program by governmental agencies, residents, and the business community. In addition, monitoring, evaluation, and improvement of public education become easier when the goals and objectives are specified.

Goals for the City of Mountain View include:

- support existing and planned source reduction, recycling, and composting programs and services through education and public information activities;
- increase participation in existing and planned source reduction, recycling, and composting education and public information efforts;
- increase public awareness of environmental and solid waste issues;
- create broad visibility for recycling;
- familiarize consumers with recycling;
- motivate increased participation in available source reduction and recycling programs by all sectors;
- stress the importance to all sectors of buying recycled and composted material.

The following sections describe short- and medium-term objectives for the City of Mountain View's Education and Public Information Component.

A.1. SHORT-TERM OBJECTIVES

- provide information to at least 90% of the residents and business employees in Mountain View regarding the City of Mountain View's waste reduction and recycling programs by 1995;
- create public involvement opportunities through at least one recycling promotional event annually; emphasize "closing the loop" through a "buy recycled" campaign;
- educate the public about the uses of recycled and composted materials through a resource directory revised each year;

- cultivate support by publicizing and encouraging involvement of the business community;

A.2. MEDIUM-TERM OBJECTIVES

Medium-term objectives build upon short-term objectives and will focus upon:

- developing educational materials which coincide with the implementation of new or expanded solid waste services as scheduled by the source reduction, recycling, composting, and special waste components.

B. EXISTING CONDITIONS

B.1. RESIDENTIAL

CITY OF MOUNTAIN VIEW

The City of Mountain View promotes the residential recycling program in the following ways: 1)placing a monthly advertisement in the City-produced community newspaper--The View, 2)producing the twice yearly Mountain View Recycling, a newsletter directly mailed to single family homes, apartments, and condominiums, 3)inserting garbage bill supplements at least once a year, and 4)running cable television announcements. The recently established apartment and condominium collection service was initiated by placing clearly marked signage at the point of collection and a distributing doorhanger informational flyers to each unit by the Conservation Corps. These flyers feature English on the front side and Spanish, Vietnamese, and Filipino translations on the reverse side. In addition, Mountain View has a portable recycling display used for special events and also lent out for rotating display at the library, schools, and businesses.

Mountain View also has a volunteer block leader program in which block leaders put out recycling reminder signs the day before curbside collection. They may also talk informally with their neighbors about recycling and distribute the recycling newsletter. Upon recruitment, a block leader is provided with a packet of information that includes guidelines for being an effective block leader, a sample block leader introduction letter, and a supply of Mountain View Recycling.

There are two seasonal recycling events in Mountain View, Christmas tree recycling and phone book recycling. The education and public information efforts

for Christmas tree recycling consist of supplying tree retailers with collection information flyers to be distributed to their customers, and informational ads, PSA's, and stories in The View and other local media sources. Phone book recycling is a joint effort between the City, Pacific Bell, Foothill Disposal and Lucky Foodstores. The education and public information efforts consist of Pacific Bell-supplied signage for drop boxes and stores, and new phone books encased in plastic wrap with drop off locations for the old books printed on it. The City of Mountain View advertises the event through The View and other local media sources.

In addition, the City of Mountain View has held meetings with various community and youth groups for educational presentations and to discuss current programs. The City of Mountain View also participated in creating and staffing an educational display at the 1990 County Fair, promoting recycling in general, as well as curbside programs for individual cities.

FOOTHILL DISPOSAL COMPANY

Foothill Disposal assists the City of Mountain View in promoting their residential recycling services by answering numerous recycling questions on a daily basis. The drivers on the recycling collection trucks have educational "tickets," supplied by the City, for problem solving. Foothill Disposal also sponsors field trips to the Norcal Recycling Facilities.

SIERRA CLUB/LOMA PRIETA CHAPTER

The Sierra Club has produced two guides entitled "Where to Recycle in Santa Clara County" and "Buy Recycled." These guides are distributed to Mountain View residents via telephone requests and at special events where Sierra Club has set up a booth. The City of Mountain View also distributes this information to residents who call in requesting information. The Sierra Club has produced a general recycling video that is distributed or lent out to schools, businesses, civic groups and individuals.

BOY SCOUTS OF AMERICA

In February 1991, Boy Scout Troop 80 discontinued their 32 year recycling drive due to market collapse that rendered their drive financially unfeasible. In some residents view, this signified an "end of an era." This program had a tremendous amount of educational value due to its "hands on" nature, where scouts participated in the collection of recyclables from residents' homes.

B.3. COMMERCIAL AND INDUSTRIAL

CITY OF MOUNTAIN VIEW

The City initiated a commercial recycling educational program in May, 1991. As part of this program, a packet of information on source reduction, recycling, and recycled products procurement was developed and sent to approximately 170 businesses and industries. The kit included a letter of introduction, a "how-to" recycle outline, a list of source reduction tips, a list of city-authorized collectors, a list of local recycled product vendors, and an information request card for the businesses to report on their current recycling efforts and to request additional information.

In addition, the City was one of several communities to cosponsor the "Business Environmental Networks Conference" on April 22, 1991. This one-day conference for the business community addressed a number of issues pertaining to solid waste management.

MOUNTAIN VIEW CHAMBER OF COMMERCE

Mountain View Chamber of Commerce has a monthly newsletter that frequently includes articles on recycling and waste reduction that the City has submitted. In the July 1991 issue, they featured "Five Steps to a Greener Office."

