



Twin River Triangle On-Site Review

The Twin Rivers Triangle Site, identified in DTSC's EnviroStor database as Site ID 60002861, is part of the broader Twin Rivers / Dos Rios Transit-Oriented Development and Light Rail Station Project in Sacramento. Public documents identify the site area around Sproule Avenue and North 12th Street, with the residential parcel located primarily along 16th Street. The overall Dos Rios Triangle site is described as approximately 3.21 acres, subdivided into a light rail parcel and a residential parcel. The light rail parcel has been separately assessed and cleaned to a DTSC-approved non-residential use standard, while the residential parcel has required additional environmental investigation and planning.

The site has a long history of industrial and commercial uses. SHRA's environmental investigation solicitation states that the property has historically been used for salvage, equipment manufacturing, refrigeration, wrecking, auto sales, automobile manufacturing, and truck repair. These uses are important because they are consistent with the types of environmental concerns identified at the site, including metals in soil, petroleum-related compounds, volatile organic compounds, semi-volatile organic compounds, PCBs, and other contaminants associated with legacy industrial land use.

From a technical perspective, the Twin Rivers Triangle Site is highly relevant because it sits at the intersection of contaminated land, redevelopment,



public transit, housing, environmental justice, and community health education. The site is being transitioned from former industrial uses toward community-serving development, which makes public understanding of cleanup, land use controls, and exposure prevention essential.

PHYSICAL SITE CONDITIONS

The Twin Rivers Triangle area presents as an urban transportation and redevelopment corridor with a mix of public infrastructure, fencing, paved roadways, utility corridors, and adjacent community-serving buildings. The visible area includes a recently paved multi-lane roadway with marked bicycle infrastructure, white lane delineators, concrete barriers, traffic control elements, and light rail or overhead utility infrastructure. This setting suggests an active corridor undergoing or recently completing transportation-related improvements.

The photographs show the site area bordered by concrete traffic barriers, yellow bollards, fencing, sidewalks, overhead utility lines, and transit-related poles or catenary structures. These features indicate a controlled corridor where public access is guided by streets, sidewalks, and barriers. The presence of barriers and fencing is important from a site-control perspective because it helps separate pedestrians and vehicles from construction or restricted-access zones.

The surrounding neighborhood includes a combination of older structures, low-rise buildings, a mural wall, fenced properties, and community service facilities, including signage for Loaves & Fishes, and Animal Day Shelter at 321 North 12th Street. The nearby presence of social service uses and pedestrian activity is significant for TAG planning because it indicates that potentially vulnerable community members, families, unhoused residents, service recipients, cyclists, and pedestrians may move through or near the project area. Several photos show graffiti on concrete barriers and nearby walls, street-level debris, and heavily used public right-of-way conditions. These visual conditions do not prove contamination, but they do demonstrate that the site exists within a dense urban environment where community members may have daily contact with sidewalks, street edges, dust, soil, and construction-adjacent areas. That reinforces the need for clear public messaging about what areas are safe, what areas are restricted, and why cleanup and land use controls matter.

The visual character of the site is very different from an isolated fenced industrial parcel. Instead, it appears to be embedded in a public-facing corridor where cleanup and redevelopment are occurring near streets, transit infrastructure, service providers, and community movement patterns. This makes the site particularly important for risk communication, signage, outreach, and multilingual or plain-language education.

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KNOWN ENVIRONMENTAL CONCERNS AND CONTAMINANTS

Publicly available DTSC and SHRA-related documents identify the Twin Rivers Triangle Site as having arsenic and lead in soil at concentrations exceeding conservative human health screening levels developed by DTSC and the U.S. Environmental Protection Agency. SHRA's environmental investigation materials also note that low levels of volatile organic compounds and semi-volatile organic compounds were reported in some samples.

The earlier DTSC Response Plan for the light rail property addressed arsenic and lead contaminated soil to reduce risks to human health and the environment. DTSC approved the Response Plan for the Twin Rivers Transit-Oriented Development and Light Rail Station Project on September 15, 2022. The work addressed the 0.72-acre Regional Transit Light Rail Property within the overall development site for construction of the proposed Dos Rios Light Rail Station.

