

ADDENDUM TO THE
SUNNYVALE SMaRT STATION EIR
SCH/#89022812

I. OVERVIEW

A Draft EIR was prepared for the Sunnyvale Materials Recovery and Transfer (SMaRT) Station in June 1990 and a Final EIR for the project was certified by the City of Sunnyvale in September 1990 (State Clearing House #89022812). Since the Final EIR was certified, the SMaRT Station project has been modified. This document describes the change in environmental impacts expected as a result of the revised project.

This document incorporates the Draft and Final EIRs by reference and only those areas affected by changes in the project are addressed in this document. All information presented in the June 1990 Draft EIR and September 1990 Final EIR is still valid, unless otherwise noted in this document.

A. Summary of Changes

The modifications to the SMaRT Station project include a reduction in the size and design capacity of the station, reconfiguration of the main station building and relocation of the wood waste processing and public buy back areas. Table 1 summarizes the primary modifications to the project and identifies the resulting change in impacts.

The station design capacity has been reduced as a result of more accurate waste volume figures from each city, and re-evaluation of the assumptions made in estimating growth in the waste stream. As described below under II.B.2., the Cities have estimated the waste stream to the SMaRT Station based on waste generation quantities contained in their Source Reduction and Recycling Elements, and in contractual commitments to Kirby Canyon Landfill.

B. Change in Significant Environmental Impacts

Potentially significant impacts identified in the EIR include traffic impacts, fire hazard, washdown water quality, impacts related to safety and seismic safety, dust emissions during project construction and operation, local impacts to biological resources, and nuisance impacts. Mitigation measures were adopted to reduce these potentially significant impacts to non-significant (see Summary Table in Draft EIR). All measures adopted in the certified EIR have been or will be implemented and the impacts will be mitigated to non-significant.

The modifications to the SMaRT Station project would not result in new significant impacts. No new mitigation measures are necessary.

The EIR found two areas of environmental impact to be significant and unavoidable.

Air quality impacts were determined to be significant and unavoidable because of short-term dust impacts during project construction and because of

the potential release of hazardous landfill gas during excavation of the landfill. The project's construction-related air quality impacts would be slightly less because the project site has decreased in size from 10 acres to 9 acres. The plan no longer requires excavation on the east side of the site; however, the amount of excavation on the south side of the site is increased in the process of correcting and improving the original design of the roadway. Essentially the same amount of excavation will occur (P. Fisher, pers. comm.).

TABLE 1
SUMMARY OF PROJECT CHANGES

Project Feature	EIR	Current Proposal	Change in Impacts
Recovery Rate	20 - 25% recycling rate	15 - 25% recycling rate	The Cities have established a minimum 15% recycling rate although up to 25% may be achievable.
Design Capacity	2200 Tons/Day	1500 Tons/Day	Reduced traffic, air quality, noise, and nuisance impacts.
Site Size	Approximately 10 acres	Approximately 9 acres	Smaller site would not require excavation of in-place refuse from the Sunnyvale Landfill for building construction, and would have less impacts associated with site preparation such as dust and construction vehicle emissions.
Building Size	Size: 128,000 sq ft	Size: 111,550 sq ft	Smaller building would result in reduction in impacts associated with site preparation and building construction.
Wood Waste Processing	Separate structure east of main building	Attached to processing building	Increased fire hazard would be mitigated by construction of fire walls.
Public Buy Back	Inside main station building.	Outside building; uncovered.	Traffic less congested inside but more congested outside. Potential for recycled materials to get wet.

The EIR also found that the SMaRT Station would have significant unavoidable aesthetic impacts on recreationalists using levees to the north of the project site. A screening fence and landscaping along the north side of the project site were required to help reduce aesthetic impacts. However, even with this mitigation the impact would remain significant and unavoidable. With the new project design, the SMaRT Station would be open on the north side of the building. The screening fence and landscaping would effectively block views of the station floor and aesthetic impact associated with the project would not be substantially different than those described in the EIR.

The modifications to the SMaRT Station project would not result in new significant and unavoidable impacts. No new mitigation technology is available which would reduce air quality or aesthetic impacts to non-significant.

C. Change in Mitigation Measures

The modifications to the SMaRT Station project would not require any change in the mitigation measures adopted to reduce project impacts. Mitigation measures adopted for the project are listed in a table in the Summary of the June 1990 Draft EIR. All adopted mitigation measures have been or will be incorporated into the new project.

The revised project would not result in new impacts which require additional mitigation measures.

II. PROJECT DESCRIPTION

A. Description Of Originally Proposed SMaRT Station

As described in the EIR, the cities of Sunnyvale, Palo Alto, and Mountain View (the Cities) are facing imminent closure of their landfills. As part of a solution to their near and long term solid waste disposal needs, these communities decided to construct a transfer station/resource recovery facility. These cities compose the "primary service area" of the transfer station. Additional available capacity in the transfer station would be used to serve an "extended service area" of limited wastes from Stanford, Cupertino, Los Altos, Los Altos Hills, and Santa Clara.

The SMaRT Station would be located on approximately 10 acres on a site owned by the City of Sunnyvale, next to the Sunnyvale Landfill, the Sunnyvale Water Pollution Control Plant, and San Francisco Bay. The Sunnyvale Public Works Department is the lead agency for the project. The contractor to the Cities, Waste Management of North America, was to have built and operated the SMaRT Station.

