



# Memorandum

**TO:** TRANSPORTATION AND ENVIRONMENT COMMITTEE

**FROM:** Carl W. Mosher

**SUBJECT: CONSTRUCTION AND DEMOLITION DIVERSION DEPOSIT PROGRAM**

**DATE:** May 25, 2000

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Approved

Date

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## **RECOMMENDATION**

Accept this report on the Construction and Demolition Diversion Deposit (CDDD) program and direct staff to implement the program.

## **REPORT IN BRIEF**

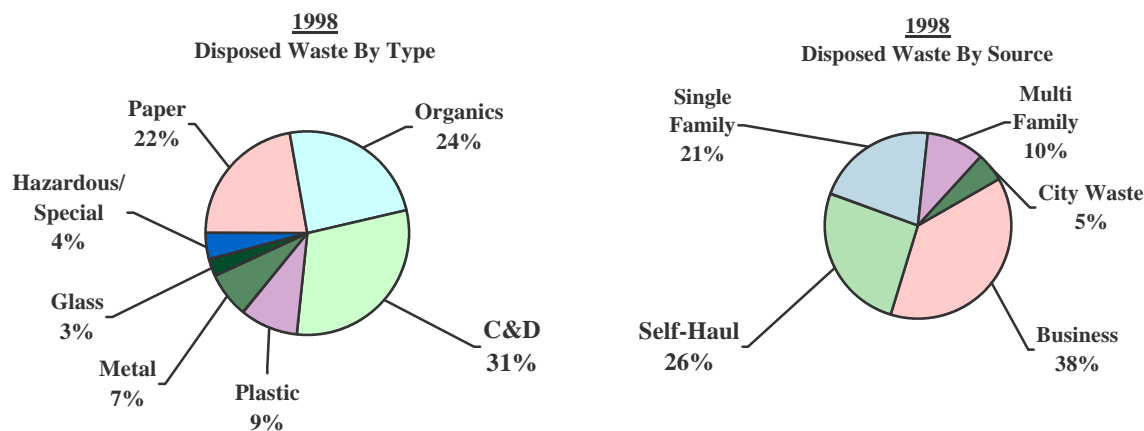
The Environmental Services Department (ESD) Integrated Waste Management (IWM) Division is developing an economic incentive program to divert construction and demolition (C&D) material from landfills in order to meet the State-mandated 50% diversion target. The current diversion rate for San José is 43%. In the past few years, increased recycling activities have been offset by a continuous rise in C&D waste materials sent to landfills. As well, the generation and handling of waste from C&D activities is not addressed by either Commercial or Residential incentive programs managed by IWM, leading to many construction companies hauling their own waste directly to landfills. The CDDD (pronounced "seed") program will provide an economic incentive for C&D waste generators to divert their waste from the landfill.

This report provides background on C&D waste generation and the incentive program under development to divert C&D materials from landfills. The report also provides information on stakeholder input, alternatives explored, implementation schedule, and financial impacts of the program.

## **BACKGROUND**

The Integrated Waste Management Act of 1989 (AB 939) requires each local jurisdiction to divert 50% of its waste from landfills in the year 2000. San José is currently diverting 43% of the wastes generated in the City. Based on a waste composition study and two landfill gate surveys performed in 1998 and 1999, the amount of C&D debris landfilled from San José projects each year is estimated to be more than 160,000 tons. Further analysis shows that a

majority of this material is from non-franchised self-haul activities. In 1998, 31% of the waste disposed in San José was C&D. Self-haul loads made up 26% of all San José wastes going to landfills.



Self haul C&D debris escapes the general requirement that all non-residential solid waste generated in San José be hauled for disposal by a City franchised hauler, since most of it is hauled incidentally to the generator’s primary activity of construction or demolition. Therefore, C&D contractors and the self-haul community are not influenced to divert waste by the commercial solid waste fee system. Even though there are local facilities that are capable of processing most of the materials for recycling, there are still some 160,000 tons of C&D waste materials being disposed in San José landfills each year. Some of this material is diverted from tip faces by the landfills themselves and used on-site as Alternate Daily Cover (ADC). While ADC currently is accepted for diversion credit by the State, it may not always be. IWM seeks to maximize the non-ADC uses of C&D debris in favor of actual materials recovery.

