



The Chiquita Canyon Landfill Crisis: A Public Health and Environmental Emergency

**A Call for Environmental Justice, Regulatory Accountability, and Community Protection
in Santa Clarita Valley**

Policy Insights and Voices of Tomorrow (PIVOT)

July 28th, 2025

Written by Jonathan Valles

TABLE OF CONTENTS

Executive Summary	3
Geographic and Demographic Context	3
PROBLEM DEFINITION	4
The Environmental Emergency	4
Public Health Impacts	5
STAKEHOLDER ANALYSIS	6
Community and Advocacy Groups	6
Regulatory Bodies	7
Elected Officials	7
Private Sector	8
Alternative Waste Management Facilities	9
CURRENT POLICY RESPONSES	9
Legislative Initiatives	9
REGULATORY ACTION AND ENFORCEMENT MEASURES	11
South Coast Air Quality Management District (SCAQMD) Enforcement	11
Federal EPA Enforcement Actions	11
State Agency Enforcement	12
COMMUNITY ENGAGEMENT	12
Community Advisory Committee (CAC)	12
Community Information Meetings	13
Public Health Monitoring and Assessment	13
LEGAL PROCEEDINGS	13
County Lawsuit: December 2024	13
Preliminary Injunction Motion: May 2024	14
POLICY GAPS AND SYSTEMIC CHALLENGES	14
Immediate Response Limitations	14
Regulatory Coordination Challenges	14
Public Health Monitoring Deficiencies	15
Waste Management Continuity Issues	15
Environmental Justice Concerns	16
COMPREHENSIVE POLICY RECOMMENDATIONS	17
Immediate Actions (0-6 months)	17
Medium-term Reforms (6 months - 2 years)	18
Long-term Prevention (2-5 years)	20
IMPLEMENTATION CONSIDERATIONS	23
Funding Requirements	23
Timeline Realities	23
Political Dynamics	24
Conclusion	24
REFERENCES	26

Executive Summary

Located in the Santa Clarita Valley along State Route 126, the Chiquita Canyon Landfill serves the communities in Castaic, Val Verde, and the surrounding unincorporated areas of Los Angeles County, including Stevenson Ranch (California Department of Toxic Substances Control, 2024). This waste disposal facility has been operational since 1972 and has become the center of a complex environmental disaster that requires a coordinated response from multiple levels of government. Since May 2022, a smoldering reaction beneath the ground has increased in volume and magnitude, prompting thousands of complaints from residents near the landfill, including reports of noxious odors, and resulting in more than 160 violation notices issued by regulatory authorities (South Coast Air Quality Management District, 2023). While the waste-accepting facility closed on January 1, 2025, the subsurface chemical reaction continues to affect the public health of communities surrounding the facility, particularly the predominantly Latino working-class community of Val Verde. This policy brief examines the complexity and unprecedented nature of the challenges associated with this environmental emergency, offering detailed policy interventions for immediate containment, medium-term management, and long-term prevention.

Geographic and Demographic Context

The Chiquita Canyon Landfill sits along State Route 126 within unincorporated Los Angeles County, serving waste disposal needs for Castaic, Val Verde, and the wider Santa Clarita Valley region (California Department of Transportation, 2023). This area includes residential developments, educational facilities, and local businesses. Val Verde stands out as a predominantly Latino community that has historically lacked adequate resources, with household earnings well below the county median (UCLA Center for Environmental Health Sciences, 2024). The close proximity of many residents to the facility, often just miles away, creates significant environmental justice issues, as these communities bear an unequal burden of exposure to toxic emissions. The landfill's presence has created detrimental effects extending beyond public health, depressing home values, fostering negative perceptions of the area, and threatening future economic development (Los Angeles County Assessor, 2024). These

consequences amplify pre-existing disparities and highlight the critical need for policy solutions that prioritize fairness and meaningful community participation in decision-making processes.

PROBLEM DEFINITION

The Environmental Emergency

The Chiquita Canyon Landfill has been vital infrastructure in the northern region of Los Angeles County, specifically in the Santa Clarita Valley, and has served as a major waste disposal site for residential and commercial refuse since 1972. In May 2022, the Chiquita Canyon Landfill began experiencing a rare and dangerous subsurface chemical reaction, known as an elevated temperature landfill event (EPA Office of Research and Development, 2024). Fewer than 15 similar incidents have been documented in United States history. This underground reaction releases hazardous gases, including hydrogen sulfide (H₂S) and dimethyl sulfide, which mix with leachate to form a highly toxic and odorous substance often described by officials as a "noxious brew." Hydrogen sulfide poses severe health risks ranging from mild headaches and eye irritation to unconsciousness and death, with effects becoming undetectable by smell at dangerous concentrations over 100 ppm. Dimethyl sulfide acts as both an irritant and neurotoxicant that may be life-threatening. Exposure to these compounds has been linked to persistent neurological impairment, cardiovascular problems, and higher incidences of respiratory and cognitive symptoms in nearby communities (Los Angeles County Department of Public Health, 2024). Environmentally, these gases contribute to acid rain formation and atmospheric pollution, with the potential to contaminate soil, groundwater, and disrupt local ecosystems, creating a multi-faceted public health and environmental crisis that extends far beyond the landfill's boundaries. The underground chemical reaction has created a contaminated area that's enormous, with the size being at least 35 acres (roughly the size of 26 football fields), though it could be as large as 90 acres (about 68 football fields) (EPA Office of Research and Development, 2024). To put this in perspective, this underground "hot zone" could span an area larger than many city blocks. The reaction gets worse during certain weather conditions, particularly when it rains heavily. When this happens, water can mix with the underground chemicals and help spread the toxic gases over a wider area, making the air quality even more dangerous for people living nearby. Essentially, bad weather can make an already serious situation significantly worse for the surrounding communities. This massive underground

contamination zone explains why the problem has been so difficult to control and why residents across such a large area have been experiencing health problems and strong chemical odors.

