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CLAREMONT MCKENNA COLLEGE

**REGIONAL SOLID WASTE  
MANAGEMENT IN SOUTHERN CALIFORNIA  
FOR THE NEW MILLENIUM**

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## **I. Introduction**

This report examines major solid waste management issues in southern California, directing particular attention to the two key waste-generating jurisdictions -- the City and County of Los Angeles. It reviews the region's history of waste management, and it explores the role and viability of potential waste-to-energy, waste-by-rail, and new or expanded landfill disposal projects for the region, as well as the technical and political interplay among these options. Based on information contained in official records and the reports and publications of responsible agencies and private promoters of waste-by-rail projects, it addresses three important questions:

1. What happened to the disposal "crisis" once predicted for the region and how serious is the problem now?
2. What is the status of the once-promising option of waste-by-rail, especially as it relates to new or expanded landfill projects in the urbanized areas of the region?
3. From a public-policy perspective, what needs to be done now?

## **A. Background**

Until two decades ago, responsible solid waste management agencies, encouraged by the policies and directives of local elected officials in Los Angeles City and County, actively considered waste incineration for the region as a principal means for dealing with both the anticipated reduction of landfill capacity and the increasing difficulties and delays in obtaining

permits for new landfill capacity. In the early 1980s, however, several waste-to-energy projects in the southern California region (and particularly in Los Angeles County itself) began undergoing permit review. Two relatively minor waste-to-energy projects were, in fact, approved: one in the City of Commerce and the other in Long Beach. However, several other major public and private incineration proposals became the focus of intense public opposition and, due primarily to their perceived adverse impacts on air quality, were ultimately abandoned by their proponents.

Left without viable waste-to-energy options, local public officials and related waste management agencies began to investigate the feasibility of relying on potential waste-disposal capacity in areas outside of the jurisdiction of the city or county. These efforts were led by a coalition of cities in the San Gabriel Valley -- a region of Los Angeles County perceived by its community leaders as suffering a disproportionate share of the burden of waste disposal because of the large number of landfills located in a relatively-speaking small part of the County. Their work culminated in early 1989 in a Request For Proposals (RFP) issued by the Sanitation Districts of Los Angeles County for specific ideas and projects to facilitate the initiation of a waste-by-rail system for the region. Among the proposals submitted by firms in response to the RFP, two were "shortlisted": the Eagle Mountain Project, proposed by Mine Reclamation Corporation for a disposal site in eastern Riverside County; and the RailCycle Project, proposed by a joint venture of Waste Management, Inc. and the Santa Fe Railroad for a site in eastern San Bernardino County. Subsequent considerations by the Sanitation Districts recognized a third proposal, the Mesquite Landfill, a joint venture of Goldfields Mining Company, Western Waste Industries, and the Southern Pacific Railroad, located at a site near the Salton Sea in Imperial

County. A joint powers authority was formed among the San Gabriel Valley cities to facilitate initiation of a waste-by-rail project to be selected from a competitive bidding process.

**B. The Impact of AB 939**

That same year, the California Legislature enacted AB 939, the California Integrated Waste Management Act of 1989. The Act contained mandates for radically increasing the amount of solid waste Californians would have to recycle and reuse and thus divert from the regions' landfills. In brief, the statute required that each municipality of the State divert 25% of its waste from landfills by 1995 and 50% by the year 2000; it also expressly restricted or limited consideration of waste-to-energy alternatives (so-called "transformation") to meet the mandates. Waste-to-energy, once perceived as a key to the future needs of the region, and despite its ability to dramatically reduce the amount of residual materials ultimately required to be landfilled, under the new law would not now be able to receive "credit" in a recycling or diversion context and would have no more status under the statute than that of a new landfill, and waste-to-energy capacity, were specifically required to be planned for as part of new county-wide solid waste management planning efforts mandated by the law. Under AB 939, such plans are mandated to include provision for adequate disposal capacity for at least fifteen (15) years of projected need.

The effects of AB 939's startlingly rigid mandates were unknown, as they were untested by time and experience either in California or elsewhere. To complicate matters further, governmental estimates of waste generation, based upon the performance of the local economy at the time and on projections of significant population increases in the region, predicted an impending crisis – in a matter of a few years at best – concerning the availability of sufficient

landfill disposal capacity. (This crisis could not be averted by meeting the rigid diversion mandates of AB 939, as these governmental estimates were already based on the assumption that these mandates would be met.) As a result, the Sanitation Districts of Los Angeles County began publication of “Time To Crisis,” which was regularly updated and made a routine part of their efforts to permit an expansion of the Puente Hills Landfill -- once considered as merely an alternative to the installation of several waste-to-energy facilities for the region.

### **C. The Promise of Waste-by- Rail**

Waste-by-rail options now began to figure more prominently in the region’s plans. Environmental groups and jurisdictions as diverse as the City of Santa Clarita and the community of Granada Hills in the San Fernando Valley began to trumpet the virtues of waste-by-rail for the region as integral to their efforts to oppose plans for new and expanded landfills in the area. San Diego County solicited proposals for waste-by-rail (and long-haul via transport truck) as well.

At about this period in time, in 1991, comprehensive national regulatory standards for new and existing landfills were also emerging from the United States Environmental Protection Agency (EPA). These comprehensive siting, construction, and operational regulatory requirements adopted under the authority of Subtitle D to the Resource Recovery and Conservation Act (RCRA), would dramatically impact the economics and permit requirements for new and expanded landfills. While California already had in place a regulatory program that was functionally equivalent to the new RCRA standards, the new EPA standards nevertheless imposed substantial new requirements for landfill permits, especially with regard to financial

assurance requirements and the application of the new regulatory standards to municipally owned and operated landfills. Landfills not capable of meeting the new requirements were required to close, and many did. In addition, landfills that closed now had to meet strict closure and postclosure operational and financial assurance requirements, placing financial burdens on waste management facilities and operations that remained open or were to be newly-sited. New resources that could have addressed the potential crisis of inadequate disposal capacity for the region had to be dedicated to the proper closure and maintenance of old facilities.

It was in this environment that in 1989, the Rose Institute of State and Local Government of Claremont McKenna College (CMC) hosted a full-day conference at the College entitled "Trash 2000." The conference provided an opportunity for leaders in the public and private sectors to discuss and debate issues related to regional solid waste management for southern California. By the end of the conference, two unavoidable conclusions echoed among its participants: (1) the region would need new, state-of-the-art, regional landfill disposal capacity well before the next millennium to address a critical shortage of environmentally sound waste disposal capacity; and (2) this need, in turn, could be met by the successful permitting and approval of at least one waste-by-rail project in the region -- projects encouraged by the active joint involvement of the many local governments in the region.

By the end of 1998, however, no waste-by-rail project is operating and accepting solid waste in the region. Despite predictions that a landfill disposal crisis for the region would occur as early as 1992, no landfill disposal crisis is being experienced, and, in fact, excess disposal capacity and stabilized disposal rates exist instead. In some jurisdictions, disposal rates have

even been reduced. Orange County has become a significant importer of wastes to its county-owned landfills and, because of the dynamic economics of waste disposal in the region, sees a significant amount of waste generated within its borders exported to other counties. Remarkably, this overall situation exists despite the fact that three major landfills, BKK Landfill in the City of West Covina, Lopez Canyon Landfill in the City of Los Angeles, and the Azusa Land Reclamation Landfill in the City of Azusa, which had operated in the region ten years ago, are now closed. No local agency is publishing “Time To Crisis” as part of its plans and priorities.

What happened to the predicted disposal crisis? To waste-by-rail? Does it have a future?

## **II. Municipal Solid Waste Management in Los Angeles City and County - Early History and Overview<sup>1</sup>**

The City of Los Angeles recognized early the importance of formally addressing potential problems related to solid waste by letting a contract in 1902 for the collection of organic garbage in the City. While combustible rubbish was generally burned in backyard incinerators, as early as 1912, the City contracted with a private rubbish collector to collect and dispose of waste that was neither organic nor combustible. Refuse not burned or recycled was landfilled on open land close to settled areas. As the residential areas of Los Angeles grew, refuse increasingly was disposed of in more remote areas; refuse collection was motorized in 1915, permitting for even more remote disposal. The move to seek disposal in areas remote from

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<sup>1</sup> The authors of this report utilized the work of Adam Diamond, “What a Waste: A History of Solid Waste Management in Los Angeles” as support for this section.

urban development has become what Adam Diamond has called a “never-ending struggle” as the Los Angeles region spread out farther and farther into previously agricultural areas.<sup>2</sup>

While the City of Los Angeles was once the only population center of the region, the County of Los Angeles has emerged over time as another major population center and has become *the* “player” in regional waste management issues, largely through the comprehensive activities of the County’s Sanitation Districts. Thus, key to the governance of matters related to the management of solid wastes (as well as wastewater discharges and sewage) in Los Angeles County is the County Sanitation Districts of Los Angeles County (LACSD).

The LACSD is a confederation of 27 independent districts serving the wastewater and solid waste management needs of over five million people. Its Board of Directors is comprised of the mayors of some 80 cities within the Sanitation Districts’ boundaries as well as the chairperson of the Los Angeles County Board of Supervisors who represents the unincorporated areas of the County within the District’s boundaries. Approximately one-half of the Sanitation Districts constituting the LACSD entered into a Joint Refuse Transfer and Disposal System Agreement to finance and operate solid-waste management facilities in the region, with Sanitation District No. 2 acting as the administrative district. District No. 2, in turn, is governed by a Board of Directors from 20 cities and also includes the chair of the L.A. County Board of Supervisors. The solid-waste facilities currently operated by the LACSD include four active landfills, two recycling centers, a transfer station, a refuse-to-energy facility, and three landfill gas-to-energy plants. The LACSD also continues to maintain two completed and closed landfills. It owns both the Puente Hills Landfill in Hacienda Heights in eastern Los Angeles

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<sup>2</sup> *Ibid.*



County and the transfer station in South Gate. It also operates other facilities on land owned by other public agencies, including the County of Los Angeles, the City of Glendale, and California State Polytechnic University in Pomona.

Beginning in the 1920s, organic wastes from most of Los Angeles County cities were hauled on large gondola railroad cars to hog farms in eastern Los Angeles County; it was even shipped to San Bernardino County, generating significant revenues from such disposal for the cities involved. Ironically, long before the enactment of AB 939 and its recycling mandates, the City of Los Angeles had implemented a waste separation and reuse program, requiring homeowners to set out three different cans each week -- one for noncombustibles, one for organics, and one for the ash from backyard incinerators -- assisting the nation's efforts to conserve resources during World War II. By the early 1950s, following the lead of Los Angeles, 21 cities in the county had initiated municipal waste collection systems. Thirteen more contracted with third parties for the services. As part of the post-war boom, the region began to experience increasing problems with air quality. Open burning of refuse at some fifty landfills in Los Angeles County alone,<sup>3</sup> along with the continued use of backyard incinerators, exacerbated the problem, leading the Los Angeles County Board of Supervisors in 1948 to ban open burning at landfills. In 1955, the Air Pollution District for Los Angeles County banned the use of all backyard burners but allowed local cities until 1957 to establish collection systems and practices. This resulted in a one-third increase in the amount of waste in the region that needed to be disposed and, in turn, led to an increased use of "cut-and-fill" landfilling and to an increased

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<sup>3</sup> Interview with Ben Kazarian, Jr., Chairman of the BKK Corporation. The BKK Corporation was the operator of numerous county landfills in the 1940s and 1950s.

dependence generally on land disposal of solid wastes. Thus, the County Board of Supervisors worked with the County Sanitation Districts to open five new landfills in the region.

Compounding the problem, concerns in the 1950s over the adverse public health consequences of utilizing hog farms for the disposal of organic wastes led to their extinction by the early 1960s, and to an increased dependence on the use of in-house waste grinders and disposers. At the same time, with the resource-preservation attitudes of the War years no longer prevalent, the practice of separating refuse began to decline by the mid-1950s. While metals separation remained the practice in Los Angeles City, it became a primary campaign election issue in the 1961 mayoral election. Mayoral candidate Sam Yorty campaigned successfully on the promise that, if elected, he would end the city requirements for separation of refuse. He accused his opponent, the incumbent Norris Poulson, of “*forcing Los Angeles housewives to perform coolie labor for a salvage firm.*”<sup>4</sup> True to his promise, Yorty implemented a combined collection of refuse in 1964.

Thus, by the early 1960s, a region once dependent on source separation, resource recycling, open burning of combustibles, and the reuse of organic wastes for livestock feed was reduced to one primary option -- landfilling. While a few communities in the region flirted with establishing waste-to-energy facilities to deal with their own wastes, no significant shift to that technology and away from landfilling occurred. Landfills became the primary method of disposal pursued for the region until the early to mid-1980s.

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<sup>4</sup> John C. Bollens and Grant B. Beyer, *Yorty: Politics of a Constant Candidate* (Los Angeles: Pallisades Publishers,

### **III. The Emergence of Waste-To-Energy as a Disposal Option**

#### **A. Evolution of the Plan**

By the late 1970s, expansion of existing landfills in the region as well as efforts to site new landfills was met with substantial public opposition. Opposition was mounted against the continued use by the Sanitation Districts of a landfill in Mission Canyon near Brentwood and Bel Air; to its siting of new landfills at Toyon Canyon in Griffith Park and La Tuna Canyon; and to its expansion of the Puente Hills Landfill in Hacienda Heights. With two principal landfills in the region serving the needs of Los Angeles City scheduled to reach capacity in the mid-1980s, other alternatives needed to be considered. The focus began to shift towards consideration of large waste-to-energy plants to address the problems; more specifically, this new debate centered on the continued operation of the Puente Hills Landfill.