In November 1998, IWM presented to the City Council an updated diversion strategy with numerous programs and activities intended to boost San José’s diversion rate to at least the State-mandated 50% diversion by the year 2000. (IWM provided an update on its Diversion Strategies to the Transportation and Environment Committee May 11, 2000.) One of the proposed high priority programs would divert C&D waste by means of an “advance recycling fee.” The concept, while relatively new, has been implemented elsewhere in the Bay Area and is being considered by other cities. Council accepted this strategy and directed staff to continue developing the new solid waste diversion program.

ESD is developing the CDDD program to bring about more recycling and re-use of C&D materials. The concept is similar to the “California Redemption Value” deposit that consumers pay on beverage containers. This program provides an incentive to generators of C&D waste to recycle or re-use materials rather than landfilling them. The intent of the deposit is to at least equalize any differential economic costs to contractors and developers between diverting and landfilling materials. It is estimated that the City can achieve a 50% overall diversion rate if just

over half of C&D materials currently going to landfill are diverted. As well, the CDDD program will stimulate growth of the C&D processing and re-use infrastructure in the San José area, causing even more diversion to occur, and adding to our overall economy.

CDDD is a system in which the City will collect a recycling deposit for a construction, demolition or remodeling project when the project permit is issued. The deposit rate will be based on the type and quantity of material expected to be generated by the project, in conjunction with the costs of recycling or processing that material. Upon demonstration of diversion of a pre-established percentage of the C&D debris, the full deposit or appropriate portion will be refunded to the permittee.

The program components currently in development are the Economic Study, Certified Facilities, Deposit System/Transaction Process, and Infrastructure Grants.

## **ANALYSIS**

### **C&D Components**

C&D waste is generated when a structure is built, demolished, or renovated. C&D waste components generally fall into two distinct categories: hard and soft. Hard C&D is typically asphalt, concrete, and masonry; soft C&D is everything else. Soft C&D includes materials like wood, drywall and assorted wall coverings, roofing, electrical, carpet, cardboard, plastics, and metals.

### **C&D Waste Disposed**

The City contracted with CalRecovery to determine how much C&D waste from San José is still disposed of in local landfills. CalRecovery performed a week-long gate survey at all four landfills in San José during October 1999. Based upon this survey, data from the landfills, and waste composition studies and another gate survey performed in 1998, staff estimates that at least 160,000 tons of San José C&D waste are disposed annually. Of this amount, between 50% and 70% (80,000 to 112,000 tons) could be recycled or reused using readily available processes and technology, resulting in a 49% to 51% Citywide diversion rate.

### **Availability of C&D Recycling and Reuse Services**

There are numerous private companies in the South Bay that offer C&D recycling and reuse services. The attached "Builder's Reuse and Recycling Guide" lists the companies by the materials that they accept. ESD conducted an inventory of C&D recycling facilities to determine the amount of material the facilities could recycle and which facilities had obtained all necessary permits to operate. These facilities have the combined capacity to process the more than 50,000 tons estimated to be diverted during the CDDD program's first year of operation.

Though there are sufficient facilities available, there is not always ample incentive for C&D generators to utilize these facilities. Often, the generators believe that it is more convenient or

cost-effective to simply landfill their wastes. Hence, providing generators a greater economic incentive to reuse or recycle can increase C&D diversion.

### **Economic Study**

ESD commissioned an Economic Study to develop a model to analyze the effects CDDD will have on the building/housing industry, other costs and impacts associated with the transportation of wastes to processing facilities, and analysis of diversion levels at various deposit rates. The primary outcome of the model is to determine how much to charge for a deposit to provide sufficient incentive for generators to recycle. ESD selected Bay Area Economics and CalRecovery, both Bay Area firms, as the consultant team to conduct the studies and develop the model.

