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Reuse and the Benefit to Community A Beneficial Effects Economic Case Study for the Operating Industries, Inc. Landfill Superfund Site



Introduction

The Operating Industries, Inc. Landfill Superfund site covers about 190 acres in Monterey Park, California, 10 miles east of downtown Los Angeles. From 1948 to 1984, landfill operations took place at the site. Decades of waste disposal led to the contamination of soil, groundwater and air at the site and impacted the surrounding neighborhood. EPA placed the site on the Superfund program's National Priorities List (NPL) in 1986. EPA, the site owner, the State of California, the Cities of Monterey Park and Montebello, nearby residents and the responsible parties represented by the OII Steering Committee worked together on the successful cleanup of the site. M&M Realty Partners purchased a portion of the site in 2016 and began plans for redevelopment.

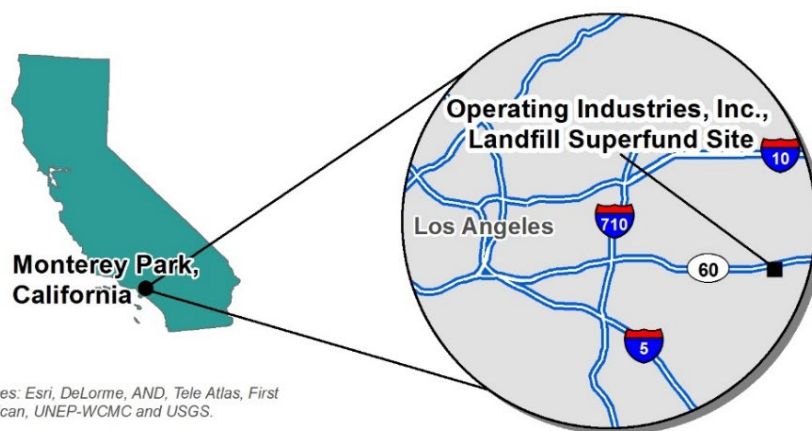
Today, a portion of the site is home to Monterey Park Marketplace, a thriving new commercial development, and there are plans for more development at the site. Superfund site restoration and reuse can revitalize local economies with jobs, new businesses, tax revenues and spending. This case study explores the cleanup and reuse of the Operating Industries, Inc. Landfill site, illustrating the beneficial effects of Superfund redevelopment.

Beneficial Effects

The 500,000-square-foot Monterey Park Marketplace includes stores and restaurants.

Privately owned businesses on the site employ more than 600 people, providing estimated annual employment income of over \$19 million and generating more than \$149 million in annual sales.

Privately owned property on the site is currently valued at \$10.4 million and generates over \$169,000 in annual property tax revenue.



Sources: Esri, DeLorme, AND, Tele Atlas, First American, UNEP-WCMC and USGS.

Figure 1. The site's location in Monterey Park, California.

Site History

The 190-acre site is located in a commercial, industrial and residential area of Monterey Park (Figure 1). The Pomona Freeway divides the site into two separate areas, called the North Parcel and South Parcel (see Figure 8). The North Parcel is about 45 acres and the South Parcel is about 145 acres. About 230,000 people live within 3 miles of the site.¹

Municipal landfill operations started in 1948. Monterey Park Disposal Company operated the landfill on behalf of the city of Monterey Park on 14 acres of a former sand-and-gravel quarry. In 1952, Operating Industries Incorporated (OII) acquired the landfill and the facility started accepting a wider range of wastes, including hazardous liquid wastes. In 1982, leachate was observed seeping off site. During landfill operations, companies dumped millions of gallons of commercial, residential and industrial wastes at the site, including more than 300 million gallons of liquid industrial waste. The South Parcel received most of the waste. About 10 acres of the western part of the North Parcel was part of the landfill. Disposal practices at the landfill contaminated air, groundwater and soil, posed a fire risk, and threatened the health of nearby residents. An auto wrecking operation was also located on the North Parcel. In 1998, it was shut down and removed.



Figure 2. The site surrounded by the communities of Monterey Park and Montebello in 1993.

Pre-listing Landfill Control Measures

Under orders from regulators, OII implemented several contaminant control measures during its operation of the landfill. They included a leachate control system to collect liquid waste, an air-dike air injection system to control subsurface gas migration, landfill gas extraction wells around the perimeter and a gas flaring station. OII also contoured site areas, terraced slopes, planted vegetation and covered refuse with additional fill.