RECYCLED FIBERS

Recycled Fibers, a City-authorized paper collector, has a employee education program as a part of their collection service, that consists of the following. Upon initiation of the program, a sales representative meets with the designated recycling coordinator to go over a written recycling proposal prepared by the sales representative. Depending on the size of the company, the sales representative may schedule an employee presentation or rely on the recycling coordinator to provide employee education. Quality control problems are also handled through the recycling coordinator, in which case an employee memo is circulated.

NORTHERN CALIFORNIA PULP AND PAPER

Northern California Paper and Pulp, a City-authorized paper collector, has an employee education program as a part of their collection service that consists of the following. Upon initiation of the program, a sales representative gives employees a recycling presentation and a letter of introduction explaining the "how-to's" and the "why's" of the program. Each employee is also supplied with a desktop box with the recycling "do's and don't" printed on it. In addition, employees receive a monthly recycling report with their paycheck that tracks recycling volume by material.

FOOTHILL DISPOSAL CO.

Foothill Disposal, a City-authorized paper collector, provides the following employee education for their commercial customers. Upon initiation of the program, a memo is sent to all employees that explains how the program works, why they should recycle and its benefits. All additional information and education is the responsibility of the employer, with assistance from Foothill Disposal upon request. In addition, Foothill Disposal has the capability to participate at trade shows and portable displays are available to any of their customers.

WEYERHAUSER

Weyerhaeuser, a City-authorized paper collector, offers comprehensive employee education and training as a part of the collection service. Their education consists of providing technical assistance and a step-by step recycling manual, and conducting waste audits and employee training seminars. They also provide instructional and promotional signage for their customers and a monthly material recovery report.

PAPER RECOVERY OF NORTHERN CALIFORNIA

Paper Recovery, a City-authorized paper collector, focuses it's educational efforts on providing a designated recycling coordinator at each business with a step-by step informational booklet to guide them in setting up and promoting their recycling program. In addition, they have a video available and will provide limited technical assistance upon request. They also provide the recycling coordinator a detailed material recovery statement each month.

B.4. INSTITUTIONAL AND MUNICIPAL

CITY OF MOUNTAIN VIEW

The City of Mountain View has adopted a recycling policy that gives the Purchasing Manager discretion to give a preference margin to recycled paper products procurement and urges employees to make double-sided copies whenever possible. In fact, in fiscal year 1990-91, purchasing recycled paper products saved the City over \$200, compared to the cost of equivalent virgin paper products. This policy has resulted in the following employee education and information: periodic memos issued for problem solving and signs on copy machines reminding employees to copy double-sided.

The City has also implemented an aggressive recycling program with employee education consisting of special training sessions within each department at the program's onset, ongoing reminders in the quarterly employee newsletter, and frequent memo's and bulletins.

There have been recent efforts by the City of Mountain View to introduce solid waste management concepts into the schools through the "In-School Scouting Program." As a part of the program's environmental focus, City recycling personnel have made several presentations to classes on the topic of the solid waste crises and recycling.

BOY SCOUTS OF AMERICA/IN-SCHOOL SCOUTING PROGRAM

Several schools within the Mountain View Elementary School District participated in the "In School Scouting Program." This program, which targets the first through fifth grades, includes an environmental awareness curriculum that emphasizes recycling. As part of this curriculum, the schools take part in a recycling drive, as a fundraiser for the schools.

The following are summaries of recycling activities at a sampling of schools in Mountain View. Due to the large number of schools in Mountain View, it was impossible to include information on all of them.

BENJAMIN BUBB SCHOOL

Benjamin Bubb School, a part of the Mountain View Elementary School District, has an aggressive recycling program that collects materials generated by the school and by families within the school boundaries. The fifth grade classes are responsible for overseeing the program and the fifth grade science framework includes a learning unit on recycling. In addition, every year the fifth grade classes participate in Science Camp, a week of hands-on science projects, of which paper making from recycled fibers is one.

Benjamin Bubb School, grades 3, 4, and 5, also participated in the "In School Scouting Program" during the 1990-91 school year.

EDITH LANDELS SCHOOL

Edith Landels School, grades 3, 4, and 5, participated in the "In School Scouting Program" during the 1990-91 school year.

KENNETH N. SLATER SCHOOL

Kenneth N. Slater School, grades 1-5, participated in the "In School Scouting Program" during the 1990-91 school year. They also started collecting white and colored paper recycling program.

MARIANO CASTRO SCHOOL

Mariano Castro School, grades 1-5, participated in the "In School Scouting Program" during the 1990-91 school year.

WHISMAN SCHOOL DISTRICT

There is no formal recycling program or curriculum on a district-wide basis. Any recycling activities are initiated and carried out by individual administrators and teachers.

CRITTENDEN MIDDLE SCHOOL

Crittenden Middle School has a aluminum recycling program run by the Associated Student Body. In addition, at least one of the fifth grade classes has done a learning unit on recycling in the 1990-91 school year.

GRAHAM MIDDLE SCHOOL

Graham Middle School has a magazine recycling program organized through a student environmental club with the assistance from the City's recycling staff, parents, and teachers. This recycling program is a community service and is being promoted with the help of the City through The View, the recycling newsletter, and by PSA's and press releases to local media.