In June 1998, the United States Environmental Protection Agency released the publication "Characterization of Building-Related Construction and Demolition Debris in the United States," the results of a study of C&D in numerous regions of the U.S. The report provides estimates of the amount and type of materials that may be generated by construction, demolition and remodeling projects. The consultant team compared this report with local data and made some adjustments to better understand C&D activities and characteristics for the San José area. The results of the analysis were incorporated into the calculation for determining the amount of the proposed deposit.

The consultant team established three deposit alternatives. The City can select the deposit alternative that best meets its diversion needs while minimizing impact on the community.

***Equity Alternative:*** The equity alternative assumes that the C&D industry target will be the same as the City's overall 50% requirement. Each segment of C&D waste generators will be held to this standard equally.

***Administrative Alternative:*** The administrative alternative is the percentage of C&D diversion needed, currently estimated to be 68%, to meet the Citywide 50% target with no increased diversion from other sources. Each segment of C&D waste generators will be held to this standard equally.

***Advanced Practices Alternative:*** The advanced practices alternative assumes variable percentages for each C&D project type based on an understanding of diversion currently achievable by each project type. Advanced Practices may not be the maximum amount of diversion feasible, rather, it represents higher diversion taking into consideration market conditions, processing technology, and attentive effort by the generator. Advanced practices recovery rates assumed are 85% for new construction projects, 50% for alteration projects, and 75% for demolition projects. These recovery levels are reasonable targets according to data from local projects and National Association of Home Builders (NAHB) publications. Overall C&D diversion from this alternative is projected to be 68%.

The amount of the deposit will be based on the square footage of the project. Of the three deposit alternatives described above and shown in Table 1 below, staff proposes that the CDDD program start with the Equity Alternative (50%), since this is the overall diversion target for the City. This would allow staff to collect additional data once the program is operating. If the desired diversion levels are not achieved, the deposit alternative can be changed to encourage higher diversion levels.

The consultant team reviewed permit data for San José projects over the past five years to determine the amount and type of construction, alteration, and demolition projects. During the five-year period, San José has seen a phenomenal increase in construction activity. In 1998 alone, there were more than 11,000 permits issued valued at more than \$1.3 billion. While generation of waste for the residential and commercial sectors increased roughly 3% during this period, C&D waste increased nearly 10%.

The consultant team then developed six prototypes and analyzed the effects various deposit levels would have on diversion and the incentive necessary to achieve a particular level of diversion. Table 1 shows the amount of the per-square-foot deposit for the various categories.

Table 1. Deposit Alternatives

<b><u>Building Segment</u></b>	<b>Deposit Alternative \$/Square Foot</b>		
	<b><u>Equity</u></b>	<b><u>Admin.</u></b>	<b><u>Advanced Practices</u></b>
Residential New Construction	\$0.20	\$0.40	\$0.60
Non-residential New Construction	\$0.10	\$0.31	\$0.64
Residential Alterations	\$1.16	\$2.35	\$1.16
Non-residential Alterations	\$0.35	\$1.11	\$0.36
Residential Demolition	\$0.35	\$1.11	\$0.36
Non-residential Demolition	\$0.10	\$0.14	\$0.22

Examples: A 2,200 square foot new home would be assessed a deposit of \$440 using the Equity Alternative. A 10,000 square foot renovation of a commercial building would be assessed a deposit of \$3,500 using the Equity Alternative.