State of California and EPA Involvement

The State of California placed the landfill on the California Hazardous Waste Priority List in January 1984. Site operations shut down later that year. EPA's site investigations found that OII's control measures were not sufficiently protective of human health and the environment. EPA took several emergency response actions beginning in 1984 to protect human health and the environment. They included slope stability and erosion controls, surface runoff and drainage improvements, rehabilitation of the main flare station, site security measures and placement of vented water meter box covers off site.

OII's ability to control and maintain its systems deteriorated further in late 1984 when it notified EPA and the California Department of Health Services that it could no longer afford to truck leachate off site for treatment. EPA finalized the site's listing on the NPL in May 1986.

¹ U.S. Census Bureau, American Community Survey (ACS) 2011 – 2015, accessed through EPA's EnviroMapper website: <https://enviro.epa.gov/enviro/em4ef.home>

Site Cleanup and Transformation

EPA selected the site's final remedy in a 1996 Record of Decision. EPA's approach to cleanup included four long-term remedial components that focused on the entire site. The components included leachate management, installation of a gas control system and a landfill cap, and site controls and monitoring. The following sections describe the primary remedial components.

Leachate Management: The remedy included control of landfill liquids around the perimeter of the site, natural attenuation and monitoring of contaminated groundwater, and operation and maintenance of the leachate treatment plant, irrigation and other cleanup technologies. Natural attenuation describes a variety of processes that, under favorable conditions, reduce the mass, toxicity, mobility, volume or concentration of contaminants in groundwater. In 1994, an on-site leachate treatment plant began operating. In 1996, a perimeter liquids control system was constructed to prevent liquids from migrating beyond the landfill perimeter.



Figure 3. The on-site leachate treatment plant operated by New Cure, INC.

Gas Control and Landfill Cap: The long-term remedy included gas extraction wells to collect and monitor landfill gases, and landfill gas destruction. Landfill gas is destroyed by two thermal oxidizer units that incinerate the gas at extremely high temperatures. EPA later updated the remedy to include a landfill cap, perimeter landfill gas extraction wells, monitoring wells and upgraded landfill gas technologies. Cleanup activities at the South Parcel included new gas extraction wells, new gas piping, additional gas destruction capacity and monitoring facilities. A landfill cap prevents movement of landfill gas through the surface of the site and decreases odors, dust and emissions. For several years, extracted landfill gas was used to generate electricity with microturbines to power site cleanup equipment, meeting more than half the remedial systems energy requirements. The landfill cap reduces infiltration of water and oxygen into the landfill and prevents erosion and movement of landfill materials. The surface water management system minimizes the potential for runoff of landfill contaminants during rainfall and erosion of the cap. Construction of the South Parcel remedial systems finished in 2000.

Cleanup activities at the North Parcel included installation of a landfill cap and passive landfill gas controls system. The North Parcel cleanup finished in June 2009.

Site Controls and Monitoring: The remedy included full-time site controls and monitoring with preventive maintenance and operation of the gas collection/control and leachate systems. These activities include the operation of the gas control systems and landfill gas treatment facility and maintenance of treatment technologies. Installation of new gas recovery wells and monitoring probes has increased the amount of gas collected.

Community Involvement

EPA sought public input on the siting of the landfill gas treatment system. In 1992 and 1993, EPA provided in-home air monitoring for nearby residences to detect gases migrating underground from the landfill. To address community concerns pending implementation of the full gas control remedy, EPA installed interim gas control systems. EPA ran the air monitoring program for eight years. Area residents played an important role in advancing cleanup at the site. They provided input on selecting the final remedy and other important decisions. Community members input was also integral to the redevelopment of the site.

Redevelopment

EPA determined that the remedy for the North Parcel could be compatible with future commercial land use. In 2009, the North Parcel landfill cap was completed. In 2016, construction began for Monterey Park Marketplace and about 100 people attended the groundbreaking ceremony. Development was possible because of the coordinated efforts of EPA, the OII Custodial Trust, the City of Monterey Park and the developers. The development company, M & M Realty Partners, persevered through the process of redeveloping a Superfund site and were able to realize a promising opportunity that others might not have recognized. M & M Realty Partners played a key coordinating role in making the redevelopment possible and vetting and attracting businesses that provide services needed by the community. The 500,000-square-foot Monterey Park Marketplace shopping center opened in 2018 and it includes stores, restaurants and parking areas. This commercial development is the culmination of the commitment, hard work and perseverance by all of the partners in this project.

