EPA

PUTTING SITES TO WORK

How Superfund Redevelopment in the Pacific Southwest Region Is Making a Difference in Communities

REGION 9 ECONOMIC PROFILE

Cover page photos:
San Fernando Valley (Area 1) (California), Indian Bend Wash Area (Arizona), South Bay Asbestos Area (California), Aerojet General Corp. (California)

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Figure 1. Courtyard at one of the many commercial businesses at the San Fernando Valley (Area 1) site (California).

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PREFACE

EPA's Superfund program is a cornerstone of the work that the Agency performs for citizens and communities across the country. The revitalization of places affected by contaminated lands is a key part of Superfund's mission, meeting community needs for thriving economies and improved environmental and public health outcomes. Through EPA's Superfund Redevelopment Initiative, the Agency contributes to these communities' economic vitality by supporting the return of sites to productive use.

EPA has established a renewed focus on accelerating work and progress at all Superfund sites across the country and created the Superfund Task Force whose work included promoting redevelopment and community revitalization. Working closely with communities, developers and property owners, EPA is leading the way to return these once-contaminated sites back to productive use.

These regional profiles highlight community-led efforts as EPA expedites cleanup and remediation and engages with partners and stakeholders to support redevelopment and community revitalization.

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INTRODUCTION

EPA Region 9 states and U.S. Pacific territories – Arizona, California, Hawaii, Nevada, American Samoa, Guam and the Northern Mariana Islands – are diverse. While the Pacific Southwest Region is known for its scenic travel destinations and high-tech industry and manufacturing, agriculture and commercial trade are also thriving. Local governments, state agencies and organizations across the Region work hard to help smaller communities remain vibrant while carefully planning for new growth in major cities and suburbs. A key part of this work focuses on finding new uses for former industrial sites, including Superfund sites. The Superfund program in EPA Region 9 is proud to play a role in these efforts.

Region 9 Sites in Reuse and Continued Use: Business and Job Highlights

Businesses:	*1,487*
Total Annual Sales:	*$12.7 billion*
Number of People Employed:	*41,537*
Total Annual Employee Income:	*$4.5 billion*

Figure 2. Commercial reuse at the Del Amo site (California).

The cleanup and reuse of Superfund sites often restores value to site properties and surrounding communities that have been negatively affected by contamination. Site redevelopment can revitalize a local economy with jobs, new businesses, tax revenues and local spending.

Through programs like the Superfund Redevelopment Initiative, EPA Region 9 helps communities reclaim cleaned-up Superfund sites. Factoring future use of Superfund sites into the cleanup process promotes their safe redevelopment. In addition, EPA Region 9 works closely with state and local officials to remove barriers that have kept many Superfund sites underused. EPA Region 9 works to ensure that businesses on properties being cleaned up under Superfund can continue operating in a way that protects human health and the environment during site investigations and cleanup work. This continuity enables these businesses to remain open and serve as a source of jobs for communities.

Superfund sites across Region 9 are now home to industrial parks, shopping centers, office buildings and neighborhoods. Many sites continue to host industrial operations such as large-scale manufacturing facilities. Some sites continue to host military facilities. Others are now parks and recreation areas. On-site businesses and organizations at current and former Region 9 Superfund sites provide an estimated 41,537 jobs and contribute an estimated $4.5 billion in annual employment income. Sites in reuse and continued use in Region 9 generate $42.6 million in annual property tax revenues for local governments.[1]

“We’re doing everything simultaneously, and that’s been the best way to do it. The cleanup process can take a long time – we are talking decades here. It would be a real shame if nothing was done during the time it takes to clean sites like this up. Having remedial action take place on an as-needed basis allowed for commercial activity to continue. Without this approach, a lot of economic activity would never have happened.” **Marc Selznick, Unire Real Estate Group, in reference to the Del Amo Superfund site.**

1 Business and property value tax figures represent only a subset of the beneficial effects of sites in reuse or continued use in Region 9. There are 47 Superfund sites in reuse or continued use in Region 9 for which EPA does not have business data, including 28 federal facilities on the Superfund National Priorities List (NPL). Not all sites in reuse involve an on-site business or other land use that would employ people. Several sites without businesses have beneficial effects that are not easily quantified, such as properties providing ecological or recreational benefits (e.g., parks, wetlands, ecological habitat and open space). In addition, there are 77 sites in reuse or continued use in Region 9 for which EPA does not have property value or tax data, including 28 NPL federal facilities.

This profile looks at how redevelopment activities at Superfund sites make a difference in communities across Region 9. In particular, it describes some of the beneficial effects of redevelopment and continued use of current and former Superfund sites. The profile also describes the land values and property taxes associated with Superfund sites returned to use and sites that have remained in use throughout the cleanup process. EPA updates these profiles periodically. The beneficial effects may increase or decrease over time due to changes in:

- The number of sites in reuse or continued use.
- The number of on-site businesses.
- Data availability.
- Changes in business and property value data.

Figures presented represent only a subset of all Superfund sites in reuse or continued use in Region 9.

Figure 3. Left: Fry's Electronics at the San Fernando Valley (Area 1) site (California). Right: Commercial development at the Del Amo site (California).

SUPPORT FOR SUPERFUND REDEVELOPMENT

EPA Region 9 is committed to improving the health and livelihood of Americans by cleaning up and returning land to productive use. In addition to protecting human health and the environment through the Superfund program, Region 9 partners with stakeholders to encourage redevelopment opportunities at Superfund sites. Region 9 helps communities and cleanup managers consider redevelopment during cleanup planning and evaluate remedies already in place to ensure appropriate redevelopment. In addition, EPA participates in partnerships with communities and encourages opportunities to support Superfund Redevelopment projects that emphasize environmental and economic sustainability.

Specific redevelopment support efforts in EPA Region 9 include:

- Identifying and evaluating local land use priorities to align with site cleanup plans through the redevelopment planning process.
- Facilitating cleanup and redevelopment discussions to help resolve key issues between parties interested in site redevelopment.
- Supporting targeted projects intended to help Region 9 communities and EPA find the right tools to move site redevelopment forward.
- Making efforts to help address communities' and developers' liability, safety and reuse concerns through development of educational materials, comfort letters, developer agreements and environmental status reports – known as Ready for Reuse Determinations – that provide information about the appropriate use of sites.
- Supporting partnerships with groups committed to returning Superfund sites to productive use, such as The Trust for Public Land.
- Developing reuse fact sheets, websites, webinars and reuse case studies to share opportunities and lessons associated with Superfund Redevelopment.

Figure 4. Business park at the South Bay Asbestos Area site (California).

