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School Infrastructure Project

Research Summary

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School Infrastructure Project

Executive Summary

The School Waste Stream

The Agency's 2000 Waste Characterization Study determined that 4% of disposal countywide (or approximately 62,000 tons per year) can be attributed to schools. In Alameda County, the two largest types of recyclable materials in the school waste stream are paper waste (54%) and food waste (20%).

School waste streams statewide are comparable to the study results in Alameda County. The 1999 Statewide Waste Composition Study found that schools produce approximately 4% of the total amount of municipal solid waste. The study states that educational facilities dispose of over 155,000 tons of recyclable paper and 330,000 tons of compostable materials per year.

Comparing the Agency's 1995 and 2000 Waste Characterization Studies, there are no trends indicating the implementation of school recycling programs between 1995 and 2000.

Studies and Surveys on School Waste Diversion

From June 2001 – September 2001, the Agency, through a contract with Community Learning Services, conducted the "Alameda County Public School Recycling Activity Survey." The goal of the survey was to document the status of school recycling program efforts in each of the 330 schools in the 18 districts in the County. A total of 95 schools (28%) from 13 school districts (72%) responded.

From the surveys, the Agency determined that:

1. There is additional diversion potential in the schools.

Although the schools and districts report on-going recycling activity, each school and district has the opportunity to improve their existing waste reduction activities and increase their diversion rates.

2. Most schools and districts reported that there is district support for waste reduction, but little support for actual implementation.

The schools and districts engage in waste prevention and recycling practices, but the level of implementation and performance varies widely from facility to facility. Strong district-level commitment and involvement is needed to develop more consistent waste prevention and recycling practices throughout a school district.

3. The schools and districts are largely unaware of the services and programs offered by the Agency and its member agencies (Cities and Sanitary Districts).

For the most part, school districts do not fully participate in basic recycling programs and are not poised to take advantage of advances in recycling programs such as food waste recycling pick-up services. Fifty-five percent of the school sites reported that they were unaware of any City-sponsored programs to assist schools.

4. There is a lack of clear direction at the district and school site level about the roles and responsibilities of custodial staff, teachers and students in the school site recycling programs.

In the school survey, when asked, “Who at your school is responsible for waste reduction/recycling?,” the answers indicated that multiple people had roles and responsibilities at the school site.

5. The link between the educational programs offered at the schools and the waste diversion practices at the school needs to be strengthened to maximize diversion.

Schools with strong recycling and composting education programs were more likely to be actively engaged in waste diversion practices. However, the lack of clarity regarding roles and responsibilities of custodial staff, teachers and students and staff turnover in the schools made the link tenuous in some situations.

In November 2001, the CIWMB issued their final report on the School District Diversion Project. The project, which included school districts throughout the state, mirrored the conclusions of the Agency’s County-wide School Recycling Activity Survey.

Recommendations

To address these issues, this report recommends that the Agency’s School Infrastructure Project and other Agency Projects whose primary goal is diversion of materials from school sites, be reorganized in the following way:

1. Develop a StopWa\$te-styled program for School Districts which would include the following elements:
 - Outreach strategy to School Districts
 - Letters of Commitment from School Districts
 - Technical Assistance and Financial Assistance
2. Develop Best Practices for Paper and Food Waste Recycling in Schools. Increase the Agency’s emphasis on partnering with local cities/sanitary districts, such as Oakland and Castro Valley, to encourage Districts to contract for and participate in food waste recycling pick-up programs.
3. Develop Model Contracts for School Districts (modeled on the Agency’s Franchise & Ordinance Project.) Provide workshops and policy assistance to School District personnel such as Business Managers and Purchasing Managers.

**PART 1:
WASTE CHARACTERIZATION IN SCHOOLS**

In order to determine what programs would be most effective and create the most diversion, it is necessary to first understand the composition of the school waste stream. Results of the Agency's 2000 Waste Characterization Study, internal waste audits conducted through Agency programs, and the 1999 Statewide Waste Composition Study are all consistent in the conclusion that schools produce approximately 4% of the total municipal solid waste stream.