In July 2019, EPA Region 9 presented its Excellence in Site Reuse Award to the OII Custodial Trust, the City of Monterey Park and M&M Realty Partners. The award is given to a developer, site owner, responsible party or other stakeholder who has demonstrated excellence in working with EPA on redeveloping a Superfund site. The award criteria include enhancement of the remedy, community benefits and implementation of sustainable practices. The event also was part of a series of events to celebrate 20 years of the Superfund Redevelopment Initiative.²



Figure 4. Redevelopment construction at the site, August 2018.



Figure 5. EPA awards the site's Custodial Trust, the city of Monterey Park and M&M Realty Partners the Excellence in Site Reuse Award. Pictured from left to right: Ron Bow (City Manager, City of Monterey Park), Teresa Real Sebastian (Councilmember, City of Monterey Park), Mitchell Ing (Mayor Pro Tempore, City of Monterey Park), Hans Liang (Mayor, City of Monterey Park), Deborah Jordan (Deputy Regional Administrator, U.S. EPA Region 9), Stephen Lam (Councilmember, City of Monterey Park), Corey Bertelsen (Project Manager, OII Site Trust), Peter Chan (Councilmember, City of Monterey Park), Joe Marino (Partner, M & M Realty Partners), David Giannotti (Counsel, OII Site Custodial Trust) and Jack Morris (Partner, M & M Realty Partners).

² U.S. Environmental Protection Agency. 2018. *Superfund Redevelopment 20th Anniversary Report*. <https://semsub.epa.gov/src/document/HQ/199542.pdf>.

Benefits of Redevelopment

Monterey Park Marketplace is located on the former northern area of the landfill (see Figure 8). This commercial complex supports seven businesses that provide over 600 jobs. In addition, there are plans and opportunities for more development on the North Parcel, including a transit stop for the region's Gold Line light rail system at the shopping center. This section describes some of the economic benefits of redevelopment at the site. Figure 8 shows the locations of the site businesses highlighted below.



Figure 6. A view of the landfill's South Parcel to the right and the shopping center's parking lot on the left and center.

Businesses

Costco

This wholesale store has operated on site since 2018. It includes a gas station, a pharmacy, a tire center, and hearing aid and optical departments. The business provides over \$11 million in estimated annual employee income and generates about \$78.3 million in annual sales.



Figure 7. The Costco at Monterey Park Marketplace.

Home Depot

This global home store chain opened a location on site in 2018. It sells home improvement goods and provides services, and provides workshops, and tool and truck rentals. The store location has a garden center and offers large equipment rentals. The business provides over \$4.4 million in estimated annual employee income and generates about \$56.4 million in annual sales.

Guitar Center

This nationwide retailer has operated a music store on site since 2018. The store has departments dedicated to guitars, drums, keyboards and audio equipment. It also hosts regular music workshops and offers lessons, repairs and instrument rentals. The business generates an estimated \$5.2 million in annual sales.

In-n-Out Burger

This regional fast-food restaurant chain has operated a franchise on site since 2018. The business generates an estimated \$3.6 million in annual sales.

Chick-Fil-A

This restaurant chain operates a location at Monterey Park Marketplace. The franchise opened on site in 2019. Its on-site location generates over \$2.3 million in annual sales.

Starbucks

The global coffee chain opened a location at Monterey Park Marketplace in 2019. The business generates an estimated \$900,000 in annual sales.

America's Best Contacts & Eyeglasses

America's Best Contacts & Eyeglasses operates over 700 retail stores across the country. Its Monterey Park location opened in 2019 and provides area residents with optometrist services. The business generates over \$400,000 in annual sales.

New Cure, Inc.

This environmental contractor operates and maintains the remedy on the South Parcel of the site. The contractor provides daily operations and maintenance services as well as on-call oversight for ongoing remediation activities.