These efforts have helped build expertise across Region 9, making it easier to both consider future use of Superfund sites prior to cleanup and to identify opportunities for removing reuse barriers. These efforts also help tribes, state agencies, local governments, communities, potentially responsible parties, site owners, developers, and other partners and stakeholders to better understand potential future uses for Superfund sites. This helps stakeholders engage early in the cleanup process, ensuring that Superfund sites are restored as productive assets for communities. Most importantly, these efforts lead to significant returns for communities, including jobs, annual income and tax revenues.

SUPERFUND REDEVELOPMENT: THE BIG PICTURE

EPA can take and oversee immediate action at contaminated sites through short-term cleanup actions, also called removal actions.[2] EPA refers sites warranting long-term cleanup to its remedial program or to state programs. EPA's National Priorities List (NPL) is a list of sites the Agency is targeting for further investigation and possible remediation through the Superfund program. Once EPA places a site on the NPL, the Agency studies the contamination, identifies technologies that could address the material and evaluates alternative cleanup approaches. EPA then proposes a cleanup plan and, after collecting public input, issues a final cleanup plan. The Agency then cleans up the site or oversees cleanup activities. EPA has placed 136 sites in Region 9 on the NPL.

Whenever possible, EPA seeks to integrate redevelopment priorities into site cleanup plans. In Region 9, 97 NPL sites and three non-NPL Superfund sites are in use. These sites have either new uses in place or uses that remain in place from before cleanup. Many of these sites have been redeveloped for commercial, industrial and residential purposes. Others have been redeveloped for recreational, ecological and agricultural uses. Many redeveloped sites support multiple uses and have the capacity to support additional uses and further redevelopment. The following sections take a closer look at the beneficial effects of businesses operating on current and former Superfund sites in Region 9.

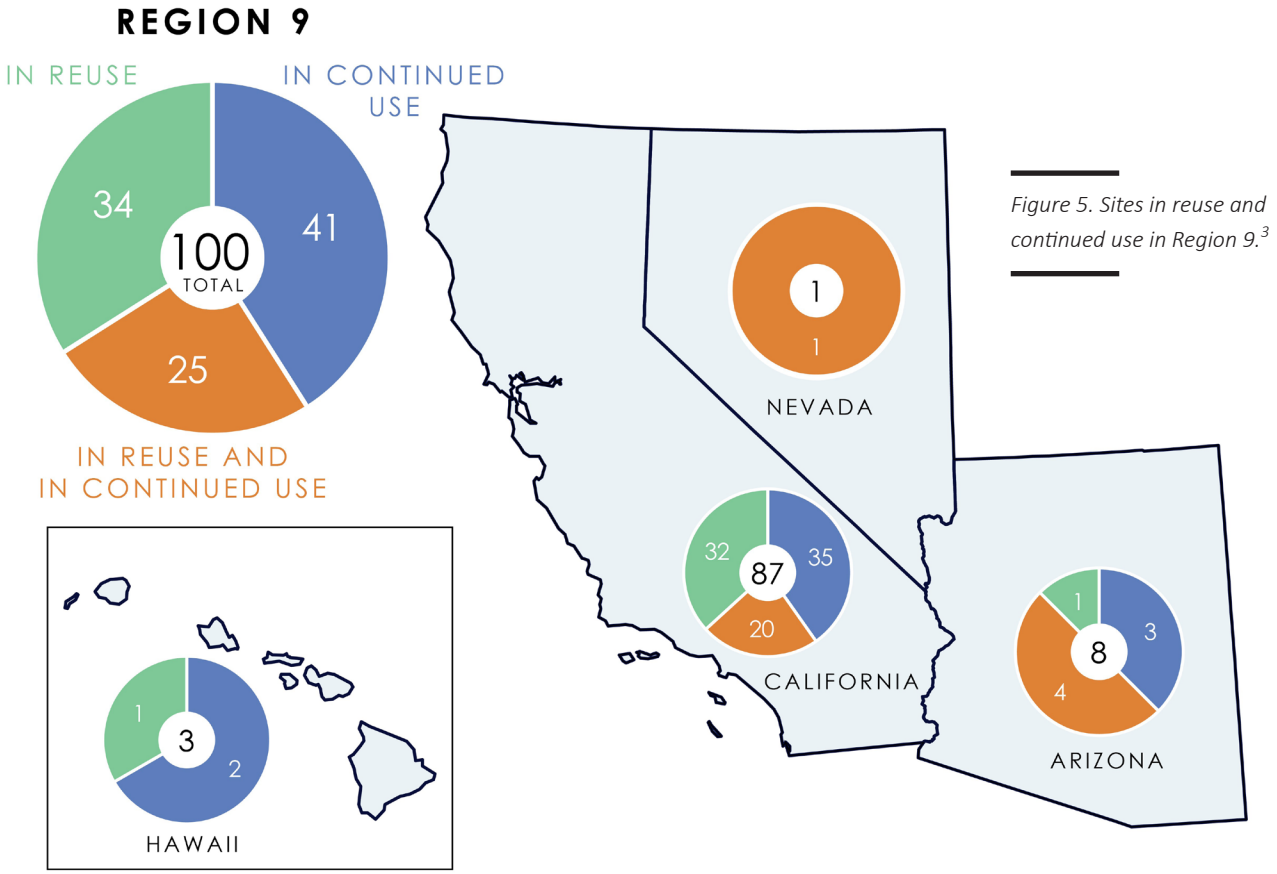

Figure 5. Sites in reuse and continued use in Region 9.[3]

2 Removal actions may be taken at sites on the NPL and sites not on the NPL.

3 Not shown: Guam. Guam has one federal facility NPL site in continued use.

Figure 6. Left: The Cader Corporate Center at the Sola Optical USA, Inc. site (California). Right: Walgreens at the Coalinga Asbestos Mine site (California).

Sites in Reuse and Continued Use: A Closer Look

Reuse Type	Description	Region 9 Example
In Reuse	*There is a new land use or uses on all or part of a site. This is because either the land use has changed (e.g., from industrial use to commercial use) or the site is now in use after being vacant.*	*Sola Optical USA, Inc. (California) – former eyeglass lens manufacturing facility is now home to the Cader Corporate Center, which provides light industrial, manufacturing, storage and office space for four local businesses.*
In Continued Use	*Historical uses at a site remain active; these uses were in place when the Superfund process started at the site.*	*Waste Disposal, Inc. (California) – continued site use includes about 40 commercial and light-industrial business enterprises.*
In Reuse and Continued Use	*Part of a site is in continued use and part of the site is in reuse.*	*Coalinga Asbestos Mine (California) – the removal of old asbestos storage buildings and contaminated soil from several areas made possible the construction of a new Kmart store and two major housing developments. Long-time commercial and light industrial areas remain in continued use on site.*

BENEFICIAL EFFECTS OF SUPERFUND SITE REDEVELOPMENT IN REGION 9

Businesses and Jobs

EPA has collected economic data for 1,487 businesses, government agencies and civic organizations operating on 51 NPL sites and two non-NPL sites in reuse and continued use in Region 9.[4] (See the State Redevelopment Profiles for each state's reuse details.) Businesses and organizations at these sites are part of several different sectors, including professional, scientific and technical services, transportation, wholesale and retail trade, manufacturing, health care and social services, and finance and insurance.