Public Health Impacts

Residents living near the Chiquita Canyon Landfill have reported a wide range of health symptoms linked to prolonged exposure to chemical emissions from the site. Commonly reported effects include headaches, nausea, bloody noses, respiratory irritation, gastrointestinal distress, burning eyes, skin rashes, asthma flare-ups, dizziness, vomiting, tremors, and in severe cases, cardiovascular and respiratory complications requiring emergency room visits (Los Angeles County Department of Public Health, 2024). Since 2023, over 25,000 formal complaints have been filed by affected residents (Castaic Area Town Council, 2024). An independent health risk assessment found elevated concentrations of two volatile organic compounds (VOCs), benzene and carbon tetrachloride, in the surrounding air. Preliminary findings suggest that the benzene contamination may be partially attributable to emissions from the landfill, though further study is needed to confirm the source (Los Angeles County Department of Public Health, 2024).

The human toll of this environmental disaster extends far beyond individual symptoms to create a community-wide health emergency. The more than 25,000 formal complaints filed since 2024 represent not only a statistic, but families whose daily lives continue to be disrupted by constant exposure to toxic chemicals (Castaic Area Town Council, 2024). Children in the area have missed school due to respiratory flare-ups, parents have struggled to work while dealing with chronic symptoms, and elderly residents face heightened risks from prolonged chemical exposure. The detection of benzene and carbon tetrachloride in the air is particularly concerning, as these chemicals are linked to serious long-term health effects including cancer and liver damage (Centers for Disease Control and Prevention, 2024). Most troubling is the disproportionate impact on the predominantly Latino, working-class community of Val Verde, where approximately 2,500 residents live within one mile of the contamination source (UCLA Center for Environmental Health Sciences, 2024). These families not only face immediate health risks but also economic devastation as their property values plummet and medical expenses mount, creating a cycle of environmental injustice that demands urgent intervention.

The Chiquita Canyon Landfill crisis presents significant monetary implications that extend far beyond immediate remediation costs, creating a cascade of economic burdens that disproportionately strain the already vulnerable low-income communities in Val Verde and surrounding areas (Los Angeles County Assessor, 2024). The affected population faces compounded financial stress as they struggle with limited resources to access healthcare while dealing with environmental health impacts, creating barriers to proper medical care during a public health emergency. The economic strain has been further exacerbated by the landfill operators backing out of critical economic relief programs for community members, while the company has spent over \$1 million on air purifiers and school filtration systems - costs that ultimately represent reactive measures rather than comprehensive economic support for affected families. This healthcare crisis threatens to perpetuate cycles of poverty in the region, as families may be forced to choose between seeking medical care for landfill-related health issues and meeting basic needs, potentially creating long-term economic instability that could persist even after the environmental crisis is resolved.

STAKEHOLDER ANALYSIS

Community and Advocacy Groups

Residents: Over 25,000 formal complaints have been filed by residents since 2023, reflecting widespread community distress over health symptoms, odors, and environmental degradation (Castaic Area Town Council, 2024). Many residents describe feeling frustrated with not only the landfill itself but also with the government responses, as they feel local leaders aren't doing enough.

Castaic Area Town Council: This local governing body has taken the lead in representing resident concerns at public hearings and coordinating with legal advocates. The Castaic Area Town Council has become a primary liaison between the community and regulatory bodies involved with the Chiquita Canyon Landfill (Castaic Area Town Council, 2024).

Environmental Justice Concerns: The landfill disproportionately affects working-class and majority-Latino communities, especially Val Verde, raising serious environmental justice concerns (UCLA Center for Environmental Health Sciences, 2024). Local organizers have called for state and federal intervention, citing findings from the California Environmental Protection Agency (CalEPA), which is the state agency responsible for coordinating environmental

protection efforts, that has identified the area as a high-priority community through its Environmental Justice Screening Tool.

Regulatory Bodies

South Coast Air Quality Management District (AQMD): As the primary regional air quality agency, AQMD has issued over 100 violation notices to the landfill since 2023 (South Coast Air Quality Management District, 2024). However, critics argue enforcement has been reactive rather than preventative.

U.S. Environmental Protection Agency (EPA): The EPA declared the landfill has violated the "New Source Performance Standards and National Emission Standards for Hazardous Air Pollutants for municipal solid waste landfills, as well as conditions in their Title V permit" (EPA Office of Research and Development, 2024).

California Environmental Protection Agency (CalEPA): CalEPA has played a coordination role among state agencies but lacks direct enforcement authority in this case (California Environmental Protection Agency, 2024).

Los Angeles County Departments of Public Health and Public Works: Both county departments have been involved in environmental testing, resident communications, and infrastructure coordination, but their guidance has been limited by jurisdictional overlaps (Los Angeles County Department of Public Health, 2024).

Elected Officials

Los Angeles County Supervisor Kathryn Barger:

Action: Established the Chiquita Canyon Landfill Community Advisory Committee (CAC), a monthly, resident-facing forum that brings local voices directly to government meetings.

Advocacy: Authored a Board motion on May 9, 2025, urging fellow Supervisors to support AB 27 and AB 28, and publicly demanded federal accountability in court filings.

Health oversight: Requested updates from the USC Cancer Surveillance Program and continues to emphasize transparency and health tracking.