**Project Minimum Thresholds**

In addition to developing the diversion alternative levels, the consultant team also reviewed project data to determine a minimum project size to apply the deposit to. Because the project size data is not readily available, project value has been used as the primary measure of project magnitude. Setting minimum thresholds in each category will minimize the administrative and industry impact of the program while maximizing diversion. Applying the deposit to 75% of projects in each category reduces the administrative load 25% while only reducing C&D diversion by 1.4%. Table 2 below, using permit data from 1998, shows the minimum thresholds

for the New Construction and Alteration categories. Thresholds for the Demolition categories were not calculated due to limited data and since demolition activities are often components of new construction. Staff will continue to evaluate the threshold levels and make adjustments as appropriate.

Table 2. Project Thresholds

<b>Building Segment</b>	<b>Total Projects</b>	<b>Below Threshold</b>		
	<b># of Projects</b>	<b>Threshold</b>	<b># of Projects</b>	<b>Percent</b>
Residential New Construction	2,081	\$115,000	490	24%
Non-residential New Construction	277	\$135,000	69	25%
Residential Alterations	7,491	\$2,000	1,907	25%
Non-residential Alterations	1,339	\$5,000	340	25%
<b>Total</b>	<b>11,188</b>		<b>2,806</b>	<b>25%</b>

Project Maximum Thresholds

Staff is currently evaluating maximum thresholds for the New Construction categories. A maximum threshold may be appropriate for larger development projects such as housing tracts and large commercial/industrial complexes. It is assumed that once an incentive to divert waste has been established for a project, there is little utility in raising the deposit to higher levels, particularly as diversion during new construction projects becomes standard practice. Staff will coordinate with the Home Builder’s Association and other stakeholders to determine where to establish the maximum thresholds.

Special Circumstances--Roofing:

New roofing projects are roughly equal to the square footage of the structure, but represent a small dollar value compared to other projects with similar square footage, meaning a deposit assessed on square footage may be excessive. As well, roofing projects generate greatly varying amounts of waste depending upon the need to remove existing roofing material or place new materials over existing layers of roofing. Installation of a new roof without tearing off any existing layers generates very little waste. To address these situations, ESD proposes the following:

- Flat Rate. The deposit may be inequitable to the roofing industry since a roofing project above the minimum threshold level could be assessed a deposit as high as the value of the project. For this unique situation, ESD proposes that all permitted roofing projects, except as described below, have a standard deposit of \$100, which is consistent with a recent change made by the Building Permit Center.
- Exemption. Because of the variability in debris generation, ESD proposes that new roofing projects without tear-offs be exempt from the CDDD program.

### Financial Impacts to City

Municipal revenues from landfill fees would decline due to higher rates of diversion. Given the typical waste generation estimated over the last five years, \$500,000 to \$1,000,000 in revenue from the Disposal Facility Tax could be lost due to the increased diversion from this program.

### Impacts to Local Building Industry

The consultant team interviewed numerous developers, alteration contractors, and demolition contractors regarding waste management practices and the assumptions of labor costs associated with recycling. Labor cost estimates are based on those interviews.

At the lower diversion Equity Alternative level, the local building industry should be able to conduct business as usual related to their waste handling practices. For almost every project, they would just need to ensure their loads are taken to certified facilities in order to receive a full refund of their deposit.

At the higher diversion Administrative and Advanced Practices Alternative levels, the local building industry will have strong incentives to include material recovery, source separation, and on-site reuse as standard operating practices. Assuming that the debris deposit is an accurate proxy for additional cost incurred by builders and developers, the \$1.3 billion industry could incur from \$9 to \$18 million in additional costs, meaning building costs could increase 0.7 percent to 1.4 percent. More likely, with all builders having identical incentives, current competitive recycling disincentives, recycling advanced practices, and recycling processors and reuse services will all improve to absorb the majority of the projected costs. Depending on the contractors' standard practices, the cost to build a median-priced home in San José could increase anywhere from \$0 to \$3,000, if the higher diversion alternative levels are applied.

### Impacts To Recycling and Re-use Industry

The recycling industry in San José could gain in the order of \$10 million of new business annually. This includes processing fees and material sales. Additionally, increased processing would increase the amount of recycled materials on the market and could affect prices of recovered materials as well as improving the recovery of hard-to-market materials.