MOUNTAIN VIEW HIGH SCHOOL

Mountain View High School has an environmental club and a recycling program which recycles aluminum, glass, and high grade paper.

C. PROGRAM ALTERNATIVES

To heighten the effectiveness of the various programs, and ensure an efficient use of resources whenever possible, public education and information resources will be targeted to specific audiences. Segmenting the community into various categories of waste generators provides a simple and useful means of directing specific messages.

C.1. GENERAL APPROACHES TO EDUCATION AND PUBLIC INFORMATION

- Create an office of education and public information and/or designate a staff member to be in charge of developing public education and publicity

materials. Staffing needs will be sufficient to allow for both work in the office and in the field.

- Create a small community advisory committee to assist in developing and implementing educational programs.
- Develop a comprehensive program that addresses solid waste management in general and AB 939 specifically. The program would be geared to all waste generators.
- Assess the size of the community's non-English speaking or reading populations, in order to tailor education and publicity materials accordingly.

Numerous avenues of communication are available that would allow the transmission of education and public information to the targeted waste generators. Examples are:

- mass mailings (community newsletters), either alone or with utility bills;
- placement of door-knob hangers;
- recognizable theme, logo, and message. The logo should appear on all printed and outdoor advertisements, as well as waste collection vehicles and equipment. Outdoor advertising can be placed on billboards, buses, bus shelters, benches, banners, posters, and litter receptacles;
- use of a celebrity spokesperson or mascot as part of these efforts;
- press coverage of as many promotions, program introductions and effectiveness updates, and other notable events as possible;
- press coverage through news conferences, feature stories, press kits and press releases;
- newspaper articles and inserts;
- local radio and TV campaigns to produce awareness shows or public service messages and outdoor advertising;
- seminars, workshops, and related programs;

- participation in special events (especially if follow-up activities are planned);
- slide shows, videos, and speakers' bureaus available to community groups;
- recycling curriculum and other information distributed to public and private schools;
- cooperation with community service organizations.

C.2. RESIDENTIAL SECTOR

Approaches to consider when developing public education programs for the residential sector include:

Meetings and Forums

- sponsor city meetings, community forums, and public hearings to present and discuss reduction, reuse, recycling, and composting ideas;
- appoint citizen advisory boards or task forces to monitor events and report to the public.

Volunteer Networks

- Expand the network of motivated and committed volunteers to help "spread the word." This method has been proven particularly successful in disseminating composting information through gardening clubs and community gardens in what are often called "Master Composter" programs. It is currently used in Mountain View as the 'Block Leader' program.

Exhibitions

- exhibit source reduction, recycling, and composting programs at county fairs, shopping centers, parks, community gardens, and other public sites;

- conduct tours, open houses, and publicity events at recycling centers and waste processing facilities to give the public a better understanding of the issues.

C.3. COMMERCIAL AND INDUSTRIAL SECTOR

The tactics available for reaching the commercial and industrial sectors are generally simpler and more direct. The City can develop materials specific to individual industries or businesses, and disseminate these to the businesses in question via a number of approaches, which may include:

- conduct mailings to businesses;
- work with the Chamber of Commerce and other business and professional associations;
- Develop a speakers bureau of educators, industry and technical representatives, and governmental officials to talk to professional organizations, the Chamber of Commerce, major employers, conservation groups, social clubs, and other groups;
- develop a commercial waste audit kit. Once the audit has been conducted, the City can work with businesses to improve their disposal activities and in doing so will provide direct education and information to these waste generators;
- work with various unions to encourage members to get involved (i.e., union sanctioned functions or workshops);
- develop specific programs tailored for the need of individual businesses (i.e., bakeries, dry cleaners);
- establish programs for specific business parks and centers;
- prepare employee kits that explain the various programs. These can be passed out by employers;
- require refuse hauler(s) to do waste audits and contact customers periodically to offer recycling services.

C.4. INSTITUTIONAL SECTOR

The City of Mountain View will need to work in cooperation with the Mountain View school district to develop innovative approaches to educating the youth of the community.

The following approaches can be utilized specifically for schools:

- sponsor special events in schools;
- initiate student-run recycling programs at each school;
- where feasible, establish student-run pilot composting program;
- Expanded environmental and waste management awareness in schools by integrating relevant topics into school curricula;
- target non-English speaking youth through bilingual education programs.
- conduct waste audits, and upon completion, assist in developing recycling, source reduction, and composting programs;
- initiate training programs for municipal and county employees to assist in answering questions from residents about existing and anticipated programs as outlined in the SRRE;
- cooperate with the county and state to develop programs to manage solid waste for agencies located within the community.

D. SPECIFIC APPROACHES BASED ON PROGRAMS

A well-integrated education and public information program is necessary. The initial educational campaign must be followed up by additional information about specific components. The following areas have been identified as needing specific information and educational programs: source reduction, recycling, composting, and special waste.

D.1. SOURCE REDUCTION

The emphasis will be to inform the public that alternatives to many products and uses are available and that these alternatives will reduce the amount of material requiring disposal at the landfill.

To a great extent, source reduction can be accomplished only through legislative means. Requiring manufacturers to reduce the amount of packaging or change the type of packaging must be left up to state and federal governments. One problem that will be difficult to overcome is concern about product safety and integrity. Over the years, there has been product tampering (most noteworthy in the pharmaceutical industry). This has caused manufacturers to adopt tamper-proof packaging which, in some cases, has actually increased the amount of packaging.