Businesses, facilities and organizations at these sites include semiconductor manufacturers, aircraft manufacturers, health care providers, a Lowe's home improvement center, a Coca-Cola bottling facility, a Holiday Inn hotel, and a Staples office supply store.

The businesses and organizations at these sites earn about $12.7 billion in estimated annual sales and employ about 41,537 people, earning an estimated $4.5 billion in annual employment income. This income injects money into local economies and generates revenue through personal state income taxes. These businesses also help local economies through direct purchases of local supplies and services. On-site businesses that produce retail sales and services also generate tax revenues through the collection of sales taxes, which support state and local governments. More detailed information is presented in Table 1.[5]

Table 1. Site and Business Information for Region 9 Sites in Reuse and Continued Use (2019)

	Sites[a]	Sites with Businesses[b]	Businesses[c]	Total Annual Sales[d]	Total Employees	Total Annual Employee Income
In Reuse	*34*	*18*	*139*	*$2.4 billion*	*5,134*	*$602 million*
In Continued Use	*41*	*15*	*128*	*$2.1 billion*	*3,777*	*$484 million*
In Reuse and in Continued Use	*25*	*20*	*1,220*	*$8.2 billion*	*32,626*	*$3.4 billion*
Total	***100***	***53[e]***	***1,487***	***$12.7 billion[f]***	***41,537***	***$4.5 billion[f]***

[a] 28 sites are federal facilities. Federal facility sites are excluded from all other detailed site and business data presented above.

[b] Also includes other organizations such as government agencies, nonprofit organizations and civic institutions.

[c] Business information is not available for all businesses on all Superfund sites in reuse or continued use.

[d] For information on the collection of business, jobs and sales data, see Sources.

[e] See footnote 1, page 1.

[f] Throughout this report, sales and annual employee income may not sum exactly to the totals presented due to rounding.

4 See footnote 1, page 1.

5 For additional information on the collection of business, jobs and sales data, see Sources.

Property Values and Property Tax Revenues

Properties cleaned up under the Superfund program and returned to use have the potential to increase in value significantly. This increased value can boost property tax revenues, which help pay for local government operations, schools, transit systems and other public services. Site properties at the Coalinga Asbestos Mine site in California are now valued at nearly $58 million.

Identifying increases in property values and property taxes following cleanup and reuse is challenging. This is due to several factors, including limited data on past property values and the frequency and timing of local property value assessments. Likewise, many factors affect property values, including external economic and neighborhood factors not related to a site's contamination or Superfund status. It is also difficult to isolate the effects of Superfund cleanup and redevelopment using current property values. However, these values do provide insight into the current value of Superfund properties and the potential loss in economic value if the properties were not cleaned up and made available for reuse or continued use.

Region 9 Sites in Reuse and Continued Use: Property Value and Tax Highlights

Total Property Value: *$3.8 billion*

Total Annual Property Taxes: *$42.6 million*

Figure 7. Residential use at the Coalinga Asbestos Mine site (California).

EPA has collected property value and tax data for 23 Superfund sites in reuse and continued use in Region 9.[6] These sites span 630 property parcels and 15,411 acres. They have a total property value of $3.8 billion. The average total property value per acre is $248,000.

Land and improvement property value information is available for 23 sites. These properties have a total land value of $1.5 billion and a total improvement value of $2.3 billion.[7]

Property tax information is available for 23 sites. The properties generate a combined $42.6 million in local property taxes annually.

Table 2. Property Value and Tax Information for Sites in Reuse and Continued Use in Region 9[a]

Total Land Value (23 sites)[b]	*Total Improvement Value[c] (23 sites)*	*Total Property Value (23 sites)*	*Total Property Value per Acre (22 sites)[d]*	*Total Annual Property Taxes (23 sites)*
$1.5 billion	***$2.3 billion***	***$3.8 billion***	***$248,000***	***$42.6 million***

[a] Results are based on an EPA Superfund Redevelopment Initiative effort to collect on-site property values and property taxes for a subset of Superfund sites. The property value and tax amounts reflect the latest property value year and tax data year available in county assessor datasets, which varied from 2018 to 2019. For additional information, see Sources. Throughout this report, property and tax values may not sum exactly to the totals presented due to rounding.

[b] Detailed (land and improvement) property value data as well as tax data were not available for every site.

[c] Land and improvement value for one of the sites is listed as $0.

[d] Based on total property value amount for 22 sites of $3.8 billion divided by total acreage for 22 sites of 15,411.

6 There are 77 additional sites in reuse or continued use in Region 9 for which EPA does not have property value or tax data, including 28 NPL federal facilities. See footnote 1, page 1.

7 Property values consist of land value and the value of any improvements (buildings and infrastructure) placed on a property. When sites are redeveloped, some or all of these improvements may be new or already in place. In some cases, the breakdown showing the land value and improvement value is not always available; only the total property value may be available.

Beneficial Effects from Enhanced Recreational and Ecological Amenities

In addition to hosting commercial developments, retail centers and industrial facilities, many Region 9 sites in reuse and continued use provide recreational and ecological benefits. Greenspace and habitat reuses help attract visitors and residents and indirectly contribute to local economies.

Careful planning can enable the integration of green spaces and habitat into site cleanup plans, resulting in the transformation of contaminated properties into valuable community and wildlife assets. Green spaces are integral components of sustainable communities – they can help protect the environment and human health while providing other social and economic benefits. Parks, community gardens and other public green spaces create opportunities for people to gather, exercise and connect with nature. The creation of green spaces and habitat at once-contaminated properties can serve to re-introduce ecosystems and biodiversity into urban and suburban landscapes by providing corridors for migrating species and preserving habitat. They can also mitigate stormwater runoff problems by slowly absorbing and naturally filtering stormwater, resulting in improved water quality due to decreased runoff and erosion.