AGENCY'S 2000 WASTE CHARACTERIZATION STUDY

The Agency's 2000 Waste Characterization Study determined that 4% of disposal countywide (or approximately 62,000 tons per year) can be attributed to schools. Exhibit 1 lists the prevalence and type of recyclable materials in the school waste stream.

**Exhibit 1:
Prevalence & Type of Recyclable Materials
in the School Waste Stream – Alameda County**

Material Type	Tons Disposed	Percentage of School Waste Stream	Percentage of County-wide Waste Stream
Paper	33,537.95	54	2.16
Food Waste	12,421.46	20	0.8
CRV Containers	3,105.37	5	0.2
Other Waste	13,042.54	21	0.84
TOTAL	62,107.32	100	4.0

Paper

Several generalizations can be made using the characterization data. First, schools produce a large amount of paper waste (54%). Much comes from classrooms and administrative offices. Cafeteria and custodial staff also produce cardboard and paper packaging waste. Even with paper recycling programs in place, there is still residual paper that gets disposed in the garbage.

Food Waste

The second largest single material identified through audits is food waste (20%).

Cafeteria lunches have long been a topic of debate. The Food and Drug Administration (FDA) and California State Department of Education have laws regarding student nutrition and what foods will be served in a school lunch program. These mandated foods are served to students regardless of an individual student's preference. While the

state mandates that the food will be served, it can't make the student eat it. Hence, food waste is unintentionally generated.

Food delivery systems also unintentionally create food waste. All of the Alameda County school districts have centralized kitchens that prepare lunches for up to 20 other schools. The meals are packaged and transported to the schools. Lunches, intended to be served hot, are kept warm through steam or other means, which can make the food soggy and unappetizing. Food, intended to be served cold, can become bruised or crushed, which is often not attractive to students. These foods are thrown away. Giving students no choice in the foods they are served for lunch creates waste.

CRV Containers

Highly targeted recyclables such as plastic, glass and aluminum beverage containers make up a small amount of the total waste stream (5%). CRV containers are usually collected by student clubs for the California Redemption Value (CRV). Custodians and cafeteria staff sometimes run informal beverage container collection programs and use the money as an additional source of income or donate it to the school. Regardless of why these materials don't turn up in significant numbers in the waste stream, beverage containers are not a material of concern and therefore would not divert significant tonnage to warrant highly developed programs.

Comparison of Agency's 1995 Waste Characterization Study – Schools

Comparing the Agency's 1995 and 2000 Waste Characterization Studies, there are no trends indicating the implementation of school recycling programs between 1995 and 2000.

1. Paper, as a percent of the waste stream, increased from 28% in 1995 to 54% in 2000.
2. Food waste, as a percent of the waste stream, increased from 7.32% in 1995 to 20% in 2000. However, in 1995 food waste was characterized as post-consumer, not pre-consumer or waste from food preparation, so the different methods used to collect this data in 1995 make it difficult to compare.
3. The percent of plastic thrown away is up and glass is down due to new plastic packaging options that did not exist in 1995.

1999 STATEWIDE WASTE COMPOSITION STUDY – CIWMB

When we examine the school waste stream statewide, the materials generated are comparable to the study results in Alameda County. The 1999 Statewide Waste Composition Study found that schools produce approximately 4% of the total amount of municipal solid waste. The study states that educational facilities dispose of over 155,000 tons of recyclable paper and 330,000 tons of compostable materials per year. Through diverting just half of these recyclable and compostable items, it was estimated that schools could save between 26 and 35 million dollars per year. It also found that only 40% of schools statewide have paper recycling programs.

OTHER WASTE AUDITS

Other waste audits performed through projects of the Agency have found similar results to the Alameda County 2000 Waste Characterization Study and the 1999 Statewide Composition Study. A study conducted in April 2001 of the Oakland Unified School District, which sampled 21 schools, including high schools, junior high schools and elementary schools, found that, while results varied slightly by grade level, paper and food waste were the two largest materials identified in the waste stream.