The Puente Hills Landfill, located in eastern Los Angeles County, is the largest landfill in the region, accepting up to 13,200 ton per day of rubbish. In 1983, the Los Angeles County Regional Planning Zoning Board held three hearings on a land use permit to allow the expansion and continued operation of the landfill. California State Senator William Campbell of Hacienda Heights, opposed the expansion and, instead, proposed a statewide program to divert wastes from landfills.<sup>5</sup> The three key elements of his program were:

- state funding for waste-to-energy facilities;

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1973). Of course, less than thirty years later, recycling would again become prevalent with the passage of AB 939.

- waste reduction through various recycling programs, and
- the formation of a commission on waste management.

The Regional Planning Zoning Board supported the implementation of the Senator's program and, at one point, even suggested that any permit for the expansion of the landfill be expressly limited on the basis that the program would become reality. However, it was also recognized that such an ambitious program would not come to fruition in the next ten years, and that recycling could not, in any event, replace the need for an expansion to Puente Hills.

For this reason, in July of 1983, the Los Angeles County Department of Regional Planning issued a Conditional Use Permit to allow the continued operation and expansion of the Puente Hills Landfill for a period of ten years. While many of the findings contained in the approval directed the LACSD to explore waste-diversion programs, a key directive was to "divert waste from landfill disposal through development of refuse-to-energy facilities."<sup>6</sup> In addition, the LACSD was required to make a best faith effort to expand existing waste diversion programs and to assist state and local agencies with development of their own waste diversion programs. Specifically, Condition 23 of the permit states that these programs were to include but not be limited to:

- The implementation of refuse-to-energy projects, including cooperative efforts with other agencies;
- Operation and, where warranted, expansion of recycle centers;

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<sup>5</sup> William Campbell, "Solving the Garbage Crisis in California," 1983.

<sup>6</sup> Conditional Use permit 2235-1.

- Continuation and expansion of efforts to bring together suppliers and consumers of recyclable materials that would otherwise be placed in landfills;
- Encouragement of the expansion of industrial facilities capable of handling recyclable materials;
- Provision of technical assistance to the County and cities on curbside source separation;
- Promotion of appropriate legislation for funding of waste diversion programs and projects, including but not limited to refuse-to-energy projects.

At about the same time, the California Waste Management Board recommended that fifty percent of the state's wastes be processed by refuse-to-energy by the year 2000. The California Energy Commission likewise signaled its initial support for this concept. The 1984 and 1986 updates to the County Solid Waste Management Plan for Los Angeles County, approved by the County Board of Supervisors and by a majority of the cities in the County having a majority of the population of the County, reflected this direct shift in fundamental policy. Thus, an array of waste-to-energy projects began to emerge in the region. By the end of 1983, the LACSD was in varying stages of planning and designing six refuse-to-energy facilities capable of handling from 6,700 to 13,700 tons/day of municipal waste -- or up to approximately forty percent of the total amount of wastes being disposed of at landfills in the county, excluding wastes from the City of Los Angeles. These facilities were:

- a 350 ton/day facility in the City of Commerce;
- a 1.350 ton/day facility in the City of Long Beach (South East Resource Recovery Facility or "SERRF");

- a 2,000 to 10,000 ton/day facility to be sited at the Puente Hills Landfill;
- a 1,000 ton/day facility at the Spadra Landfill in Pomona/Walnut;
- a 350 ton/day facility in the City of South Gate; and
- a 1,000 ton/day facility to be located in the South Bay area to be known as the Southwest Refuse-to-Energy Facility.

In addition to these LACSD projects, several private projects were also being promoted. In the City of Irwindale, for example, Pacific Waste Management Corporation proposed constructing a 3,000 ton/day facility, and Watson Energy Systems actually had obtained all necessary permits to initiate construction of a 1,500 ton/day facility in Wilmington. Several facilities were also proposed for and within the City of Los Angeles. The so-called LANCER project proposed by the City of Los Angeles was to include three waste-to-energy mass burn facilities with capacities of 1,600 tons/day. They were to be located in South Central Los Angeles, West Los Angeles, and the San Fernando Valley. The first of these to be sited and developed was the facility proposed for South Central Los Angeles. According to one reviewer, the strategy of placing the first incinerator in a predominantly Black and Hispanic neighborhood was that wealthier areas in the San Fernando Valley and on the Westside would find it difficult to oppose future incinerators if a poorer minority area was already hosting one.<sup>7</sup>

To date, however, only two facilities -- Commerce and SERFF -- were ever successfully sited and made operational. What happened? And how did these events lead to alternative considerations for waste disposal in the region?

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<sup>7</sup> Diamond, “What a Waste: A History of Solid Waste Management in Los Angeles.”

## **B. Demise of the Plan**

A waste-to-energy facility to be sited at the Puente Hills Landfill was first proposed in the January 1983 Final Environmental Impact Report (EIR) for the Puente Hills Expansion. In December of 1983, work began on the preparation of a Supplemental Draft Environmental Impact Report (DEIR) for the Puente Hills Refuse-to-Energy Project, proposing a 2,000 to 10,000 ton/day facility. The Supplemental DEIR was released for public review in June of 1984, and a public hearing was held the following August. As a result of that hearing, significant new information regarding air quality was presented and incorporated into a revised DEIR. Technical permits for the project were then pursued by the LACSD.

In March of 1982, the LACSD entered into a joint powers agreement with the City of South Gate to conduct a feasibility study and to prepare necessary environmental documentation for a facility to be located in that city at the District's transfer station. The feasibility study was completed in June of 1983 and a DEIR was prepared the following October and subjected to three public hearings held by the City of South Gate Planning Commission. While the city certified the EIR in May of 1984, the LACSD was subsequently unable to secure a long-term energy contract with Southern California Edison Company, which prevented implementation of the project.

In 1985, construction began on the 350 tons/day refuse-to-energy facility in Commerce. The facility was operational by December of 1986; it was the first successful refuse-to-energy plant to operate in the State and the first in the world to utilize unique state-of-the-art air



pollution control technology that allowed it to comply with the stringent regulations of the South Coast Air Quality Management District (SCAQMD). The facility continues to be operated as a cooperative effort between the City of Commerce and the LACSD.

In 1981, a feasibility study was completed recommending development of a waste-to-energy facility (SERRF) in the City of Long Beach. That May, a DEIR was released by the City of Long Beach with public hearings commencing the next month in June. A final EIR for the project was certified in November of 1981 by the city, and a joint powers agreement between the city and the LACSD was entered into during December of 1984. Construction of the facility began in 1985 and was completed in 1989. Like the Commerce facility, SERRF continues to operate at approximately 1,350 tons/day.

By virtue of an agreement between the LACSD and California State Polytechnic University at Pomona in September of 1983, the Spadra Landfill and Resource Conservation Project were initiated. A DEIR for the project was released to the public in October of 1984, which encompassed a project that included the continued operation of the existing landfill and development of a 1,000-tons/day refuse-to-energy plant. Six public meetings and workshops were held by the LACSD to solicit input on the DEIR. In February of 1985, the LACSD Board of Directors certified the EIR and formally approved the project. Land use permits would be required from both the City of Pomona and Los Angeles County for the project to proceed. In the spring of 1985, the Los Angeles County Planning Commission approved the issuance of a Conditional Use Permit (CUP). One of the conditions of the CUP was that if the refuse-to-energy plant was not developed at the site, the weekly tonnage permitted at the landfill would be

decreased in 1995. Also in the spring of 1985, the City of Pomona Planning Commission approved the issuance of a CUP for the project, and the Pomona City Council approved a finding of consistency with the General Plan for the project in July of that year. The LACSD thereupon filed its applications for a Permit to Construct with the South Coast Air Quality Management District.

As mentioned above, during the time of implementation of these several waste-to-energy projects by the LACSD, the City of Los Angeles was also pursuing its LANCER project. After the decision was made to develop the first of the planned three incinerators in South Central Los Angeles, a group called Concerned Citizens of South Central took the lead in mounting opposition to the project. This group, joined by environmental and community groups from throughout the region, opposed the project on various economic, technical, environmental, and public health grounds. Thus, in early 1987, after four years of planning and development, the City of Los Angeles halted its effort to permit the LANCER project, citing public and political opposition.<sup>8</sup>

Fueled in part by the active opposition and financial support of the Miller Brewing Company over its concerns that the beer produced at its large brewery in Irwindale would be “stigmatized,” a large group of local citizens organized to oppose the waste-to-energy project proposed by Pacific Waste Management. The primary issue of concern was the potential adverse health effects caused by contaminants from the proposed mass-burn technology. Thus, among

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<sup>8</sup> Interestingly, while the concept of “environmental racism” or “environmental justice” was just beginning to be debated throughout the United States, the LANCER project may have been the first project in the Los Angeles area that gave serious attention to invoking what has now become an important national doctrine and concern in the arena

those actively and publicly opposed were leading community physicians and public health professionals.<sup>9</sup> By late 1987, the California Energy Commission terminated the permit process for this controversial project, and it was later abandoned by Pacific Waste Management. More significantly, however, the LACSD would also abandon plans to pursue its projects at Spadra and Puente Hills.

By June of 1987, the Spadra refuse-to-energy facility needed only a Permit to Construct from the SCAQMD to proceed with construction and operation, and it had already received notice from the SCAQMD of its preliminary decision to grant that permit. However, because of the increasing controversy over waste-to-energy facilities in the region,<sup>10</sup> the normal permit process was preempted by the Board of the SCAQMD, which elected to initiate quasi-judicial proceedings as a means of determining whether or not to issue the Permit to Construct. Unfortunately for the project, its power agreement with Southern California Edison required that it initiate operations by the middle of 1991. The permit process pursued by the SCAQMD, which was reflective of the emerging public hostility to the idea of waste-to-energy, portended that the air quality permit process would be long and arduous. In any event, the process would not allow for a timely decision, considering the Edison contract constraint.

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of environmental protection.

<sup>9</sup> Interview with Dr. Forrest Tennant.

<sup>10</sup> While beyond the relevant scope of this report, it should be noted that several other waste-to-energy projects in other jurisdictions in the region (i.e., in San Diego and San Bernardino Counties) also experienced the onset of substantial public opposition to these types of projects that led to the ultimate demise of these prospects as well.

Realizing that the communities surrounding the project no longer supported the concept, Los Angeles County Supervisor Pete Schabarum, a one-time strong vocal supporter of waste-to-energy (but in whose district the Spadra and Puente Hills projects were to operate), asked the LACSD Board of Directors to withdraw the SCAQMD permit application.<sup>11</sup> His request was granted on July 22, 1987, whereupon the LACSD suspended all further efforts to develop waste-to-energy projects, pending the long-term demonstration of technical feasibility that might be afforded by the operation of the Commerce and SERRF facilities. Thus, efforts to find a suitable site for the Southwest Refuse-to-Energy Facility were suspended, along with further development of the proposed facility at Puente Hills.

Thus, the LACSDs' decision to abandon the waste-to-energy project at Spadra, after it had apparently surmounted all of the permit hurdles in the public arena, proved to be pivotal and resulted in the ultimate suspension of all of its waste-to-energy projects. The timing of Spadra's initial permit approvals coincided with a dramatic shift in the political and public sentiment of the region away from waste-to-energy. Approximately twelve million dollars had been spent by the LACSD to develop waste-to-energy facilities pursuant to directives of the political leadership.

### **C. The Policy Focus Shifts**

Directly attributable to the growing public discontent and emerging outright opposition were two significant efforts initiated to evaluate solid-waste management alternatives for the

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<sup>11</sup> Interestingly, even Senator William Campbell, once a proponent of moving rapidly to waste-to-energy in the state opposed the project in a formal letter to the SCAQMD.

region. One was the development of a formal consideration of a waste-by-rail system for the region, discussed next in this report; the other was an unprecedented cooperative effort<sup>12</sup> between the LACSD and the City of Los Angeles Department of Public Works that resulted in a report entitled *Solid Waste Management: Status and Disposal Options in Los Angeles County*. This document reviewed the potential disposal crisis facing the region and outlined feasible management strategies for handling estimated future quantities of wastes. It concluded that if no actions were taken (i.e., if there were no new recycling programs, expansions of existing landfills or development of new landfills in the region), “*a significant portion of the wastestream would have no place for disposal beginning in the early 1990s.*” The report also noted that expansion of existing landfills could take three to five years to permit and that development of a new landfill could take as long as seven years.

In April of 1988, the County Board of Supervisors and the Board of Directors of the LACSD prepared a coordinated Solid Waste Management Action Plan, subsequently endorsed by the Los Angeles City Council in January 1990.<sup>13</sup> Highlights of the Action Plan, which called for a continuation of a balance in the region between private and public waste management

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<sup>12</sup> Historically, there had been a lack of cooperation between the City of Los Angeles and Los Angeles County in the arena of waste management. The reasons, while not clear and perhaps more political than logical, can be explained in the differing ways in which these jurisdictions historically addressed waste disposal, recycling, reuse, and related issues. The “high water marks” of this conflict are reflected in the prohibition on acceptance of any wastes from Los Angeles City at the Puente Hills Landfill as prescribed by the Los Angeles County Board of Supervisors in their 1983 approval of the ten-year Puente Hills Landfill expansion and the conflict over the re-permitting of BFI’s Sunshine Canyon landfill in Granada Hills which “straddles” the jurisdictional borders of the City and County. This facility, having filled its available disposal capacity of that portion of the Landfill situated within the City limit, was vehemently opposed by the City for expansion into the County portion of the Landfill’s property. These expansion plans, targeted for 1991 were effectively tied up in litigation for years. Only relatively recently, in 1996, was an agreement finally reached between the City and BFI allowing the landfill to expand into the new acreage - perhaps reflective of the closure of the Lopez Canyon Landfill in 1997 which had accepted only Los Angeles City wastes. The Sunshine Canyon Landfill now receives a substantial amount of wastes from the City.

<sup>13</sup> LACSD Report on Waste-by-Rail and Recommendations of the Ad Hoc Committee, May 1991.

operations, included:

- The maximization of recycling county-wide, including source-separation programs and green-waste composting,
- Support for expansion of existing landfills to the maximum extent environmentally feasible,
- Development of fifty years of new disposal capacity under public control, and
- Initiation of environmental studies on six potential new landfill sites in the county.