The contaminant categories associated with the broader Twin Rivers Triangle site include:

Metals: Arsenic and lead are the most clearly documented contaminants of concern in public records. These are commonly associated with historic industrial fill, salvage operations, vehicle-related activities, and older urban land uses.

Volatile Organic Compounds (VOCs): VOCs were evaluated in groundwater and soil gas investigations. Public documents indicate that no VOCs were detected above laboratory reporting limits in certain groundwater samples during the 2020 investigation, but earlier work identified VOC-related issues requiring additional evaluation in some areas.

Semi-Volatile Organic Compounds (SVOCs): SHRA documents note low levels of SVOCs in some samples. These may be associated with petroleum-related products, combustion byproducts, industrial operations, or historical fill.

PCBs: Site investigation documents included PCB analysis. While the public summary does not state PCBs as the primary cleanup driver, the testing history shows they were part of the environmental evaluation because of the site's former industrial uses.



Petroleum hydrocarbons and other industrial residues: Phase II work included testing for TPH, VOCs, SVOCs, metals, PCBs, and asbestos, reflecting the broad range of potential contaminants associated with former vehicle, repair, salvage, and manufacturing uses.

For community education, the simplest and most accurate message is that the site has a history of industrial use, and testing has identified metals, especially arsenic and lead, as key soil concerns, with additional investigation of VOCs, SVOCs, PCBs, petroleum-related compounds, and other potential contaminants.

ENVIRONMENTAL INVESTIGATION HISTORY

The site has undergone multiple environmental investigations over several years. A Phase I Environmental Site Assessment was conducted in 2013 and updated in 2014, followed by further updates in 2016. These assessments evaluated historical and current site activities, adjacent property conditions, geologic and hydrogeologic information, recognized environmental conditions, hazardous material handling history, aerial photographs, and regulatory database records.

A Phase II Environmental Site Assessment was conducted based on the Phase I findings. The Phase II work included utility locating, geophysical survey, test pits, soil sampling, direct-push soil borings, temporary groundwater wells, and soil gas investigation. Groundwater samples were analyzed for VOCs, SVOCs, TPH, and dissolved Title 22 metals. Soil gas was evaluated for VOCs through temporary soil gas wells.

The investigation also used waste characterization methods including the California Waste Extraction Test (WET) and Toxicity Characteristic Leaching Procedure (TCLP). WET testing detected lead concentrations in some samples exceeding the Soluble Threshold Limit Concentration (STLC) for lead, while TCLP results were below the federal hazardous waste threshold in the samples described. This distinction is important because California hazardous waste criteria can be more stringent than federal RCRA criteria, and soil can require special handling even when it is not federally hazardous.

The investigations helped determine where contaminated soil may be present, what types of contaminants require management, and what cleanup or control measures are necessary before redevelopment.

CLEANUP AND RESPONSE ACTIONS

DTSC approved a Response Plan in 2022 for the light rail property portion of the Twin Rivers project. That plan involved soil excavation, waste characterization, disposal, and temporary staging of stockpiled soil on the project site. The approved project included excavation of approximately 1,310 cubic yards of arsenic- and lead-contaminated soil from the 0.72-acre Regional Transit light rail property. Excavated soil was to be characterized and profiled according to disposal facility requirements. Soil exceeding California hazardous waste thresholds would be disposed offsite as Non-RCRA Class I hazardous waste, while soil exceeding federal TCLP criteria would be handled as RCRA hazardous waste.

DTSC's approval also included a Land Use Covenant to prohibit residential use of the light rail property and to prohibit extraction or removal of groundwater for drinking water purposes. This is an important long-term control because it ensures that future use remains consistent with the cleanup standard and helps prevent exposure scenarios that were not intended for that portion of the site.

In 2023, DTSC approved an Explanation of Significant Differences for the light rail station response action. After excavation of approximately 1,310 cubic yards of soil, confirmation samples showed that arsenic and lead remained in project site soils at concentrations up to 180 mg/kg arsenic and 9,600 mg/kg lead. SHRA proposed changing the remedial action goal for lead from DTSC's residential standard of 80 mg/kg to the commercial/industrial standard of 500 mg/kg, and DTSC approved that approach for the light rail property through the ESD.