A number of educational alternatives are available that will address residential and commercial source reduction. The use of brochures, the media, and public meetings are several avenues that can be used to inform the public. Program possibilities are:

RESIDENTIAL

- educate residents about the benefits of buying and using cloth shopping bags instead of plastic or paper;
- explain to residents how they can launch a letter-writing campaign requesting manufacturers and businesses (e.g., fast food outlets) to reduce the amount of packaging materials and/or switch to materials that are more sensitive to the environment;
- distribute to residents the necessary information so they can write to their elected representatives at both the state and federal levels, requesting that

action be taken to reduce the amount and type of packaging materials being used;

- encourage the use of onsite composting and grass clipping programs through demonstration programs at neighborhood parks, use of Master Gardeners, and/or initiating a Master Composter program, and develop accompanying information to explain the benefits of programs;
- encourage the use of cloth diapers, in cooperation with a local medical association and diaper services;
- provide a directory of reuse and repair businesses;
- provide information on how to remove names from junk mail lists.

COMMERCIAL, INSTITUTIONAL, AND INDUSTRIAL

- promote source reduction, for example, through trade unions, business and industrial organizations, PTA meetings, and onsite presentations;
- encourage supermarkets and other large retailers to reduce the use of plastic shopping bags (and other plastic bags) by switching to paper bags and encouraging the use of cloth bags;
- publicize businesses that reuse and repair materials (e.g., repair stores and thrift stores);
- develop materials and provide technical assistance to allow "do-it-yourself" waste audits;
- develop materials and provide technical assistance to encourage the use of onsite composting and grass clipping programs.

D.2. RECYCLING

The emphasis will be to enhance the current and planned recycling programs. The following are recommended approaches:

RESIDENTIAL

- Continue the residential curbside education program. Part of this approach could include a study to determine whether bilingual materials will be needed;
- Include in educational materials information that explains the various enforcement procedures that the City of Mountain View has initiated. Examples include ordinances that prohibit the removal of recyclable materials from curbside by other than a licensed hauler, or destruction of recycling equipment;
- continue to work with recycling service providers and community groups to publicize the locations and promote the use of buy-back/drop-off collection centers;
- continue to provide feedback to the public on the success of the recycling programs (i.e., amount of materials recycled/resources saved, and the economics of the programs). Provide feedback through ads in local newspapers and publishing of annual reports.

COMMERCIAL, INSTITUTIONAL, and INDUSTRIAL

- encourage the Mountain View school district to develop educational programs for grades K-12. Specific programs for the different age groups and/or grade levels would be appropriate. Part of the program would be an actual onsite recycling program. These programs will also be available for use at private schools;
- Develop commercial and industrial recycling education programs;
- Develop pre-planned educational programs for specific businesses (e.g., dry cleaners, bakeries, service stations, etc.);
- use mailings to businesses giving information about the commercial recycling program;
- work with the Chamber of Commerce, unions, and other business groups to inform the business community;

- develop a list of brokers who deal with recyclables and provide access to this list for businesses and industries.

D.3. COMPOSTING

A limited portion of the population understands what compost is or the benefits of using it. The information and education program will consider these approaches:

RESIDENTIAL

- Develop educational materials that address the residential yard waste collection program for leaves, grass clippings, and other vegetative material, with corresponding information on handling;
- inform the public how they can obtain compost and mulch from the program;
- work with local garden clubs and Master Gardeners to help promote and educate the public;
- work with the University of California cooperative extension, or other similar groups, to develop educational materials;
- provide feedback to the public on the amount of yard waste collected and composted and how this material is used (through publishing of annual reports and reports in local newspapers);
- educate the public on the benefits of using compost and mulch for home purposes.

COMMERCIAL, INSTITUTIONAL, AND INDUSTRIAL

- Develop information and education materials to support commercial, institutional, and industrial yard, wood, and food waste collection programs when they are implemented.

D.4. SPECIAL WASTES

Special wastes, like infectious wastes, sludge, and ash, are quite specific and would not necessarily require that a separate educational program be developed. General educational materials may be distributed separately, or in combination with other educational documents in the following ways:

RESIDENTIAL

- Develop materials that inform the public how to properly dispose of such things as tires, white goods, auto bodies, and certain wood wastes. One approach is to send a separate mailer to all households annually;
- Expand information to explain special clean-up day events. Information must be sent out prior to the actual day of pick-up. The information will include what can be disposed of, the date, and time of day;
- Develop information about the proper procedures to remove and dispose of asbestos. List local firms that are licensed to remove asbestos.

COMMERCIAL, INSTITUTIONAL, AND INDUSTRIAL

- Develop materials that inform how to properly dispose of such things as tires, white goods, auto bodies, and certain wood wastes. One approach is to publish a brochure on special wastes and mail it to all industries, institutions, and businesses;
- Develop information for commercial and self-haul generators that will explain about disposing of construction and demolition debris.

E. PROGRAM SELECTION

For optimum public outreach, a comprehensive selection of program alternatives has been developed to support and enhance services and programs presented in the source reduction, recycling, composting and special waste components and the household hazardous waste element. These program alternatives include not only mass media communications and mailings, but education targeted to specific groups and organized one-on-one interpersonal communications.