Data gathered through the Agency's Service Learning/Waste Reduction Project waste audits do show wide variations in the waste stream at an individual school level. These variations are explained by the types of services offered at an individual campus. For example, at Berkeley Alternative High School, the audit documented no food waste. Students often eat lunch off campus, leaving food and packaging waste off site as well. The majority of the waste came from the teachers' mailroom in the form of plastic wrapped catalogs and unwanted mail. The Moreau Catholic High School audit documented large amounts of paper, approximately 1/3 of the monthly garbage, even with a paper recycling program. The school also produced a large amount of plastic bottles (#1) and aluminum cans, approximately 1/3 of their waste by volume. However, the majority of the audits supported the data from the Alameda County and Statewide waste audits, finding paper and food waste as the two largest materials identified in the waste stream.

**PART 2:
HISTORY OF AGENCY SCHOOL INFRASTRUCTURE WORK
(1995 – 2001)**

Below is a summary of the history of major reports and programs that the Agency and its member agencies have provided to school districts in Alameda County since the mid-1990s.

These summaries include information on:

- Commission to Reduce Waste in Schools – convened by the Recycling Board in 1995
- Model School Project – a partnership of the ACWMA and the CIWMB, completed in 1998
- Summary of Alameda County Public School District Recycling Activity – current as of 4/1/02.
- Summary of Agency Projects that Directly Target Waste Reduction and Recycling Activities in Schools.

COMMISSION TO REDUCE WASTE IN SCHOOLS (1995)

In 1995, the Recycling Board convened a Commission to Reduce Waste in Schools. This commission was comprised of school district administrators, teachers, waste and recycling haulers, city recycling coordinators, community educators and service providers and other interested individuals. The commission conducted surveys of school district and school site personnel. The commission used the data and developed 18 recommendations. The commission included recommendations for programs targeted to increasing the diversion of materials from schools, as well as recommendations for programs whose primary goal was changing long-term societal attitudes regarding source reduction and recycling through education.

The recommendations related specifically to the School Infrastructure project’s goal of increasing the diversion of materials from the schools, included:

	RECOMMENDATION	STATUS
1	Disseminate information about the findings and recommendations of the Commission to the school community	Completed
2	Establish a grants program available to school districts for hiring waste management coordinators	Ongoing
3	Create model programs throughout Alameda County	Ongoing
4	Provide a comprehensive waste-reduction handbook for each district and school	Information is available, but a comprehensive guide has not been produced
5	Develop specialized training and incentives for custodial staff, food service staff, administrators, teachers and students	Proposed in FY 02/03 Budget

6	Expand model programs to under-served schools with administrative commitment from the school district	Proposed in FY 02/03 Budget
7	Support opportunities for secondary teachers to create ways to involve upper-grade students in practicing recycling and source reduction	Partially developed and on-going
8	Create entertaining and age-appropriate ways to motivate students to participate in waste-reduction programs in order to kick off comprehensive, on-going waste-reduction and recycling programs	On-going

MODEL SCHOOL PROJECT – PARTNERSHIP PROJECT OF THE CIWMB AND THE ACWMA (1998)

The goal of the Model School Project, a partnership between the CIWMB and the ACWMA, was to identify ways to:

- Reduce waste generated in schools;
- Help schools teach students about source reduction and recycling; and
- Identify opportunities and obstacles for initiating and maintaining waste-reduction practices and education programs within the schools.

The project began by identifying four schools with demonstrable interest in reducing on-site waste. Candidates for the project were selected based on their:

- Commitment to collaborate with waste management professionals;
- Willingness to assemble a team of interested teachers, custodians, administrators, and parents; and
- Geographic and demographic diversity.

The schools selected by the project were:

1. Garfield School, San Leandro USD (Elementary – suburban, year-round)
2. Marylin Avenue School, Livermore USD (Elementary School -- rural)
3. Forest Park School, Fremont USD (Elementary – suburban)
4. Brier School, Fremont USD (Elementary – suburban)

Some General Recommendations for Project Replication from the report which relate specifically to the goal of increasing diversion of materials from schools include:

1. Team Approach – effective teams include teachers, administrators, custodial and food service workers, and others who can lend expertise, energy, and commitment to the collective effort
2. Publicity – well-publicized creative efforts in recycling and waste reduction influence other educational institutions
3. Administrative Support – the principal remains the key figure in ensuring school-wide participation
4. Recycling Coordinator – projects cannot rely on volunteer time and be sustainable. Projects need a staff member to oversee recycling and reuse efforts.
5. Collaboration – nonprofit groups, government agencies, and selected businesses can be allies.