The contractor to the cities determined the growth in the waste stream over the 30-40 year life of the project and designed the station to accommodate the expected waste stream. A 1.1% growth in the waste stream was used, based on projections by the Association of Bay Area Governments and the Santa Clara County Solid Waste Management Plan. As a result, the SMaRT Station was designed to handle 2200 tons/day of refuse. Initially, cities in the primary service area would have required only 61 percent of station capacity; this would increase to 94% of full capacity after 40 years. The excess capacity would be available for use by cities in the extended service area. Even with this additional waste stream the SMaRT Station would not have

operated at capacity until about the year 2021, based on a waste stream growth rate of 1.1 percent.

Additional capacity at the SMaRT Station would be used to serve the extended service area including self-haul, clean-up campaign debris, and city maintenance waste from the cities of Cupertino, Los Altos, Los Altos Hills, and Santa Clara; debris box loads from Cupertino, Los Altos and Los Altos Hills; and waste from the Stanford Community.

The Cities would have a 30 year contract with Waste Management of North America (WMNA) for disposal of non-processable waste at the Kirby Canyon Landfill. Then, at their sole discretion, the Cities could extend the contract for one additional five-year increment, for a total of 35 years capacity. The agreement could then be extended by mutual consent of WMNA and the Cities for an additional five-year increment -- for up to 40 years of landfill capacity.

The materials recovered and processed in the station include aluminum, cardboard, ferrous metals, high grade paper, mixed waste paper, newsprint, glass, wood, yard waste, plastic, and white goods.

The SMaRT Station facilities would provide for sorting recyclables out of incoming refuse, processing loads from curbside recycling, a public recyclables buyback area, and an area for processing wood waste. The contractor to the Cities estimated that resource recovery at the station would reduce the waste stream to the landfill by approximately 20-25 percent.

After all targeted recyclable materials were extracted from the waste stream, non-processable refuse would be compacted into bales, loaded into enclosed transfer trucks and trucked to the Kirby Canyon Landfill in southern San Jose. Acceptance of refuse from the SMaRT Station would require changes in Kirby Canyon Landfill's permits to allow nighttime operating hours and an increase in the amount of refuse that can be accepted daily.

SMaRT Station design included one main building for waste processing and materials recovery, a separate building for yard and wood waste processing and storage, a vehicle maintenance area, an entrance facility, an office, a perimeter roadway, two parking areas, and a transfer trailer staging area. An additional transfer trailer staging area was sited on top of the landfill east of the SMaRT Station building in order to stage transfer trucks when the station began to operate near capacity. All operations were enclosed, and the total floor space for the facility was about 128,600 square feet. The station building would be 35-45 feet high. Construction of the SMaRT Station would require the excavation of in-place refuse from the Sunnyvale Landfill and the relocation of portions of the landfill gas collection system.

B. Revised Project Description

This revised project description will only address those areas of the original project description which have changed. If not addressed in this section, all other features of the project will remain the same as discussed in the EIR.

The following modifications have been made to the SMaRT Station project:

1. Assumptions regarding growth in the waste stream have been revised resulting in a reduction in the station design capacity from 2200 tons per day to 1500 tons per day.
2. The building design has been changed and become smaller.
3. The site acreage has been reduced from 10 acres to approximately 9 acres.
4. The Cities will subcontract station construction and operation.

1. Service Area and Project Life

The SMaRT Station would primarily serve the communities of Sunnyvale, Palo Alto, and Mountain View. All franchise-collected and self-haul refuse from these cities would be delivered to the station for processing before being shipped to Kirby Canyon Landfill.

As described in the EIR, the SMaRT Station may also serve an extended service area if excess capacity is available at the station. However, with the downsizing of the project, there would be much less surplus capacity available for use by other communities and it is possible that no use from an extended service area would occur at all or that whatever use does occur would be on a much smaller scale than described in the EIR.

The Cities would continue to have a 30 to 40 year contract with Waste Management of North America (WMNA) for disposal of non-processable waste at Kirby Canyon Landfill. Waste would begin to be delivered to Kirby from the SMaRT Station in July 1993 and continue under the 30-year contract until 2021 (28 years are remaining in the contract). With the 10 year extension specified under the contract, waste from the station could be delivered to the Kirby Canyon Landfill for another 10 years or until 2031.

2. SMaRT Station Design Capacity and Rate of Recycling

Originally the SMaRT Station was designed to accommodate 2200 tons/day of refuse and achieve a 20% to 25% recycling rate. This design capacity was based on an annual growth in the waste stream of 1.1% as projected by the Association of Bay Area Governments and the Santa Clara County Solid Waste Management Plan.

The waste stream volumes presented in the EIR were generated prior to implementation of Assembly Bill 939 (AB 939). AB 939 requires cities and counties to reduce their waste stream by 25% by 1995 and by 50% by the year 2000. Cities must also prepare Source Reduction and Recycling Elements (SRRE) which quantify current waste streams and outlines programs and policies to achieve the mandated recycling goals.

Table 2 presents the expected waste volume flows to the transfer station beginning in 1993 and ending in 2021. Table 3 presents allocation quantities for the extended period allowed for the Kirby Canyon contract with WMNA.

The waste volumes presented in Tables 2 and 3 are substantially less than those presented in the EIR. For example, the EIR predicts the waste volume from the primary service area to be 484,777 tons per year in 2021 and 540,817 tons per year in 2031, whereas Table 2 shows predicted waste volumes of 326,639 tons per year in 2020 and 349,542 tons per year in 2031.