On October 31, 1991, the California Integrated Waste Management Board (CIWMB) passed a resolution that acknowledged the continuing need to ensure landfill capacity and recognized that a shortage of such capacity exists in Los Angeles County.<sup>14</sup> To help achieve the goal of securing fifty years of disposal capacity,<sup>15</sup> the LACSD board approved in February of 1992 the recommendation of an *ad hoc* committee of directors and city managers that a waste-by-rail system for the region be implemented within five years. It also approved the development of potential new in-county landfill capacity at Mission, Rustic, and Sullivan Canyon sites that had long been reflected in the county's planning efforts.<sup>16</sup> The stage was thus set to implement the concept of waste-by-rail for the region.

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<sup>14</sup> Draft EIR, Puente Hills Waste Management Facilities, June, 1992.

<sup>15</sup> It should be noted that AB 939 requires each county, in its Integrated Waste Management Siting Element, to demonstrate 15 years of disposal capacity. Los Angeles County had chosen to expand this requirement for its own waste management and public works planning purposes.

<sup>16</sup> However, on November 11, 1996, the Los Angeles County Public Works Department, facing severe opposition to locating any landfill in these areas, announced that it was no longer considering them in long-range county plans.

#### **IV. The Emergence of Waste-By-Rail as a Solution for the Region**

As discussed above, by late 1987, waste-to-energy, once proclaimed and pursued as a solution to the emerging landfill disposal crisis for southern California was all but “dead.” The Puente Hills Landfill, operated by the LACSD and the largest land-disposal facility in the region, was facing a 1993 expiration date for its land use permit -- a relatively short period of time considering the lengthy processes involved in securing permits to expand it. Waste-by-rail -- the effort to seek waste-disposal capacity in areas more remote from the ever-increasing urban “spread” of Los Angeles -- had become the conceptual focus of waste managers in the region. But it was now time for waste-by-rail to move from the concept stage to serious and formal consideration. Furthermore, many of the community and political opponents of waste-to-energy were becoming active proponents of waste-by-rail, thus further energizing the concept as a viable alternative.

##### **A. Significant Factors in the Emergence of the Waste-by-Rail Solution**

To explain fully why waste-by-rail emerged as a solution for the waste disposal problems of the region, several important factors and developments, other than the emerging opposition to waste-to-energy need to be recognized. They are:

1. The designation of the San Gabriel Valley aquifer as a “superfund” site under the Federal Comprehensive Environmental Response, Containment and Liability Law.
2. The evacuation of homes near the BKK Landfill in West Covina in the summer of 1984.

3. The promulgation of comprehensive regulations controlling the siting, design, and operation of solid waste landfills under the Resource Conservation and Recovery Act.
4. The enactment of AB 939, the California Integrated Waste Management Act of 1989.
5. Litigation and controversy over the expansion and continued operation of the Azusa Land Reclamation Landfill in the City of Azusa.
6. Plans for a major expansion of the Puente Hills Landfill to avoid expiration of its 1993 Conditional Use Permit.
7. The implementation of a waste-by-rail system in Oregon for refuse from the cities of Portland Oregon, and Seattle, Washington.
8. Air quality in the South Coast Basin

Each of these factors is discussed below.

**1. The San Gabriel Valley Superfund.** In 1979, volatile organic compounds (VOCs) were first detected in drinking water wells in the City of Azusa. In response to this discovery, the California Department of Health Services initiated a well-sampling program to assess the extent of potential contamination in the basin -- the San Gabriel Valley Aquifer -- which supplies drinking water to over one million persons. By 1984, 59 of some 400 water supply wells in the basin were found to be contaminated with high levels of VOCs. Hundreds of individual facilities in the area were identified as potentially contributing to the contamination in the basin. An area encompassing some 170 square miles in the San Gabriel Valley was subsequently listed on the United States Environmental Protection Agency's National Priority List and identified as a



“superfund” site. The basin was subsequently broken down into four individual superfund sites to facilitate management of cleanup-legal actions against the parties responsible for the contamination. While no solid waste landfill, *per se*, was identified as a primary reason for the superfund status designation for the San Gabriel Valley aquifer, debate over the contamination of many drinking water wells in the region helped “sensitize” the residents of eastern Los Angeles County to issues pertaining to water quality in the region, especially as they related to landfill expansion and development. Controversies concerning several landfills in the region helped keep public attention on perceived “negatives” involving the continued disposal of wastes in the region.

**2. Evacuation of Homes Near the BKK Landfill.** In the summer of 1984, several homes surrounding the BKK Landfill in West Covina were evacuated by order of several regulatory agencies because of a leak from the landfill of landfill gas into the surrounding community. While the leak was repaired in a matter of a few hours, the incident ignited a community uproar over the continued operation of the landfill, which had also accepted liquid hazardous wastes in addition to municipal rubbish. In response to public concerns, BKK voluntarily discontinued acceptance of hazardous wastes by the end of that year. However, the continuing uproar over the incident led the BKK Corporation and the City of West Covina to enter into a Memorandum of Understanding (MOU) in which the parties agreed to transition the landfill away from waste disposal and toward other commercial uses of the landfill properties within ten years. The MOU was executed with much publicity by the mayor of West Covina, Dr. Forest Tennant, who would later play a major role in opposing the waste-to-energy facilities proposed for the San Gabriel Valley. Dr. Tennant, members of the City Council, and the city itself would later interpret the

MOU to be a legally binding “closure agreement” requiring the landfill to cease operations within ten years (by the end of 1995) whether or not alternative commercial uses for the land had been developed.<sup>17</sup>

4. **Promulgation of National Landfill Standards.** In the late 1980s, substantial amendments to regulations controlling the siting, operation, and related financial assurance requirements for existing, new, and expanded landfills were promulgated by the United States Environmental Protection Agency. In October of 1991, comprehensive regulations were finally promulgated. These regulations adopted restrictive standards for the siting of new landfills or **lateral expansions of existing** landfills near airports, in flood plains or wetlands, and at or near seismically active areas. In addition, the regulations placed a “sunset” on the operation of landfills which could not meet the new and highly-restrictive design standards, requiring such facilities either to cease operations by no later than April of 1994 or to achieve compliance with the standards. The immediate effect of these regulations was to increase dramatically both the complexity and costs associated with landfilling by imposing new requirements for complex liner design, gas collection and retention, and financial assurances. While California had, for some time, led the nation with its own rigorous permit requirements, the federal overlay of rules and regulations further complicated the area and, for the first time, made it clear

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<sup>17</sup> This dispute led to substantial litigation between the City of West Covina and BKK Corporation beginning in 1993 with a lawsuit filed by the City against the Company to enforce the MOU as a “closure agreement.” In early 1996, the parties settled the lawsuit with BKK agreeing to cease landfill operations in September of 1996. Up until that time, the landfill had been one of the major disposal sites in the County, taking in as much as 13,200 tons/day at the time it ceased operations.

that even municipal landfills would have to “play by the same rules” that were increasingly being imposed upon private facilities.

The preamble to the regulations specifically acknowledged and recognized a move towards “regionalization” of landfill facilities and further recognized that such regionalization, in turn, would likely mitigate against the economic impacts of the regulations themselves. Unfortunately, the new regulations would not achieve all of their potential for expediting the closure of older unlined landfills and the emergence of new fully lined landfills, since, in actual application, **vertical expansions** of existing permitted landfills in many cases would not have to meet the new composite liner requirements. Nevertheless, the fundamental policy shift was an important factor leading to the waste-by-rail debate. Issues related to the shortcomings of the impact of the regulations will be further addressed later in this report.

**4. AB 939.** As mentioned above, one of the most significant developments of the period concerning solid waste was the enactment in 1989 of AB 939, the California Integrated Waste Management Act. The Act fundamentally changed the priorities and principles of waste management in California from disposal to reuse and recycling. It required local governments to establish waste reduction plans which would ensure that reduction in wastes being generated by 25% by 1995 and 50% by the year 2000. Because of the dramatic change in solid waste management policies brought on by the Act, municipalities would be required to expend even more substantial resources in efforts involving solid wastes that did not include the prior primary focus of securing new or expanded landfill disposal capacity. These efforts would include preparation of detailed waste characterization studies, new long-range planning, and a

commitment to new recycling initiatives. The statute imposed penalties of up to \$10,000 per day for non-compliance with its mandates. With the demise of waste-to-energy in the region, because of its emphasis on enhanced recycling and diversion, AB 939 would have seemed to provide a respite in the search for landfill disposal capacity in the region. However, even assuming that the ambitious recycling goals of AB 939 would be met, southern California was still predicted to face a crisis in disposal capacity by the early to mid-1990s. And, in any event, the statute's mandates for preparation of long range plans require that each County plan for a minimum of fifteen (15) years of waste disposal needs. Thus, with its emphasis on increasing waste recycling and reuse, AB 939 incidentally assisted the concept of waste-by-rail by encouraging the development of "material recovery facilities" (MRF) to enhance efforts to separate recyclables and required jurisdictions to seriously plan for long-term waste disposal needs. Since any waste-by-rail system would necessarily require the use of waste transfer/loading stations at which wastes would be containerized and loaded onto trains, such facilities could also be designed as MRFs, thus enhancing recycling efforts as part of the necessary transport and loading process. Furthermore, under AB 939 county integrated waste management plans are expressly allowed to consider out-of-county disposal options as part of planning efforts needed to secure 15 years of disposal capacity.

**5. Azusa Western Landfill.**<sup>18</sup> San Gabriel Valley sensitivities concerning waste disposal and the negative perception of landfills in the region would become quite apparent when in late

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<sup>18</sup> While not dealt with in more detail in this report, the issue of noxious gas and liquid releases from the Operating Industries landfill in Monterey Park (adjacent to the Pomona (60) Freeway) and the related litigation by and between "Potentially Responsible Parties" under the state and federal "superfund" laws for its cleanup also, no doubt, sensitized the local public and elected officials to waste disposal matters in the area.

1990 Browning Ferris Industries (BFI) attempted to expand its landfill operations at the Azusa Land Reclamation Landfill.<sup>19</sup> That effort was met by vehement public opposition, as major water purveyors in the region, backed by a vociferous local populace, financed expensive administrative and judicial challenges to the expansion of the landfill -- an expansion that had originally been routinely approved by the relevant permitting agencies. In the face of major local opposition, the Chief Executive Officer and Chairman of BFI, William Ruckelshaus, appeared at a formal regulatory hearing as well as in local communities to vouch for the safety of the landfill's liner design and to promise to invest twenty million dollars in a wellhead water treatment system to assist the cleanup of the San Gabriel Valley's aquifer. The legal challenges, ultimately resolved in the California Supreme Court, successfully blocked the planned expansion of the landfill. Because of the active opposition to this project by the leaders in the San Gabriel Valley, California statutory law was amended to prohibit the development of new or expanded landfill disposal capacity in "sand and gravel" quarries or pits in the San Gabriel Valley (the nature of the site upon which the ALR Landfill was sited). In sand and gravel quarries located outside of the San Gabriel Valley, landfill permitting efforts are required to comply with rigorous special variance procedures before they can be developed, although no outright ban as a matter of state law as exists for the San Gabriel Valley exists for such areas. Later requests in 1995 to allow municipal waste disposal operations in the "old" portion of the landfill received initial

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<sup>19</sup> During the height of the opposition to the Azusa expansion, Dr. Forest Tennant, working with many well-established community organizations in the San Gabriel Valley, coined a description of much of the Valley as the "Pollution Triangle" composed of an area of land bounded by the limits of the Spadra, Puente Hills and Azusa landfills. The "Pollution Triangle", conceptually featured in full-page newspaper advertisements, promoted the idea that the San Gabriel Valley had for too long been the "dumping grounds" for Los Angeles County's wastes and that other alternatives to expanding landfills in this region needed to be implemented.

regulatory agency approval but were again successfully thwarted by the same cadre of opponents that had successfully stopped the expansion several years earlier.<sup>20</sup>

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<sup>20</sup> The landfill was ultimately converted to an “inert” or “unclassified” landfill, allowing for the receipt of such items as construction and demolition debris, asbestos and used shredded tires. BFI sold the landfill to USA Waste Services Corporation in 1997, which has, in turn, merged with Waste Management, Inc.

**6. Puente Hills Landfill Expansion.** As noted above, in the late 1980s, with its plans for waste-to-energy facilities defunct and facing 1993 expiration of its land use permit for the Puente Hills Landfill, the LACSD began planning in earnest for an expansion and twenty-year extension of the operation of the landfill. Waste-by-rail would play a major role in the public debate, discussion, and final approval of these plans. In fact, it can be persuasively argued that the success of the LACSD in extending the Puente Hills Landfill permit and securing an expansion of the Landfill was largely attributable to its embrace of waste-by-rail.

**7. Columbia Ridge Waste-by-Rail.** In January of 1990, the Columbia Ridge Landfill & Recycling Center, some 140 miles east of metropolitan Portland, Oregon, received the first load of Portland municipal rubbish; in April of 1991, the first loads of waste from Seattle, Washington, arrived at that landfill in specially-designed containers hauled to the site by the Union Pacific Railroad. The system continues to this day as an important regional waste disposal facility for the northwest United States. Its well-published success and viability did not go unnoticed in Los Angeles County in general or in the San Gabriel Valley in particular.