Parks, natural areas and scenic landscapes also have great economic value – supporting regional economies through tourism, agriculture and other activities. Economic impacts of recreational activities can include outdoor recreation spending and reduced public costs related to healthcare and infrastructure. In 2017, outdoor recreation contributed $887 billion to the U.S. economy, supporting 7.6 million jobs and generating $65.3 billion in national tax revenue and $59.2 billion in state and local tax revenue.[8] Protected green space can also increase the property values of nearby homes by providing amenities that draw people to live and work in the community.

Many sites in Region 9 provide recreational and ecological benefits. Following cleanup of the South Bay Asbestos site in Alviso, California, one of the site developers established burrowing owl mitigation habitat on site. The habitat includes 25.3 acres of open-space preserve managed as foraging habitat and 6.5 acres of land managed for potential burrowing owl breeding habitat. The city of Maywood, California, and The Trust for Public Land transformed the Pemaco Maywood site into Maywood Riverfront Park, which features soccer fields, basketball courts, a play area, native plant landscaping and picnic areas. The McColl site in Fullerton, California, has been transformed into three championship holes of golf, and is located within the boundaries of the Los Coyotes Country Club.

Figure 8. The on-site portion of the Los Coyotes Country Club golf course at the McColl site (California).

8 The Outdoor Recreation Economy. Outdoor Industry Association. Available at https://outdoorindustry.org/wp-content/uploads/2017/04/OIA_RecEconomy_FINAL_Single.pdf

Benefits of Groundwater Reuse in Region 9

In recent years, EPA has prioritized the reuse and recycling of treated wastewater and groundwater for beneficial purposes at Superfund sites and other contaminated lands. These uses include agricultural and landscape irrigation, industrial processes, household utilities, and drinking water. Reusing treated water for drinking water is especially important in Region 9, where states are facing some of the worst droughts in U.S. history and populations continue to grow rapidly. From 1990 to 2010, for example, Arizona's population increased 74 percent, California's population increased 25 percent and Nevada's population increased about 125 percent. These states are also some of the driest in the United States, ranked 47th, 40th and 50th nationally, respectively, in terms of average annual precipitation. Thus, treated wastewater and groundwater at Superfund sites provide localities with access to additional water resources and also helps reduce the need to divert water from sensitive ecosystems. Finally, having these water supplies available locally means that water does not need to be transported over long distances, reducing energy costs.

Figure 9. The Burbank Water and Power Facility at the San Fernando Valley (Area 1) (California). Image used with the permission of Burbank Water and Power.

Figure 10. Tanks used in treating groundwater at the Newmark Ground Water Contamination site (California).

The **San Gabriel Valley (Area 2)** site is located in the Los Angeles metropolitan area. Treated groundwater from the Baldwin Park part of the San Gabriel Valley (Area 2) Superfund site was available for public consumption as of 2002. The system includes five separate groundwater pump-and-treat systems. The systems can treat up to 43 million gallons of water a day.

The **Newmark Ground Water Contamination** site is located in San Bernardino, California. The site includes two major groundwater plumes. Treatment systems made groundwater available for public consumption in 1998. The systems can treat up to 29 million gallons of water a day.

The **Indian Bend Wash Area** site is located in Scottsdale, Arizona. Industrial facilities contaminated groundwater with volatile organic compounds. The site's central groundwater treatment facility began operation in 1994, with treated groundwater available for public consumption the same year. The facility uses air-stripping technology and can treat up to 11.3 million gallons of water a day.

The **San Fernando Valley (Area 1)** site is located in California's San Fernando Valley and includes the areas of North Hollywood, Sunland and Burbank. Treated groundwater from the Burbank part of the site was available for public consumption as of 1996. The groundwater treatment system can treat up to 9.12 million gallons of water per day. To date, the community has used more than 36 billion gallons of treated drinking water that meet state and federal standards.

Table 3 shows the estimated daily treated water value by site. In total, nearly $380,000 worth of contaminated groundwater is treated each day. This water supply is worth over $138 million each year. Treated groundwater at each site is made available for public consumption by the local water providers listed below.

Table 3. Estimated Daily Treated Water Value, by Site

Site Name	*Daily Water Treatment Capacity (MGD)[a]*	*Local Water Provider*	*Estimated Daily Treated Water Value[b]*
San Gabriel Valley (Baldwin Park)	*43*	*Valley County Water District*	*$77,602*
Newmark Ground Water Contamination	*29*	*San Bernardino Water Authority*	*$44,582*
San Gabriel Valley (Area 1 - South El Monte)	*18*	*San Gabriel Valley Water Company*	*$80,965*
San Gabriel Valley (Area 1 - Whittier Narrows)	*16*	*San Gabriel Valley Water Company*	*$71,969*
Indian Bend Wash Area	*11.3*	*City of Scottsdale Water Department*	*$30,171*
San Fernando Valley (Area 1 - Burbank)	*9.12*	*City of Burbank Water and Power*	*$27,884*
San Fernando Valley (Area 2 - Glendale)	*7.2*	*Glendale Water and Power*	*$25,410*
Tucson International Airport Area	*6.25*	*Tucson Water Department*	*$17,295*
Rockets, Fireworks and Flares	*2.8*	*Rialto Water Services*	*$3,676*
Total:	***142.67***		***$379,554***

[a] MGD refers to millions of gallons per day.

[b] Based on the local water provider's residential water use rate multiplied by the daily water treatment capacity at each site.

REDEVELOPMENT IN ACTION

SAN FERNANDO VALLEY (AREA 1)

Beneficial Reuse of Treated Groundwater

The San Fernando Valley (Area 1) site consists of a large plume of contaminated groundwater beneath the cities of North Hollywood and Burbank in Los Angeles County, California. Decades of aerospace and manufacturing activities in the San Fernando Valley contaminated the groundwater aquifer with chromium and volatile organic compounds (VOCs). Many industrial sources contributed to the contamination, most notably the Lockheed Martin facility. The facility surrounded Burbank's airport, which Lockheed also owned and operated during World War II, allowing Lockheed Martin to build, test and deliver aircraft to customers. During World War II, the company's Burbank manufacturing operations produced over 19,000 aircraft. At the peak of operations, the facilities employed over 90,000 people. In 1980, sampling done as part of a state-wide effort to identify groundwater contamination found high levels of VOCs in city wells in the area. Later sampling found that more than half of the area's water supply wells had high levels of VOCs. EPA placed the site on the NPL in 1986. Lockheed Martin's Burbank production facilities ceased operation in the early 1990s.

More than 800,000 area residents relied on the aquifer as their source of drinking water – closing the wells meant the loss of a valuable source of drinking water in an area where water is scarce. The city of Burbank was forced to stop using groundwater from these wells and instead buy 100 percent of municipal drinking water from the Metropolitan Water District (MWD). Purchasing imported treated water from the MWD is substantially more expensive than using groundwater.