The format of this section outlines the education and public information program alternatives for each of the targeted groups by component: source reduction, recycling, and composting. Education and public information activities which provide information specifically about household hazardous waste are discussed in the Household Hazardous Waste Element, although several of the programs described in this component also discuss household hazardous waste. The various activities outlined below are to be implemented in the short-term but are ongoing in nature. Once developed and initiated, they will need to be updated on an annual basis.

E.1. RESIDENTIAL SECTOR

Education and public information activities, tailored to residents of Mountain View, will focus on: 1) how to participate in source reduction, recycling, composting and household hazardous waste management; 2) reasons to participate, and 3) reporting the results of their efforts.

GENERAL

- **Ongoing Education and Public Information Programming** - Maintain ongoing education and public information programming with the cooperation of civic, environmental, student and business groups and the local media. Emphasize community pride themes specific to Mountain View to promote the "reduce, reuse, and recycle" ethic and activities. Involve repair, recycling, and composting service providers, schools, community groups and all local radio, television and newspaper media. Ongoing education can include articles, guest editorials or weekly columns in the local media and should use existing avenues of communication, as opposed to creating new ones. Another example of ongoing education is inserting source reduction, recycling, composting and household hazardous waste messages in The View.
- **Printed Materials** - Develop a series of printed materials for existing, expanded or new services to be distributed by the service providers, through the Neighborhood Block Leader Program, at public events, in utility bills, at the recycling centers, community center, schools, public information desks and other appropriate locations for printed information distribution. Design "how-to" materials on each topic with a long-range view, as a part of a planned series, with a consistent graphic design carried throughout. Consistency in graphic design will establish visibility and a high profile for the City's education and

public information program and increase its cost-effectiveness. Examples of printed materials could include:

"Shop Smart to Reduce Waste"
"Composting in Mountain View"

- **Neighborhood Block Leader Program** - Expand the existing Neighborhood Block Leader Program by outlining and implementing an aggressive recruitment strategy to enlist new and retain experienced block leaders. Provide information to block leaders on new source reduction, recycling, composting and household hazardous waste programs and activities. Hold regular strategy and appreciation meetings.
- **Resource Conservation Directory** - Produce a Resource Conservation Directory for the City of Mountain View. This directory can include, but is not limited to, a comprehensive list of all businesses and organizations that offer services or products related to source reduction (eg. repair businesses, thrift stores, diaper services), recycling, composting, household hazardous and special waste (eg. paint exchange, mobile drop-off service); consumer information on purchasing products made from recycled material, as well as second-hand, reconditioned, durable and repairable items; "how-to" information, activities, and a reference guide to additional information on source reduction, recycling, composting and household hazardous waste reduction and management.
- **Feedback to Residents** - Provide information to residents on the progress of their diversion efforts. This should be done on a regular basis, perhaps quarterly or bi-annually, through a simple computer program integrated into the solid waste/water billing system. Provide feedback through articles in the local newspapers, and the publishing of annual reports. This feedback can foster an understanding that 50% diversion from the landfill is a goal shared by everyone in Mountain View.

SOURCE REDUCTION

- **Master Composter Program** - In coordination with the Parks and Recreation Department, develop a Master Composter Program for backyard composting and vermicomposting education. Provide printed "how-to" information and workshops at a Mountain View composting demonstration site(s) for further "hands-on" education and technical assistance on methods for backyard composting.

- **Benefits and Methods of Home Use of Yard Trimmings** - Educate residents about the various benefits and methods of home use of yard trimmings. Promote via the Master Composter Program, printed material for composting, and Neighborhood Block Leaders.
- **Quantity-Based Collection Fees** - Notify in advance and educate residents about establishing quantity-based collection fees through articles in the local media, and messages printed on utility bills. Publicize the ongoing waste reduction impacts of charging customers based on the quantity of waste set out for pick-up through the local media and in the solid waste/water bills.
- **Source Reduction Tip of the Week** - Work with the local media in creating "Source Reduction Tip of the Week." This will be a community forum for sharing personal practices and ideas that reduce waste.

RECYCLING

Contingency Measure:

- **Material Expansion** - Notify the public and encourage participation of new materials collected by the curbside recycling service through utility bill notices and "how-to" flyers. Flyers can be directly mailed to each resident or deposited in recycling bins, or placed on doorknobs. Also publicize through the local print and electronic media, and through Neighborhood Block Leaders.

COMPOSTING

- **Christmas Tree Collection** - Publicize and promote the Christmas Tree collection service through the local print and electronic media, the solid waste/water bills, Neighborhood Block Leaders, Master Composters, recycling information displays and schools. Informational flyers should be printed and distributed to residents, at the point of purchase, by local Christmas tree retailers.
- **Yard Material Drop-off Site** - Inform residents about the location(s) and promote the use of the yard material drop-off site(s) through the local print and electronic media, utility bills, Neighborhood Block Leaders, Master Composters, and recycling information displays. Create a media event/photo opportunity of the first load being accepted at the drop-off site.
- **Yard Material Collection Service** - Kick-off the yard material collection service by notifying residents through garbage utility bills, Neighborhood Block Leaders,

Master Composters, the local media, and other existing avenues of communication. Kick-off the curbside collection service by providing a "how to" brochure to every household. Prior to the container distribution, cultivate community support and anticipation of the collection's start-up through editorials and articles in the local electronic and print media. Create a media event of the distribution of collection containers by the California Conservation Corps or a local civic/environmental/youth organization.

