

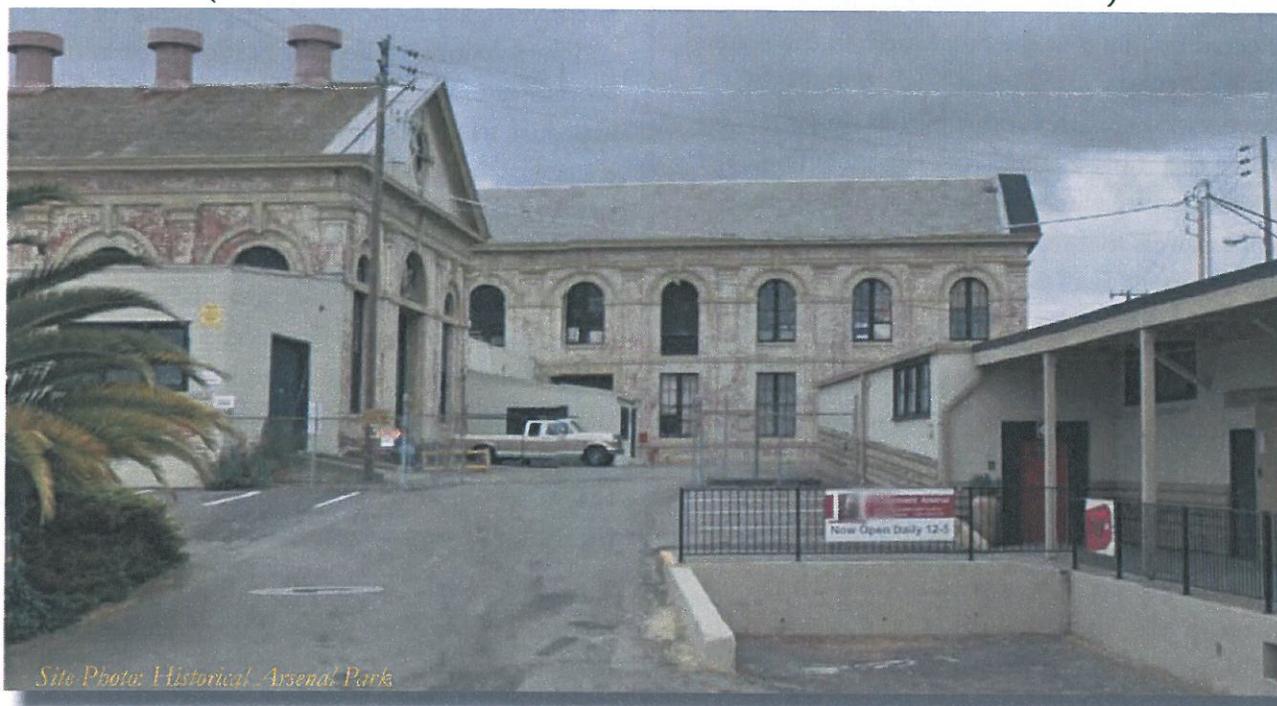
COMMUNITY UPDATE

The mission of DTSC is to protect California's people and environment from harmful effects of toxic substances through the restoration of contaminated resources, enforcement, regulation and pollution prevention.

INDOOR AIR INVESTIGATION AT THE HISTORICAL ARSENAL PARK, 50 SERIES COMPLEX (PART OF THE BENICIAL ARSENAL'S "LOWER ARSENAL" AREA)

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CITY ATTORNEY'S OFFICE
CITY OF BENICIA



Site Photo: Historical Arsenal Park

The Department of Toxic Substances Control (DTSC) has reviewed new environmental data regarding the Historical Arsenal Park, 50 Series Complex (Site), located 945 Tyler Street, Benicia, California 94510. The Site is located in the southern portion of the former Benicia Arsenal formerly known as the Lower Arsenal area. The investigation found solvents (trichloroethylene (TCE) and the petroleum constituents, benzene and ethylbenzene) in the indoor air at the Site.