6. Equipment – efficient and safe recycling equipment greatly improves the collection process.
7. Staff Incentives – teachers and school staff need to be compensated for their time.
8. Student Incentives – students also need encouragement to maintain their commitment to recycling and waste reduction.

Some General Obstacles for Implementation identified by the Model School Project which relate specifically to the goal of increasing diversion from schools include:

1. Priorities – recycling and waste-saving activities will never be the paramount concern of schools.
2. Turn-over – school professionals are highly mobile and turn-over can prove disruptive to the maintenance of effective programs.
3. High-level support – Indifference to waste reduction and recycling at the district level will ultimately prove fatal to widespread reform.
4. Contamination – Custodial staff do not usually handle recycling as part of their employment contract. If it is not part of their contract, then another on-site person has to oversee the quality of recycled materials.
5. Food Waste – School cafeteria lunch programs, working on a tight budget to present nutritional meals, may inadvertently produce food waste.
6. Lack of incentive – School districts generally lack incentives to reduce waste.
7. Perception – School recycling is often regarded as a dirty, labor-intensive chore by teachers, staff, and students.
8. Supervision – Student recycling monitors can have an important impact on school programs; however, they require adult supervision.
9. Cleaning Equipment Needs – Kitchen dishwashers in schools are frequently broken or don't exist. Without effective dishwashing equipment, the district will purchase disposable trays and utensils.
10. Collection Equipment Needed – Schools do not have carts, wheeled barrels, etc to ensure the ease and safety of collecting recyclables.
11. Classroom Facilities – Many classrooms do not have sinks or hot water to wash reusable dishes and other items.
12. Long-term Financing – Any savings generated by a reduction in the costs of garbage collection or purchasing is enjoyed at the district level; schools do not directly benefit.

SUMMARY OF ALAMEDA COUNTY PUBLIC SCHOOL DISTRICT RECYCLING ACTIVITY

This summary lists the recycling activity occurring in Alameda County School Districts, city services provided to the District and whether recycling collection services are provided by the city. Of the 18 districts in Alameda County:

DESCRIPTION OF RECYCLING ACTIVITY	APPLICABLE DISTRICT
The City provides containers, support, audits, program planning, materials, and a school recycling coordinator position as part of the master plan	Fremont

In coordination with the ACMWA, the City, and the hauler, the District has access to resources, such as waste audits, technical assistance, program planning, education resources, and organizational assistance. Food waste recycling programs are in the planning stages and beginning implementation.	Oakland and Castro Valley
The City offers an extensive program in partnership with a consultant who offers technical assistance, composting and in-class presentations	Livermore
The City/Sanitary District offers schools free recycling services	Piedmont and Castro Valley
The City offers schools free garbage and recycling services	Newark
Recycling Collection Services are provided by the City/Sanitary District	Berkeley, Castro Valley, Emery, Livermore, Newark, Sunol, and Mountain House
Hauler operates school recycling programs in Districts	Dublin

SUMMARY OF AGENCY PROJECTS THAT DIRECTLY TARGET WASTE REDUCTION AND RECYCLING IN THE SCHOOLS

The information and recommendations presented by the Blue Ribbon Commission and the Model School Project have been used to guide development of Agency projects for K-12 curriculum and for Agency projects that directly target waste reduction and recycling in the schools.

Below is a summary of the Agency projects that directly target waste reduction and recycling in the schools.

Grants

Since 1994, the Agency has provided grants to school districts for the following activities:

TYPE OF GRANT	DISTRICT & DESCRIPTION	STATUS
District-Wide Program Grant	Hayward Unified School District (1994). The grant funded a part-time Recycling Coordinator and purchase of recycling containers.	No activity at present
District-Wide Program Grant	Fremont Unified School District (1999). The grant funded a part-time Recycling Coordinator, purchase of recycling containers and reusable materials, improvements to the cardboard and steel can recycling program, and establishment of a creative reuse center.	Programs continue today as part of City of Fremont's master plan.
District-Wide Program Grant	Livermore Unified School District (1999). The grant funded a partnership with Environmental Education for Kids (EEK) for augmentation of a district-wide recycling program. The grant funded a part-time Recycling Coordinator.	Program continues today through partnership with City and consultant.