CONTINGENCY MEASURE:

- **Food Waste Collection** - Notify residents of the food waste collection service by notifying residents through garbage utility bills, Neighborhood Block Leaders, Master Composters, the local media, and other existing avenues of communication. Kick-off the curbside collection service by providing a "how to" brochure with the distribution of yard waste collection containers to every household. Prior to the container distribution, cultivate community support and anticipation of the collection's start-up through editorials and articles in the local electronic and print media. Create a media event of the distribution of collection containers by the California Conservation Corps or a local civic/environmental/youth organization.

SPECIAL WASTE

- **All Special Wastes** - Incorporate special waste information into the Resource Conservation Directory about the importance of vehicle maintenance and the reduced use of automobiles in the reduction of solid waste, the use of tire retreads, and the mattress and white goods recovery programs.

E.2. INSTITUTIONAL SECTOR

The institutions targeted by these programs are public and private schools, and government. All other institutions, such as hospitals, will be addressed in the Commercial/Industrial Sector.

PUBLIC/PRIVATE SCHOOLS

An effective way to teach youths about source reduction, recycling, composting, and household hazardous waste is by integrating these concepts into school curricula as well by incorporating source reduction into school purchasing and

classroom activities, and implementing source reduction, recycling, and composting activities into the school's waste handling practices.

Integrating these concepts into the school's curriculum teaches students about the landfill crisis, pollution, energy and resource savings from recycling and the biological process of composting--to name a few. Waste reduction habits are best learned by doing. Therefore, establishing source reduction, recycling and composting systems in the schools give students hands-on experience that demonstrate the ideas and theories they've learned from the curriculum material and confirms its importance as a regular practice to participate in. Finally, educating youth is critical for the long-term success of any program.

It should be noted that the Source Reduction Component also outlines the development of a student curriculum. For all practical purposes, these should be considered the same program.

- **Waste Handling Systems in Schools** - Form an Integrated Waste Management Task Force in each school to plan and implement source reduction, recycling and composting systems in their schools. Provide information and technical assistance. These task forces should be composed of teachers, principals and custodial staff, and students, if appropriate. Organize classroom activities to introduce students to and encourage participation in the source reduction, recycling, and composting practices at school. These activities can include designing and decorating classroom recycling containers, classroom and school bulletin boards, and going on field trips to the landfill and reuse and repair businesses. Special classroom activities can also include community projects such as aiding in the waste handling activities at school, and distributing source reduction, recycling and composting printed materials to the community.
- **Curriculum Resource Packet** - Develop a packet of curriculum materials for grades K-12 that incorporate source reduction, recycling, composting, and household hazardous waste concepts and localize it with facts and features about Mountain View. Distribute to educators at Mountain View public and private schools. Schedule student project "fairs" at each elementary, junior high and high school to address the accomplishments of their school's source reduction, recycling and composting efforts. Fairs can feature exhibits such as paper making, arts and crafts made from recycled materials, composting demonstrations, etc. Timing of school assemblies or fairs should coincide with Earth Day to further enhance the students' understanding and appreciation of their accomplishments.

GOVERNMENT

It is in the City of Mountain View's best interest to serve as a role model for the other institutions as well as for the citizens, businesses, and industries of Mountain View by taking the lead in source reduction, recycling, composting, and hazardous and special wastes management. For this purpose, information will be provided to the administration and staff of all Mountain View government agencies on how to incorporate source reduction, recycling and composting into regular purchasing, working, and waste handling practices.

- **Government Modeling** - To serve as a model for the public, businesses, industry and other institutions, conduct waste audits for all government office and non-office operations and establish in-house diversion goals. Produce written guidelines and provide employee training on new government procurement practices including how to integrate the priorities of source reduction and reuse into purchasing; and integrate recycling, composting, and special waste management into waste handling and procurement practices. Make recycling visible at all government office and non-office location. Provide regular feedback to employees on the progress and success of meeting the in-house waste diversion goals. Work with local media to provide the initial and ongoing promotion of the government agencies' adoption of the "reduce, reuse and recycle" ethic.

E.3. COMMERCIAL AND INDUSTRIAL SECTOR

The activities outlined below will target Mountain View's commercial and industrial sector that consists primarily of the following: 1)offices, 2)restaurants and bars, 3)grocery and other retail stores, 4)construction, demolition, manufacturing, and other industries, and 5)hospitals.

Activities will focus on: 1)source reduction as a regular part of purchasing and work practices, 2)recycling for offices, manufacturers, restaurants, bars, and motels, 3)waste handling for construction and demolition debris.

GENERAL

- **Model Business Program** - Develop a program for identifying and awarding public and professional recognition to successful workplaces who incorporate source reduction into their purchasing and work practices and implement

recycling and/or composting systems. Adapt the City's recycling logo for use by these businesses to indicate to the public that these establishments and their customers are helping to achieve the city's source reduction and recycling objectives. This logo may be used in printed material, advertising, window and street signage. Businesses and industries identified as a "Model Business" will serve as models to others on how to incorporate source reduction practices and implement recycling and/or composting systems into daily operations. Work with the Mountain View business groups in developing this program and involve local media in promoting these model businesses and industries.

- **Waste Handling Information Gathering and Distribution** - Use the business license renewal process to gather and distribute information on business waste handling practices that incorporate the reduce, reuse and recycle ethic into their business practices.