Cleanup of the part of the site referred to as the Burbank operable unit (BOU) included groundwater extraction and treatment. Lockheed Martin and other potentially responsible parties negotiated with the city of Burbank to build the treatment plant on city property and the city of Burbank owns and operates it. A group of other contributors paid for construction of the city's blending facility, which blends treated groundwater with MWD water to address other constituents not related to Lockheed Martin's former operations.

Today, the city of Burbank is once again able to pump and distribute groundwater, reducing its reliance on more expensive water sources. As of 2018, about 3.3 billion gallons of contaminated groundwater are treated and returned to the municipal water supply each year, saving the municipality nearly $5.9 million annually. In addition, the former Lockheed Martin facility supports a variety of commercial and industrial operations. On-site businesses bolster the local economy and help generate local and state tax revenues. Together, site businesses employ over 5,600 people and contribute over $414 million in estimated annual employment income. In 2019, site businesses generated over $1.2 billion in estimated sales revenue. In 2018, site property parcels had a total value of nearly $1.2 billion, generating over $12 million in annual property taxes.

"Returning the groundwater to productive use to the city helped to stabilize water rates. Consequently, Burbank residents and businesses now enjoy one of the lowest water rates in the region." **Michael Thompson, Burbank Water and Power, BOU Project Manager.**

Figure 11. Lowe's home improvement store at the San Fernando Valley (Area 1) site (California).

REDEVELOPMENT IN ACTION

SOLA OPTICAL USA, INC.

The Cader Corporate Center

The 35-acre Sola Optical USA, Inc. (Sola Optical) Superfund site is located in Petaluma, California, about 30 miles north of San Francisco. From 1978 to 2001, Sola Optical made eyeglass lenses at the site. The company used solvents in its manufacturing operations and stored the solvents in underground storage tanks. In 1982, the company discovered that solvents had contaminated soil and groundwater near the tanks. Early cleanup efforts in 1985 included removing the tanks and contaminated soil, and installation of a groundwater treatment system. EPA added the site to the NPL in 1990.

The site's long-term remedy included continued groundwater treatment and groundwater use restrictions. Sola Optical treated groundwater at the site from 1988 to 1997 and continued to monitor groundwater until 2012, when EPA confirmed that groundwater had achieved cleanup standards. EPA took the site off the NPL in 2013. At that time, the site was in reuse and commercial tenants occupied the original site buildings.

Today, the site is divided into two parcels. The 24-acre former Sola Manufacturing property is owned by Kland, LLC. Petaluma Poultry leases the 107,000-square-foot former Sola Optical building for its administrative offices and truck parking. In 2000, RNM Cader bought 11 undeveloped acres in the southwest part of the site for development. The developer improved the area in 2005, adding building pads and parking lots to accommodate office-focused projects. Soon thereafter, however, the Great Recession halted redevelopment.

In 2014, New York Life Investments acquired the partially developed property with plans for light industrial use. The 11-acre parcel was redeveloped as the Cader Corporate Center in the fall of 2016. The center's three buildings provide over 268,000 square feet of light industrial, manufacturing, storage and distribution, and office space. The vacancy rate for warehouse space in Sonoma County is low, about 7%. The site's redevelopment has helped address this demand, supporting some of the highest leasing rates in the county. Today, businesses operating at the Cader Corporate Center include Scott Laboratories, Clover Stornetta Farms, Hydrofarm and Cowgirl Creamery. Together, site businesses employ about 142 people and provide over $6 million in estimated annual employment income. In 2019, site businesses generated nearly $30 million in sales revenue. In 2018, site property parcels had a total value of over $17 million, generating over $160,000 in annual property taxes.

Figure 12. The Cader Corporate Center and a walking path at the Sola Optical USA, Inc. site (California).

REDEVELOPMENT IN ACTION

OPERATING INDUSTRIES, INC., LANDFILL

Market Place Shopping Center

The Operating Industries, Inc., Landfill Superfund site in Monterey Park, California, is located about 10 miles east of downtown Los Angeles. The site covers 190 acres; the Pomona Freeway separates the area into a North Parcel and a South Parcel. Monterey Park Disposal Company began operating a landfill at the site in 1948. Operating Industries purchased the area in the 1950s and continued landfilling until 1984. The landfill received millions of gallons of commercial, residential and industrial wastes. These wastes contaminated the air, groundwater and soil, and posed fire and health risks for nearby residents.

In 1984, the state of California placed the landfill on the California Hazardous Waste Priority List. The landfill closed later that year. EPA listed the site on the NPL in 1986. Cleanup actions covered the landfill, controlled landfill gas and managed leachate. Monitoring and maintenance activities are ongoing. An innovative landfill gas treatment system converted landfill gas into electricity, meeting more than half the cleanup's energy requirements. During its operation, the system generated more than 15,000 megawatt hours of electricity over seven years, equivalent to an energy cost-savings of about $1.75 million.

Today, development of Monterey Park Market Place Shopping Center, a 577,000-square-foot retail facility, is underway on the site's North Parcel. The city of Monterey Park and the property developer celebrated the project with a groundbreaking ceremony in November 2016. Today, the shopping center features a Costco Warehouse and Gas Station, a Home Depot and Garden Center, a Guitar Center, America's best Contacts & Eyeglasses, a Starbucks and two restaurants – an In-N-Out-Burger and a Chick-fil-A, all of which opened on site in 2018 and 2019.

Plans for additional development in the near future include Ono Hawaiian BBQ, Chase Bank, Buffalo Wild Wings, a Starbucks, an eyeglasses store and a mattress store. In 2019, site businesses employed over 650 people, providing nearly $20 million in estimated annual employment income and generating nearly $150 million in combined estimated sales revenue. In 2018, site property parcels had a total value of over $10 million, generating nearly $170,000 in annual property taxes. Additional redevelopment opportunities at the site include solar development potential on the South Parcel.

Figure 13. The new Costco store at the Operating Industries, Inc., Landfill site (California).

REDEVELOPMENT IN ACTION

DEL MONTE CORP. (OAHU PLANTATION)

Small-scale Farming and Small Businesses

The Del Monte Corp. (Oahu Plantation) Superfund site is located near Kunia Village in Honolulu County, Hawaii. A 6,000-acre pineapple plantation operated on the site from about 1946 to 2006. The Del Monte Corporation used pesticides to control pests that attack pineapple roots. In 1977, 500 gallons of pesticide accidentally spilled next to the Kunia drinking water supply well. EPA added the site to the NPL in 1994. The remedy included removal of contaminated soil, the use of plants to treat contaminated groundwater, extraction and treatment of deeper contaminated groundwater, a vegetated soil cap, soil vapor extraction, land and groundwater use restrictions, and groundwater monitoring.