School Recycling Grants	A total of twenty schools representing nine districts received recycling grants between 1997 and 2000.	Final reports submitted.
Dishwasher Grants	A total of nine schools in two districts received dishwasher grants between 1997 and 2000.	Final reports submitted. On-going operation.
Garden Mini-Grants	A total of 32 schools representing 10 school districts have received garden mini-grants.	On-going

School Organics Project

Since 1999, the Schools Organics Project has provided education, technical training and other assistance to K-12 schools for organics diversion on-site. The project includes three components:

1. Cafeteria Recycling Program -- The project works to divert cafeteria and lunch waste through the development of site-specific systems. To date, this program has been used in 4 school districts (Berkeley, Newark, New Haven, and Castro Valley) and has included 11 schools.
2. High School Internship Program – a coordinated partnership between Castro Valley High School and the Castro Valley Sanitary District.
3. Compost and Worm Bin Education Program -- The project provides direct education to teachers and students in the correct usage of worm boxes and compost bins. Services include in-class presentations, curriculum guides, and free composting equipment. In FY 00/01, this program was presented in 90 schools to 5,572 students and 946 teachers.

Prior to 2001, food waste recycling services were not offered to School Districts. Oakland Unified School District's contract with Waste Management, signed in Spring 2001, was the first school district contract in the county to offer food waste recycling services.

School Infrastructure Project

In 2001, the Agency began the School Infrastructure Project to further identify the school infrastructure needs in the County. The goal of the project is to develop a comprehensive source reduction and recycling program in every school in Alameda County over a three to five year period. The survey that is presented in the next section of this report is part of this project.

**PART 3:
STUDIES AND SURVEYS ON SCHOOL DISTRICT DIVERSION**

From June 2001 – September 2001, the Agency, through a contract with Community Learning Services, conducted the “Alameda County Public School Recycling Activity Survey.” The goal of the survey was to document the status of school recycling program efforts in each of the 330 schools in the 18 districts in the County. A total of 95 schools (28%) from 13 school districts (72%) responded.

From the surveys, the Agency determined that:

1. There is additional diversion potential in the schools.

Although the schools and districts report on-going recycling activity, each school and district has the opportunity to improve their existing waste reduction activities and increase their diversion rates. Site visits by Agency and Member Agency staff find a disparity between “perceived” recycling programs and actual diversion.

This statement is supported by the following facts:

- 97% of the schools and 83% of the districts report that they have waste reduction and recycling programs in place; and
- 80% of the schools and 83% of the districts report that the programs have been in place 2 years or more;
- However, the Agency’s 2000 Waste Characterization Study indicated that there is still a large amount of paper and food waste that can be diverted from the schools’ waste stream. Comparing the Agency’s 1995 and 2000 Waste Characterization Studies, there are no trends indicating the implementation of school recycling programs between 1995 and 2000.

The districts reported that district wide policies were not seen as a high priority, and there are currently no real district wide policies in effect. Twenty-five percent of the districts reported that they were unaware of AB 939. However, one-third of the districts responded that they would be interested in recycling if they could prove that it would save money.

2. Most schools and districts reported that there is district support for waste reduction, but little support for actual implementation.

The schools and districts engage in waste prevention and recycling practices, but the level of implementation and performance varies widely from facility to facility. Strong district-level commitment and involvement is needed to develop more consistent waste prevention and recycling practices throughout a school district.

Twenty percent of the schools responded that they received little or no support at the district level, and that it had a negative impact at the school level. Over 67 % of

district respondents reported that there is district support for waste reduction, but little support for actual implementation.

One example of the disconnect between districts’ perceptions of the schools’ needs and the schools self-reported needs is that while more than 80% of district managers reported that each classroom was supplied with individual recycling bins, over 50% of the school respondents reported the need for bins.