### Impacts to Disposal Industry

The disposal industry could potentially lose from \$2 to \$3.2 million annually in net tipping fees. This potential loss will likely result in landfill operators increasing material processing and recovery capability. In order to offset this loss of revenue, operators of existing facilities have the alternative to increase processing on-site or form alliances with processors. Three of the four San José landfills currently have recycling operations on-site and two are recipients of C&D Recycling Infrastructure Grants.

### Required Council Actions

Implementation of the CDDD program will require Council approval of an ordinance to establish a clearance document process for the program and adoption of a resolution setting the deposit

rates. Staff will coordinate with the Attorney's Office on development of these documents and will return to Council for further action.

### **Certified Facilities**

A certified facility is one that meets City standards for recovery of materials. ESD is working with a consultant to develop a procedure to certify the recovery rates of any facilities that wish to process or reuse C&D materials under the CDDD program. Facilities need to be certified to verify 1) they actually recycle the material they receive, and 2) they have obtained all the necessary permits and licenses necessary to legally operate a C&D recycling facility in California. ESD does not wish to encourage generators to use illegal, unpermitted recycling facilities, or facilities that landfill the materials they receive.

ESD or its authorized agent will certify the processing facilities. Participation in the CDDD program by processing and reuse facilities will be on a voluntary basis. As a condition of their certification and maintenance of their "certified" status, all facilities will be subject to activity review and reporting requirements related to diversion transactions.

Maintenance of certification may be as simple as performing at or above the 50% diversion level and meeting all permit conditions. If a facility falls below a predetermined diversion threshold or doesn't meet the conditions of its permit, ESD may "decertify" the facility. A facility could apply for recertification after it meets the above conditions.

In the event the City changes the diversion requirement to the Administrative or Advanced Practices Alternative, ESD will not automatically decertify a facility operating at the 50% level, since 50% is the target for Advanced Practices on alteration projects. Instead, ESD may consider implementing a tiered structure for certification, particularly since diversion performance may vary greatly between facilities.

Higher performing facilities would be placed in an upper tier and lower performing facilities placed in a lower tier. A generator could then get higher diversion credit for taking C&D loads to higher performing facilities. This would allow the facilities with lower diversion rates to compete at the Equity Alternative level while the higher performing facilities compete at the Administrative or Advanced Practices Alternative level. While it is possible under current conditions that a generator of very low-grade materials may not get a full deposit refund at the higher diversion alternative levels, staff will continue to evaluate markets and technology to determine impacts before proposing to implement either of the higher diversion alternative levels.

ESD will publish the diversion levels of the certified facilities and provide C&D waste generators the information and best opportunity to achieve their diversion target and receive a full refund. ESD will update this list of certified facilities as often as is necessary, distribute the updated list to contractors as they apply for additional permits, and provide the list on the City's web site.

Although certification requires supplementary reporting by the processor, ESD believes the facilities' incentive to participate in CDDD is the potential for increased business — in almost all cases CDDD permittees must take their materials to a certified facility to recover their deposit. To date, ESD's consultant has interviewed five landfills, five reuse facilities, and 40 processing facilities. Based on initial contacts, at least one-third of the facilities, including the four San José landfills, have expressed a serious interest in certification for CDDD. The consultant will test the methodologies for certification during the next several months.

### **Deposit/Transaction System**

Applicants for construction, demolition, or remodeling project permits will be required to make a diversion deposit. A clearance document will be created prior to issuance of the permit. (The clearance document process is common among agencies requiring some type of environmental review prior to issuance of a permit.) The applicant will also receive a list of certified facilities and reuse information on how to divert waste generated at the project location.