**8. South Coast Basin Air Quality.** While for years the Los Angeles Air Basin had the dubious distinction of having the worst air quality in the nation, recent transportation studies by the Southern California Association of Governments (SCAG) (discussed further later in this report) have predicted that the situation will get even worse. This prediction has been based on a combination of factors, but chief among them is the anticipation of substantial population and commercial growth in the region. This growth, leading to increased truck traffic along the

region's freeway and road systems, will result in a negative impact on air quality and will strain a transportation infrastructure already in need of substantial upgrading and improvement. Since an immediate and quantifiable advantage of a waste-by-rail system for the region is its removal of rubbish trucks from the roadways in favor of large unit trains, those who favored waste-by-rail began to argue that substantial air quality benefits could be attained by implementation of waste-by-rail projects. Thus, for example, in California RailFill System, in its published materials addressing the benefits of waste-by-rail (discussed in detail later), noted that each unit waste train could remove the equivalent of 400 trucks per day from the region's roads and freeways. Furthermore, because the air quality at the remote disposal sites was also affected by pollution generated in the Los Angeles Basin, reductions of emissions in the Basin could also result in reduction of air pollution levels at the remote sites. This issue became a focus of discussion and advocacy by the proponents of waste-by-rail. Later environmental documentation for specific waste-by-rail projects would quantify this factor and bear out its validity.

## **B. Waste-By-Rail Emerges as Official Policy in the Region**

### **1. History and Development of the Policy**

Because of the controversy surrounding several waste-to energy projects in the San Gabriel Valley, the "superfund" designation of the region's aquifer, and the political and legal conflicts over BKK and Azusa Western, the San Gabriel Valley was where the "action" was on the debate over solid waste management in the early to mid 1980s.<sup>21</sup> In 1986, the San Gabriel Valley Association of Cities (SGVAC), which was later to evolve into the currently-existing San Gabriel Valley Cities Council of Governments, formed a Solid Waste Task Force.

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<sup>21</sup> The major exception was the "battle" over the LANCER projects in the City of Los Angeles.



Representatives from each city in the valley served on the task force formed to evaluate solid-waste management options for the region. After reviewing a number of potential technologies and options including gasification and pyrolysis, the task force began to focus its efforts on remotely-located landfills served by rail and decided that this potential option should be evaluated further. A feasibility study was contracted between the Task Force and the Southern California Association of Governments (SCAG) in 1987. The study was partially, but significantly, funded by the California Solid Waste Management Board, with additional individual contributions from the task force cities.

The SCAG study was completed in April of 1988 and concluded that the concept of waste-by-rail was indeed feasible and should be pursued further.<sup>22</sup> The study reached the following major conclusions:

- Transportation of solid waste by railroad to remotely-located sites is technically feasible and offers a solution to the disposal crisis projected for the 1990s.
- The cost of waste-by-rail would be significantly higher than disposal options and could raise the monthly cost to homeowners by up to 55%.
- The next logical step would be to designate a lead agency to prepare a Request for Proposals.
- The political feasibility of both siting remote landfills in out-of-county jurisdictions and of siting in-county loading stations is by no means assured.

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<sup>22</sup> The study was entitled “The Feasibility of Hauling Waste by Railroad from the San Gabriel Valley to remote Disposal Sites.”

SGVAC requested that the LACSD serve as a lead agency and provide administrative support to the SGVAC in preparing a Request For Proposals (RFP) to solicit private developers for information concerning potential specific waste-by-rail projects. The LACSD's Board of Directors approved the request in June of 1988 and specified that the scope of the RFP would be limited to the San Gabriel Valley. Thus, the San Gabriel Valley emerged within the region as *the* main "player" in policy development supporting a regional waste-by-rail system for waste disposal.

In late 1988, an RFP was issued by the LACSD entitled "Implementation of a Municipal Solid Waste-by-Rail and Disposal System for Los Angeles County Metropolitan Area." The RFP solicited detailed proposals from qualified developers that would include information concerning the design, permitting, construction, financing, and operation of a complete waste-by-rail system for a major portion of Los Angeles County wastes. The complete waste-by-rail system that each developer was required to address in its proposal had to have four basic components:

1. recovery/transfer/loading stations,
2. rail transport,
3. unloading stations, and
4. ultimate disposal

The SGVAC assisted the LACSD in its efforts to review and shortlist qualified developers. As an outgrowth of this cooperative arrangement, and to establish a potential legal formality for facilitating the actual development of one or more waste-by-rail projects for the area, the LACSD and the SGVAC determined to enter into a Joint Powers Agreement (JPA). A

JPA was regarded as the most expeditious way to secure actual waste commitments to a waste-by-rail system from the cities in the region.<sup>23</sup> Because of the anticipated higher tipping fees associated with waste-by-rail compared with similar tipping fees at local landfills, a JPA was also seen as a way of allowing cities to “pool” their waste stream to achieve economies of scale in contracting with actual developers; otherwise, individual cities might be reluctant to commit their wastes to the system.

The LACSD and SGVAC also believed that cities would be motivated to enter into the JPA and to commit their wastes to the waste-by-rail system because of the emerging uncertainties associated with local disposal options. One of the advantages touted “across the board” by the various waste-by-rail private developers was that the sites would be quite large, i.e., they would be designed to accept up to 20,000 tons/day for considerably more than fifty years. Thus, cities making a commitment to the system would be guaranteed a secure disposal system for an extended period of time – an advantage that local disposal options could not offer. Even so, it was still contemplated that any individual city making the commitment would only commit a portion of its wastes so as to ensure that, while securing long-term disposal options, they could also take advantage of lower costs at existing disposal sites and thus offset the expected higher costs of waste-by-rail disposal. A cumulative total of 24,000 tons/week (or about 4,000 tons/day) was set by the JPA as the base commitment needed to initiate the waste-by-rail system.<sup>24</sup>

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<sup>23</sup> Under California law, cities have control over their wastestreams. A JPA was considered a sufficient legal form in which to secure long-term contractual commitments of waste into the system.

<sup>24</sup> LACSD’s Report On Waste-By-Rail and Recommendations of the Ad Hoc Committee to its Board of Directors, May 1991.

Also in December 1988, at the time it was issuing its waste-by-rail RFP, the LACSD released a “Notice of Preparation on a Program Environmental Impact Report for the Integrated Solid Waste Management System” for Los Angeles County. This integrated system, while continuing to rely heavily on plans for new and expanded landfill capacity within Los Angeles County, also embraced waste-by-rail.

## **2. The Request for Proposal Process - Identification of Specific Projects**

In response to the RFP, the LACSD received and evaluated a total of ten proposals. Of the ten, four were initially shortlisted as most responsive to the RFP and for indicating the most promise. Further detailed consideration of these four proposals measured against review criteria for experience, technical strength, and financial resources cut the shortlist to two: The Eagle Mountain Project proposed by Mine Reclamation Corporation with a planned disposal site in eastern Riverside County, and the RailCycle Project (also known as the “Bolo Station Project”), a joint venture of Waste Management of North America and the Santa Fe Railway Company with a planned disposal site near Amboy and the Bristol Lake Basin in San Bernardino County.

Key elements of these two projects included the following:

- Initial capacity: 3,500 tons/day;
- Approximate length of unit train: 4,000 feet;
- Weight of filled intermodal containers: 25 tons;
- Number of containers: 140;

- Number of Railroad cars: 14 cars encompassing 70 platform units (each “car” being comprised of 5 platforms; each platform holding two stacked containers);
- Number of locomotives: 3;
- Approximate one-way distance from Puente Hills Landfill to site:
  - Amboy: 220 miles
  - Eagle Mountain: 200 miles;
- Disposal site capacity:
  - Eagle Mountain - 700 million tons plus
  - Amboy - 200 million tons plus;
- Estimated tipping fees at Los Angeles area loading stations: low \$50/ton (1991 basis), including an estimated “host fee” of 10%;
- The Eagle Mountain project forecasted a full operational capacity of 20,000 tons/day, comprised of 16,000 tons/day by rail and 4,000 tons/day by intermodal or transport truck access to the landfill site;
- The RailCycle Project called for an ultimate capacity of 21,000 tons/day entirely from rail input.

Both private developers were encouraged to complete required environmental review and permitting for their respective projects. These efforts ensued, with Mine Reclamation Corporation initially negotiating a Memorandum of Understanding (MOU) with the Riverside County Board of Supervisors in June of 1989. The MOU outlined steps to be taken cooperatively between the developer and the county as they pursued the many entitlements of the project and detailed an intended economic relationship, including specifics for a “host fee” which

would be paid for rubbish transported into the county. This was done in advance of any formal steps to initiate project environmental review or permitting. After the MOU was executed, a joint Environmental Impact Statement and Environmental Impact Report (EIS/EIR) was developed pursuant to federal and California law; the lead agencies were the United States Bureau of Land Management and Riverside County. The establishment of loading/material recovery stations for the project in the watershed region was left as a matter to be established through contractual relationships with other parties, including potentially the Sanitation Districts themselves.<sup>25</sup>

Unlike the Eagle Mountain Project, the RailCycle Project did not initially seek to establish the “blueprint” of a relationship with its “receiver” jurisdiction, San Bernardino County. It proceeded directly with environmental review efforts, leaving issues related to host fees and the like to ongoing negotiations. At the time of the RFP, however, it did begin to develop a rail-based recycle/loading station to be located in the City of Commerce and to prepare a draft EIR for that facility with projections that its final permitting would be completed by early 1992.

### **C. The Effort to Embrace Waste-by-Rail Continues**

The LACSD’s *ad hoc* committee was convened in May of 1991 to address the multi-faceted approach being pursued for the county to avoid its projected waste disposal crisis. Key items on its agenda were a review of the status and a determination of the continued viability of establishing a waste-by-rail system for the county. No particular waste-by-rail project had yet received its entitlements, although the Draft EIS/EIR for the Eagle Mountain Project was

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<sup>25</sup> As we shall see, one advantage of attempting to develop a relationship with the Sanitation Districts as to a rail

released for initial public review and comment by the end of that summer. The *ad hoc* committee identified three significant obstacles to implementing a waste-by-rail system:

1. Obtaining permits in the “receiver” jurisdictions,
2. Siting material-recovery and rail-loading facilities, and
3. The higher cost of waste-by-rail.

In its final report, the *ad hoc* committee made three key recommendations to the LACSD Board of Directors on how to make viable the establishment of a waste-by-rail system in the County by as soon as 1994:

- 1. Development of a Material Recovery/Rail Loading Station:** The *ad hoc* committee recognized the need to overcome the uncertainty associated with the establishment of an initial rail-loading station, and to give the LACSD the maximum flexibility in determining which ultimate remote disposal site would be utilized. To address these concerns, the committee recommended that the LACSD pursue, as part of its plans to expand the Puente Hills Landfill, the development and operation of a 4,000 tons/day material-recovery/rail-loading station at or near the landfill site.
- 2. Tipping Fee Cost Levelization:** As a mechanism to overcome the higher costs of waste-by-rail, the committee recommended that the tipping fee to be charged at

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loading facility would be to take direct advantage of the tip fee “levelization” concept.

the Puente Hills Material-Recovery/Rail-Loading Station be “levelized” or averaged with tipping fees at all or a portion of all of the LACSD’s solid waste facilities. Assuming a tipping fee of \$52/ton for a waste-by-rail system, a cost levelization program would result in an increase to the average homeowner of about \$1.50 per month on its refuse collection bill. Tipping fees at LACSD facilities would then average between \$24 to \$26 per ton, contrasted with tipping fees of from \$15.94 to \$24.16 per ton prevailing at the time. (Concerns raised by SCAG in its seminal study of the feasibility of waste-by-rail that homeowners would face increased costs for waste disposal of some 55% were alleviated.)

- 3. Incorporation of Future Material Recovery/Rail Loading Stations In the LACSD System:** While the commitment of levelization of rates was limited at the time only for an initial rail-loading facility associated with the Puente Hills Landfill, the committee recognized that subsequent facilities, if owned and operated by the Sanitation Districts, could also be incorporated into the system for levelized fees. The committee ordered the LACSD to develop a Master Plan for Waste-by-Rail to address this potential concept further. It also requested the LACSD to address how, if at all, non-LACSD facilities and other portions of the county could be integrated into the waste-by-rail system.

In its final report, the *ad hoc* committee also recognized for consideration two other potentially viable waste-by-rail system projects. The first of these additional projects was proposed by Western Waste Industries, one of the ten companies that initially had responded to



the RFP but that, for reasons that were not stated at the time, had not been shortlisted. Western Waste Industries, in concert with Southern Pacific Environmental Corporation and Goldfields Mining Corporation, proposed a system that included a planned disposal site near Brawley, California (near the Salton Sea in Imperial County). An initial potential rail-loading station was identified as the existing waste-transfer station operated by Western Waste in the City of Carson. Daily capacity was estimated at 20,000 tons with an overall site capacity of more than 200 million tons. No estimated tipping fee was specified. The project, originally known as the Mesquite Landfill Project, is now identified by the name of California RailFill Systems Project.<sup>26</sup>

The second additional project involved an already fully-permitted site in Carbon County, Utah, operated by the East Carbon Development Corporation, which had not responded to the RFP in 1989. The site, some 700 miles from Los Angeles, had been approved for receipt of out-of-state wastes. No rail loading station was specified, and the site was projected to have a capacity of 170 million tons. While unspecified, the tipping fee was estimated to be approximately \$50 per ton.

In addition to the efforts of the LACSD and allied agencies, including the City of Los Angeles, the City of Santa Clarita performed its own economic analysis of regional waste-by-rail. It concluded not only that the concept was technically feasible but also that, given reasonable projections for tipping-fee increases in light of dwindling landfill space in the county, the tipping fee for waste-by-rail systems would soon be equaled by in-basin disposal. Thus, in

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<sup>26</sup> Western Waste Industries merged with USA Waste Systems in 1996, which, in turn, has merged with Waste Management Corporation as of the writing of this report. Thus, Waste Management, Inc. has evolved into having a controlling interest in two of the three in-state waste-by-rail projects – Bolo Station and RailFill.

the opinion of that city, the system would become economically viable without regard to the cost “levelization” programs of the LACSD.

