

FACT SHEET: US NAVY WEAPONS-DEVELOPMENT, TOXIC-WASTE SITE: "PASADENA GATEWAY," 3200 EAST FOOTHILL BOULEVARD, PASADENA, CALIFORNIA

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BACKGROUND

Pasadena City Council approved a project to build 550 apartments (40% 2BR and 3BR) on an unremediated US Navy toxic-waste site, used to manufacture & test nuclear missiles, torpedoes, propellants, and other classified weapons.¹ The site has not been cleaned up--only walled and paved over.² The project is designed to house **hundreds of children** and their families, with many units for moderate- and low-income families.³

FACTS

In LA County **570,000 residents** qualify for affordable housing but can't find any.⁴

California Toxic Substances Control said this site was an "**imminent and substantial**" danger,⁵ and current site cancer risks are up to 8,300 times higher⁶ than allowed.⁷

California Department of Toxic Substances Control claims that after the partial site cleanup, although site residents' cancer risk will be "unknown," nevertheless site health impacts are "not significant."⁸

The city is allowing many **site carcinogens to remain "in place,"** as they are below ground.⁹ It admits that site groundwater-contamination is "unknown";¹⁰ that many soil areas have never been sampled;¹¹ and that not all "sources" of site carcinogens, metals, dioxins, solvents, and propellants have been located.¹² The city is requiring **no groundwater or full soil-carcinogen testing** before construction,¹³ though site toxins have already contaminated and closed two adjacent Pasadena drinking-water wells.¹⁴

The site has **never been tested** (& no tests are required) for the neurotoxic and carcinogenic **perfluoroalkyls** (military flame-retardants),¹⁵ and for RDX & TNT (explosives/propellants).¹⁶ Yet California has regulations¹⁷ for perfluoroalkyls, RDX & TNT, and 71% of weapons manufactured & tested at this site **contained RDX & TNT** in warheads, in propellants, or in both.¹⁸

The developer has promised to "**safely clean up**" the site and provide "affordable housing."¹⁹ The city says the project would preserve air quality and safety.²⁰

In 2011 the developer signed an agreement with the state. It gives the **developer liability protection** from site toxins, in exchange for his inexpensively removing 12 suspected "hot spots." Instead of full cleanup, the agreement allows site **land-use restrictions** (prohibiting exposure to site soil or water) to ensure residents "full protection."²¹

State water-protection authorities say that "from our experience at other cleanup sites, the most thorough and best way to handle a site of this type---is for site cleanup work and supervision of work to be conducted by an **independent party**. It's easier and cheaper to **clean up the site now** rather than later, after construction."²²

When California Toxic Substances Control asked the developer for evidence that soil **carcinogens**, "left in place....will not be a **future threat**," the developer responded that providing such testing and evidence "is outside the...obligations" of his company.²³

The developer also said that site "remedial decisions can be made" by using studies that don't meet required US EPA data-validation (anti-fraud) requirements.²⁴

However, the developer said “numerous site investigations,”²⁵ including in 2007 by the developer’s consultant,²⁶ show the site will be “**safe for occupancy**.”²⁷

The city and developer claim site safety,²⁸ based on 20 older studies. Yet all **20 studies** are incomplete, **17 studies** do not meet US EPA data-validation (anti-fraud) requirements,³² and 3 studies were done by SAIC and Tetra Tech who **admitted repeated fraud** at other toxic-waste clean-ups.²⁹ Together they have paid nearly \$1 billion in fines.³⁰ Owners of homes, built on a San Francisco US Navy toxic-waste site, are suing Tetra Tech for \$27 billion and claiming harm from its fraudulent clean-up.³¹