Before the mitigation measures were in place the western portion of the Site had the highest detected indoor air concentrations of TCE as high as 75 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$). US EPA commercial indoor air limit for TCE is $8 \mu\text{g}/\text{m}^3$. Benzene and ethylbenzene were as high as $2.2 \mu\text{g}/\text{m}^3$ and $67 \mu\text{g}/\text{m}^3$ respectively in the central portion of the Site. US EPA commercial indoor air limits for benzene is $1.6 \mu\text{g}/\text{m}^3$ and ethylbenzene is $4.9 \mu\text{g}/\text{m}^3$. DTSC's commercial indoor air limit for Benzene is $0.42 \mu\text{g}/\text{m}^3$. Certain control measures are currently being implemented to reduce the indoor air contamination. Subsequently two rounds of indoor air sampling have been conducted under both summer and winter conditions. Additional sampling will be conducted periodically to monitor the continued effectiveness of the mitigation measures. DTSC intends to keep the community informed throughout the investigation and cleanup activities.

DTSC INVOLVEMENT AT THE SITE

Most recently, the property owner became aware of the 2005 US Army report, and then installed the Proposition 65 signs at the Site. This spurred community concern over potential human health risks. DTSC performed a preliminary risk and hazard evaluation on the Site using groundwater data from the 2005 US Army report. DTSC promptly recommended an indoor air investigation of selected buildings at the Site based on the results of the risk evaluation. Since at least 1990, DTSC has been working with various parties on issues regarding the entire Benicia Arsenal, including efforts to identify where hazardous substances are present at levels that may affect human health and the environment.

THE CHEMICALS OF CONCERN

The chemical of concern (COC)s are TCE, benzene, ethylbenzene. TCE is a man-made chemical which has mostly been used for cleaning metal parts in manufacturing. TCE is a carcinogen and is considered to present a developmental risk to unborn children. If you are a woman who is pregnant or may be pregnant DTSC recommends that you consult your physician for more information.

Benzene and ethylbenzene are constituents present in fuel or petroleum. Both are carcinogens, but unlike TCE, they do not pose an immediate threat to pregnant women.

ENVIRONMENTAL INVESTIGATIONS

From 1849-1964, the military continuously used the Site for ordnance storage, manufacturing, cleaning and testing of small arms. The army had also operated a degreasing dip tank in the west side of the complex that used TCE as a solvent, and likely contributed to the TCE contamination in soil and groundwater at the Site. Preliminary indoor air data from the Site showed that some indoor air

concentrations of TCE were above indoor air, commercial screening levels. The highest indoor air concentration of TCE was located in the western portion of the Site; whereas, benzene and ethylbenzene were detected in central portion of the Site.

IMPACT OF CONTAMINATION

Site investigations revealed the presence of TCE and petroleum constituents in indoor air and groundwater samples. Most commonly, human exposure to these toxins is through air and drinking water.

Long term exposure to TCE in indoor air may result in an increased risk of cancer and male reproductive toxicity when breathed continuously over a period of years. However, recent studies suggest that short-term exposure to TCE may significantly impact the developing fetus. If you are a woman who is pregnant or may be pregnant DTSC recommends that you consult your physician for more information.

The groundwater at the Site is not a drinking water source. The drinking water is provided by the City of Benicia.

IMMEDIATE ACTIONS TO PROTECT HEALTH

Under DTSC's oversight, the property owner took prompt and immediate actions to reduce indoor air concentrations of the COCs in an effort to minimize and eliminate exposures:

- Blowers in the areas with high concentrations,
- Opening windows,
- Increased sampling efforts and monitoring events.

After taking these actions, subsequent rounds of indoor air sampling confirmed that all three COCs were at concentrations below their US EPA commercial indoor air limits. The exceptions being detections of TCE in the basement and during the



winter sampling event, benzene exceeded the indoor air limit but the outdoor air also exceeded the limit. Tap water was also tested for COCs and none were detected.

NEXT STEPS

DTSC is recommending further rounds of sampling to verify if indoor air concentrations have been eliminated or reduced to levels considered protective of human health. In addition, long-term vapor intrusion mitigation and/or remediation options will be considered, as appropriate or needed, following the immediate actions described above.

INFORMATION REPOSITORIES

Project reports and documents are available for public review at the following locations:

Benicia Public Library
150 East L Street
Benicia, California 94510
(707) 746-4343 (Call for hours)

DTSC Saramento Regional Office (File Room)
8800 Cal Center Drive
Sacramento, California 95826
(916) 255-3758 (Call for appointment)

To view documents online at DTSC’s Envirostor website: visit: www.envirostor.dtsc.ca.gov/public/ Click on “Site/Facility Search” under “Tools.” Enter “201994” in the Site Code field, click “Get Report.”

DTSC CONTACTS

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