It should also be noted that, in a formal context, the County Sanitation Districts have gone on record in support of specific waste-by-rail projects as part of the environmental review of those projects. Thus, for example, Donald Nellor, Planning Section Head for the Solid Waste Management Department of the LACSD, stated that not only had the waste disposal needs of Los Angeles County been accurately assessed as part of the Eagle Mountain DEIR/DEIS, but that *“There is a clear need for new regional landfills, such as the Eagle Mountain site . . . The Sanitation Districts continue to be committed to implementing a waste-by-rail system as one component of a balanced and multi-faceted approach to effectively manage the District’s long-term waste disposal needs.”*<sup>27</sup>

#### **D. Public Opinion**

Waste-by-rail, a system once limited to the concerns and needs of the San Gabriel Valley, was now conceptually expanded to include the entire region. Not surprisingly, public opinion was highly favorable, encouraging public officials (and private developers) to embrace the concept. A public opinion survey conducted by the Rose Institute of State and Local Government supports this assertion. The survey was conducted in 1990 among 800 adult residents of the San Gabriel Valley representing each of the thirty-one cities and the unincorporated areas of the Valley. The Rose Institute’s key findings are detailed below:

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<sup>27</sup> September 13, 1996, letter from Donald Nellor to David Mares, Planning Department, County of Riverside.

- Given the choice of rail haul, a local landfill, or incineration, 40% of the 800 respondents chose waste-by-rail, while 28% favored incineration and 20% continued reliance on local landfills.
- Among those favoring waste-by-rail, 86% indicated a willingness to pay as much as \$5.00 more per month to have their trash hauled by rail. More than one-half of the respondents said they would be willing to pay as much as \$20.00 per month additional for the service!
- Among those who favored waste-by-rail, 46% did so because of their belief that trash should be disposed of away from population centers.
- A total of 85% of the respondents indicated a willingness to live near a material recovery facility<sup>28</sup>, while 91% said they were willing to separate all recyclables and place them at curbside for separate pickup.
- Finally, 69% of the respondents favored the policy recycling goals of AB 939.

The results of this survey clearly indicated that the public was favorably disposed toward the concept of waste-by-rail and that the “stage” had been set for its successful implementation. Political and social forces in the region merged to embrace the concept and to find ways to subsidize it. The only needs now were a permitted “receiver” disposal site, a MRF, and the first commitment of rubbish to the system. Unfortunately, none of these would be easily achieved.

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<sup>28</sup> In a somewhat ironic twist, the first major rail-based MRF was proposed in the early 1990s by and in the City of Industry on property situated ideally between and upon the two major rail main lines (Union Pacific and Southern Pacific) running through the San Gabriel Valley. The site was also near the City of Walnut, which led the vehement opposition to the proposal that ultimately forced the City of Industry to abandon its plans in 1996. The irony is that former Walnut Mayor, Harvey Holden, had led the San Gabriel Valley Association of Cities in its efforts to affirm the feasibility of waste-by-rail and to facilitate the concept by creation of the Joint Powers Authority.

## **V. Waste Disposal in the Region: The “Time-to-Crisis” Concept Emerges and Gets Extended**

As noted above, by the end of 1991, the Integrated Waste Management Board in Sacramento, along with the City and County of Los Angeles, had predicted a shortage of disposal capacity in the region and articulated a practical mandate to ensure additional capacity as quickly as possible.<sup>29</sup> Waste-by-rail emerged as a politically and economically viable solution, and official directives were embraced to make the option reality by 1994.<sup>30</sup> As part of its efforts to expand the Puente Hills Landfill in 1993, the LACSD took the first official developmental steps to implement a waste-by-rail system. They justified the need for both an expansion of the landfill and the development of the waste-by-rail option by developing a “Time-to-Crisis” analysis of the waste-disposal “picture” for the region.

### **A. The LACSD’s Mercurial “Time-to-Crisis” Analysis for Southern California**

As of November 1, 1991, there were eight major landfills in Los Angeles County handling an estimated 42,000 tons of refuse per day. Earlier that year, two major landfills in the region closed, while two major sites received expansion permits. As noted previously, in the San Gabriel Valley, the Azusa Western Landfill, owned by Browning Ferris Industries, Inc. (BFI), was closed unexpectedly due to successful legal challenges and subsequent regulatory decisions by the State Water Resources Control Board that barred expansion of the facility into a new area

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<sup>29</sup> Page 20 of this report.

<sup>30</sup> Pages 29 - 33 of this report.

that formerly was a gravel pit. Moreover, while BFI's Sunshine Canyon Landfill, located in the San Fernando Valley, had recently received a permit for a ten-year expansion by the County Board of Supervisors, it was forced to close "temporarily" when its original permit expired before the courts could resolve a challenge to its new permit. The site would not reopen until 1996. The Lopez Canyon Landfill, owned and operated by the City of Los Angeles, received a five-year permit extension, but was subsequently closed in 1997.

To estimate the overall waste-disposal capacity of the region, the LACSD developed a "Time-to-Crisis" analysis based on the following three assumptions: annual waste-generation increases of two and one-half percent until the year 2000; annual increases of one percent thereafter; and full compliance with the recycling mandates of AB 939. It predicted that a waste-disposal shortfall of several thousand tons per day would emerge by 1993. In its original version of the "Time-to-Crisis" analysis, the LACSD estimated that without a major expansion of the Puente Hills Landfill, the disposal capacity shortfall would increase to almost 20,000 tons per day by 1995 when the BKK Landfill in West Covina was scheduled for closure. The LACSD therefore concluded that *"significant increases in waste diversion programs as mandated by AB 939 will not avert a crisis, and even expansions of existing sites in conjunction with AB 939 will not avert a crisis... Clearly, new disposal capacity is required, and that new capacity should be pursued both in Los Angeles County as well as at waste-by-rail sites located outside the County."*

By the time that the LACSD had completed its detailed environmental analysis in support of the expansion of the Puente Hills Landfill in 1992, it increased its capacity-shortfall estimate

to 27,000 tons per day, predicting that by the year 2000 it would “stabilize” at a shortfall of 25,000 tons/day. (See Figures 1, 2, 3 and 4 for a tabular and graphical depiction of the then-existing geographical landfill distribution in the County and the assumptions and results of this analysis.<sup>31</sup>) It is important to emphasize again that these conditions were anticipated even after the implementation of aggressive increases of waste diversion under the mandates of AB 939.<sup>32</sup> Thus, the thrust of environmental analysis for the Puente Hills Landfill expansion was twofold: first, to seek expansion of the Landfill for an additional 20 years of operation, and second, to develop the capability of supporting a waste-by-rail project as well.

In December of 1994, the LACSD published a Draft Environmental Impact Report to supplement its Puente Hills Waste Management Facilities EIR for an “Intermodal Facility and a Waste-by-Rail Disposal System Originating From the Puente Hills Materials Recovery Facility.” It noted that the nine landfills operating in Los Angeles County together received a total of 35,000 tons/day. Thus, three years after its last analysis, the LACSD now concluded that the county had not only not experienced the 2 1/2% per year waste-generation increases it had predicted, but rather had actually experienced a decrease in the amount of waste going to landfills of about 7,000 tons/day. This occurred during a period of time that still *preceded* the initial “hammer dates” and recycling mandates of AB 939 – i.e., a 25% diversion by the year 1995. In fact, the DEIR noted that, except for the period of time around the Northridge Earthquake (a period when an emergency order allowed the Landfill to receive wastes in amounts greater than daily permit limits in order to take in debris from the earthquake), the

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<sup>31</sup> Puente Hills Waste Management Facilities Draft Environmental Impact Report, June, 1992.

<sup>32</sup> Ibid.

Puente Hills Landfill, in a dramatic departure from past operations' experience, had typically *not* met its daily tonnage limits for disposal.

The LACSD redid its "Time-to-Crisis" analysis and concluded that the earliest projected disposal capacity shortfall would not occur until 1998. It also concluded that, were BKK to be successful in its litigation with the City of West Covina – thereby keeping its Landfill open until the year 2006 as its existing land use permit allowed, and, were a new 10,000 tons/day landfill to be successfully permitted in Elsmere Canyon (near the City of Santa Clarita in northwest Los Angeles County), the crisis could, in fact, be averted until at least *the year 2013*.<sup>33</sup>

What had happened to the LACSD's "Time-to-Crisis" analysis? In a matter of months, a disposal crisis anticipated for the early 1990s was suddenly projected for 20 years into the future. There were two apparent reasons for this: the recycling objectives of AB 939 had a greater-than-expected impact on the waste disposal picture for region, and the economic recession that punished southern California in the early-to-mid 1990s substantially reduced the generation of solid wastes.<sup>34</sup>

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<sup>33</sup> As noted, BKK and West Covina settled their litigation, and that landfill ceased operations in 1996. The Elsmere Canyon Landfill project, also a BKK Corporation project, was effectively stopped in 1997 when Congress (via the Omnibus Parks and Public lands management Act of 1996) prohibited the United States Forest Service from consummating a land exchange with the developer -- a necessary part of acquiring the entitlements for the landfill project area.

<sup>34</sup> Solid waste generation in southern California can generally be divided into three basic segments that are approximately equal in terms of tonnage they generate: residential, commercial and construction/demolition. While the recession may have had only a moderate impact on the residential "one-third" of the wastestream, it is easy to envision how the recession may have substantially impacted the overall wastestream which is heavily "weighted" by amounts of rubbish directly attributable to economic development -- commercial and construction.

## **B. The Impact of Orange County on the Regional Waste Management Picture**

On December 6, 1994, Orange County suddenly and unexpectedly declared bankruptcy. Shortly thereafter, the County Waste Management Department's reserve fund was frozen, and the Department was forced to operate under a "cash flow" mechanism whereby expenditures could only be met by ongoing monthly revenues received from tipping fees at the county's facilities.<sup>35</sup> Furthermore, the county quickly realized that, by virtue of newly-permitted landfill capacity in the county (the Frank Bowerman Landfill), it had over 50 years of disposal capacity to address its own needs -- more than enough to begin looking at that capacity as a potential economic asset to be exploited. Therefore, to maximize the economic contribution to its bottom line from its waste management system, the county raised tipping fees and sought rubbish commitments from outside Orange County. For the first fiscal year after the bankruptcy (1995/1996), the Waste Department raised its tipping fees significantly, from \$22.75 to \$35.00 per ton. In addition, the Department began to pursue importation of rubbish from outside the county as a long-term element (20 years) in the overall financial recovery of the county. Thus, Orange County, in the first fiscal year after the bankruptcy, determined to include \$15 million in annual revenues from solid waste imports and issued requests for proposals to receive 5,000 tons/day of imported rubbish.<sup>36</sup>

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<sup>35</sup>A.G. Edwards & Sons, Inc., Alex. Brown & Sons Inc., "Analysis of Strategic Alternatives with Respect to the County of Orange landfill System," September, 1996.

<sup>36</sup> Debra Coy & Gregg Orrill, "Solid Waste: Special Market Report - Southern California Solid Waste Market Turmoil and Transition," November 1995, page 6.



Not surprisingly, at a tipping fee of \$35/ton, there were “no takers.”<sup>37</sup> In fact, rubbish collected in the county was leaving for disposal sites in other jurisdictions.<sup>38</sup> In response, by early 1996, the county had lowered its tipping fee for imported rubbish to \$18/ton while keeping its tipping fee for in-county wastes at \$35/ton. This, in turn, led to the anomalous situation that allowed one large Orange County rubbish hauler to take Orange County-collected wastes out of the county for disposal while “trading” for wastes collected by another hauler from outside the county to be imported for disposal in Orange County, resulting in overall disposal cost savings to the “partnership”! This arrangement became known in the media as “trash laundering” -- a perfectly legal but somewhat unusual scheme directly flowing from Orange County’s newly-found appetite for taking other jurisdictions’ trash.

To avert a continued flow of waste-disposal revenues out of Orange County, the Department in mid-1996 lowered its tip fee from \$35.00 to \$27.00 per ton for in-county rubbish. With the closure of the 13,200 ton/day BKK Landfill in West Covina (situated just a few miles north of the Los Angeles/Orange County border), Orange County now had competitive advantage. It hired the A.G. Edwards and Alex Brown consulting firms to analyze and outline its options for taking advantage of this emerging economic opportunity. The “Edwards/Brown Report” provided a comprehensive situation analysis of waste generation and disposal at the end of 1996. Additionally, it offers insight into the potential for waste-by-rail from the perspective

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<sup>37</sup> Ibid.

<sup>38</sup> Much of this rubbish went to the BKK Landfill which, as a result of the settlement of litigation between BKK and the City of West Covina in early 1996, was ceasing operations in September of that year and was seeking to maximize revenues in its final days.

of a jurisdiction with its own aggressive designs for attracting wastes from other counties (though not by use of a waste-by-rail system).

The “Edwards/Brown Report” summarized six emerging trends within the solid waste management sector. These are:

1. Capital requirements for new landfills are growing, primarily due to the new landfill design standards under RCRA.
2. To adjust to higher capital investment needs, the industry is moving towards a larger, integrated management model.
3. Landfills are getting larger in order to leverage the increased capital investment costs. Thus, transfer stations will play a greater role in expanding the reach of landfill service areas.
4. Recycling capabilities are being built into waste management systems.
5. The pace of acquisitions in the industry has accelerated over the past two years.
6. Municipalities are finding it increasingly difficult to meet increasing capital requirements and are turning to the private sector to help finance investment and initiate waste reduction and recycling programs.

While not intended to serve as a support for the concept of waste-by-rail in the region, the analysis in the “Edwards/Brown Report” of relevant trends clearly underscored the continued viability of waste-by-rail for the region. This is particularly true with respect to its analysis of the trend towards larger landfills (“megafills”) and of the integral role that waste recycling and transfer play in any waste-by-rail project.