Del Monte closed the plantation in 2006 and returned the leased property to the property owner, the James Campbell Company. In 2007, EPA issued a Consent Decree focused on institutional controls to make sure any new development would be compatible with the site's remedy. EPA agreed to provide oversight and guidance for redevelopment activities. The Consent Decree helped inform stakeholders' reuse plans. Following closure of the plantation, the James Campbell Company sold more than half of the site property to Kunia Loa Ridge Farmlands, an organization that encourages affordable, small-scale sustainable farms. Kunia Loa Ridge Farmlands resells small plots to farmers to grow tropical fruits and raise livestock.

In 2004, EPA delisted the 3,000-acre Puamoho portion of the site. Several businesses and organizations are located in this area. For example, Oils of Aloha, which makes lotions and beauty products, moved its headquarters and manufacturing operations to a 10,000-square-foot facility on site in 2011. Kō Hana Distillers also operates on part of the site. The company grows sugar cane on former Del Monte property to make Kō Hana Hawaiian Agricole Rum. The sugar cane is hand harvested and distilled into small, farm-to-bottle batches of rum. The business offers tastings and distillery tours, and also works with Kunia Country Farms to educate schoolchildren through agricultural field trips. Today, site businesses employ about 144 people, providing over $9 million in estimated annual employment income and generating $12 million in estimated annual sales revenue. The U.S. Army also purchased a part of the site property to expand housing for the Schofield Barracks. In 2019, site property parcels had a total value of over $86 million, generating $119,000 in annual property taxes.

Figure 14. Sugar cane fields in Hawaii.[9]

9 New crop in old sugar cane fields, aerial view at Kahului, Maui, Hawaii, by Forest & Kim Starr available at https://commons.wikimedia.org/w/index.php?curid=72944966/CC BY-SA 3.0 available at https://creativecommons.org/licenses/by/3.0/us/deed.en.

REDEVELOPMENT ON THE HORIZON IN REGION 9

TRANSFORMING GROUNDWATER CONTAMINATION AT FORMER SOURCE PROPERTIES INTO NEW COMMERCIAL AND INDUSTRIAL DEVELOPMENTS

The San Gabriel Valley (Area 4) Superfund site is one of four Superfund sites that include areas of contaminated groundwater in the 170-square-mile San Gabriel Valley in southern California. In 1984, EPA placed the four main areas of valley groundwater contamination on the NPL. The Area 4 site (also known as the Puente Valley OU) is a 23-square-mile sub-area located primarily in the cities of Industry and La Puente and in some unincorporated parts of eastern Los Angeles County.

To protect the water supply in the "mouth of the valley" portion of the Puente Valley and prevent further contaminant movement, EPA has planned three groundwater pump-and-treat systems. Initial construction of the systems began in 2006, but completion was delayed until EPA and the implementing parties could dispose of treated groundwater to maximize beneficial use of the water. EPA anticipates the three cleanup systems will be in place by 2021. Water utilities in the area provide clean water that meets all state and federal drinking water standards.

The properties that make up the site's primary sources of contamination and primary focus of source property cleanup are in various stages of continued use and reuse. In 2019, site businesses employed 349 people, contributing nearly $18 million in annual employment income and generating over $317 million in estimated sales revenue.

Development of properties that overlay the contaminated groundwater at the site is ongoing. For example, one of the properties, the CT Industry Center, a 600,000-square-foot, five-building warehouse and distribution facility, is now located on the former Utility Trailer source property. Offering excellent transportation infrastructure access, the development is now completely sold out and tenants will be moving in soon. At the former St. Gobain/Calmar facility property, site preparation work is underway for additional redevelopment. Looking ahead, EPA will continue to work with developers and future tenants to ensure that reuse continues to be compatible with the site's groundwater remedy.

Figure 15. New commercial development available for sale at the San Gabriel Valley site (California).

CONCLUSION

EPA works closely with its partners at Superfund sites across Region 9 to make sure sites can safely be reused or remain in continued use during and following cleanup. EPA also works with businesses and organizations at Superfund sites throughout the cleanup process to make sure they can remain open.

The businesses and organizations at these sites provide jobs and income for communities and generate local and state taxes. Cleanup and redevelopment also helps stabilize and boost property values. There are 97 NPL sites and three non-NPL Superfund sites in Region 9 that have either new uses in place or uses that have remained in place since before cleanup. Future uses are planned for many more Superfund sites in Region 9. EPA remains committed to working with all stakeholders to support Superfund redevelopment opportunities in Region 9.

Figure 16. Trucking company Ardwin Freight at the San Fernando Valley (Area 1) site (California).

The redevelopment of Superfund sites takes time and is often a learning process for project partners. Ongoing coordination among EPA, tribes, state agencies, local governments, communities, potentially responsible parties, site owners, developers, and nearby residents and business owners is essential. EPA tools, including reuse assessments and plans, comfort letters and partial deletions of sites from the NPL, often serve as the foundation for moving forward. At some sites, parties may need to take additional actions to ensure reuses are compatible with site remedies.

Across Region 9, Superfund sites are now home to major commercial and industrial facilities, mid-size developments, and small businesses providing services to surrounding communities. EPA is committed to working with all stakeholders to support the restoration and renewal of these sites as long-term assets.

EPA Superfund Site Redevelopment Resources

EPA Region 9 Superfund Redevelopment Initiative Coordinator
Grace Ma | 415-947-4212| ma.grace@epa.gov

Superfund Sites in Reuse: find more information about Superfund sites in reuse
www.epa.gov/superfund-redevelopment-initiative/find-sites-reuse

Superfund Redevelopment Initiative Website: tools, resources and more information about Superfund site reuse
www.epa.gov/superfund-redevelopment-initiative

EPA Office of Site Remediation Enforcement Website: tools that address landowner liability concerns
www.epa.gov/enforcement/landowner-liability-protections

STATE REDEVELOPMENT PROFILES





ARIZONA REDEVELOPMENT PROFILE

EPA partners with the Arizona Department of Environmental Quality to oversee the investigation and cleanup of Superfund sites in Arizona. Arizona has eight Superfund sites with either new uses in place or uses that have remained in place since before cleanup. The sections below present economic data, property values and tax data for sites in reuse or continued use in Arizona.

Businesses and Jobs

EPA has collected economic data for 263 businesses and organizations operating on five sites in reuse or continued use in Arizona.