TABLE 2
TRANSFER STATION WASTE QUANTITIES

SUNNYVALE MOUNTAIN VIEW PALO ALTO				TOTAL
YEAR				
1993 *	96,819	52,537	34,682	183,838
1994	187,148	89,276	69,609	346,034
1995	180,934	89,959	69,967	340,859
1996	177,163	91,036	67,932	336,132
1997	173,234	92,128	65,848	331,210
1998	169,229	93,234	63,716	326,180
1999	165,151	62,927	61,534	289,613
2000	160,997	63,661	59,304	283,962
2001	159,427	64,094	59,896	283,418
2002	160,513	64,529	60,495	285,538
2003	161,606	64,969	61,100	287,675
2004	162,707	65,412	61,712	289,830
2005	163,815	65,859	62,328	292,002
2006	164,930	66,307	62,952	294,189
2007	166,054	66,758	63,581	296,393
2008	167,185	67,212	64,218	298,614
2009	168,323	67,668	64,859	300,850
2010	169,470	68,128	65,508	303,106
2011	170,624	68,592	66,164	305,379
2012	171,786	69,059	66,825	307,669
2013	171,786	69,528	67,493	308,807
2014	174,134	70,001	68,168	312,303
2015	175,320	70,476	68,849	314,646
2016	176,514	70,955	69,538	317,007
2017	177,716	71,439	70,233	319,388
2018	178,926	71,925	70,935	321,786
2019	180,145	72,413	71,645	324,203
2020	181,372	72,906	72,361	326,639
2021 **	138,955	55,051	54,814	246,819
TOTAL	4,849,783	2,058,041	1,866,268	8,774,090

* Assumes deliveries begin July 1, 1993.

** Assumes deliveries end September 30, 2021.

Peak	Flow (1994) =	1,331	tons per day (5)
Low	Flow (2001) =	1,090	tons per day (5)

TABLE 3
WASTE "ALLOCATION QUANTITIES" FOR EXTENDED TERM

YEAR	SUNNYVALE SMaRT	MOUNTAIN VIEW SMaRT	PALO ALTO SMaRT	TOTAL
1	182,605	73,401	72,853	328,859
2	183,847	73,900	73,349	331,096
3	185,097	74,403	73,847	333,347
4	186,356	74,909	74,350	335,614
5	187,623	75,418	74,855	337,896
6	188,899	75,931	75,364	340,194
7	190,183	76,447	75,877	342,507
8	191,477	76,967	76,393	344,836
9	192,779	77,490	76,912	347,181
10	194,089	78,017	77,435	349,542

The numbers presented in Tables 2 and 3 were generated by each city independently and reflect each city's adopted SRRE and waste stream growth assumptions, and are based on a contractual commitment to Kirby Canyon. The Cities have conducted extensive waste audits since the passage of AB 939 and Tables 2 and 3 reflect a more accurate characterization of waste volumes in each of the cities. Also, these numbers are lower because they reflect increased source separation and source reduction as a result of AB 939, and a 7% to 10% drop in overall waste volumes due to the decline in the local economy. Finally, the Cities did not apply the 1.1% growth rate to predict increased waste streams, as each city felt it was already close to buildout and using a 1.1% rate of growth would be greatly overestimating the actual growth rate (Mark Bowers, pers. comm.).

Based on the revised waste volumes, the SMaRT Station would be designed to accommodate 1500 tons per day. This is approximately 68% of the original design volume of 2200 tons per day.

Originally it was predicted that a 20% to 25% recycling rate could be accomplished at the SMaRT Station. The Cities have now established a minimum recycling rate of 15% because much of the easily recyclable, high value material is already being recycled at curbside and would not be included in the waste stream to the station. The 15% rate applies only to the municipal solid waste delivered to the station and does not account for the diversion the Cities are achieving through curbside recycling. A greater than 15% recycling rate is desirable and may be achievable at the SMaRT Station. Thus, the Cities are predicting a recycling rate of 15% to 25%. Table 4 presents the waste stream to Kirby Canyon after SMaRT has achieved a 15% recycling rate.

TABLE 4
WASTE QUANTITY ESTIMATES
DELIVERIES TO SMaRT STATION AND TO KIRBY CANYON LANDFILL
TONS PER YEAR

YEAR	TO SMaRT	TO KIRBY CANYON AFTER 15% RECYCLING	TO KIRBY CANYON AFTER 25% RECYCLING
1994 ¹	346,034	294,129	259,526
2020 ²	326,639	277,643	244,979
2031	349,542	297,111	262,156

1: The table shows the waste volumes for 1994 as this is the first full year of station operation.

2: The table shows the waste volumes for 2020 as this is the last full year of operation during the first 30 year contract.

3. Waste Steam to the Kirby Canyon Landfill

The SMaRT Station would initially send approximately 294,129 tons of waste per day to the Kirby Canyon Landfill with 15% recycling, and 259,526 tons per day with 25% recycling. This waste volume would steadily decrease to 277,643 tons per day with 15% recycling, or 244,979 with 25% recycling by the

year 2020 (see Table 3) as a result of recycling mandated by AB 939. Over the 30 year life of the disposal contract, the SMaRT Station would send about 7,457,976 tons of waste to the Kirby Canyon Landfill with 15% recycling (see Table 2).