Most interesting among the analyses of the “Edwards/Brown Report” was, however, its discussion of projected excess landfill capacity for Orange County, Los Angeles County, and the region in general. The “Edwards/Brown Report” anticipated that a capacity shortfall for Los Angeles County could occur as early as 2001 and that this shortfall would result in an overall regional capacity shortfall for the next thirty years (See Figure 5). Furthermore, the Report aggregated the region in general and concluded that, if there were no major landfill expansions in the urban areas, the shortfall crisis would be deferred for only about two years, until between 2003 and 2004 (Figure 6). The analysis of the overall trend for demand for landfill capacity for the region concludes: *“Due to the success of AB 939, demand for landfill services in Southern California has fallen between 1990 and 1995. This is expected to continue through 2000, after which population growth and continued economic growth is expected to re-establish a positive trend in landfill demand.”*<sup>39</sup>

Finally, the “Edward/Brown Report” showed that, even assuming that certain select landfill expansion/siting projects were to be approved, *including the Eagle Mountain, RailCycle, and RailFill Projects*, and the successful expansion for importation of the El Sobrante Landfill in western Riverside County, regional capacity shortfalls will occur by the year 2013. It declared: *(G)iven the limited number of expected future close-in site additions, the availability of rail haul*

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<sup>39</sup> In addition to AB 939, the recession of the early 1990s was also a major factor for the declining landfill demand of that period.

*alternatives should become necessary to meet the region's waste disposal requirements by early in the next century."*

From the perspective of Orange County's competitive objectives regarding any waste-by-rail project, this conclusion appears to be sound, well-established, and without bias.

### **C. Other Analyses of Disposal Capacity in the Region**

In addition to the work of the LACSD and Orange County, others have also examined the question of regional waste-disposal capacity. Both a January 1997 Final EIS/EIR for the Eagle Mountain project, and a report prepared by JBS Associates of Ventura County corroborate the conclusion that additional disposal capacity for the Southern California region is vitally needed in the relatively near future.

#### **1. The Eagle Mountain EIS/EIR**

In January 1997, the United States Bureau of Land Management and the Riverside County Planning Department released a Final EIS/EIR for the "Eagle Mountain Landfill and Recycling Center Project."<sup>40</sup> This document addresses the analysis of the work done in the Draft EIS/EIR for the project, which had concluded that even if one were to assume that *all existing landfills* in the region<sup>41</sup> were re-permitted and/or expanded, and that proposed new landfills were

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<sup>40</sup> As discussed later in this report, after a successful legal challenge by opponents to the EIS/EIR for this project, which had been approved in 1992, the developers of the Eagle Mountain waste-by-rail project (and the respective lead federal and county agencies) prepared another EIS/EIR which sought to address deficiencies identified by the court. It is this latter document, which again has been the subject of a successful legal challenge, which is discussed here.

<sup>41</sup> Encompassed by the Counties of Los Angeles, Orange, Riverside, San Bernardino, Santa Barbara, San Diego and Ventura.

successfully permitted, there would still be a disposal capacity shortage in the region of 20,000 tons/day by the year 2020.<sup>42</sup> The analysis states further that even if the recycling efforts under AB 939 were to exceed mandates and achieve a 70% diversion (rather than merely the 50% required under the law), there would still exist a disposal capacity shortage of 20,000 tons/day by the year 2020.

The Final EIS/EIR underscored the cautious analysis presented in the Draft EIS/EIR.<sup>43</sup> It recognized that since the release of the Draft EIS/EIR in mid-1996, several landfills in the region had actually closed while others had been expanded, resulting in a loss of some 27,700 tons/day of capacity offset by a gain of only 7,200 tons/day in new capacity. Under quite cautious assumptions, the EIS/EIR concluded that there was a definite “need” for the disposal capacity envisioned by the project. By implication, the need for new disposal capacity, as outlined by the proponents of the Eagle Mountain project, would emerge long before the year 2020 as originally projected in the draft environmental analysis. This conclusion could not be dismissed as self-serving, as it mirrored the emerging conclusions of “official” government analyses.

## **2. JBS Associates Analysis**

In January 1997, JBS Associates of Ventura County prepared a report entitled “Southern California Landfill Capacity Analysis - Eagle Mountain Landfill & Recycling Center Need Analysis.” This analysis not only focused on the “Edwards/Brown Report” prepared for Orange

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<sup>42</sup> Final EIS/EIR, Eagle Mountain Landfill and Recycling Center Project,” January 1997. Page 7-2.

<sup>43</sup> Ibid, Pages 7-2, 7-3.

County, but also looked at another key report prepared at the behest of opponents to the Elsmere Canyon Project proposed near the City of Santa Clarita.<sup>44</sup> The JBS Report concluded that:

- Most counties (in the region) have relied on potential rather than actual available landfill capacity to meet the legal requirements for reserve capacity.<sup>45</sup>
- The present excess-capacity condition will turn to a deficit condition within the next five years if new or expanded landfills are not permitted.
- Solid waste management in Southern California has evolved into a regional system in which local governments must rely increasingly on resources beyond county boundaries to fulfill the mandates of AB 939.
- By the year 2004, all excess regional capacity will be exhausted if no new landfills or landfill expansions are permitted.
- If Orange County reverses its import policy, a regional capacity shortfall will occur in 2001.

Again, the conclusions of this effort supported those found in the earlier work of the LACSD in its “Time-to-Crisis” analyses and in the “Edwards/Brown Report” prepared for Orange County.

## **VI. Waste Disposal in the Region Today**

Three current official efforts to address waste management in the region are relevant to this discussion: (1) The efforts of the Los Angeles County Public Works Department to develop

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<sup>44</sup> Gershman, Brickner & Bratton, Inc. *Approaching an Integrated Waste management System for Los Angeles County, California*, September 13, 1996.

<sup>45</sup> AB 939 requires that each county integrated waste management plan provide for at least 15 years of disposal capacity.

the Countywide Siting Element to its Integrated Waste Management Plan as required by AB 939, approved in June of 1998 by the California Integrated Waste Management Board; (2) the April 1997 and April 1998 reports of the Southern California Association of Governments' Solid Waste Task Force; and (3) a January 1998 report of the County Sanitation Districts on regional waste management within Los Angeles County. In addition, two other public policy issues related to the status of waste management in the region are also worth noting. The first of these concerns a recently concluded regional transportation study of SCAG provides some interesting, but indirect, policy support for waste-by-rail. The second policy issue relates to official concerns over the effects of the Subtitle D RCRA regulations (addressed earlier in this report) and their application to vertical expansions of existing landfills in the State. The three waste management efforts are discussed first.

**A. The Countywide Siting Element for Los Angeles County**

The most recent review of solid waste management for the region was concluded as part of the recent approval (in June of 1998) by the California Integrated Waste Management Board of the Los Angeles Countywide Siting Element to the County's Integrated Waste Management Plan. This analysis, based upon waste generation data for 1995, concludes that, depending upon the viability of potential new or proposed expansion of in-county landfill projects, within the fifteen year planning period mandated by AB 939, there is encompassed a number of scenarios ranging from a finding of no need for out-of-county disposal all the way to a need for almost 34,000 tons/day of capacity by the year 2010.

All scenarios assume that the waste diversion mandates of AB 939 will be met in the region. (But see the discussion which follows next concerning the recent SCAG report.) The Countywide Siting Element concludes that a viable scenario exists for allowing the County to meet its capacity needs within the planning period (15 years) with an array of in-county landfill disposal possibilities.<sup>46</sup> This scenario assumes a full ten year re-permitting of the Puente Hills Landfill and the full maximization of BFI's Sunshine Canyon Landfill near Granada Hills. Most problematic for the analysis' conclusions of adequate in-county capacity is its assumption that the Elsmere Canyon Landfill project, once pursued unsuccessfully by BKK and subsequently sold to BFI, will be successfully sited. As noted earlier, this project, actively opposed by the citizenry of the Santa Clarita area, was effectively dealt a "death blow" by an act of Congress in 1996.

The Siting Element includes in its analysis the potential for out-of-county disposal capacity and identifies some ten potential in-state and out-of-state disposal sites, including the Bolo Station, Eagle Mountain, and RailFill waste-by-rail projects as well as East Carbon, Utah. It also notes the potential for non-rail-based out-of-county disposal capacity at the El Sobrante Landfill in western Riverside County (up to 6,000 tons/day) and in Orange County. It views out-of-county disposal capacity "*as a means of supplementing in-County disposal capacity in the event that in-County capacity is not attained and/or as a means to extend the life of in-County landfill*"<sup>47</sup> and it recognizes "*out-of-County exportation of waste (rail haul, etc.) ... as an*

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<sup>46</sup> This is the case despite the acknowledged planned closures of two major landfills in the County: the 7,000 ton/day Bradley Landfill, operated by Waste Management, Inc. and scheduled to close in 2007; and the LACSD Spadra Landfill in Pomona scheduled to close in 2001.

<sup>47</sup> Countywide Siting Element, Los Angeles County, June 1997, page ES-11.



*essential element in the long-term solid waste disposal strategies for Los Angeles County.”<sup>48</sup>*

The report notes that since export fees and transportation costs are not within the county’s control, the county must develop disposal capacity to ensure that future policy decisions about out-of-county disposal are made within a stable economic environment.<sup>49</sup> Thus, the Siting Element also recommends continued adherence to the policy of pursuing a “*balance between public and private waste management operations*”<sup>50</sup> and the development of 50 years of permitted solid waste disposal capacity “*to be held in public ownership ... for use through public, private, or public/private joint venture operations.*”<sup>51</sup> Finally, the report establishes as one of its primary policy goals that of ensuring “*that the cities and the County unincorporated communities (be) served by an efficient and economical public/private solid waste disposal system.*”<sup>52</sup>

## **B. Southern California Association of Governments - Solid Waste Task Force Report**

As distinguished from the other two efforts reviewed in this section, the SCAG Solid Waste Task Force addressed itself to the entire southern California region. The task force was comprised of elected public officials and assisted by a Technical Advisory Group made up of public and private interests in the waste management sector. Their view was necessarily expansive, as the SCAG consists of city and county representatives from the Counties of

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<sup>48</sup> Ibid, page I-13.

<sup>49</sup> Ibid, page 9-4.

<sup>50</sup> Ibid, page 1-16.

<sup>51</sup> Ibid, page 1-17.

<sup>52</sup> Ibid, page 2-5.

Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura. The task force reached three major conclusions:

1. If recycling is to continue to play a significant role in efforts to divert wastes from disposal in landfills, then a significantly expanded effort is needed to develop markets for recycled materials.
2. Alternatives to landfills such as combustion/incineration, gasification/pyrolysis, and anaerobic digestion should be actively pursued.
3. While landfilling is currently the most economic way to handle trash in the region, the siting or expansion of landfills in the region will continue to be a major challenge.

As to landfilling generally, the task force made specific observations and conclusions. After close observation of landfill siting and expansion projects at Puente Hills, the Bradley West Landfill,<sup>53</sup> the Bailard Landfill in Ventura County, the Sunshine Canyon expansion, and the experiences of both the Eagle Mountain and RailFill projects, the task force identified serious obstacles to the siting, expansion, operation, and closing of landfills. With respect to landfilling, the task force concluded that:

- Differences of opinion exist as to the state of the landfill capacity situation in the region. While some observers, such as Los Angeles County, perceive a crisis situation, others have pointed to recent successes in expanding existing landfills in the region.
- The process for permitting new or expanded landfills in California is time-consuming

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<sup>53</sup> Owned and operated by Waste Management Company in the San Fernando Valley.

and costly. The Task Force noted the \$60 million spent-to-date on the permitting of the Eagle Mountain waste-by-rail project and contrasted that cost with the \$3 million spent to permit a rail-haul site in an adjacent state.

- Rail-haul projects have the potential to provide long-term security for the region's disposal needs.
- Government leaders should be concerned about the potential economic losses to the region if decisions were made to transport solid wastes to landfills out-of-state.
- Based on reasonable assumptions of likely new and expanded landfill projects in the region, not including waste-by-rail, a disposal capacity shortfall would be experienced by Los Angeles County as early as the year 2000, and the region generally would experience a shortfall by the year 2007.<sup>54</sup>

The SCAG Task Force again revisited the issue of waste-by-rail in April of 1998. This report, based upon a survey of its member municipalities, was focused specifically on potentially-needed state legislation. Most significantly, the survey found an overwhelming amount of support<sup>55</sup> for state legislation that would make the 50% waste diversion by the year 2000 mandate of AB 939 a mere "goal" and that would extend the mandated compliance date for the 50% diversion to the year 2010. While this report did not detail the public policy implications of such legislation, it is clear that such a major policy shift in the law would add to any actual pressures that may exist in the area of adequate waste disposal capacity for the region.

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<sup>54</sup> Figure 5.

<sup>55</sup> 108 of the 130 jurisdictions surveyed.

### C. The Los Angeles County Sanitation Districts

In January of 1998, the Los Angeles County Sanitation Districts prepared a report on the status of various solid waste management issues for the region.<sup>56</sup> A key passage in this report was the following: *“Development of waste-by-rail infrastructure is important to the Sanitation Districts in the effort to achieve more effective and diverse waste management in the County.”* The report emphasized that *“the Sanitation Districts would not pursue the incorporation of waste-by-rail loading facilities into the Sanitation District’s system if the facilities would not be economically competitive with the other locally available waste management options, even after taking into account subsidies from its other solid waste management facilities.”*<sup>57</sup> While this statement might suggest that the LACSD was beginning to “hedge” on its support for waste-by-rail, a further reading of the report would not seem to support any backing away from its support.<sup>58</sup> Thus, after its analysis of the current waste disposal capacity picture for the county, including some discussion of the effects of importation-minded Orange County, the LACSD concluded:

*Some additional local disposal capacity is very likely to be made available in the future through the expansions of local landfills, including the Puente Hills Landfill. In addition, there is a possibility that additional disposal capacity may*

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<sup>56</sup> Status Report On Regional Solid Waste Management Within Los Angeles County, January, 1998 by the County Sanitation Districts Of Los Angeles County.

<sup>57</sup> Ibid, at Page 1. Emphasis added.