In order for generators of C&D materials to have their deposit returned, they must provide receipts or records demonstrating that the materials from the project have been sufficiently diverted via a City-certified processing or reuse facility or other approved diversion method such as on-site reuse. Upon completion of the project and handling of C&D materials the permittee will return to the City with receipts and, following any adjustments, the City will issue a refund or credit the account. Non-diversion of the materials generated from the project or a lack of records satisfactorily demonstrating diversion of the materials may result in no refund of the deposit amount. The process will make allowances for on-site reuse of materials, such as grinding of concrete for road base.

Staff is coordinating with the Departments of Finance and Planning, Building & Code Enforcement to develop the transaction process. Based on input from stakeholders, staff is proposing several methods of deposit for the CDDD program: cash, check, credit cards, letters of credit, and bonds; all of which the Finance Department is currently capable of handling. The credit or bond deposits are essentially paper transactions with no money changing hands, unless the generator is unable to demonstrate the requisite diversion after the project is completed. Staff will continue to work with stakeholders to determine the most appropriate means to collect the deposit. Staff will also give full consideration to the concept of on-line transactions for CDDD and explore the system implications when more information on the construct of the transaction is available.

### **Infrastructure Grants**

An element of the Economic Study is to estimate how much, if any, deposit monies will go unclaimed as a result of non- or partial diversion. Since the focus of CDDD is diversion and not revenue enhancement, staff proposes to develop a grant component of CDDD to infuse any unclaimed deposits into the development of additional C&D processing infrastructure. Grant funds would be made available to improve existing operations, new operations, or for processing

some of the more difficult to handle materials, like drywall, not easily diverted by the current system. The City could also provide grant funds to end-users to stimulate markets for processed materials.

To initiate the grant process, ESD issued a Request for Proposals for the C&D Recycling Infrastructure Grant Program on December 1, 1999. ESD solicited proposals from all interested businesses wishing to compete for funding to increase C&D recycling in San José. On February 1, 2000, ESD received seven proposals. ESD then selected four proposals for partial funding totaling \$250,000. These were approved by City Council on April 11, 2000. This particular grant cycle should be especially beneficial for increasing diversion as the funds will increase the availability of recycling services for mixed C&D loads, which have largely been going to landfills and used as ADC or buried.

Based on staff's analysis, the C&D infrastructure grants are by far the most cost-effective method to achieve higher diversion, primarily because of the high density of C&D debris. ESD intends to offer grant funding on an annual basis to provide opportunities for increased C&D diversion and stimulate markets for hard-to-market or as yet unmarketable materials while preserving the competitive environment. Funding for the 00/01 grant cycle is proposed at \$500,000 from the IWM Special Fund (423). Subsequent year funding will be provided by unclaimed CDDD deposits.

## **PUBLIC OUTREACH**

Since May 1999, staff has employed various methods to gather input and support for the development of the CDDD program. From conducting formal focus groups, meetings with haulers, landfills, processors, contractors and associations, to participation in the City's Green Building program, staff has attempted to reach the stakeholder groups of the CDDD program.

### **Focus Groups and Stakeholder Input**

A focus group was conducted first to measure response to the concept of a deposit system for C&D. The attendees represented developer, construction, remodeling & renovation, and hauling sectors. While they supported recycling in general and believed it would cut down on landfilling, they stated that a major barrier to recycling C&D is that there are so few facilities available. They were not aware of the re-use or recycling opportunities available for C&D. A few of the participants expressed some reservations about a "computer" that could accurately and fairly assess various construction/demolition jobs. Staff has attempted to address these issues with the certified facilities, economic study, and education as described elsewhere in this memorandum.

### **County Solid Waste Commission's Technical Advisory Committee**

Staff is leading an ad hoc C&D subcommittee of the County Solid Waste Commission's Technical Advisory Committee formed to look at C&D issues for the South Bay region. The

initial meeting showed that other cities in the county are interested in developing C&D programs to meet AB939 diversion goals. Several either have recycling requirements in their capital improvement contracts, require contractors to submit recycling plans when a permit is applied for, or have other permit conditions.