4. SMaRT Station Design

The design of the SMaRT Station has changed from that originally proposed. The station building has been reduced in size, changed in configuration, and will require less acreage. The principal features of the station have not changed from those described in the EIR. SMaRT Station features which have been modified since the EIR are described below.

a. Site Plan

The SMaRT Station now features one main building for waste processing and materials recovery, wood and yard waste recycling, and a smaller, separate office building (see attached General Site Arrangement figure). A gate house and scale would be constructed at the entrance to the SMaRT Station. All operations except for the public buyback would be housed, and the total floor space would be about 111,550 square feet, broken down as follows:

Main Building Area:	91,875 sq ft
Curbside Area:	5,000 sq ft
Loadout Area:	3,300 sq ft
Woodwaste Area:	9,375 sq ft
Vehicle Maintenance:	<u>2,000 sq ft</u>
TOTAL AREA:	111,550 sq ft

The parking areas include one containing 77 stalls next to the office and visitor center for employees and visitors, and one south of the SMaRT building with about 10 spaces for employees. As originally proposed, a staging area for the transfer trucks would be constructed on top of the Sunnyvale Landfill east of the building in order to stage transfer truck trips when the station begins to operate.

The SMaRT Station site would now occupy approximately 9 acres instead of 10 acres as originally proposed.

The SMaRT Station would have a finished floor elevation of +4 feet NGVD.

The original design of the station building had separate tipping areas for commercial processable and non-processable waste located in the eastern end of the station. The redesigned station has combined the areas into one tipping area for commercial waste located on the north side of the station. Approximately 16 tipping stalls would be provided.

The public tipping area has not changed in configuration or location within the building. A tipping area for franchise collected residential waste has been added next to the self-haul area.

The public buyback area has been moved from inside the building to outside the building by the southwest corner. The buyback area would consist of a staffed drop-off area with containers for the various types of recyclables.

The wood and yard waste processing area was originally located in a separate building east of the main station. This area is now attached to the northwest corner of the station. The wood waste area would encompass approximately 9,375 square feet. The processing method for wood waste and yard waste has not changed. The wood waste would be fed onto a conveyor and moved through a shredder. Shredded material would be stored according to size in drop boxes located outside the building. Green yard waste which is not chipped would be placed in drop boxes for removal by separate contractors for composting in various off site areas.

The curbside processing area and entrance facility have not changed.

As originally described, the building would have a pile foundation and be about 45 feet high and would be steel-framed with concrete or masonry walls (see attached Building Cross Sections).

b. Site Circulation

The traffic circulation pattern is essentially unchanged. Traffic would travel in a counter-clockwise direction throughout the site. Some changes in traffic flow patterns would occur because the wood and yard waste area has been moved from a separate building east of the main station to north of the main building, the public buyback has been moved outside the station building, and trucks coming from the top of the landfill would now exit from the top of the landfill on an existing landfill road.

The previous site plans showed a road coming from the top of the east hill of the landfill and intersecting with the station's perimeter road in the northeast corner of the site. Truck traffic coming from the top of the landfill, including transfer trucks coming from the staging area would have used this road to return to the station. It was determined that the ramp necessary for this road would have required the removal of a large amount of in place waste (more than 50,000 cubic yards) and backfilling. This task alone would have eliminated the possibility of having the project completed by July 1, 1993.

As a result, the new site plans eliminate this road. Traffic from the top of the landfill would enter and exit on the same road. Incoming trucks (including trucks associated with Raisch, an asphalt/concrete recycling company now located on top of the landfill east of the station) would enter the station and continue up the existing road to the top of the landfill (see Figure 1). Trucks would also leave the top of the landfill via this road, but because the right-turn angle from the landfill road to the station circulation road is too acute for large trucks to make, trucks bound for the transfer station would come down the landfill road, cross incoming station traffic, turn around, and merge with incoming station traffic. The traffic exiting the landfill road would be controlled by a stop sign.

c. Transfer Operations

Transfer operations would remain unchanged from those described in the EIR. Non-processable waste would be compacted, baled, and pushed into fully enclosed transfer trucks. However, the location of the transfer operation has been moved from the north side of the building to the east side.

The building would have design space for two compactors, although only one would be installed initially. For system redundancy, the conveyor system for the second compactor would be installed so that waste could be loaded out into top-loading transfer trailers in the event the first compactor is not operational for an unacceptable period of time. The second compactor would be installed when waste volumes at the station dictate the need for two compactors.

d. Employment and Hours of Operation

The station's hours of operation would not change from those described in the EIR. The number of employees required to operate the station is slightly less than originally predicted. Rather than employing roughly 140 people, the station would now employ an estimated 105 to 120 people (8 administrators, 82 to 102 operations people, and 15 maintenance people).

5. SMaRT Station Site Preparation

a. Excavation and Grading Plan

Since the EIR was prepared, it has been determined that the station building would be constructed using a pile foundation. The finished floor elevation would be +4 feet. Existing fill will be excavated to approximately -3 feet NGVD and replaced with engineered fill. The site elevation would then be raised by importing approximately 10,000 to 15,000 cubic yards of clean fill material (Robert Carn, pers. comm.).

The original station design required the excavation of existing landfill to make room for the access roads, the gate house and interior roads. This would have entailed excavation of portions of the landfill in the south and east portions of the project footprint.