SOURCE REDUCTION AND RECYCLING

- **Letter of Introduction/Instructional Booklet** - Expand the commercial recycling program by producing a letter of introduction from the City of Mountain View and an instructional booklet on source reduction, recycling and household hazardous waste management in commercial settings. The instructional booklet should include a "do-it-yourself" waste audit, information on source reduction through purchasing and work habits, setting up recycling systems in office and non-office business settings, switching to low or non-toxic cleansers, paints and solvents, and purchasing recycled paper and other products. Also provide a list of the City's authorized recycling collectors. Distribute these materials to all businesses through the business license renewal process, the material collector(s), and through Mountain View business groups.
- **Technical Assistance** - As part of material collection services, provide technical assistance for conducting waste audits, participating in waste exchanges, and setting up source reduction/recycling systems in office and non-office settings. Also, provide feedback to employees on the amount of materials recycled and how it translates into waste diversion and resource conservation. Notice businesses and promote its availability in the letter of introduction and instructional booklet, and through Mountain View business groups.
- **Waste Products Information Exchange** - Inform businesses and industries about the regional and state waste exchanges through the chamber of commerce and other business groups' newsletters and meetings. Regional Waste Exchanges,

such as CalMax, match up waste generators with manufacturers who use the waste products in the manufacturing process.

SPECIAL WASTE PROGRAM

- **Construction/Demolition Debris** - Produce a brief informational brochure/flyer on proper disposal or recycling of construction and demolition debris, and services and information sources on procuring used or recycled construction materials. Provide this information to construction and demolition companies during the business license renewal process.

F. PROGRAM IMPLEMENTATION

F.1. RESPONSIBLE AGENCIES/STAFF REQUIREMENTS

The Education and Public Information Component is to be implemented and administered by the City's Utilities Department, Solid Waste/Recycling Division.

Approximately 1.7 full time equivalents (approximately 3,500 hours per year) of staff or personnel time is estimated to be needed to implement all the education and public information program. This time commitment is not needed initially, and may not fully materialize over time as educational activities on early programs become more routine. It is important to realize, however, that education and public information activities are labor intensive. They also increase diversion tonnages at a relatively low unit cost per ton diverted.

Whenever possible, volunteers will be encouraged to assist in the education and public information outreach programs, with City guidance. Funding of paid personnel will be provided through user fees.

F.2. IMPLEMENTATION SCHEDULE

Implementation tables provided in Chapters II, III, IV, and V indicate when public information and education tasks will commence in orchestration with the expanded and new source reduction, recycling, composting, and special waste services. The implementation schedule for the education and public information programs are presented in Table VI-1, at the end of this component.

F.3. IMPLEMENTATION COSTS

The cost to develop, implement, maintain, monitor, and evaluate the various tasks outlined in this component are included in the source reduction, recycling, composting, and special waste components. These costs include staff or personnel time to implement the selected activities.

G. MONITORING OF PROGRAMS

The Solid Waste Division of the Utilities Department will be responsible for monitoring the success of the programs.

The monitoring necessary to evaluate the various programs can be accomplished by means of one of more of the following approaches:

- surveys conducted to determine awareness and participation levels for the various components;
- number of schools and students exposed to various programs;
- number of businesses taking part in programs;
- number and size of community events and activities;
- number and frequency of media advertising purchased;
- complaints and requests for information received by the office of education and information and/or the contractors providing the various services;
- qualitative feedback from waste generators about the information program;
- the quantity of waste diverted by programs publicized through education and public information activities;
- costs per generator, per ton, or per "impression" for education and public information programs;
- the progress of the overall program toward diversion goals.

G.1. EVALUATION OF PROGRAM EFFECTIVENESS

The Solid Waste Division will be responsible for evaluating the success of the programs. An annual diversion program report, outlining the success of individual tasks, comparisons with neighboring communities, and plans for next year, will be the responsibility of this office.

Evaluation can occur at various stages of the public education and public information process depending on the objective to be measured. The criteria used to evaluate the effectiveness of the education and public information efforts will be determined in advance and will be appropriate to the monitoring methods that have been chosen.

Formative evaluation attempts to identify the strengths and weaknesses of the messages, materials, and educational or informational strategies before one proceeds to full production, distribution or implementation. This is particularly important in the parts of a program that will require significant resources. Paid advertising, for example, can use up a great deal of a budget, and will be evaluated carefully before funds are committed.

Process evaluation assesses the organizational and administrative aspects of a program. Outcome and impact evaluation identify the immediate and longer term effects of efforts on the intended audience.

G.2. MONITORING SHORTFALLS

If the evaluation shows that specific diversion rates are not being achieved for certain programs and/or components, then expanding the education and information programs might be necessary. Methods that will be used include:

- increase the frequency, type, or extent of program monitoring and review to discover the reasons why diversion rates are not achieved;
- revise education and public information efforts to make them more effective based on results of evaluation;
- expand the education and public information programs by adding new components or increasing frequency;
- publicize new or additional incentives for participation in reduction, recycling, or composting programs.

It may be determined that the education and information aspects of the program are not what is preventing the individual programs from reaching their goals. If that is the case, the other programs will be modified accordingly to increase diversion.

G.3. PROGRAM MONITORING AND REPORTING SCHEDULE

The monitoring and reporting schedule is presented in the Implementation Schedule (Table VI-1.) at the end of this component.