There has been much discussion of San José's proposed program and responses have been very favorable. Other cities have commented that implementation of San José's program will help them to implement programs in their cities. It was agreed that on-going coordination was necessary to make certain that the cities' programs are similar when and where necessary so as to minimize confusion for the developers and contractors doing business throughout the South Bay. In addition to coordinating C&D programs, the subcommittee has agreed to pursue the development of model language for all cities to use in capital improvement and public works projects to demonstrate to the community that the local government will lead by example.

### **Green Building**

During the first Green Building workshop July 8, 1999, and subsequent work group meetings, waste minimization, reuse, and recycling were identified as important components to be addressed by the Green Building program. Staff developing the CDDD program served on the Green Building Steering Committee and participated in all the meetings. Staff presented concepts for the CDDD program at several meetings and gathered input to help shape the program.

The Mayor-appointed Green Ribbon Task Force approved the Green Building "Recommendations For Action" which included a recommendation related to construction and demolition activities. Specifically, the recommendation states, "Support the implementation of the City's Construction and Demolition Diversion Deposit (CDDD) Program." On April 4, 2000, Council unanimously approved the Green Building Recommendations For Action. Stakeholder groups included: builder/developer; banking; schools; architects; construction/labor; real estate; utilities; and the environmental community. City representation included staff from Housing, Planning, Building and Code Enforcement, ESD, General Services, Public Works, and the Redevelopment Agency.

### **California Integrated Waste Management Board (CIWMB)**

Staff has had numerous discussions with CIWMB staff regarding the CDDD program and Board staff have expressed their support for the program. The Board identified C&D debris waste as a priority program in its market development plan as a means of getting California to 50% diversion and has stated that C&D programs are a high priority. The CIWMB Chair, Dan Eaton, stated at a workshop earlier this year that in considering any city's application for a time extension on the 50% diversion requirement, the Board will look to see if the applicant has a C&D program. Board staff also served as members of the Green Building work group.

### **Processors, Collectors, Landfills, and Roofers**

Staff organized meetings with local companies and organizations. The purpose of the meetings was to: 1) discuss the concepts of the CDDD program; 2) provide opportunity for questions and answers; and 3) accept suggestions for improvements or viable alternatives. The critical issues identified at these meetings have been related to the use of ADC as staff has proposed a phasing out of ADC as allowable diversion for the CDDD program. One of the goals of CDDD is to not rely on diversion from materials that, fundamentally, are still being buried in the landfill, particularly when there may be better uses for those materials.

From the start of the program until June 30, 2002, ADC will count 50% toward the generator's diversion. For example, during this period, a generator that takes all of their material to a facility that uses 100% of it as ADC will have achieved 50% diversion. From July 1, 2002, to June 30, 2004, ADC will count 25% toward the generator's diversion. A generator can still have the material used as ADC, but it will only as count as 25% diversion, meaning the generator's deposit return will be reduced proportionately. This phasing out of ADC will allow two things to occur: 1) the landfills will have ample time to modify their operations and reduce ADC use and; 2) the time may allow for changes in the marketing of C&D materials currently used as ADC. Staff will revisit this issue after implementation to determine if markets and processing of materials currently used as ADC have sufficiently improved and the schedule for phasing out ADC is appropriate.

Staff also met with the Independent Roofing Contractors of California, Inc., (IRCC) to address specific concerns related to the deposit. Most roofers operate according to local codes and ordinances and acquire permits for jobs. However, the number of jobs in-progress by a single roofing contractor at any given time, and there are at least a dozen in some cases, could cause them to "shy away" from the permit process because they would have too much cash out-of-hand. The deposit could also make it difficult for them to compete with "questionable" roofers that operate without permits. Staff believes it has resolved this issue by including a bond category that contractors or organizations can post for their members to operate under, thus eliminating the cash out-of-hand issue. As well, all permit applicants, roofers included, may use a credit card for deposits.