With the smaller, revised project design, landfill excavation would only occur near the entrance road and gate house. The City of Sunnyvale has already contracted for this work which is scheduled for completion by July 28, 1992. The City has obtained all necessary permits and approvals needed to proceed with this work. The excavated refuse will be relocated on the south hill or disposed of at the working face of the Sunnyvale Landfill (Paul Fisher, pers. comm.).

A health and safety plan has been prepared by the contractor, Granite Construction Company, to address worker exposure to potentially hazardous landfill gasses during excavation. The City of Sunnyvale has approved the plan. The plan will also be reviewed by the Local Enforcement Agency, Santa Clara County Health Department, which will also closely monitor the excavation (Paul Fisher, pers. comm.).

b. Landfill Gas Control System

The excavation of in place refuse requires the relocation of portions of the Sunnyvale Landfill gas collection system. The system has already been relocated in anticipation of the excavation work. The City obtained the necessary approvals from the Bay Area Air Quality Management District (Paul Fisher, pers. comm.).

c. Dewatering During Construction

Dewatering may be required during construction of the SMaRT Station because of the high groundwater table. Any groundwater extracted during construction would be discharged to the sanitary sewer under an Industrial Waste Discharge Permit issued to the project contractor by the Water Pollution Control Plant for disposal of groundwater extracted from under the landfill (Paul Fisher, pers. comm.).

III. CONFORMANCE WITH PLANS, ORDINANCES AND POLICIES

The June 1990 EIR addressed the permitting requirements and project conformance with four Federal agencies, nine State laws and agencies, and five local agencies. Table III-2 in the Draft EIR summarized regulatory conformance and permitting requirements for the SMaRT Station.

This document discusses those laws or agency requirements which would be changed as a result of the changes in the project description or for which new information is available.

A. State and Regional

1. California Integrated Waste Management Act of 1989 (AB 939)

In compliance with the requirements of AB 939, the City of Sunnyvale has adopted a Source Reduction and Recycling Element (SRRE). The SRRE describes the SMaRT Station and identifies it as an essential element of the City's plan for reaching the 25% and 50% recycling goals established by AB 939.

The Local Enforcement Agency (LEA) must issue a Solid Waste Facility Permit for the station. The California Integrated Waste Management Board will review and concur with the station's Solid Waste Facility Permit.

2. Bay Area Air Quality Management District

The 1990 EIR discussed air quality permitting requirements including the possibility of shutting down Sunnyvale Landfill's gas collection system in order to relocate the system as a result of excavation of in-place refuse.

The City of Sunnyvale has obtained the necessary approvals from the Bay Area Air Quality Management District and the landfill gas collection system is being relocated. The excavation of in-place refuse and temporary shutdown of the collection system during construction will occur in July 1992.

The City of Sunnyvale has also obtained an Authority to Construct permit required to start project construction (Paul Fisher, pers. comm.). A Permit to Operate is issued approximately 60 days after start of operation and must be renewed annually.

3. California Department of Health Services

The EIR discusses the Department of Health Services role in regulating hazardous wastes. The EIR stated that preliminary geotechnical investigations of the site showed buried pockets of sewage sludge which could contain hazardous concentrations of certain metals and other contaminants. If construction of the SMaRT Station required the excavation of the sludge, the

City of Sunnyvale would have to determine whether the sludge was considered to be hazardous under Title 22 and therefore under the regulation of the Department of Health Services.

After extensive testing, the City has determined that the sludge is non-hazardous, and has received concurrence from the Department of Health Services. The City of Sunnyvale has also determined that removal of the sludge is not necessary.

B. Local

1. Santa Clara County Solid Waste Management Plan

AB 939 revised the requirements for County Solid Waste Management Plans and now Countywide Integrated Waste Management Plans (IWMP) are required. Santa Clara County has adopted a County Solid Waste Management Plan (CoSWMP) which will be in effect until the IWMP is submitted and approved. The CoSWMP includes a discussion of the SMaRT Station. The station is in conformance with all Countywide CoSWMP policies and is consistent with the waste management hierarchy established by AB 939.

2. Permits Required by the City of Sunnyvale

As outlined in the EIR, the station would have to receive building and grading and erosion control permits from the City, as well as a Wastewater Discharge Permit from the Sunnyvale Water Pollution Control Plant (WPCP) and a Hazardous Materials Storage Permit from the Sunnyvale Department of Public Safety.

The WPCP acceptance criteria are presented in Section 12.12.120 of the City's Sewer Ordinance. WPCP staff have been concerned that the washdown water from the station floor may contain debris as well as contaminants picked-up from material in the waste stream and that the WPCP would be unable to accept the washdown water unless it has been pretreated.

Samples of washdown water from three similar transfer stations have been tested for pollutants. At a minimum, the washdown water would have to pass through a central interceptor to separate out solids, and oil and grease prior to discharge to the sanitary sewer. After further analysis of the washdown water from this station, it will be determined if a pretreatment system will be required to meet WPCP discharge requirements. The station would be designed so that additional treatment facilities could be installed at a later time if further treatment of the washdown water is required. In addition, a regular maintenance program will be instituted, directed at minimizing the amount of washdown water produced and keeping debris out of the drains (Chris de Groot, pers. comm.).