G.4. MONITORING AND EVALUATION FUNDING REQUIRMENTS AND REVENUE SOURCES

Monitoring and evaluation costs of the Education and Public Information Component implementation are presented in the Funding Component. Funding for monitoring and evaluation will be borne out of the solid waste services structure and is addressed in more detail in the Funding Component.

1

Table VI-1						
Education and Public Information Component						
Implementation Schedule						
	Program/Task	Time	Frame			Imp. Agent
1	Residential-Ongoing Education and Public Information					
	Identify communication venues for EPI	1/92	-	ongoing		SWD
	Begin producing articles and messages	2/92	-	ongoing		SWD
2	Residential-Printed Materials					
	Award contract(s) for printed materials	1/92	-	1/92		CMO
	Produce source reduction materials	2/92	-	4/92		PI
	Distribute source reduction materials	9/92	-	ongoing		SWD
	Produce composting materials	12/92	-	1/93		PI
	Distribute composting materials	2/93	-	ongoing		SWD
3	Residential-Resource Conservation Directory					
	Award contract(s) for directory	4/93	-	4/93		CMO
	Produce directory	5/93	-	11/93		PI
	Develop directory distribution plan	1/94	-	3/94		SWD
	Distribute directories	4/94	-	4/94		SWD
4	Residential-Neighborhood Block Leader Program					
	Develop block leader recruitment plan	1/92	-	5/92		SWD
	Develop info. kits for block leaders	3/92	-	5/92		SWD
	Recruit block leaders/continue network	5/92	-	ongoing		SWD
	Hold block leader meetings	5/92	-	ongoing		SWD
5	Residential-Feedback to Residents on Diversion Efforts					
	Collect data on diversion efforts	1/92	-	ongoing		SWD
	Publicize progress through bills/media	3/92	-	ongoing		SWD
6	Residential-Master Composter/Home Use of Yard Trimmings					
	Develop program materials/demo. site	3/93	-	5/93		SWD
	Develop composter trainer recruitment	3/93	-	5/93		SWD

13	Residential-Food Waste Collection					
	Prepare educational materials	8/96	-	11/96		SWD
	Notify residents via garbage bills	10/96	-	11/96		SWD
	Promote services/distribute ed. materials	12/96	-	ongoing		SWD
14	Residential-Special Wastes					
	Incorporate information into Directory	10/93	-	10/93		SWD
15	Institutional-Curriculum Resource Packet					
	Develop curriculum resource packet	1/92	-	3/93		SWD
16	Institutional-Seminars for Educators					
	Plan seminars	1/92	-	3/92		SWD
	Conduct seminars	3/92	-	4/92		SWD
17	Institutional-Waste Handling Systems in Schools					
	Compile info. on school waste mgmnt. systems	1/93	-	2/93		SWD
	Form waste task forces in each school	2/93	-	3/93		SWD
	Provide waste mgmt. info. to task forces	2/93	-	3/93		SWD
	Follow up on task force progress	4/93	-	9/93		SWD
	Schedule classroom activities	9/93	-	5/94		E
	Coordinate school fair	9/93	-	annually		
18	Institutional-Government Modeling					
	Waste audits at city offices	1/92	-	annually		SWD
	Written guidelines for city offices	3/92	-	5/92		SWD
	Provide city employees training	5/92	-	ongoing		SWD
	Promote city efforts through local media	5/92	-	ongoing		SWD
	Provide city employees feedback	5/93	-	ongoing		SWD
19	Commercial/Industrial-Model Business Program					
	Develop/maintain model business program	1/93	-	ongoing		SWD
	Adapt recycling logo/develop bus. promo. material	2/93	-	5/93		SWD
	Promote model bus. through local media/chamber of commerce	6/93	-	ongoing		SWD

20	Commercial/Industrial-Instructional Booklet					
		Produce instructional booklet	1/92	-	5/92	SWD
		Distribute letter/booklet	5/92	-	ongoing	SWD
21	Commercial/Industrial-Technical Assistance					
		Develop EPI for technical assistance	1/92	-	4/92	SWD
		Promote bus./ind. tech. asst.	4/92	-	ongoing	SWD
		Provide feedback to bus./ind.	5/93	-	ongoing	SWD
22	Commercial-Regional Waste Information Exchange					
		Inform businesses of waste exchange	9/95	-	ongoing	SWD
		Publicize waste exchange	9/95	-	ongoing	SWD
23	Monitoring and Evaluation					
		Write SRRE EPI evaluation/report for 1992	12/92	-	1/93	SWD
		Write SRRE EPI evaluation/report for 1993	12/93	-	1/94	SWD
		Write SRRE EPI evaluation/report for 1994	12/94	-	1/95	SWD
		Write SRRE EPI evaluation/report for 1995	12/95	-	1/96	SWD
		Write SRRE EPI evaluation/report for 1996	12/96	-	1/97	SWD
		Write SRRE EPI evaluation/report for 1997	12/97	-	1/98	SWD
		Write SRRE EPI evaluation/report for 1998	12/98	-	1/99	SWD
		Write SRRE EPI evaluation/report for 1999	12/99	-	1/00	SWD
Abbreviation Key to Implementation Agent						
SWD - Solid Waste Division						
CMO - City Manager's Office						
PI - Private Industry						
E - Educator						