Table 4. Detailed Site and Business Information for Sites in Reuse and Continued Use in Arizona (2019)

	Sites[a]	Sites with Businesses	Businesses[b]	Total Annual Sales	Total Employees	Total Annual Employee Income
In Reuse	*1*	*0*	*0*	*$0*	*0*	*$0*
In Continued Use	*3*	*1*	*25*	*$494 million*	*1,776*	*$219 million*
In Reuse and in Continued Use	*4*	*4*	*238*	*$1.8 billion*	*9,260*	*$730 million*
Total	*8*	*5*	*263*	*$2.3 billion*	*11,036*	*$949 million*

[a] Three sites are federal facilities. Federal facility sites are excluded from all other detailed site and business data presented above.
[b] Business information is not available for all businesses on all Superfund sites in reuse or continued use.

Property Values and Property Tax Revenues

EPA has collected property value data for two Superfund sites in reuse or continued use in Arizona. These sites span 46 property parcels and 4,549 acres.

Table 5. Property Value and Tax Information for Sites in Reuse and Continued Use in Arizona[a]

Total Land Value (2 sites)	Total Improvement Value (2 sites)	Total Property Value (2 sites)	Total Annual Property Taxes (2 sites)
$166 million	*$150 million*	*$316 million*	*$822,000*

[a] The property value and tax amounts reflect the latest property value year and tax data year available in county assessor datasets, which varied from 2018 to 2019.

Figure 17. Active aerospace manufacturing facility at one of the source areas at the Motorola, Inc. (52nd Street Plant) site.

Did You Know?

Soil and groundwater contamination were first discovered at the Motorola, Inc. (52nd Street Plant) site in 1982. Today, the source areas remain in use as aerospace manufacturing and semiconductor manufacturing support facilities. Cleanup is allowing commercial, industrial and residential uses to continue at non-source areas of the site. Site businesses employ over 1,700 people and provide close to $219 million in estimated annual employee income. They generate $494 million in estimated annual sales.

CALIFORNIA REDEVELOPMENT PROFILE

EPA partners with the California Department of Toxic Substances Control to oversee the investigation and cleanup of Superfund sites in California. California has 87 Superfund sites with either new uses in place or uses that have remained in place since before cleanup. The sections below present economic data, property values and tax data for sites in reuse or continued use in California.

Businesses and Jobs

EPA has collected economic data for 1,145 businesses and organizations operating on 46 sites in reuse or continued use in California.

Table 6. Detailed Site and Business Information for Sites in Reuse and Continued Use in California (2019)

	Sites[a]	Sites with Businesses	Businesses[b]	Total Annual Sales	Total Employees	Total Annual Employee Income
In Reuse	*32*	*17*	*123*	*$2.4 billion*	*4,990*	*$592 million*
In Continued Use	*35*	*14*	*103*	*$1.6 billion*	*2,001*	*$266 million*
In Reuse and in Continued Use	*20*	*15*	*919*	*$6.3 billion*	*22,901*	*$2.7 billion*
Total	*87*	*46*	*1,145*	*$10.3 billion*	*29,892*	*$3.5 billion*

[a] Twenty-two sites are federal facilities. Federal facility sites are excluded from all other detailed site and business data presented above.
[b] Business information is not available for all businesses on all Superfund sites in reuse or continued use.

Property Values and Property Tax Revenues

EPA has collected property value data for 20 Superfund sites in reuse or continued use in California. These sites span 564 property parcels and 7,902 acres.

Table 7. Property Value and Tax Information for Sites in Reuse and Continued Use in California[a]

Total Land Value (20 sites)	Total Improvement Value (20 sites)	Total Property Value (20 sites)	Total Annual Property Taxes (20 sites)
$1.2 billion	*$2.2 billion*	*$3.4 billion*	*$42 million*

[a] The property value and tax amounts reflect the latest property value year and tax data year available in county assessor datasets, which varied from 2018 to 2019.

Figure 18. Commercial facility built at the Del Amo site in 2013.

Did You Know?

From 1943 to 1972, a synthetic rubber plant operated at the Del Amo site in Los Angeles, California. Prior to the site's listing on the NPL, developers turned most of the site into an industrial and commercial park in the 1970s. The commercial and industrial park remains on site today. Undeveloped parcels are now warehouses and office buildings. Site businesses employ over 5,100 people and provide over $370 million in estimated annual employee income. They generate over $1 billion in estimated annual sales.

HAWAII REDEVELOPMENT PROFILE

EPA partners with the Hawaii State Department of Health to oversee the investigation and cleanup of Superfund sites in Hawaii. Hawaii has three Superfund sites with either new uses in place or uses that have remained in place since before cleanup. The sections below present economic data, property values and tax data for sites in reuse or continued use in Hawaii.

Businesses and Jobs

EPA has collected economic data for 16 businesses and organizations operating on one site in reuse in Hawaii.

Table 8. Detailed Site and Business Information for Site in Reuse in Hawaii (2019)

	Sites[a]	Sites with Businesses	Businesses[b]	Total Annual Sales	Total Employees	Total Annual Employee Income
In Reuse	*1*	*1*	*16*	*$12 million*	*144*	*$10 million*
In Continued Use	*2*	*0*	*0*	*$0*	*0*	*$0*
In Reuse and in Continued Use	*0*	*0*	*0*	*$0*	*0*	*$0*
Total	*3*	*1*	*16*	*$12 million*	*144*	*$10 million*

[a] Two sites are federal facilities. Federal facility sites are excluded from all other detailed site and business data presented above.
[b] Business information is not available for all businesses on all Superfund sites in reuse or continued use.

Property Values and Property Tax Revenues

EPA has collected property value data for one Superfund site in reuse in Hawaii. This site spans 20 property parcels and 2,960 acres.

Table 9. Property Value and Tax Information for Site in Reuse in Hawaii[a]

Total Land Value (1 site)	Total Improvement Value (1 site)	Total Property Value (1 site)	Total Annual Property Taxes (1 site)
$79 million	*$7 million*	*$86 million*	*$119,000*

[a] The property value and tax amounts reflect the latest property value year and tax data year available in county assessor datasets, which varied from 2018 to 2019.

Figure 19. Aerial view of the Del Monte Corp. (Oahu Plantation) site area. Imagery © 2019 Google.

Did You Know?

From 1946 to 2006, the Del Monte Corporation grew and processed pineapples at the Del Monte Corp. (Oahu Plantation) site in Kunia Village, Hawaii. As mentioned on page 14, Kunia Loa Ridge Farmlands now owns more than half of the site and resells small plots to farmers to grow tropical fruits and raise livestock. In addition to sugar cane, seed corn production also takes place on part of the site. In 2011, a beauty products company also moved its headquarters and manufacturing operations on site.