IV. ENVIRONMENTAL IMPACTS

A. TRANSPORTATION

1. Setting

The EIR presented existing traffic and circulation information for roads used by franchise vehicles on the way to the station and for roads used by the transfer trucks traveling to Kirby Canyon. Traffic counts for key roadways

presented in the EIR were taken in 1988 and 1989. Figure IV-1 in the Draft EIR shows the study area and circulation network.

Twelve signalized intersections in the vicinity of the project were analyzed. These included intersections on Mathilda Avenue, Borregas Avenue, Crossman Avenue, N. Fair Oaks Avenue, Caribbean Drive, and Lawrence Expressway. All intersections operated with a level of service C or better during peak periods, except for the "monster" interchange of Mathilda Avenue and Highway 237 which operated with a level of service E during peak periods. Subsequent to the Final EIR the "monster" interchange has undergone improvements, which have significantly improved its traffic handling characteristics. Because the project is still undergoing traffic signal timing refinements, no updated level of service measurement has been calculated (Joseph Avila, City of Sunnyvale Public Works, pers. comm.)

None of the conditions in the setting have changed substantially from those described in the EIR.

2. Impacts

The redesigned project would generate less traffic because the waste flows coming into the station are expected to be substantially less (see Project Description). Rather than having a design capacity of 2200 tons/day, the redesigned SMaRT Station would have a capacity of 1500 tons/day. This results in approximately a 32% reduction in the station capacity which would result in approximately a 32% reduction in project related traffic.

Table IV-6 in the Draft EIR estimated traffic volumes to the SMaRT Station to be 1832 round-trips (in and out) per day, including all franchise collection vehicles, public haul, employee trips, and recoverable materials trips. Traffic associated with the extended service area was estimated to be 182 trips per day. A 32% reduction in traffic volumes would result in 1,246 trips per day, including trips associated with an extended service area, when operating at maximum capacity.

The EIR demonstrated traffic volume sensitivity to recovery rate. Traffic projections in the EIR assumed that 25% of the materials brought to the transfer station are recoverable materials which would be recycled at an off-site location. However, if the recycling rate increased, the amount of trips to the Kirby Canyon Landfill would decrease, but the total number of outgoing garbage trips would increase as transfer trucks can carry more payload than recycled materials trucks.

For example, if the recovery rate dropped to 0%, then the number of Kirby Canyon trips would have increased from 110 to 150 trips, but the total number of outgoing trips would have decreased from 170 to 150. If the recovery rate is increased to 50%, then the number of Kirby Canyon trips would have decreased from 110 to 75, but the total number of outgoing garbage trips would have increased from 170 to 200.

The same sensitivity would hold true for the revised project. While overall traffic volumes from the revised project would be lower than the original project, more traffic would be generated if a 25% recycling rate is achieved than if a 15% recycling rate is done.

The EIR concluded that the project would not have significant traffic impacts because of the project's relatively small impact on traffic volumes and the service levels at the study intersections. The reduction in project related traffic would further reduce the project's contribution to existing and future traffic volumes.

Changes in the on-site circulation pattern are described in II.B.4. The proposed changes in the circulation pattern would not create new traffic safety impacts.

3. Mitigation

Although the project did not have significant adverse traffic impacts, the EIR recommended both on and off-site mitigation measures to further reduce non-significant impacts. These measures are still appropriate for the revised project and should be implemented as adopted. No additional mitigation measures are necessary.

B. PUBLIC SERVICES

1. Setting

The public service setting description presented in the EIR remains unchanged. The SMaRT Station would require 1.5 to 2 megawatts of electricity from Pacific Gas & Electric and approximately 22,000 gallons of water per day from the City. The station would generate approximately 11,000 gallons per day of wastewater which would be directed to the Sunnyvale Water Pollution Control Plant (WPCP). Storm water runoff would be directed to existing stormwater channels west and north of the site. The station would receive police and fire protection from the City of Sunnyvale. The station would require 245 to 505 cubic feet per hour of natural gas (R. Carn, URS, pers. comm.).

2. Impacts

The station's impacts on public service providers remains unchanged. An existing underground electric power line along Caribbean and Borregas Avenue would have to be replaced with a larger cable and service would have to be extended from the WPCP to the SMaRT Station. Replacing the existing cable along Caribbean would have short-term effects on traffic along Caribbean Drive and the extension of Borregas Avenue which serves the landfill and the WPCP.

As discussed above under III.B.3., the washdown water generated by the station would pass through a central interceptor to separate out solids, and oil and grease. The station would also be designed so that additional treatment facilities could be installed at a later time if further treatment of the washdown water is required. The project would not adversely impact the City's water supply, the City Police and Fire Departments, or use excessive capacity at the WPCP.

3. Mitigation

The SMaRT Station would not have potentially significant impacts on public service providers and no mitigation measures were required in the EIR. No mitigation measures are necessary at this time.

C. ENERGY AND RECYCLING

The energy and recycling section of the EIR presented a discussion of the energy used by the project, including changes in transportation-related energy demand due to the project, energy used to operate the station and process waste, and energy requirements associated with recycling. The changes to the SMaRT Station would not result in any substantial change in this discussion.

The SMaRT Station would require energy to process waste, which would partially be offset by an increase in the amount of waste stream that is recycled. There may be a slight increase in energy use required to process and transport recycled materials. While transport of waste to the SMaRT Station may increase energy use, it would present a more energy-efficient solution than direct haul by each city to most regional landfills, and would also provide for recovery of a portion of the waste stream.

The SMaRT Station would not have an adverse impact on energy use.