3. The schools and districts are largely unaware of the services and programs offered by the Agency and its member agencies (Cities and Sanitary Districts).

For the most part, school districts do not fully participate in basic recycling programs and are not poised to take advantage of advances in recycling programs such as food waste recycling pick-up services. Fifty-five percent of the school sites reported that they were unaware of any City-sponsored programs to assist schools.

Since the school districts, not the individual school sites, are the entity contracting for waste and recycling services, it is vital that the Agency and the Cities work with district-level decision-makers to make them “informed consumers” of garbage and recycling services. In the survey district managers requested support from the Agency in the form of literature and educational materials, site trainings, and information on the benefits of recycling. Less than 33% of the districts have any type of recycling guide or printed instructions to staff explaining the district’s recycling program.

4. There is a lack of clear direction at the district and school site level about the roles and responsibilities of custodial staff, teachers and students in the school site recycling programs.

In the school survey, when asked, “Who at your school is responsible for waste reduction/recycling?,” the answers indicated that multiple people had roles and responsibilities at the school site.

Principal	11 (12%)
Teachers	47 (49%)
Custodians	55 (58%)
Parent Volunteers	12 (13%)
Students	23 (24%)
Other	4 (4%)

When the Districts were asked who emptied the recycling bins, the answers were:

Custodians	6 (50%)
Students	2 (17%)
Varies / Site by Site	4 (34%)

The districts reported that utilization of custodial labor was a major concern in the development of recycling programs. Recycling is generally viewed as additional work, and the use of students as a labor source is not seen as viable.

In a movement that seems to be successful, the Oakland Unified School District, has made progress in delineating the roles of custodial staff, teachers and students. Students and teachers participate by taking responsibility for classroom bins. Custodial staff are responsible for removing recycling bins from the cafeteria. Custodial management is responsible for ensuring that the custodial staff receive recycling training and implement the recycling program.

OUSD has formalized student participation in the classroom by providing educational programs to the students and teachers. These programs show the students and teachers how to use the “one bin” recycling process in the classroom and the food waste collection process in the cafeteria. Other methods of incorporating appropriate student participation in recycling include developing Service Learning projects, as well as utilizing established student councils and other environmental education projects, such as Project Yes.

5. **The link between the educational programs offered at the schools and the waste diversion practices at the school needs to be strengthened to maximize diversion.**

Schools with strong recycling and composting education programs were more likely to be actively engaged in waste diversion practices. However, the lack of clarity regarding roles and responsibilities of custodial staff, teachers and students and staff turnover in the schools made the link tenuous in some situations.

In the last six months, Oakland Unified School District has found that, despite clear delineation of the roles of custodial staff, teachers, and students, school sites that do not integrate an educational program into the school site recycling program do not perform as well as those that do provide an educational component.

THE CIWMB SCHOOL DISTRICT DIVERSION PROJECT (NOVEMBER, 2001)¹

In November 2001, the CIWMB issued their final report on the School District Diversion Project. The project, which included school districts throughout the state, mirrored the conclusions of the Agency’s County-wide School Recycling Activity Survey.

The goal of the CIWMB’s project was to discover how waste reduction policies and practices in the educational and institutional sectors can be institutionalized and the

¹ Source: CIWMB Board Meeting Staff Report, November 13-14, 2001 prepared for the CIWMB by R&G Associates, LLC

support to the non-residential sector from local jurisdictions and the CIWMB strengthened.

Project Methodology

Six pilot school districts of differing size, demographics, geographic locations and type were selected to be the subject of waste assessments focusing on current practices and opportunities for waste prevention, reuse, recycling, environmentally preferable procurement practices, composting and green building design.