NEVADA REDEVELOPMENT PROFILE

EPA partners with the Nevada Division of Environmental Protection to oversee the investigation and cleanup of Superfund sites in Nevada. Nevada has one Superfund site, the Carson River Mercury site, with new uses in place and uses that have remained in place since before cleanup. The sections below present economic data, property values and tax data for one site in reuse and continued use in Nevada.

Businesses and Jobs

EPA has collected economic data for 63 businesses and organizations operating on one site in reuse and continued use in Nevada.

Table 10. Detailed Site and Business Information for Site in Reuse and Continued Use in Nevada (2019)

	Sites	Sites with Businesses	Businesses[a]	Total Annual Sales	Total Employees	Total Annual Employee Income
In Reuse	*0*	*0*	*0*	*$0*	*0*	*$0*
In Continued Use	*0*	*0*	*0*	*$0*	*0*	*$0*
In Reuse and in Continued Use	*1*	*1*	*63*	*$20 million*	*465*	*$30 million*
Total	*1*	*1*	*63*	*$20 million*	*465*	*$30 million*

[a] Business information is not available for all businesses on all Superfund sites in reuse or continued use.

Property Values and Property Tax Revenues

Property value and tax data were not available for the one site in reuse and continued use in Nevada.

Figure 20. The Carson River at the Carson River Mercury site.[10]

Did You Know?

Gold and silver mining contaminated soils, sediments and surface water at the Carson River Mercury site in western Nevada. Site investigations and cleanup are ongoing. The site remains in continued industrial, commercial, agricultural, public-service and residential use.

10 View south up the Carson River from Nevada State Route 822 (Dayton Valley Road) in Dayton, Nevada by Famartin available at https://commons.wikimedia.org/wiki/File:2015-10-30_13_07_51_View_south_up_the_Carson_River_from_Nevada_State_Route_822_(Dayton_Valley_Road)_in_Dayton,_Nevada.jpg/CC BY-2.0 available at https://creativecommons.org/licenses/by/2.0.

GUAM REDEVELOPMENT PROFILE

EPA partners with the Guam Environmental Protection Agency to oversee the investigation and cleanup of Superfund sites in Guam. Guam has one Superfund site, the Anderson Air Force Base site, with uses that have remained in place since before cleanup. EPA has not collected economic data or property value data for this site; it is a federal facility in continued military use.

Figure 21. U.S. Air Force operations at the Andersen Air Force Base site.[11]

Did You Know?

Since 1940, the Andersen Air Force Base site has served as a support facility for U.S. Strategic Air Command operations in Yigo, Guam. Improper disposal techniques resulted in the contamination of groundwater under the site. The site remains an active U.S. Air Force base. Parts of the base are designated wildlife and marine preserves that protect about 23 endangered species.

11. Royal Australian Air Force Airmen start up an FA-18 Hornet at Andersen Air Force Base by U.S. Pacific Air Forces available at commons.wikimedia.org/wiki/File:Royal_Australian_Air_Force_Airmen_start_up_an_FA-18_Hornet_at_Andersen_Air_Force_Base.jpg/CC BY-SA 3.0 available at creativecommons.org/licenses/by-sa/3.0.

SOURCES

BUSINESS, JOBS, SALES AND INCOME INFORMATION

Information on the number of employees and sales volume for on-site businesses comes from the Hoovers/Dun & Bradstreet (D&B) (https://www.dnb.com) database. EPA also gathers information on businesses and corporations from D&B. D&B maintains a database of over 330 million active and inactive businesses worldwide.

When Hoovers/D&B research was unable to identify employment and sales volume for on-site businesses, EPA used the ReferenceUSA database (http://resource.referenceusa.com). In cases where ReferenceUSA did not include employment and sales volume for on-site businesses, EPA used the Manta database (https://www.manta.com). The databases include data reported by businesses. Accordingly, some reported values might be underestimates or overestimates. In some instances, business and employment information came from local newspaper articles and discussions with local officials and business representatives. While sales values typically exceed estimated totals of annual income, sales can sometimes be lower than estimated income. This can be attributed to a number of business conditions and/or data reporting.

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 site businesses. 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 site counties. 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 estimate the annual income earned from jobs at site businesses, 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.

Business and employment data used for this profile were collected in 2019. Estimated annual employment income was calculated using 2019 jobs data and BLS average weekly wage data for those jobs from 2018 (the latest available wage data at the time of this profile). Federal facility sites are included in calculations of total sites in reuse or continued use only. Federal facility sites are excluded from all other calculations (i.e., number of sites with businesses, number of businesses, total jobs, total income and total annual sales). All sales and income figures presented have been rounded for the convenience of the reader. Throughout this report, sales and annual employee income may not sum exactly to the totals presented due to rounding.

PROPERTY VALUE AND TAX INFORMATION

EPA collected on-site property values and property taxes included in this profile for a subset of Superfund sites by comparing available site boundary information with available parcel boundary information and gathering information for selected parcels from county assessor datasets. The property value and tax amounts reflect the latest property value year and tax data year available in county assessor datasets, which typically varied from 2018 to 2019. Throughout this report, property and tax values may not sum exactly to the totals presented due to rounding. Federal facility sites are excluded from all property value and tax calculations.

REUSE INFORMATION SOURCES

Write-ups of sites in reuse or continued use included in this profile are based on available EPA resources, including Superfund Redevelopment Initiative case studies as well as other resources. Links to EPA's Superfund Redevelopment Initiative case studies and other resources are included below.

EPA Resources

Guidelines for Water Reuse. 2012. www3.epa.gov/region1/npdes/merrimackstation/pdfs/ar/AR-1530.pdf.

Sola Optical USA, Inc. 2016. Reuse and the Benefit to the Community, Sola Optical USA, Inc. semspub.epa.gov/src/document/HQ/196755.

South Bay Asbestos Area. 2015. Reuse and the Benefit to the Community, South Bay Asbestos Area. semspub.epa.gov/src/document/09/1156530.

Other Resources

CT, Industry Center. ctrinvestors.com/property/industry-center.

Kevin Smith. "Home Depot to unveil new store in Monterey Park." Updated June 14, 2018. Pasadena Star-News. www.pasadenastarnews.com/2018/06/13/home-depot-to-unveil-new-store-in-monterey-park.

Kohana Rum. www.kohanarum.com/home.

Lennie Omalza. "Be the First to Take Kō Hana Rum's Distillery Tour." June 30, 2015. Honolulu Magazine. www.honolulumagazine.com/Honolulu-Magazine/Biting-Commentary/June-2015/Be-The-First-to-Take-Ko-Hana-Rums-Distillery-Tour/#.XHQ4h6AVhEZ.

Back cover photos: San Fernando Valley (Area 1)

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