D. SAFETY AND SEISMIC SAFETY

1. Setting

The EIR presented a discussion of the existing geotechnical environment including, project site soils and groundwater conditions, seismic conditions, potential for landfill gas migration, flood hazard, and the potential for hazardous soil and groundwater conditions. There have been no notable changes in the setting discussions presented in the EIR.

2. Impacts

Foundations/Soil Settlement. Since the EIR was written, it has been determined that the SMaRT Station building would be constructed using a pile foundation. This would require the import of approximately 10,000 to 15,000 cubic yards of clean fill to bring the site elevation to +4 feet NGVD. Site preparation would include excavating the existing fill to -3 feet NGVD, replacing it with engineered fill, and importing fill to raise the elevation of the site. The required earthfill would result in soil settlement of about 1.75 inches. About 15% percent of the settling would occur during site preparation. The remaining settlement is time-dependent and could be accommodated through engineering design so that a waiting period is not necessary.

Slope Stability. A slope stability analysis of the Sunnyvale Landfill was conducted by Dames and Moore (1988). The studies concluded that landfill slopes no steeper than 2.75:1 would be stable for both static and seismically induced loading conditions. The previous SMaRT Station design called for the excavation of refuse from the Sunnyvale Landfill and regrading to 2:1 and 3:1 slopes. The revised project is smaller in size, but would require more excavation on the south side of the project site and no excavation on the east side of the site. The regraded landfill slopes would have 2.75:1 slope (Paul Fisher, pers. comm.). Thus, the revised project more closely follows the recommendations of the Dames and Moore report.

3. Mitigation

The mitigation measures recommended in the EIR are appropriate for the revised project and should be implemented as adopted. No additional mitigation is required.

E. NOISE

1. Setting

The EIR described the existing noise environment including receptors sensitive to noise and the existing noise sources around the project site. Sensitive receptors include residential areas south of Highway 237, users of the Twin Creeks Softball Facility, and users of the Baylands Park and levees north of the project. The number and location of sensitive receptors has not changed since the EIR was written.

Existing noise sources around the project site include the Raisch Paving Company asphalt/concrete recycling operation, the water pollution control plant adjacent to the site, operations at the Sunnyvale Landfill, and traffic in the adjacent area. The EIR described Raisch asphalt/concrete recycling as being located west of the site. Since the EIR was written, Raisch has moved and is now located east of the site, on a portion of the Sunnyvale Landfill.

Noise measurements taken at five intersections in the project vicinity showed existing traffic noise levels to range from 66.2 dB(A) to 69.6 dB(A) (Table IV-6 in Draft EIR).

2. Impacts

Noise generated by the project would come from two sources: 1) refuse handling equipment inside the facility and 2) project related traffic.

The noise impacts described in the EIR generally remain the same. Since typical transfer station noises are not generally compatible with a recreational setting, the EIR stated that users of the levees north of the site and visitors to the future park created when the Sunnyvale Landfill closes would be adversely affected by noise in the localized area around the station.

Since the modified project is smaller in size and would be receiving substantially less waste than originally estimated, the overall noise impacts associated with the station may be slightly reduced. However, the reduction in noise generated at the station would not significantly reduce the adverse noise impacts to recreationalists.

The station building has been redesigned so that the commercial tipping area is now on the north side of the building, rather than on the east side. The public buy back area has been moved from inside the station building to outside the station. In addition, the wood and yard waste processing area has been moved from being located in a separate building east of the main station to being located in an adjoining area on the north side of the building (see Revised Project Description).

These changes in building design would redirect some of the station noise more towards the north since noise would escape from the station

building through open doors in the commercial tipping area and noise from wood and yard waste processing would be moved from the east side of the site to the north side. Recreational users of the levees north of the site would likely hear more noise from the station.

The number and types of noise producing activities and equipment have not changed.

Noise impacts from project related traffic on and off site would be slightly less, and the noise impact at Kirby Canyon would be slightly less because less refuse would be sent to the landfill for disposal.

3. Mitigation

The mitigation measures recommended in the EIR are still appropriate for the revised SMaRT Station project. No additional mitigation measures are necessary.

F. AIR QUALITY

1. Setting

The EIR described the climate and air quality conditions for the region and the results of an Air Solid Waste Assessment Test (ASWAT) conducted for the Sunnyvale Landfill. Air quality conditions in the project vicinity have not changed from those discussed in the EIR.

2. Impacts

The EIR stated that except for short-term, localized impacts of construction dust, the project would not pose any potentially significant air quality impacts. The reduction in the waste volume handled at the station would slightly reduce air emissions associated with the project but would not significantly change air quality impacts from those presented in the EIR.

The four main sources of criteria air pollutant emissions from the proposed project are SMaRT Station site construction, transportation, SMaRT Station operations, and expanded Kirby Canyon Landfill operations. All sources would emit fine particulates (PM_{10}), carbon monoxide, nitrogen dioxide, and sulfur dioxide. The smaller project would result in less air emissions from all aspects of project operations.

3. Mitigation

The mitigation measures recommended in the EIR are still appropriate and no additional mitigation measures are needed.

G. WILDLIFE

1. Setting

The project site is next to San Francisco Bay, and wetlands and open water habitat are north of the project. The EIR addressed concerns regarding SMaRT Station impacts to wildlife in the adjacent baylands habitat and also at the Kirby Canyon Landfill. The setting has not changed significantly.