Assemblymember Pilar Schiavo:

Legislation: Authored AB 27, the "Chiquita Canyon Tax Relief Act," which passed unanimously (71-0 in Assembly), exempting disaster relief from state income tax and welfare eligibility limits (California State Assembly, 2025). Co-authored AB 28, the "Landfill Fire Safety Act," mandating early detection of underground fires, multi-agency oversight, and penalties for non-compliance (California State Assembly, 2025).

Senator Suzette Martinez Valladares (R-Acton) & Congressman George Whitesides (CA-27):

State action: Senator Valladares submitted a letter urging California Attorney General Rob Bonta to join the county's lawsuit against Chiquita Canyon Landfill.

Federal attention: Congressman Whitesides has called for federal legislation aligned with the Chiquita Canyon Tax Relief Act and backed AG involvement to elevate the response to a national level.

Private Sector

Waste Connections (Chiquita Canyon Landfill Operator)

Remediation Efforts: Under a 2024 unilateral administrative order from the EPA, Waste Connections has installed over 200 gas extraction wells, multiple gas flares, leachate extraction systems, and covered approximately 41 acres of the smoldering area with a 30-mil HDPE geomembrane, plus additional scrim layers on slopes and top deck as of August and November 2024.

Scope & Limitations: The installed geomembrane, primarily covering the top deck and upper slopes, addresses only part of the subsurface elevated temperature (SET) event (EPA Office of Research and Development, 2024). As of February 2025, the burn zone spans up to 90 acres, suggesting the current cover is insufficient.

Agency Response & Accountability: The South Coast AQMD hearing board recently enforced stricter measures, including expanded remote air monitoring and drone deployment, citing "persistent odors" and accusing Waste Connections of tactics to delay enforcement (South Coast Air Quality Management District, 2024).

Legal & Financial Pressure: In December 2024, Los Angeles County sued Waste Connections seeking emergency relocation and mitigation relief for residents (Los Angeles County Counsel,

2024). Meanwhile, a federal EPA 2024 clean air violation ("Finding of Violation") was issued under the Clean Air Act for gas control non-compliance.

Takeaway: While Waste Connections has taken significant technical steps, critiques focus on coverage gaps, reaction to enforcement, and slow expansion of remediation, which are insufficient compared to the expanding contaminated area.

Alternative Waste Management Facilities

Following Chiquita Canyon's closure on January 1, 2025, the region's waste management system faced the immediate challenge of redirecting approximately 2 million tons of waste annually, which equates to roughly 7,000 tons per day, to alternative facilities (California Department of Resources Recycling and Recovery, 2024). The Sunshine Canyon Landfill in Sylmar, operated by Republic Services, emerged as a primary alternative, benefiting from its proximity to the Santa Clarita Valley and substantial remaining capacity. Unlike Chiquita Canyon, Sunshine Canyon has maintained compliance with air quality standards and has not experienced subsurface thermal events, making it a more stable long-term option for regional waste disposal. However, the facility has faced its own community opposition over the years due to odor complaints and traffic concerns from local residents. Other regional alternatives include the Simi Valley Landfill and facilities in the Antelope Valley, though these require longer hauling distances and increased transportation costs. The crisis has highlighted the vulnerability of Southern California's waste management infrastructure, which relies heavily on a limited number of large facilities, and has accelerated discussions about developing additional regional capacity and improving waste diversion programs to reduce overall landfill dependency. The successful transition to these alternative facilities, while operationally manageable, underscores the need for comprehensive regional planning to prevent future disruptions when major waste management infrastructure becomes unavailable.

CURRENT POLICY RESPONSES

Legislative Initiatives

Assembly Bill 27 (Chiquita Canyon Tax Relief Act)

Purpose & Scope: Authored by Assemblymember Pilar Schiavo, AB 27 ensures that any financial compensation or assistance provided to residents affected by the Chiquita Canyon

elevated-temperature landfill event is excluded from both state income tax and calculations for means-tested benefits (e.g., Medi-Cal, CalFresh) (California State Assembly, 2025).

Status & Momentum: The bill passed the Assembly (71–0), cleared the Senate Revenue and Taxation Committee on June 30, 2025, and has been incorporated into the California state budget, reflecting strong bipartisan support

Impact: This measure removes a significant barrier for residents in crisis, preventing households from losing essential benefits when they seek aid. It also includes provisions to pause mortgage payments and reassess property taxes within a 5-mile radius of the site

Assembly Bill 28 (Landfill Fire Safety Act)

Purpose & Scope: Authored by Assemblymember Pilar Schiavo, AB 28 mandates continuous monitoring of subsurface landfill gas temperatures and public reporting. If readings stay above 131°F for over 60 days, operators must submit a corrective action plan; readings exceeding 146°F trigger multi-agency response teams. The bill requires landfill operators to promptly notify residents and enforcement bodies, submit detailed remediation strategies, and fund a new Landfill Subsurface Fire Mitigation Account, using penalties to support community protection measures like relocation and home safety upgrades.

Status & Momentum: The Assembly Natural Resources Committee advanced AB 28 on April 28, 2025, marking a critical step toward protecting public health and preventing future landfill disasters. The California State Assembly passed the bill on May 29, 2025, demonstrating legislative momentum in response to the ongoing public health crisis at the Chiquita Canyon Landfill. The bill is now advancing through the Senate process.

Impact: This legislation establishes California's first comprehensive framework for early detection and response to subsurface landfill fires. The temperature-based trigger system (131°F and 146°F thresholds) represents a shift from reactive to proactive landfill safety management. The bill creates self-funding community protection measures through penalty structures, ensuring that violations directly support affected residents through relocation assistance, home safety upgrades, and enhanced air quality monitoring. The multi-agency oversight requirements will improve coordination between state and local agencies in future landfill emergencies.