<sup>58</sup> It must be noted that in 1993 the LACSD received only a ten year expansion permit for the Puente Hills Landfill, rather than the twenty year permit it was seeking. Thus, at present, the LACSD finds itself with only five years of permitted operations remaining at the Landfill with still no fully operational waste-by-rail disposal site within the state. As it begins to position itself for the next permitting “go-around” at Puente Hills (an effort which will need formally to begin in the very near future), any overly-optimistic reliance on waste-by-rail in its plans might well be politically counter-productive to its goals.

*be provided in the future through the permitting and development of in-County landfills. However, based on the recent redistribution of where waste is being disposed of as a result of the closures of the Lopez Canyon, BKK, and Azusa Western Landfills, it is clear that as local disposal capacity is exhausted, out-of-County disposal will be heavily relied upon to provide future needs.*

The report concluded that even if the County is able to achieve the AB 939-mandated 50% diversion rate by the year 2000, and if *all* of the in-county potential expansions are ultimately approved, new out-of-county capacity would still be needed by the year 2006. Furthermore, the report also noted that it was highly speculative to assume that all potential in-county expansions would be approved, and, assuming that a more-realistic diversion rate of 35 % is achieved by the year 2000, new out-of-county capacity would be required as early as the *year 2000*.

Of course, what the report does not specifically say is that the new out-of-county capacity might potentially be found in Orange County or at the recently-approved expansion of the El Sobrante Landfill in western Riverside County (which were recognized as potential disposal alternatives by the County in its Countywide Siting Element).

The regional SCAG study shows that Orange County has an abundance of potential capacity (and the political appetite to go with it) to make itself available for import well into the next century. “Political realities,” however, may well weigh against Orange County’s playing a major and long-term role in the region’s waste management needs. The same can probably be

said for the El Sobrante Landfill, which even at its best, would only allow 6,000 tons/day of imported wastes.

It seems clear that waste-by-rail remains a viable, important, and major factor in addressing the thoroughly analyzed and well-established predicted shortfalls in waste-disposal capacity for the region.<sup>59</sup> And, despite the encouragement of the development of incineration and other “exotic” technologies, the opinion of informed political leaders in the region, as reflected in the SCAG analyses, still strongly favors waste-by-rail. More importantly, if the overwhelming support within this SCAG membership for relaxation of the AB 939 mandates comes to pass, it is hard to imagine any consequence other than that of an increased dependence on landfill capacity for the region.

**D. Southern California Association of Governments – 1998 Regional Transportation Plan**

While not directly addressing the issue of regional waste management, *per se*, a recent regional transportation study conducted by SCAG indirectly reflects on the issue and provides additional favorable factors supportive of waste-by-rail.

The SCAG study, “Community Link 21”, sets forth some astonishing projections for the southern California region. Chief among these is an expected population growth of 6.7 million people in the region. As a result of these growth factors alone, truck and rail traffic on both east/west and north/south corridors “*is expected to continue increasing dramatically as the*

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<sup>59</sup> These predictions not only readily follow from the analyses of every reviewer of the issue but also reflect

*regional economy continues it ... recovery and becomes a hub of international trade.”*<sup>60</sup> It predicts that existing (already “unbearable”) commute times will more than double and notes that the region’s “*roads, bridges and highways are badly in need of renovation and repair.*”<sup>61</sup> Perhaps most germane to the matter at issue here, it observes that motor vehicles contribute more than 50% of the air pollution that exists in the basin, and it warns that significant reductions from vehicular sources of air pollution below existing levels will be required if the region is to comply with national air quality standards and thereby remain eligible for federal transportation funding.

Quite apart from the general population and economic growth of the region, one specific project– The Alameda Corridor Project – is predicted to have, all by itself, a substantial impact on transportation congestion for the San Gabriel Valley and the Inland Empire in the very near future. This Project, scheduled for completion by the year 2001 encompasses major rail and truck transportation improvements along the 19-mile Alameda Street corridor between the Ports of Long Beach and Los Angeles and the Transportation Center in downtown Los Angeles City. The San Gabriel Valley Council of Governments has estimated that this project alone will result in a near doubling of the number of trains per day moving through its region, a 40% increase in the number of trucks on local freeways and a tripling of delays at existing rail crossings in the Valley.<sup>62</sup> While plans are underway to mitigate the impact of increased train traffic by means of new grade separations, there are no ready answers to the expected increase of truck traffic through the region.

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substantial agreement, at least in orders of magnitude.

<sup>60</sup> SCAG Community Link 21, Draft 98 Regional Transportation Plan, November 1997, page 1-5.

<sup>61</sup> Ibid, page 1-4.

Given the predictions of substantial increases in roadway congestion, any proposal that can remove vehicles from the region's roadways should be seriously considered. Waste-by-rail is one such proposal. While it would certainly add trains to a region<sup>63</sup> already predicted to experience a significant increase in commercial rail movement, it would remove rubbish (and rubbish transfer) trucks from the roadways and contribute to enhanced air quality.

#### **E. Subtitle D RCRA Regulations**

As discussed earlier in this report, the promulgation of new comprehensive national regulatory standards for the design construction and operation of new solid waste landfills played an important role in the waste-by-rail debate evolutionary process. In promulgating these regulations, the USEPA itself recognized the move towards regionalization of landfills in the country. Unfortunately, as mentioned earlier, the regulatory mandates have not achieved their full potential of forcing the closure of older unlined landfills because of regulatory policies that permit for **vertical expansions** of existing permitted landfills. Thus, while new landfills and lateral expansions of existing landfills are required to employ a full composite liner system<sup>64</sup> to protect groundwater quality, vertical expansions of many existing landfills which employ no

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<sup>62</sup> San Gabriel Valley Grade Crossing Study, Korve Engineering, Inc., January 1997.

<sup>63</sup> Obviously, delays at grade crossings are related directly to the length of the passing train. Intermodal trains moving in commerce typically extend to six to seven thousand feet in length, while a unit waste-by-rail train is estimated to be approximately 3,500 to 4,000 feet in length. Thus additions to the region's rail system from waste-by-rail should not be expected to adversely affect grade crossing delays to the same extent as would a typical commercial train.

<sup>64</sup> A composite liner is so-named because the liner typically is comprised of a layer of low-permeability clay covered with an even more impermeable sheet of synthetic (typically high density polyethylene) material. The liner system also employs a mechanism for collection and removal of any liquids (leachate) that may come into contact with it.



such underlying groundwater protection system are permitted. In official observations by the State Water Resources Control Board it has been noted that while a composite liner system is the only system known to the state which will prevent leakage into the groundwater, **only 15 percent** of the landfills in the State which are receiving wastes employ a composite liner system.<sup>65</sup> While this is the equivalent of stating that 85 percent of the State's **wastes** are being disposed of in old unlined landfills, clearly the lack of application of the enhanced protective regulatory requirements to vertical expansions of landfills – even small municipal facilities - is a policy which is contrary to regionalization and to waste-by-rail. While a composite liner system can cost in the hundreds of thousands of dollars per acre to install and require ongoing operating costs for maintenance of the leachate control system, an unlined facility incurs no such expenses. This regulatory “loophole” clearly creates the potential for an “unlevel playing field” between new state-of-the-art waste-by-rail facilities and certain existing operations – not only in terms of up-front investment, but also in the amount of time spent and in the complexity of the regulatory permitting and approval process. Thus, there may be institutionalized regulatory factors, besides the effects of recycling and the recession, which have also come into play in the “delays” of implementing waste-by-rail in the region as initially projected.

What then is the status of potential waste by rail projects? The next section of this report addresses this question.

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<sup>65</sup> 1993 testimony of the State Water Resources Control, Board Supervising Engineer before the CIWMB.

## **VII. Current Status of Key Waste-By-Rail Projects**

As discussed in the January 1998 LACSD Status Report, seven out-of-county landfill projects are currently pursuing contracts to transport Los Angeles County rubbish to their sites. Figure 7 is a map of the region, as depicted in Los Angeles County's Countywide Siting Element, showing various potential out-of-county disposal sites. Three of these sites are in California; the other four are located out-of-state. Of the seven projects, the four outside of California are currently permitted and operational and could receive wastes. Of the three projects in California, only the Mesquite or RailFill Systems Project in Imperial County has received its basic operational permits. A summary of the status of all seven projects follows.

### **A. Eagle Mountain**

This landfill project, "shortlisted" by the San Gabriel Valley Joint Powers Authority for potential waste commitment, consists of a landfill site in eastern Riverside County with an ultimate daily capacity of 20,000 tons/day, of which 18,000 tons/day would be available for use by jurisdictions outside of Riverside County. The landfill proposed by Mine Reclamation Corporation (at the former site of an open-pit iron ore mining operation, which had been operated by Kaiser Steel Corporation) has a capacity of 700 million tons. The initial land-use permit and Development Agreement between Mine Reclamation and the County of Riverside, which also included provisions implementing a mechanism for the county's collection of a "host fee," was issued in 1992. It was subsequently invalidated in 1994 as a result of litigation challenging the project's EIS/EIR. In September 1997, the Riverside County Board of Supervisors certified a new EIS/EIR, issued a new land-use permit, and revised the Development Agreement to set the initial maximum daily capacity of the landfill at 10,000 tons/day. An

additional 10,000 tons/day could be permitted in the future as a result of a review of a joint technical review panel which was to be established under provisions contained in the Development Agreement once actual operations had begun and could be assessed. The EIR was again successfully challenged in court, resulting in another invalidation of the land-use permit and Development Agreement in December 1997. Appeals of that ruling are now pending before the California Court of Appeals, which could take several more months before it renders a decision. Assuming a successful appeal, Mine Reclamation Corporation could then pursue issuance of necessary operational permits which, assuming challenges are again made throughout the administrative process, may take as long as 18 to 24 more months to acquire. Developments of the site necessary to initiate operations could take as few as six additional months after permit issuance. In short, assuming a success scenario, this landfill project could be readied for disposal operations in three to four years.

**B. Bolo Station Landfill - The RailCycle Project**

This project, a joint venture of Waste Management, Inc. and the Santa Fe Railroad had also been one of the initial two waste-by-rail projects “shortlisted” by the San Gabriel Valley cities. The proposed landfill site is located in eastern San Bernardino County. The landfill has a proposed capacity of 21,000 tons/day, of which 15,000 tons/day would be available to jurisdictions outside of San Bernardino County. In November 1995, the San Bernardino County Board of Supervisors issued a Conditional Use Permit for the project and approved a final EIR. The EIR was unsuccessfully challenged in a subsequent lawsuit. When it approved the CUP, the Board of Supervisors included a condition that stated that the CUP would not become effective unless and until a business license tax could be implemented as a means for county collection of

a “host fee.” This business license tax, in turn, was required to be implemented by way of a county ballot initiative by the year 2005. In March 1996, the license tax was brought before the voters of the county and defeated. No additional attempt to place a similar initiative before the voters has been made to date. The project continues to be the subject of vigorous litigation pursued by the Cadiz Land Company, which holds significant water rights and conducts substantial agricultural production in the region of the proposed landfill site. Perhaps more importantly, because of alleged tactics by Waste Management to stifle opposition to the project (including alleged “wire-tapping” of the telephone conversations of Cadiz Land Company’s personnel), the project is the continuing focus of criminal charges and investigations against management and consultants used by Waste Management, Inc.<sup>66</sup> Recent discussions with project proponents indicate that plans for the project have been indefinitely suspended.

As noted earlier in this report, this project represented a unique effort in that, concurrent with development of the landfill site, Waste Management, Inc. was also permitting a MRF/Transfer Station in the City of Commerce specifically designed to support the waste-by-rail operations. In September 1997, the land use permit for the MRF was rescinded by the City of Commerce for its failure to be constructed within CUP time limits.

### **C. Mesquite or RailFill Landfill**

This landfill is proposed to be developed in Imperial County 35 miles east of Brawley, California, and east of the Salton Sea. The project, denominated as RailFill Systems, is a joint

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<sup>66</sup> The Bolo Station Project Manager was arrested and taken into custody by federal law enforcement personnel as a result of the wire tapping charges.

venture of Goldfields Mining Corporation, SP Environmental Systems, and USA Waste Services.<sup>67</sup> The landfill has a capacity of 20,000 tons/day, most of which is available for jurisdictions outside of Imperial County, and has a capacity of 600 million tons. In September 1995, the Imperial County Board of Supervisors issued a CUP for the landfill and certified a final EIR, both of which were subsequently challenged in court. The United States Bureau of Land Management approved a land exchange pursuant to the Federal Land Policy Management Act further facilitating necessary actions for final approval of the project. After conducting additional environmental analyses ordered by the court, the Board of Supervisors again certified the EIR and issued the CUP. In June of 1997, court challenges to these actions were dismissed. No appeals were taken, thus leaving the validation of the environmental analysis final. The project developer recently received its Landfill Facilities Permit from the California Integrated Waste Management Board, the most significant permit required to begin development of the landfill and to initiate operations. Thus, the landfill disposal areas could be ready for waste acceptance within six months of a decision by its management to initiate operations.

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<sup>67</sup> USA Waste Services and Waste Management, Inc. have recently merged with Waste Management, Inc. emerging as the surviving entity.

**D. East Carbon Sanitary Landfill**

As mentioned earlier in this report, this landfill has been developed in East Carbon City, Utah, by the East Carbon Development Corporation which is owned by Allied Waste Industries, Inc. The site is fully permitted, operational, and accepts a limited amount of wastes by rail from communities in Utah. It is permitted to accept out-of-state wastes, and its operators are actively seeking waste commitments from a number of jurisdictions, including California. While the landfill does not have a daily permit operational limit, it is said to be capable of accepting at least 20,000 tons/day from outside of State of Utah.

**E. Butterfield Station Landfill**

This landfill has been fully developed and is operational. It is situated approximately 40 miles southeast of Phoenix, Arizona, and is owned and operated by Waste Management, Inc. While it currently accepts no out-of-state wastes and has no daily permit limits, its operator has indicated that it could likely accept at least 3,000 tons/day of waste from out-of-state by rail.