The six school districts selected to participate as pilots in the project were:

1. Visalia Unified School District, Visalia, CA
2. Long Beach Unified School District, Long Beach
3. Santee School District, Santee
4. Barstow Unified School District, Barstow
5. Ravenswood City Elementary School District, East Palo Alto
6. Placer Unified High School District, Auburn

Pilot Project District Findings

The following observations were drawn from the assessment process in the six pilot districts:

1. Although each district increased their waste diversion, each school district has the opportunity to improve their existing waste reduction activities and increase their diversion rates.
2. The districts engage in waste prevention and recycling practices, but the level of implementation and performance varies from facility to facility.
3. Management personnel interviewed in the districts are generally unaware of the local and state resources available to them for implementing waste prevention and recycling programs.
4. Local jurisdiction recycling coordinators need assistance “getting in the door” to develop strong working relationships and partnerships with school districts.
5. None of the pilot school districts has adopted formal Waste Reduction or Environmentally Preferable Purchasing policies.
6. The majority of landscape wastes are diverted in each of the pilot school districts.
7. Food service operations generate the largest volume of waste destined for disposal in the pilot districts.
8. The vast majority of redemption value aluminum cans and plastic beverage containers are recycled in the pilot school districts.
9. Although the pilot school districts do not generate significant revenue from recycling programs, they often realize savings through avoided disposal costs.
10. The pilot school districts do not designate staff to implement or coordinate waste prevention programs.
11. The success of waste reduction programs in school districts is frequently hindered by a decentralized decision making process.

Pilot Project Lessons Learned

During the course of the project, several important lessons were learned that should guide the initiation of waste reduction programs in school districts, including:

1. It is important to understand the business of schools.
2. School officials are fully challenged to perform the duties of the education mission of schools, and as such, are not focused on waste management issues.
3. School board and management policy provide the foundations for the institutionalization of waste reduction programs.
4. Once apprised of the value and benefits of a comprehensive waste and materials management program, school officials are likely to support the development of such programs.
5. Local jurisdiction assistance is fundamental to the success of waste reduction programs.
6. Identifying cost effective opportunities for waste reduction and recycling does not require extensive analysis of the waste stream.
7. School district management is more likely to implement waste reduction programs that are inexpensive and convenient.
8. Waste management service providers are an important resource to school districts.

PART 4: CONCLUSIONS AND RECOMMENDATIONS

As a result of the Agency's past experience with programs that directly target waste reduction and recycling activities in schools, the Agency's surveys, and findings generated by statewide projects sponsored by the CIWMB, this report concludes the following:

1. There is additional diversion potential in the schools in Alameda County.
2. Most schools and districts reported that there is district support for waste reduction, but little support for actual implementation.
3. The schools and districts are largely unaware of the services and programs offered by the Agency and its member agencies.
4. There is a lack of clear direction at the district and school site level about the roles and responsibilities of custodial staff, teachers and students in the school site recycling programs.
5. The link between the educational programs offered at the schools and the waste diversion practices at the school needs to be strengthened to maximize diversion.

To address these issues, this report recommends that the Agency's School Infrastructure Project and other Agency Projects whose primary goal is diversion of materials from school sites, be reorganized in the following way:

4. Develop a StopWa\$te-styled program for School Districts which would include the following elements:
 - Outreach strategy to School Districts – In coordination with our member agencies, develop an outreach strategy to encourage School District Boards and Superintendents in Alameda County to direct their staff to work on a partnership basis with the Agency and the local city/sanitary district. The goal of the outreach strategy is to develop a district-backed waste reduction and recycling program with School Board and upper management support that can be implemented at the school sites.
 - Letters of Commitment from School Districts -- After initial waste assessments, documentation of the benefits of waste reduction and recycling programs, and recommendations developed by the Agency and the city/sanitary district, the Agency would require signed letters of commitment from the School District.
 - Technical Assistance and Financial Assistance – School Districts that sign letters of commitment with the Agency and the local city/sanitary district will be given priority for receiving technical assistance, grants and other educational programs funded by the Agency. The Agency will develop Grant Eligibility Guidelines for school districts for program funds, equipment, and outreach materials that support the Agency's and local city's/sanitary district's recommendations.

5. Develop Best Practices for Paper and Food Waste Recycling in Schools. Increase the Agency's emphasis on partnering with local cities/sanitary districts, such as Oakland and Castro Valley, to encourage Districts to contract for and participate in food waste recycling pick-up programs.
6. Develop Model Contracts for School Districts (modeled on the Agency's Franchise & Ordinance Project.) Provide workshops and policy assistance to School District personnel such as Business Managers and Purchasing Managers.