REGULATORY ACTION AND ENFORCEMENT MEASURES

South Coast Air Quality Management District (SCAQMD) Enforcement

SCAQMD has issued over 100 notices of violation to Chiquita Canyon LLC since the subsurface reaction began in May 2022. These violations encompass multiple categories of environmental non-compliance:

Air Quality Violations: The district has documented persistent violations of air quality standards, with communities surrounding the landfill reporting almost 6,800 odor complaints in 2023 and more than 9,400 odor complaints in 2024. SCAQMD has implemented enhanced monitoring protocols requiring real-time air quality measurements at multiple locations around the facility perimeter.

Abatement Orders: Multiple abatement orders have been issued requiring immediate cessation of emissions exceeding permitted levels, installation of additional gas collection systems, and implementation of emergency response protocols when air quality thresholds are exceeded.

Federal EPA Enforcement Actions

On June 4, 2024, EPA issued a Finding of Violation to Chiquita Canyon LLC under the Clean Air Act, finding that the facility violates the New Source Performance Standards and National Emission Standards for Hazardous Air Pollutants for municipal solid waste landfills.

Imminent and Substantial Endangerment Determination: In June 2024, EPA determined that the Chiquita Canyon Landfill presents an imminent and substantial endangerment to nearby communities, triggering federal emergency response authorities and mandatory remediation requirements.

Toxic Emissions Violations: The landfill was found to be in violation of its operating permit by emitting high levels of toxic gases such as benzene and volatile organic compounds that are known to create smog and contribute to ozone formation, which can cause lung damage.

Unilateral Administrative Order: EPA issued a comprehensive remediation order requiring installation of gas extraction wells, leachate management systems, and geomembrane covers to contain subsurface reactions.

State Agency Enforcement

California Department of Toxic Substances Control (DTSC): DTSC cited the operators on February 21, 2024, for transporting toxic waste pumped from soil in the landfill to a facility in Gardena that was not permitted to accept it.

Los Angeles Regional Water Quality Control Board: The landfill received a violation letter dated April 9, 2024, for pumping untreated leachate water into local waterways that empty into the Santa Clara River. Water Board staff observed leachate flowing into a ditch that empties into a storm water basin on October 23, 2023.

Enhanced Monitoring Requirements: State agencies now require:

- Continuous subsurface temperature monitoring with automated alerts
- Weekly air quality sampling at residential boundary locations
- Monthly groundwater testing for contamination indicators
- Real-time gas emission monitoring with public data reporting

COMMUNITY ENGAGEMENT

Community Advisory Committee (CAC)

The Chiquita Canyon Landfill Community Advisory Committee was established in accordance with Conditional Use Permit No. 2004-00042, approved by the Los Angeles County Board of Supervisors on July 25, 2017, with bylaws finalized on August 7, 2019.

Meeting Structure and Frequency: The CCLCAC generally meets on the second Tuesday of each month at 6 p.m. at the Castaic Library.

Advisory Function: The CAC serves as an advisory body to the Board of Supervisors and Regional Planning Commission, providing a formal mechanism for community input on landfill operations, remediation efforts, and public health concerns.

Operator Participation: Chiquita representatives attend CAC meetings to provide regular and timely updates regarding landfill operations as a means to maintain open communication with local leaders and residents.

Community Information Meetings

Beyond the formal CAC structure, Chiquita has hosted Community Information Meetings to discuss current updates and odor mitigation efforts, including a significant meeting on June 6, 2024, to address the facility's closure for waste acceptance.

Technical Advisory Committee: The Chiquita Canyon Landfill Technical Advisory Committee (CCLTAC) is made up of staff from county departments, providing technical expertise to support community engagement and regulatory coordination.

Public Health Monitoring and Assessment

Independent Health Risk Evaluations: Los Angeles County Department of Public Health has conducted comprehensive health impact assessments, including air quality monitoring studies and community health surveys, to document exposure patterns and health outcomes.

Community Health Surveys: Systematic collection of health symptom reports from affected residents, with particular attention to vulnerable populations including children, elderly residents, and individuals with pre-existing respiratory conditions.

Environmental Justice Analysis: UCLA Center for Environmental Health Sciences has conducted detailed demographic and health disparity analyses, documenting the disproportionate impact on the predominantly Latino community of Val Verde.

LEGAL PROCEEDINGS

County Lawsuit: December 2024

In December 2024, Los Angeles County filed a lawsuit in federal court alleging that the Chiquita Canyon Landfill operators failed to control a persistent and dangerous underground smoldering reaction (Los Angeles County Counsel, 2024). The lawsuit claims the operators violated environmental and public health protections by allowing hazardous gases and leachate to impact surrounding communities. The filing seeks a court order requiring temporary relocation of affected residents until the underground reaction is contained, along with civil penalties and appointment of a judicial receiver if remediation does not proceed quickly.

Preliminary Injunction Motion: May 2025

On May 29, 2025, the County filed a Motion for Preliminary Injunction to urgently compel the landfill operator to institute stronger mitigation efforts, including relocation assistance and "home hardening" for high-impact households. Supervisor Kathryn Barger emphasized that this legal escalation is essential to compel meaningful action and hold the operator accountable for "persistent and harmful odors."

Legal Strategy: The county's legal approach focuses on immediate relief for residents while pursuing long-term accountability measures, including potential appointment of an independent receiver to oversee remediation if current operators fail to meet court-mandated timelines.

Community Legal Support: Local advocacy groups have coordinated with county legal efforts, providing documentation of health impacts and community testimony to support emergency relief motions.