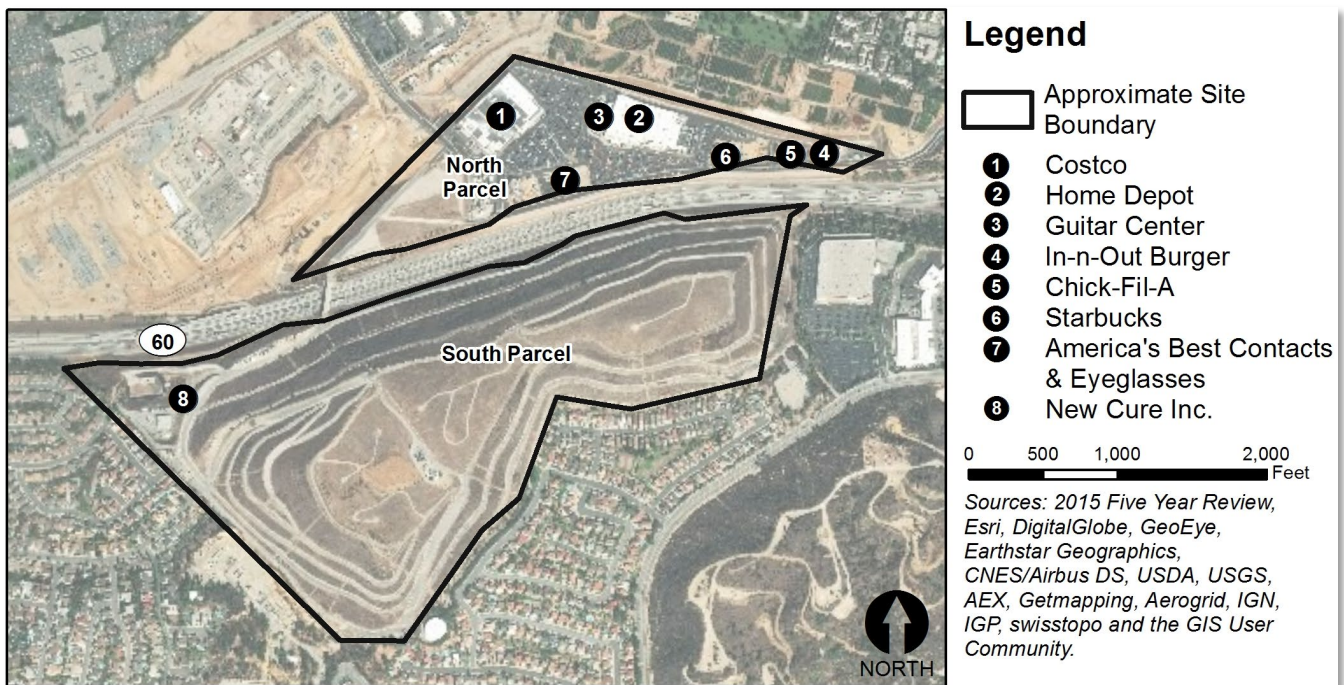


Figure 8. Aerial view of the site and points of interest.

Property Values and Tax Revenues

On-site properties help generate property tax revenues that support local government and public services. Today, site properties have a combined value of \$10.4 million. In 2018, site properties generated over \$169,000 in total property tax revenues. On-site businesses also generate tax revenues through the collection of sales taxes, which support state and local governments.³

³ The combined sales tax rate of California and the county of Los Angeles is 9.50 percent. There is no sales tax for Monterey Park. For more information, see <https://www.cdtfa.ca.gov/taxes-and-fees/rates.aspx>.

Conclusion

The cleanup and redevelopment of the Operating Industries, Inc. Landfill Superfund site illustrates how collaborative efforts among EPA, state and local governments, responsible parties, site owners, developers and communities can result in remarkable outcomes, protecting human health and enabling economic growth. Thanks to cleanup efforts, the site supports businesses that provide vital jobs and services. Today, on-site businesses bolster the local economy, providing more than 600 jobs and over \$19 million in estimated annual employee income. In 2018, combined sales revenue at these businesses and organizations exceeded \$149 million.

*For more information about EPA's Superfund Redevelopment Initiative, visit:
<https://www.epa.gov/superfund-redevelopment-initiative>.*



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Technical Appendix

Employment Information for On-Site Jobs

EPA obtained the data included in this appendix directly from reputable sources and reported the data as presented by those sources. Information on the number of employees and sales volume for on-site businesses came from the Hoovers/Dun & Bradstreet (D&B) database.¹ D&B maintains a database of over 300 million businesses worldwide. When Hoovers/D&B database research was unable to identify employment and sales volume for on-site businesses, EPA used the ReferenceUSA database.² These databases include data reported by businesses. Accordingly, some reported values might be underestimates or overestimates.

Wage and Income Information for On-Site Jobs

EPA obtained wage and income information from the U.S. Bureau of Labor Statistics (BLS). Part of the U.S. Department of Labor, the BLS is the principal federal agency responsible for measuring labor market activity, working conditions and price changes in the economy. All BLS data meet high standards of accuracy, statistical quality and impartiality.

EPA used the BLS Quarterly Census of Employment and Wages database to obtain average weekly wage data for businesses at the Operating Industries Incorporated Superfund site. Average weekly wage data were identified by matching the North American Industry Classification System (NAICS) codes for each type of business with weekly wage data for corresponding businesses in Los Angeles County. If weekly wage data were not available at the county level, EPA sought wage data by state or national level, respectively. In cases where wage data were not available for the six-digit NAICS code, EPA used higher-level (less-detailed) NAICS codes to obtain the wage data.