**F. Franconia Landfill**

This landfill, also owned by a subsidiary of Waste Management, Inc., is located in Arizona along its western border. It is fully permitted but is not yet fully constructed. Like the Butterfield Landfill, this landfill could also accept approximately 3,000 tons/day of waste-by-rail.

### **G. La Paz Landfill**

This landfill is owned by the County of La Paz, Arizona, and is operated by Browning Ferris Industries. It is a relatively small landfill located along the western border of Arizona. It is fully permitted and operational and receives wastes generally from local communities. The site was redesigned pursuant to an agreement between BFI and La Paz County in order to facilitate it receiving waste-by-rail. Also, pursuant to short-term contracts, the site has received wastes from communities in northern San Diego County (Oceanside) which were transported to the site by transport truck. It has the capability of receiving 3,000 tons/day of waste- by-rail.

### **H. Copper Mountain**

This landfill, owned again by Waste Management, Inc. was acquired as a result of its merger with USA Waste which had previously acquired the project by virtue of its prior merger with Sanifill Corporation. The site is situated approximately 30 miles east of Yuma, Arizona, just south of Interstate 8 and just south of Southern Pacific (now Union Pacific) railroad main line in Yuma County, Arizona. As of January 1996, the site had a remaining capacity of almost 21 million tons with fifty (50) years of permitted operations remaining. The maximum permitted daily tonnage is unlimited. The site has also been identified by Los Angeles County in its Countywide Siting Element as a potential remote disposal site option.

### **I. Los Angeles County Sanitation Districts' Puente Hills MRF**

Again, as mentioned earlier in this report, the LACSD had, as part of its 1993 expansion of the Puente Hills Landfill, and in keeping with directives of its Board of Directors, pursued the siting and development of a MRF facility at the Landfill which could be connected with a rail-

loading site to facilitate operation of a waste-by-rail system for the county. In fact, with the demise of Waste Management Inc.'s Commerce MRF, as of the writing of this report, the LACSD Puente Hills MRF is the *only* such facility being pursued as a waste-by-rail loading site in the County.<sup>68</sup> A lawsuit challenging the inclusion of the waste-by-rail aspects of the Puente Hills Landfill expansion resulted in the preparation by the LACSD of an environmental analysis specifically for a regional waste-by-rail system. This effort, the EIR for an “*Intermodal Facility and a Waste-by-Rail Disposal System Originating from the Puente Hills Materials Recovery Facility*” was discussed earlier in this report. The EIR was certified by the Sanitation District's Board of Directors on June 14, 1995. It was subsequently ruled to be adequate as a result of a court challenge. The LACSD will request that the Los Angeles County Board of Supervisors re-authorize the CUP for the facility.

## **Conclusions and Recommendations**

This report, focusing on the future of solid waste management for Southern California, has focused on three basic questions: What happened to the disposal “crisis” once predicted for the region and how serious is the problem of waste disposal? What is the status of the once-promising waste-by-rail option? What needs to be done now?

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<sup>68</sup> It should be noted that Western Waste Industries (now absorbed by merger into USA Waste Systems which, in turn, has been absorbed into Waste Management, Inc.) has long operated a large transfer station in the City of Carson. While the development of this facility into a MRF with rail loading capability has long been the subject of discussion, as of the writing of this report, such an action remains uncertain. As will become apparent in the next section of this report, the authors of this Rose Institute report are of the opinion that this MRF/transfer station, to the extent that it plays a role in waste export from Los Angeles County, is initially much more likely to be involved in the movement of waste by transfer trucks to USA Waste's recently-approved expansion of its El Sobrante Landfill in western Riverside County, than it is to serve as a component of a waste-by-rail system linked to the RailFill Project.



**A. What Happened to the Predicted Disposal “Crisis” and How Serious is the Problem Now?**

Public and private waste-management officials in Southern California incorrectly predicted a shortage of waste-disposal capacity by the early 1990s by underestimating the impact that the recycling mandated of AB 939 and failing to anticipate how substantially the economic recession of the early-to-mid 1990s would reduce the generation of solid wastes. As of the writing of this report, the problem of waste disposal is serious and will become increasingly so, given a rapidly-growing population and a revitalized economy. Los Angeles County will be dependent on out-of-county disposal capacity as early as 2001 and certainly by the year 2006. Any relaxation of the rigorous diversion requirements of AB 939, as overwhelmingly desired by southern California municipalities, is likely to accelerate the need for disposal capacity.

**B. What is the Status of Waste-by-Rail and Other Waste Management Options in Southern California?**

Waste-by-rail very much remains a viable part of the region’s potential “basket” of solutions to the nearing capacity crunch. It is perceived favorably by local political leaders and continues to play a prominent role in official waste-management planning efforts for the region. Waste-by-rail would also assist in achieving other important regional policies requiring a balance between public and private control of disposal options and creation and maintenance of a stable economic environment in which to plan for up to 50 years of waste management needs for the region.

Incineration, paid lip service by SCAG, is political suicide, at least in eastern Los Angeles County. It is unlikely to be a viable alternative in the near future.

Materials Recovery Facilities are an integral part of the region's ability to achieve the recycling and diversion goals of AB 939. In order to achieve the diversion requirements of the law, we can expect that increasing amounts of municipal solid wastes will be processed through MRFs in the near future – especially if the southern California municipal delegations are unable to convince Sacramento lawmakers that relaxation of the diversion requirements is in order. Processing materials through a MRF imposes substantial costs generally not associated with routine waste transport and disposal activities today. As noted, however, this situation is likely to change substantially in the next few years.

MRFs can also be an integral part of any waste-by-rail system. Once materials are processed through an MRF, waste-by-rail costs, even unsubsidized, become much more competitive with local landfill disposal costs. Furthermore, because of their dependence on MRFs, development of waste-by-rail systems necessarily enhances waste recycling and diversion. However, it must be emphasized that equally appurtenant to the MRF aspect of the waste-by-rail system is the need for **transfer** facilities and capabilities as well. While there currently exist many MRFs in the region, perhaps only two – the former Western Waste (and now WMI) transfer station in Carson and the Athens transfer facility in the City of Industry – are of a size and potential location that could economically accommodate a waste-by-rail system. Thus, the region will also have to see an increased commitment to large MRF/transfer facilities that can efficiently use a waste-by-rail system.

Nevertheless, even if there is a relaxation of the AB 939 mandates, waste-by-rail systems contain what is likely to be a highly popular component of achieving the ultimate requirements of those mandates. However, an appropriate policy would appear to be one that affirms the commitment to waste-by-rail while also embracing the conclusion that there exists little or no need to relax the current recycling mandates of AB 939 for the region.

Air quality is and will remain a key issue for any development actions (public or private) that are to be taken in southern California. By removing rubbish (and rubbish transfer) trucks from the roadways, waste-by-rail will incrementally reduce highway congestion and contribute to improve air quality in the region.

While Orange County has an abundance of landfill capacity, it is highly unlikely that Los Angeles County will ever allow major control over capacity to shift to Orange County. To do so might well result in the demise of the LACSD's waste-management-system functions, an unlikely political event in light of the stated policies for the County to ensure 50 years of waste disposal capacity under its control.

Despite economic incentives to transport rubbish to Orange County, the LACSD's willingness to levelize gate tipping fees at its facilities will likely keep rubbish from Los Angeles County going to LACSD facilities, which could include waste-by-rail.

While the El Sobrante Landfill may play a role in addressing Los Angeles County's

needs, the project has yet to receive its operating permits. Furthermore, it will be limited to 6,000 tons/day of imported rubbish.

With its merger with USA Waste Services, Waste Management, Inc. now is in a position to exercise substantial market control in the entire southern California region. As of the date of writing this report, the Sunshine Canyon Landfill in Granada Hills is the only major private landfill in *all* of Southern California that is not controlled by Waste Management. As recently as two years ago, *six different* private firms operated and controlled landfill major sites in the region. And, as shown above, not only are two of the three in-state rail sites controlled by Waste Management, but two of the four out-of-state waste-by-rail sites are controlled by Waste Management as well. This fact should be of concern to Los Angeles County as it formulates in long-term plans and may prompt it to resist placing its future in the hands of a single corporation – one that is likely to have the ability to “play” one facility against another throughout the region to consolidate and maintain a stable economic environment in which to plan its waste-management needs, the county should give serious attention to the potential of its becoming “captive” of the only major private “player” in the region.

At the very least, this observation suggests that Eagle Mountain should remain both politically and economically viable as an important option – and opportunity – for the region. Without this option, the only choice for the county would seem to be to deal with Waste Management, Inc. or Orange County. This choice, however, seems problematic, for it would not seem to help the county achieve its stated policy goal of securing 50 years of capacity under public control and with a stable economic environment – a goal which has thus far allowed the

citizens of Los Angeles County to enjoy some of the least costly waste-management option in the region, the State and the nation.<sup>69</sup>

### **C. What Needs to be Done Now?**

The LACSD must soon begin its formal efforts to extend the CUP at Puente Hills for another ten years past 2003. It is quite likely that the political success of this effort will require, as an integral part, a firm and formal commitment to waste-by-rail. The leadership of the Districts is critical to the success of the waste-by-rail alternative. But the focus of their efforts probably needs to expand to include more attention to transportation and delivery systems development.

As noted by one observer,<sup>70</sup> the history of waste management in Los Angeles County for the past fifty years has been inherently local. However, “the next fifty years would indicate that far more complex and costly waste management alternatives will necessarily be imposed upon the region, and the Sanitation Districts will need to ‘stay in the game’ to ensure that both competition and diversity of options exist.”<sup>71</sup> “Thus, the LACSD, in order to maintain their historic role of leadership in the region and to facilitate the delivery of wastes to a variety of facilities and remote sites as outlined in the plans of Los Angeles County will need to develop a

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<sup>69</sup> While not a centerpiece of this report and analysis, it should be noted that due to the presence of the LACSD’s services in the region, tipping fees are often only a fraction of that charged in other jurisdictions. Thus, for example, while Puente Hills Landfill tipping fees are yet to exceed \$20/ton, this amount is only approximately one-half of the tipping fees in the inland Empire Counties. Even the aggressive Orange County efforts to import rubbish do not carry tipping fees much lower than those for the LACSD facilities.

<sup>70</sup> Paul Ryan, waste industry consultant and former Director of Waste Management for San Bernardino County.

<sup>71</sup> Paul Ryan.

transportation infrastructure - either one of its own or one based upon long-term commitments with other operators - that it does not now maintain.”<sup>72</sup>

If an “acceptable” waste-by-rail project is ready by 2003, the time of the next Puente Hills permit debate, it will likely get a major commitment of at least 3,500 tons/day.

In light of SCAG’s conclusions regarding growth predicted for the region and the tremendous impact that this growth will have on freeway transportation, the ability of waste-by-rail to get trash trucks “off of the road” should be promoted as a plus for the region.

The regulations governing vertical expansions of existing landfills need to be modified, if necessary with the direction of enabling state legislation, to ensure that no more expansions of any landfill are permitted without the employment of a full composite liner and leachate control system. The practical effect of this initiative will be to “outlaw” vertical expansions of any landfill.

Out-of-state waste-by-rail sites are not likely to receive long-term commitments. Public and official opinion is against reliance on out-of-state facilities, and their distance from Southern California would appear to give in-state sites a potential cost advantage.

For the time being, the RailCycle Project is seriously impaired. Not only does WMX have an interest in the already-permitted Mesquite Project by virtue of its merger with USA, as well as in the El Sobrante site which has been designated for importation of wastes from outside

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<sup>72</sup> Paul Ryan.

of Riverside County, but the troubles that RailCycle has experienced in San Bernardino County may just be too large to surmount.

Furthermore, San Bernardino County does not need the RailCycle project for its own needs. With the planned major expansion of the Mid-Valley Landfill in Rialto (new daily limit of 7,500 tons/day), the Bolo Station site is not needed.

There exists a serious question as to why USA (now Waste Management, Inc.) would pursue the active development of the RailFill site over that of the recently-approved major expansion at El Sobrante (10,000 tons/day and 108 million tons of capacity). As long as Waste Management, Inc. maintains its interest in the Railfill project, only if El Sobrante is stopped because of legal action or its inability to acquire operating permits (which seems somewhat remote given the major operation there now) is the RailFill site likely to be developed in the near future. In any event, with its somewhat limited ability to accept out-of-county wastes, El Sobrante can, at best, provide only a partial solution to Los Angeles County's intermediate or long-term needs. Furthermore, Waste Management also controls several already-operating disposal sites in nearby Arizona, which could easily accept wastes from southern California if political objections to out-of-state disposal could be surmounted.

Eagle Mountain, once ahead of all the rest of the waste-by-rail projects, could "catch up" to the only other viable contender -- the RailFill Landfill -- by the time that an economically viable commitment to waste-by-rail is made in conjunction with the Puente Hills Landfill expansion for 2003.

When faced in the past with a need to acquire a basic resource for the region – water - communities in the Los Angeles basin were able to secure long-term supplies by effectively “purchasing” capacity rights – for example, in the Colorado River Aqueduct. It may be that a similar avenue should be pursued by the LACSD regarding waste disposal capacity. Thus, for example, given the expressed policies of the county, it may be appropriate to consider some type of “public/private” partnership among the LACSD, the “receiver” jurisdiction, and the private developer of a specific waste-by-rail disposal site. It may be that more than one disposal site should be considered and contracted for. While the future economic viability of the RailFill Project would seem to be somewhat guaranteed, given the nature of its controlling interests, the Eagle Mountain Project may not have the same potential economic viability. In light of the potential anti-competitive market domination of Waste Management, Inc., it may well be that the Eagle Mountain Project should be actively pursued in the context of a public/private partnership. Such a strategy would appear to offer and enhance future economic competition and presumably, result in optimum cost protection for the public entities involved. Thus, the economic viability of the Eagle Mountain Project – and its potential to protect the region’s waste disposal needs and costs – would appear to dictate that the LACSD and the Joint Powers Authority cities of Los Angeles County consider a public/private partnership with Riverside County and the Eagle Mountain Project.