POLICY GAPS AND SYSTEMIC CHALLENGES

Immediate Response Limitations

Slow containment of subsurface reaction: The underground chemical reaction at Chiquita Canyon has persisted since May 2022, expanding from ~30 acres to potentially ~90 acres by early 2025 (EPA Office of Research and Development, 2024). State analyses suggest the smolder could last for decades unless significantly broader remediation measures are enacted.

Complex remediation needed: Experts note that standard landfill gas control systems, such as wells, flares, and geomembrane covers, are insufficient to extinguish deep-seated underground fires (EPA Office of Solid Waste and Emergency Response, 2024). Comprehensive containment strategies are estimated to take multiple years, highlighting a lack of rapid-response protocols for thermal landfill emergencies.

Regulatory Coordination Challenges

Fragmented oversight: A Multi-Agency Critical Action Team (MCAT) was formed in late 2023 to unify efforts among AQMD, EPA, RWQCB, DTSC, CalRecycle, and the County (California Environmental Protection Agency, 2024). Though it has improved communication, the absence of a designated lead authority makes swift decision-making difficult.

Conflicting standards: State orders requiring expanded geomembrane coverage and containment barriers contrast with EPA's enforcement mandates, creating overlapping but sometimes inconsistent directives, leading to delays in execution and plan harmonization (Government Accountability Office, 2023).

Public Health Monitoring Deficiencies

Data gaps in long-term surveillance: Existing efforts like the 28-day CTEH air quality study provide snapshots of VOC and sulfur emissions but do not support longitudinal tracking of health outcomes or chronic disease rates (Centers for Disease Control and Prevention, 2024).

Lack of biomonitoring guidance: While benzene, carbon tetrachloride, and sulfur gases have been detected, the brief lacks protocols specifying biomarkers, exposure thresholds, or screening strategies for vulnerable groups (e.g., children, pregnant individuals) (National Institute of Environmental Health Sciences, 2023).

Missed adoption of national health models: Models like those used after the Bridgeton landfill SSE or Love Canal incident included 5-year health reviews, blood biomarker testing, and community education programs, none of which have been fully implemented here

Waste Management Continuity Issues

Daily diversion challenges: With Chiquita Canyon closing operations on January 1, 2025, approximately 2 million tons annually, or about 7,000 tons per day, needed to be redirected (California Department of Resources Recycling and Recovery, 2024).

Strain on regional infrastructure: Waste management systems had to pivot swiftly, Los Angeles County began diverting waste to Simi Valley and Antelope Valley facilities, without noticeable pressure on Sylmar's Sunshine Canyon Landfill, but other facilities might absorb increased loads

Regional vulnerabilities exposed: The crisis underscores a critical lack of contingency planning. Los Angeles County's 2021 Integrated Waste Management Plan projected available Class III landfill capacity through 2036, yet unanticipated closures like Chiquita's can rapidly destabilize system resilience (California Department of Resources Recycling and Recovery, 2024).

Environmental Justice Concerns

The issue of disproportionate negative effects placed on the low-income population living around this landfill site is represented by the Chiquita Canyon Landfill crisis that has affected individuals in the unincorporated community of Val Verde, mostly (UCLA Center for Environmental Health Sciences, 2024). The number of people residing in Val Verde is about 2,500, most of whom are Latino and working-class. There are numerous houses within a distance of less than one mile to the landfill, and the people living nearby will be exposed longer to fumes and pungent smells.

The economic damage that has been brought upon by these environmental conditions has also created health concerns. There have been complaints by the residents experiencing problems in selling their houses owing to stigma associated with the landfill, and a fall in property values (Los Angeles County Assessor, 2024). Some families are even coming from those who endure health problems and economic instability.

Nonetheless, disciples of these risks have not been greatly assisted, even though we are talking about matters involving seriously injured residents. Resettlement activities are transitory, and lots of households are left within the reach of the exposure area with no steady access to medical surveillance or economic salvage. The absence of specific safeguarding measures of vulnerable population groups reveals the persistence of inequalities in the focus on climate justice throughout the emergency response planning.

Such a predicament causes a lot of arguments about whether all communities enjoy the same level of protection in the current systems. The slow and differential distribution of relief has increased the mistrust between the locals and authorities. The crisis can cement the trends of marginalization about the needs of low-income and minority communities without specified reforms.

COMPREHENSIVE POLICY RECOMMENDATIONS

Immediate Actions (0-6 months)

1. Enhanced Health Protection and Monitoring

- Implement a health surveillance program for residents, including baseline medical assessments, symptom tracking, and access to environmental health specialists (National Institute of Environmental Health Sciences, 2023).
- Establish a medical monitoring fund to cover long-term health impacts, modeled after the World Trade Center Health Program and supported by public and legal settlements.
- Develop clear evacuation and relocation protocols with defined gas exposure thresholds, public notification requirements, and funding sources for temporary housing.

Policy Implications and Trade-offs: Although implementing a complete health monitoring will demand large initial outlays (about 5-10 million dollars per year), the select option of later preventive health action may cost the organization exponentially more in the long term in the forms of emergency treatment, lawsuits and long-term treatment of chronic illness. A successful example that has been documented includes over 112,000 responders and survivors enrolled in the World Trade Center Health Program who have successfully seen any intervention provided benefit in such individual suffering and system-wide healthcare expenditures. Nevertheless, the setting of the evacuation thresholds can start opposition on the side of the property owners scared about the economic uncertainties and inhabitants who are not going to be adventurous to transfer. Nevertheless, it is vital to ensure short-term health safeguards since the underground chemical reaction may last 50-70 years, and early intervention is the most efficient strategy to save the population most likely to get permanent health complications.