2. Impacts

The proposed changes to the SMaRT Station project would not alter the potential biological impacts described in the EIR. The EIR stated that station operations may indirectly affect the quality of habitat in adjacent areas but that impacts are considered to be reduced to non-significant with planned operations and mitigation measures.

3. Mitigation

The proposed changes to the SMaRT Station would not require changes to the mitigation measures presented in the EIR. No additional mitigation measures are required.

H. AESTHETICS

1. Setting

The EIR described the surrounding land uses, site conditions, identified nearby sensitive receptors and described the aesthetic conditions at Kirby Canyon Landfill.

Since the EIR was written, the Raisch asphalt/concrete recycling operation has moved from the western module of the Sunnyvale Landfill to the top of the eastern module. A small portion of the operation is visible from Caribbean Drive through gaps in the tall eucalyptus trees lining the road (stockpile of processed material). Trucks traveling on top of the landfill module are visible from the Twin Creeks Softball facility, but no other portion of the operation is visible.

At the time the EIR was written, the City of Sunnyvale was in the process of designing the future Sunnyvale Baylands Park, which was identified as a sensitive receptor. Construction for the park is now under way. Portions of the park have been cleared for development with picnic areas, turf fields, and boardwalk trails.

2. Impacts

Changes in the building design have resulted in:

- o a smaller project site (9 acres vs. 10 acres);
- o a smaller building (111,550 vs. 128,000 sq ft);
- o elimination of the separate wood and yard waste building and movement of that process to the north side of the station building;
- o creation of a separate, outside area for public buyback;
- o movement of the commercial tipping area from the east side of the building to the north side; and
- o movement of the transfer trailer truck loading area from the north side of the building to the east side.

The station building would still be 45 feet at its highest point and have a steel-framed structure with steel roof panels and siding. Concrete or masonry walls would be used as necessary for support and to provide architectural enhancement of the building exterior.

The parking area for transfer trailers would still be located on top of the east module of the landfill.

As a result of the changes in the building design, the commercial tipping area would be on the north side of the building. This portion of the building would be open during operating hours so that trucks could access the tipping floor. The wood and yard waste processing would also be located on the north side of the building. However, access to this enclosed area would be from the east and west sides and not from the north.

Station design and mitigation calls for a screening fence and landscaping trees along the northern side of the site. This fence would be tall enough to screen ground level activities and would block views into the station.

3. Mitigation

The EIR stated that there is no feasible mitigation which would reduce the visual impact to recreationalists to non-significant. However, the EIR recommended the construction of a screening fence and planting of trees along the northern boundary of the site to screen views of the station from recreationalists north of the project. This mitigation continues to be necessary. Implementation of this mitigation means that the aesthetic impacts of the reconfigured station would be no worse than those of the original station design.

I. NUISANCE

1. Setting

The nuisance section described local receptors sensitive to nuisance impacts, including the office/industrial park, Sunnyvale Baylands Park, Twin Creeks Softball facility, levees north of the site, and Sunnyvale Landfill when it becomes a park. The number and location of sensitive receptors has not changed since the EIR.

2. Impacts

The revised project design calls for the wood and yard waste processing to be attached to the north side of the station building. A 2-hour fire rated wall would be constructed between the wood waste processing area and the main station building to reduce the fire hazard due to the proximity of the wood processing area to other portions of the station building.

There would be no change in other nuisance categories such as vectors, odor, light and glare, or dust as described in the EIR.

3. Mitigation

The EIR described mitigation measures to reduce nuisance impacts to non-significant. These mitigation measures are still appropriate and should be implemented as adopted. No additional mitigation is necessary.

V. ALTERNATIVES

The analysis of alternatives described in the EIR presented a range of reasonable alternatives to the proposed project, or to its location, that could feasibly attain the project's objectives. The alternatives which were considered were: 1) No Project; 2) an alternative transfer station site; and 3) an alternative landfill site.

The modifications in the project design would not alter the alternatives analysis presented in the EIR. No additional alternatives need to be considered at this time as no new feasible alternatives have become apparent. There has not been a change in circumstances which would make one of the alternatives previously considered the environmentally preferred alternative. The environmentally preferred alternative is the proposed project primarily because of the reduction in traffic over direct-haul and potential for increased recycling.

VI. CEQA ISSUES

The EIR provided an analysis of the project's relationship between short-term versus long-term use of man's environment, the project's significant irreversible environmental changes, and growth-inducing impacts. The proposed modifications to the SMaRT Station would not substantially alter this analysis.

The EIR determined that the SMaRT Station would not be growth-inducing because it would not affect the rate of population growth or solid-waste generating patterns. However, the EIR noted that the 1.1% growth in waste stream used by the cities' contractor to design the throughput of the station, was probably an overestimate of the actual rate of growth in the waste stream.

As described in II.B.1, Revised Project Description, the Cities have determined that this 1.1% growth rate is an overestimate of actual growth in Sunnyvale, Mountain View, and Palo Alto which in the past has averaged well under 1% per year. The revised station capacity (1500 tons/day vs original 2200 tons/day) reflects a small increase in the waste stream due to growth, but also assumes a decrease in waste generation due to the implementation of the Cities' adopted Source Reduction and Recycling Elements required under AB 939. The original conclusion that the SMaRT Station would not be growth-inducing remains unchanged.

VII. PERSONS CONSULTED

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