To determine the annual wages (mean annual) earned from jobs generated by each of the selected businesses at the Operating Industries Inc. Landfill Superfund site, EPA multiplied the average weekly wage figure by the number of weeks in a year (52) and by the number of jobs (employees) for each business.

¹ <http://www.dnb.com>

² <http://resource.referenceusa.com>

Table 1. Operating Industries Inc. Landfill Superfund Site: Information for On-Site Organizations and Businesses

| On-Site Business | NAICS Code ^a | NAICS Title | Number of Employees ^a | Average Weekly Wage (2018) ^b | Annual Wage (Mean Annual) per Employee | Total Annual Employee Income ^c | Annual Sales (2018) ^a |
|--------------------------------------|-------------------------|---------------------------------------|----------------------------------|---|--|---|----------------------------------|
| America's Best Contacts & Eyeglasses | 446130 | Optical Goods Stores | 4 | \$593 | \$30,836 | \$123,344 | \$437,000 |
| Chick-Fil-A | 722513 ^d | Limited-Service Restaurants | 20 | \$393 | \$20,436 | \$408,720 | \$2,367,000 |
| Costco Wholesale | 452311 ^d | Warehouse Clubs & Supercenters | 390 | \$551 | \$28,652 | \$11,174,280 | \$78,290,000 |
| Guitar Center | 451140 ^d | Musical Instrument and Supplies Store | 20 | \$673 | \$34,996 | \$699,920 | \$5,194,000 |
| Home Depot | 444110 | Home Centers | 150 | \$569 | \$29,588 | \$4,438,200 | \$56,384,000 |
| In-N-Out Burger | 722513 | Limited-Service Restaurants | 50 | \$393 | \$20,436 | \$1,021,800 | \$3,551,000 |
| New Cure | 561110 ^d | Office Administrative Services | 15 ^d | \$1,892 | \$98,384 | \$1,475,760 | \$2,300,000 ^d |
| Starbucks | 722515 | Snack & Nonalcoholic Beverage bars | 10 | \$410 | \$21,320 | \$213,200 | \$888,000 |
| Total | | | 659 | | | \$19,555,224 | \$149,411,000 |

^a Data are from the ReferenceUSA database, unless otherwise noted.

^b Average weekly wage per employee based on BLS 2018 Average Weekly Wage data for the specific NAICS code.

^c Total estimated annual employee income derived by multiplying "Number of Employees" by "Annual Wage (Mean Annual) per Employee."

^d Data are from the D&B database.

Property Values and Local Tax Revenue Generated from Property Taxes

EPA obtained data on the most recently assessed values for property parcels at the Operating Industries Inc. Landfill Superfund site in July 2019 through property records accessible through Los Angeles County's online property appraisal database.³ EPA also obtained 2018 property tax information for the site parcels.⁴

Table 2. Property Value and Tax Summary for Taxes Payable in 2018

| Parcel ID No. | Total Market Value of Land and Improvements (2018) | Total Property Tax (2018) |
|---------------|--|---------------------------|
| 5293-022-004 | \$160.00 | \$183.42 |
| 5293-022-005 | \$1,080.00 | \$5,372.84 |
| 5293-022-006 | \$1,080.00 | \$2,981.51 |
| 5293-022-003 | \$160.00 | \$36.30 |
| 5293-022-002 | \$160.00 | \$418.39 |
| 5293-022-001 | \$1,080.00 | \$1,252.34 |
| 5275-003-027 | \$220,564.00 | \$5,041.41 |
| 5275-003-039 | \$1,020,798.00 | \$15,241.78 |
| 5275-003-038 | \$2,288,984.00 | \$34,111.59 |
| 5275-003-037 | \$627,581.00 | \$9,390.97 |
| 5275-003-030 | \$3,180,538.00 | \$47,375.63 |
| 5275-003-031 | \$323,002.00 | \$4,858.83 |
| 5275-003-029 | \$372,495.00 | \$5,595.24 |
| 5275-003-024 | \$30.00 | \$366.01 |
| 5275-003-026 | \$60,343.00 | \$1,391.21 |
| 5275-003-025 | \$2,309,688.00 | \$35,981.45 |
| Totals | \$10,407,743.00 | \$169,598.92 |

³ The Los Angeles County Office of the Assessor: <http://assessor.co.la.ca.us/extranet/datamaps/pais.aspx>.

⁴ The Los Angeles County Treasurer and Tax Collector: <https://vcheck.ttc.lacounty.gov/proptax.php?page=installments&>.