2. Technical Remediation Acceleration

- Deploy additional technical resources through EPA's Superfund Emergency Response teams and CalEPA's Site Mitigation Program to support subsurface fire control (EPA Office of Solid Waste and Emergency Response, 2024).
- Explore and pilot advanced remediation technologies such as soil vapor extraction, in-situ thermal treatment, and enhanced off-gas filtration systems like carbon adsorption.

- Set aggressive cleanup timelines with third-party oversight, public reporting every 90 days, and enforceable penalties for non-compliance by landfill operators.

Policy Implications and Trade-offs: Advanced remediation technologies carry high implementation costs (\$50-100 million estimated) and uncertain success rates, as fewer than 15 similar subsurface landfill events have been documented in U.S. history. In-situ thermal treatment, while promising, could temporarily increase surface emissions during implementation and requires specialized equipment that may take months to deploy. However, the alternative of relying solely on conventional gas extraction systems has proven inadequate, with the contaminated area expanding from 35 to potentially 90 acres despite current mitigation efforts. Aggressive timelines with third-party oversight may increase project costs by 15-25% but are essential for maintaining public trust and ensuring accountability. The long-term costs of delayed remediation—including ongoing health impacts, property value depression, and environmental damage—far exceed the investment in accelerated, comprehensive technical solutions.

Medium-term Reforms (6 months - 2 years)

3. Regulatory Framework Strengthening

- Develop state-level protocols specifically for underground landfill fires, requiring gas monitoring, fire detection, and immediate mitigation steps when critical thresholds are exceeded (Solid Waste Association of North America, 2023).
- Mandate continuous subsurface monitoring at all active and closed landfills located in seismically active or geologically vulnerable regions, using real-time sensor technology.
- Strengthen financial assurance rules so landfill operators are required to maintain funds dedicated to long-term site maintenance and emergency response readiness.

Policy Implications and Trade-offs: Implementing continuous monitoring across California's 200+ active and closed landfills will impose significant compliance costs on operators (estimated \$50,000-200,000 per facility annually), potentially leading to increased waste disposal fees that could disproportionately impact low-income communities. Smaller landfill operators may struggle with the financial burden, potentially leading to facility closures that could strain regional waste management capacity. However, the Chiquita Canyon crisis demonstrates that the current reactive approach is inadequate and more costly in the long run. Enhanced financial

assurance requirements may increase operational costs by 5-10% but will shift financial responsibility from taxpayers to private operators, ensuring that companies internalize the true environmental costs of waste disposal. The early detection capabilities provided by continuous monitoring could prevent future disasters that would otherwise cost hundreds of millions in remediation and health impacts.

4. Regional Waste Management Resilience

- Create formal waste diversion and mutual aid agreements across Southern California counties to reduce disruptions during facility closures (California Department of Resources Recycling and Recovery, 2024).
- Require regional contingency plans that pre-identify alternative disposal sites, hauling routes, and surge handling capacity for future closures.
- Establish rate stabilization programs to shield low-income households from sudden increases in trash collection or disposal fees due to diverted waste.

Policy Implications and Trade-offs: Regional coordination may face political resistance from counties concerned about accepting additional waste or bearing increased infrastructure costs. Transportation costs could increase by 20-40% when waste must be diverted to distant facilities, potentially raising municipal waste collection fees. However, the Chiquita Canyon closure revealed critical vulnerabilities in Southern California's waste management system, with 2 million tons of annual waste requiring immediate redirection. Without formal agreements, future closures could create emergency situations that result in even higher costs, illegal dumping, or public health crises. Rate stabilization programs will require public funding (estimated \$10-20 million regionally) but are essential for preventing environmental justice impacts where low-income communities face disproportionate cost burdens during waste management disruptions.

5. Expanded Legislative Framework

- Broaden tax relief measures to include long-term medical monitoring and relocation support as part of state aid for communities near hazardous waste sites (National Conference of State Legislatures, 2024).

- Pass landfill safety legislation that includes temperature monitoring, public reporting, and operator accountability, building on AB 28 and EPA best practices (California State Assembly, 2025).
- Create permanent state and local funding sources for environmental disaster response, including health testing, community outreach, and emergency infrastructure.

Policy Implications and Trade-offs: Expanding tax relief and creating permanent funding sources will require significant state budget allocations (estimated \$50-100 million annually) during a period of fiscal constraints, potentially requiring trade-offs with other environmental or social programs. Creating new bureaucratic structures for disaster response may initially slow response times as agencies establish protocols and build capacity. However, the current ad hoc approach to environmental emergencies has proven inadequate, with Chiquita Canyon residents waiting years for comprehensive relief. Permanent funding mechanisms will actually reduce long-term costs by enabling rapid response that prevents small problems from becoming major disasters. The success of AB 27's unanimous passage (71-0) demonstrates strong bipartisan support for environmental disaster relief, suggesting that expanded measures would face minimal political opposition.

Long-term Prevention (2-5 years)

6. Environmental Justice Integration

- Require environmental justice impact assessments for all new or expanding waste facilities, following EPA's Environmental Justice 2020 guidelines (EPA Office of Environmental Justice, 2020).
- Mandate that landfill operators provide community benefit programs such as healthcare funds, pollution offsets, or infrastructure improvements in nearby neighborhoods.
- Establish a public fund to support community advocacy, legal representation, and sustained oversight of facility operations in impacted areas.