### **CDDD Program Recognition**

The CDDD program, though still in the development stage, has generated a remarkable amount of interest in the solid waste industry, among local government across the nation, including inquiries from Canberra and Sydney, Australia. This interest has led to invitations to speak at regional and national conferences. Other cities view CDDD as a model program and are anxiously anticipating its implementation. Since January 2000, CDDD has appeared in: *OIKOS*, a green building website; *Green Clips*, an electronic newsletter providing information on sustainable building and business issues; *Resource Recycling* and *BioCycle*, both solid waste industry journals; and was the cover article in *Construction Materials Recycler*.

## **ALTERNATIVES**

Staff has considered several alternatives to implementing the CDDD program. The alternatives evaluated include additional fees at the landfill specific to C&D materials, bans at the landfill on certain C&D materials, and mandates for C&D recycling.

### **Fees**

The current rate structure at the landfills in San José does not provide enough of an incentive for haulers or generators to divert materials to recycling facilities. While applying a fee directly to certain materials at the landfill may cause some haulers to recycle, it was found that other haulers would haul the materials to another landfill outside of San José. Staff learned through conversations with other cities in the U.S. and Canada that this is a common issue. Through the State's disposal reporting system, the waste would be attributed to San José, thereby negating any diversion credits.

### **Bans and Mandates**

There are numerous cities in North America that have implemented bans or mandates. One city, Vancouver, B.C., banned drywall disposal to protect their employees from hydrogen sulfide gas that, according to their research, is emitted from wet gypsum. This ban had a positive effect on the salvage industry because loads going to landfill must be free of drywall or extra fees are assessed. This allows recyclers and salvagers to competitively bid on the demolition of buildings, which has led to an increase in C&D diversion from the local landfill. However, one of the drawbacks of banning materials at a facility is that some haulers may take their loads elsewhere if economically feasible, possibly negating any increases in diversion.

Included in IWM's Diversion Strategies presented to Council in November 1998 were bans and/or mandates on several materials. Neither was approved and staff was directed to explore an incentive approach to achieve additional diversion, which led to the development of the CDDD program.

Based on discussions with other jurisdictions, bans and mandates appear to be more easily implemented in cities where there is local government management or ownership of the facility. San José neither owns nor operates any processing or landfill facilities.

### **Timeline**

IWM proposes that the program start as soon as possible to achieve the State-mandated 50% diversion. The State is developing a process to grant time extensions to jurisdictions that have not reached 50% diversion. While the City may need to apply for a time extension, IWM believes that the CDDD program will cause enough diversion of C&D waste that no more than a one-year extension should be necessary.

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**Subject: CDDD Program**

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IWM proposes a “test” version of the CDDD program begin in October 2000 and a full program start in early 2001. The test version will have a moneyless transaction, but would allow staff to distribute information on reuse and recycling and the transaction process. Staff would also be able to collect data and other information, coordinate with Building’s Permit Center, and get feedback from the facilities to be better prepared for the actual start of the program.

### **COORDINATION**

Preparation of this memorandum has been coordinated with the City Attorney’s Office; the Departments of Finance, and Planning, Building and Code Enforcement; the Local Enforcement Agency; and the City’s Green Building Program.

### **COST IMPLICATIONS**

Current and planned expenditures for development of the CDDD program for FY99-00 total approximately \$144,000, which was incorporated in the FY99-00 budget. This includes consultant contracts for the Gate Survey, Facility Certification, and Economic Study. The management of the CDDD program is included in the existing allocated staff time. As the CDDD program is still in the development stage, IWM will include future costs as part of a FY00/01 mid-year adjustment or in the FY01-02 budget process.

### **CEQA**

The CDDD program is a system of management for existing activities and will not cause any negative significant effects. Planning staff has indicated that they will approve a Categorical Exemption for the CDDD program. Staff will begin the Exemption process after Council approval of the CDDD program.

CARL W. MOSHER  
Director, Environmental Services Department