This detail is important for TAG education because residents may hear that soil was excavated and assume all contamination was removed to residential standards. The more accurate explanation is that the light rail property was remediated and controlled for non-residential use, while the adjacent residential parcel requires additional investigation and cleanup planning.

RESIDENTIAL PARCEL AND FUTURE REUSE

The broader Dos Rios Triangle site includes a residential parcel of approximately 2.35 acres, located primarily along 16th Street. SHRA's 2024 site-specific environmental investigation solicitation states that the residential parcel is the subject of additional investigation and that construction is tentatively scheduled to begin in 2029. The ECRG program requires that this residential parcel be cleaned to a non-restricted standard that will not require an ongoing Operations and Maintenance Plan.

This distinction between the light rail parcel and the residential parcel is one of the most important technical points for community outreach. The light rail parcel has been addressed under a non-residential cleanup framework, while the residential parcel must be evaluated and cleaned to a standard appropriate for future housing. That means additional sampling, cleanup planning, agency review, and public communication remain important.

SHRA's document states that the general project objective is to provide a cleanup Response Plan approved by DTSC for the residential site. It also notes a project budget of \$750,000 for the site-specific investigation.

PUBLIC PARTICIPATION AND DTSC OVERSIGHT

DTSC held a public comment period for the Twin Rivers Triangle Site Draft Response Plan from July 22, 2022 through August 22, 2022. DTSC invited the public to review and comment on the Draft Response Plan, with comments directed to DTSC Project Manager Gavin McCreary. The public comment period is important for TAG documentation because it demonstrates that the project has a formal regulatory and public participation history. It also supports the need for continued community education, especially because the site involves technical distinctions between parcels, contaminant types, cleanup standards, future land use, and long-term restrictions.

DTSC is identified as the responsible agency for the Response Plan and related CEQA actions, while the City of Sacramento is listed as the lead agency for the broader transit-oriented development project.

TECHNICAL INTERPRETATION FOR TAG GRANT PURPOSES

From our technical perspective, the Twin Rivers Triangle Site is described as a former industrial and commercial property undergoing phased investigation, remediation, and redevelopment under DTSC oversight. The site has confirmed metals impacts in soil, especially arsenic and lead, with additional evaluation of VOCs, SVOCs, petroleum-related compounds, PCBs, asbestos, and groundwater/soil gas conditions.

The site's location near streets, transit improvements, bicycle lanes, sidewalks, social services, and future housing makes it a high-priority location for community education. Unlike a remote industrial site, this area is highly visible and embedded in daily community movement.

Residents, pedestrians, cyclists, nearby service users, and future occupants may have questions about what cleanup has occurred, what remains to be done, and what protections are in place.

For TAG messaging, Chasten Gold can explain that the site is being cleaned and redeveloped in phases. The light rail parcel has already undergone excavation and is subject to land use restrictions for non-residential use. The adjacent residential parcel is undergoing additional investigation and planning so that future housing can be built safely and without ongoing restrictions.

COMMUNITY HEALTH AND EXPOSURE PATHWAY SUMMARY

The primary exposure pathways of concern at this type of site include direct contact with contaminated soil, incidental ingestion of soil or dust, inhalation of dust during disturbance or excavation, and potential contact with groundwater or soil vapor in certain conditions. Children are especially important in exposure education because they are more likely to touch soil, play near ground surfaces, and put their hands near their mouths. The site's contaminants also support continued education about everyday protective behaviors. Handwashing after outdoor play, avoiding disturbed soil, following posted signage, and staying out of restricted areas are simple but meaningful messages for families.

TAG GRANT RELEVANCE

The Twin Rivers Triangle Site directly supports the need for TAG-funded outreach because the project involves complex technical information that must be translated into clear, accessible community language. Residents need to understand the difference between:

- the light rail parcel and the residential parcel;
- cleanup to residential versus commercial/industrial standards;
- excavation and waste disposal versus land use controls;
- visible site conditions versus laboratory-confirmed contamination;
- short-term construction controls versus long-term public health protections.

Chasten Gold's role is to help residents and families understand what contaminants are present, what cleanup actions have occurred, what future actions are planned, and how community members can stay informed and protected. The site's combination of environmental contamination, redevelopment, transit access, future housing, and proximity to vulnerable populations makes it a strong example of why TAG community education is necessary.