Policy Implications and Trade-offs: Environmental justice requirements may increase project development timelines by 6-18 months and add \$500,000-2 million in assessment costs per facility, potentially discouraging waste infrastructure development in a state already facing

capacity constraints. Community benefit programs could increase operational costs by 2-5%, which may be passed on to ratepayers. However, the Chiquita Canyon crisis exemplifies the consequences of inadequate environmental justice consideration, with the predominantly Latino community of Val Verde bearing disproportionate health and economic burdens. Proactive environmental justice integration is more cost-effective than reactive remediation, as demonstrated by communities like West Harlem and Richmond, California, where early community engagement prevented conflicts that would have resulted in costly delays and litigation. Public funding for community advocacy (estimated \$5-10 million annually statewide) will actually reduce long-term costs by enabling communities to participate meaningfully in decision-making rather than resorting to expensive legal challenges.

7. Technology and Innovation Investment

- Invest in landfill monitoring R&D through university and private sector partnerships to improve fire detection, gas tracking, and leachate containment (National Renewable Energy Laboratory, 2024).
- Develop early warning systems using artificial intelligence and real-time sensor networks that can detect abnormal temperatures or gas concentrations.
- Promote waste reduction strategies and fund emerging disposal technologies such as anaerobic digestion, advanced recycling, and waste-to-energy conversion (National Renewable Energy Laboratory, 2024).

Policy Implications and Trade-offs: Technology investment requires substantial upfront funding (\$100-200 million over 5 years) with uncertain returns, as some innovations may prove ineffective or take decades to mature. Artificial intelligence systems may generate false alarms that could unnecessarily alarm communities or strain emergency response resources. Alternative waste technologies like anaerobic digestion require significant infrastructure investment and may face public opposition due to odor or safety concerns. However, California's current waste management system relies on increasingly scarce landfill capacity, with most facilities expected to reach capacity within 15-20 years. The Chiquita Canyon crisis demonstrates the catastrophic costs of reactive approaches—investing in prevention through technology innovation is essential for long-term sustainability. Early warning systems, despite potential false alarms, could prevent

disasters that cost hundreds of millions in remediation, as seen in the Bridgeton Landfill case in Missouri, where delayed detection led to a decade-long, \$200+ million cleanup effort.

8. Interstate and Federal Coordination

- Partner with EPA and FEMA to develop national standards for landfill fire response, including common remediation protocols and performance metrics (Government Accountability Office, 2023).
- Create interstate compacts that allow for shared resources, data, and coordination across state lines when landfills present cross-jurisdictional risks.
- Advocate for sustained federal funding for environmental emergency preparedness, especially for communities already facing environmental health burdens (Federal Emergency Management Agency, 2024).

Policy Implications and Trade-offs: Interstate coordination may face resistance from states with different regulatory philosophies or economic interests, potentially leading to lowest-common-denominator standards that are less protective than California's current requirements. Federal involvement could slow state-level innovation and impose bureaucratic delays that frustrate local communities seeking immediate relief. Sustained federal funding competes with other national priorities and may be vulnerable to political changes. However, the rarity of subsurface landfill fires (fewer than 15 documented cases nationally) means that individual states lack sufficient experience and resources to develop effective response protocols independently. The Government Accountability Office has identified coordination failures as a primary cause of delayed emergency response across multiple environmental disasters. Federal standards and funding will actually enhance state flexibility by providing baseline resources and expertise that states can build upon, as demonstrated by successful federal-state partnerships in Superfund cleanups and disaster response. The alternative—continued fragmented responses—leaves communities vulnerable to prolonged exposure while agencies debate jurisdiction and resource allocation.

IMPLEMENTATION CONSIDERATIONS

Funding Requirements

A comprehensive response will require substantial and sustained investment from federal, state, and local sources. Securing long-term funding is essential not only for remediation but also for health monitoring, relocation, and regional infrastructure (Federal Emergency Management Agency, 2024). Potential funding streams include:

State emergency declarations and disaster relief funds, including California's Office of Emergency Services allocations
Environmental infrastructure bonds and green infrastructure initiatives, which can support monitoring systems, landfill upgrades, and regional waste resilience
Legal settlements from ongoing lawsuits against Waste Connections and other responsible entities, with funds earmarked for community relief and remediation
Federal grant programs, including EPA Environmental Justice grants, FEMA hazard mitigation assistance, and Community Development Block Grants (CDBG) for environmental disasters

Funding Strategy Implications: The diversified funding approach reduces dependence on any single source but requires complex coordination among multiple agencies and jurisdictions. Legal settlements may take years to resolve, creating funding gaps during critical implementation phases. However, the total estimated cost of comprehensive implementation (\$500 million-1 billion over 5 years) must be weighed against the alternative costs of inaction, which include ongoing health impacts, property value losses, economic disruption, and potential future disasters. The Love Canal cleanup ultimately cost \$400 million over 30 years, demonstrating that delayed action exponentially increases costs while prolonging community suffering.

Timeline Realities

Due to the scale and underground nature of the chemical reaction, containment and remediation efforts are expected to take several years (National Academy of Sciences, 2023). This timeline must account for:

Multi-phase intervention, including interim geomembrane covers, long-term thermal and vapor control systems, and post-containment site monitoring. Ongoing public health support, such as medical screening, temporary relocation where needed, and mental health services. Clear success

metrics, including air quality improvement, reductions in health complaints, and visible remediation milestones reported regularly to the public.

Timeline Management Implications: Extended timelines risk community fatigue and political pressure for premature declarations of success, potentially leading to incomplete remediation that allows problems to resurface. Long-term health monitoring may face funding cuts as public attention shifts to other issues. However, rushing remediation efforts could result in inadequate solutions that fail to address root causes, as seen in several Superfund sites where incomplete cleanups required multiple interventions over decades. The phased approach, while requiring patience from affected communities, provides opportunities to adapt strategies based on emerging data and technological advances. Regular milestone reporting will maintain transparency and accountability while helping communities understand progress even when complete resolution takes years. The alternative—attempting rapid fixes without adequate testing and monitoring—risks repeating the mistakes that led to the current crisis.

Political Dynamics

Progress will require multi-level, bipartisan cooperation. While jurisdictional tensions have occasionally slowed enforcement or funding, this crisis crosses traditional political lines and offers shared ground for action. Currently, Assemblymember Pilar Schiavo has provided legislative leadership through AB 27 and AB 28, focusing on relief and safety standards (California State Assembly, 2025). Additionally, Supervisor Kathryn Barger has pushed for greater transparency, agency coordination, and federal involvement through motions and advisory structures. Future progress depends on maintaining this alignment while engaging additional elected officials, regulatory agencies, and community leaders to keep pressure and momentum high.

Conclusion

Chiquita Canyon Landfill crisis is not only a time-sensitive crisis that has to be resolved in an urgent manner, but also a valuable learning case study that can be used whenever there is the likelihood of improving upon environmental preparedness in case of an emergency or disaster. The crisis must be handled on numerous levels of governance, lasting community cooperation, and a paradigm shift in the approach to remediation and prevention.

Despite implementing a number of policies, they are still not enough to address the extent of the crisis. It is high time to do more to safeguard the health of people, promote environmental justice, and ensure that the disaster of such a disaster does not happen again.

The recommendations given in the present brief provide a starting point of response, partially addressing immediate public health requirements and the long-term objective of resilience. When enforced, these directions can create a decent model of the management of future environmental crises throughout the country. California may be the first to give an example and make sure that no community is susceptible to environmental damage because of its financial or political representation. The experience of Chiquita Canyon should be used as a national lesson and serve as a deterrent against environmental threats in terms of safety, stability, and the welfare of a community anywhere.

REFERENCES

1. South Coast Air Quality Management District. (2023). *Violation Notices and Enforcement Actions: Chiquita Canyon Landfill*. Retrieved from SCAQMD enforcement database.
2. Los Angeles County Department of Public Health. (2024). *Chiquita Canyon Landfill Health Impact Assessment*. Los Angeles County Public Health Department.
3. California Environmental Protection Agency. (2024). *Chiquita Canyon Landfill Response Coordination*. Retrieved from <https://calepa.ca.gov/chiquita-canyon-response/>
4. Castaic Area Town Council. (2024). *Community Complaint Documentation Project*. Internal community organization records.
5. California Department of Transportation. (2023). *State Route 126 Corridor Environmental Assessment*. Caltrans District 7.
6. California Department of Toxic Substances Control. (2024). *Violation Notice and Enforcement Action: Chiquita Canyon Landfill Toxic Waste Transportation*. DTSC Enforcement Division.
7. Los Angeles County Assessor. (2024). *Property Value Impact Analysis: Environmental Factors*. Los Angeles County Office of the Assessor.
8. South Coast Air Quality Management District. (2024). *Enforcement Action Summary: Chiquita Canyon Landfill*. SCAQMD Public Records.
9. California Environmental Protection Agency. (2024). *Multi-Agency Coordination Framework for Environmental Emergencies*. CalEPA Policy Document.
10. California State Assembly. (2025). *Assembly Bill 27 (Chiquita Canyon Tax Relief Act)*. California State Legislature.
11. California State Assembly. (2025). *Assembly Bill 28 (Landfill Fire Safety Act)*. California State Legislature.
12. Los Angeles County Counsel. (2024). *County of Los Angeles v. Chiquita Canyon LLC*. Los Angeles County Superior Court Filing.
13. EPA Office of Research and Development. (2024). *Technical Assessment of Landfill Subsurface Reactions*. Environmental Protection Agency.
14. Government Accountability Office. (2023). *Environmental Emergency Response: Coordination Challenges and Recommendations*. GAO Report GAO-23-104.

15. Centers for Disease Control and Prevention. (2024). *Environmental Health Surveillance Guidelines for Landfill Incidents*. CDC Environmental Health Services.
16. California Department of Resources Recycling and Recovery. (2024). *Waste Diversion Emergency Response Plan*. CalRecycle Emergency Planning Division.
17. UCLA Center for Environmental Health Sciences. (2024). *Environmental Justice Analysis: Chiquita Canyon Landfill Impact Assessment*. UCLA Environmental Health Sciences Department.
18. National Institute of Environmental Health Sciences. (2023). *Community Health Monitoring Best Practices for Environmental Disasters*. NIEHS Community Engagement Program.
19. EPA Office of Solid Waste and Emergency Response. (2024). *Innovative Remediation Technologies for Landfill Emergencies*. EPA Technology Innovation Office.
20. Solid Waste Association of North America. (2023). *Emergency Response Protocols for Landfill Incidents: National Best Practices*. SWANA Technical Report.
21. National Conference of State Legislatures. (2024). *State Landfill Safety Legislation: Comparative Analysis*. NCSL Environmental Policy Program.
22. EPA Office of Environmental Justice. (2020). *Environmental Justice 2020: Implementation Guidelines*. Environmental Protection Agency.
23. National Renewable Energy Laboratory. (2024). *Advanced Waste Management Technologies: Research and Development Priorities*. NREL Waste-to-Energy Program.
24. Federal Emergency Management Agency. (2024). *Environmental Emergency Funding Mechanisms*. FEMA Environmental and Historic Preservation Policy.
25. National Academy of Sciences. (2023). *Measuring Success in Environmental Emergency Response: Metrics and Evaluation Frameworks*. National Research Council.