NOTES

1. City of Pasadena, Sustainable Communities Environmental Assessment (SCEA), 3200 East Foothill, 2018, p. 85 <https://ww5.cityofpasadena.net/planning/wp-content/uploads/sites/56/2018/01/3200-E-Foothill-SCEA.pdf> and Ca Dept of Toxic Substances Control, NIRF, https://www.envirostor.dtsc.ca.gov/public/profile_report?global_id=19970020
2. City of Pasadena, SCEA, pp. 8, 134, <https://ww5.cityofpasadena.net/planning/wp-content/uploads/sites/56/2018/01/3200-E-Foothill-SCEA.pdf>
3. City of Pasadena, SCEA, pp. 1-2, 41, <https://ww5.cityofpasadena.net/planning/wp-content/uploads/sites/56/2018/01/3200-E-Foothill-SCEA.pdf>
4. <https://la.curbed.com/2018/5/17/17362084/affordable-housing-shortage-los-angeles-units-needed>
5. Ca Dept of Toxic Substances Control, Kennedy/Jenks, Environmental Summary, p. 8, https://www.envirostor.dtsc.ca.gov/public/deliverable_documents/4649860978/Environmental%20Summary%20Report%20Jenks%20May%2022%202007%20.pdf
6. City of Pasadena, SCEA Appendices, Appendix K, Removal Action Workplan, p. 11, <https://ww5.cityofpasadena.net/planning/wp-content/uploads/sites/56/2018/01/3200-E-Foothill-Appendices.pdf>
7. City of Pasadena, p. 41 of Appendix J, Remedial Investigation, <https://ww5.cityofpasadena.net/planning/wp-content/uploads/sites/56/2018/01/3200-E-Foothill-Appendices.pdf>
8. SCEA RAW, p. 31 and California Department of Toxic Substances and Control, CEQA Statement of Findings, p. 11, https://www.envirostor.dtsc.ca.gov/public/community_involvement/2907468497/Final%20DTSC%20CEQA%20Statement%20of%20Findings%20Pasadena%20NIRF.pdf
9. City of Pasadena, p. 8 of 20 of Response to DTSC Comments on RI (Appendix A) in Remedial Investigation, Appendix J to SCEA, <https://ww5.cityofpasadena.net/planning/wp-content/uploads/sites/56/2018/01/3200-E-Foothill-Appendices.pdf>
10. City of Pasadena, SCEA, Appendix K, RAW, p. 36, <https://ww5.cityofpasadena.net/planning/wp-content/uploads/sites/56/2018/01/3200-E-Foothill-Appendices.pdf>
11. City of Pasadena, SCEA, Appendix J, RI, p. 29, <https://ww5.cityofpasadena.net/planning/wp-content/uploads/sites/56/2018/01/3200-E-Foothill-Appendices.pdf>
12. City of Pasadena, SCEA, Appendix J, RI, pp. 28-29, <https://ww5.cityofpasadena.net/planning/wp-content/uploads/sites/56/2018/01/3200-E-Foothill-Appendices.pdf> and Kennedy/Jenks, Environmental Summary, pp. 27-38, https://www.envirostor.dtsc.ca.gov/public/deliverable_documents/4649860978/Environmental%20Summary%20Report%20Jenks%20May%2022%202007%20.pdf and City of Pasadena, SCEA, Appendix K, RAW, p. 31, <https://ww5.cityofpasadena.net/planning/wp-content/uploads/sites/56/2018/01/3200-E-Foothill-Appendices.pdf>

13. City of Pasadena, SCEA, p. 125, <https://ww5.cityofpasadena.net/planning/wp-content/uploads/sites/56/2018/01/3200-E-Foothill-SCEA.pdf>

14. City of Pasadena, Pasadena Water and Power Report on City's Water Quality, p. 4 of 14, <https://ww5.cityofpasadena.net/water-and-power/wp-content/uploads/sites/54/2017/08/City-of-Pasadena-Public-Health-Goals-Report-2013.pdf> and Cal-EPA, California Regional Water Quality Control Board, Update on Perchlorate Groundwater Pollution, p. 2, https://www.waterboards.ca.gov/rwqcb4/water_issues/programs/remediation/perchlorate/perchlorate%20report.pdf

15. Beginning in the 1960s per- and polyfluoralkyls (PFOAs) were used on virtually all US military sites in fire-fighting foam to control explosives- and fuel-based fires. ([Lustgarten, How the EPA and the Pentagon Downplayed a Growing Toxic Threat, ProPublica, March 09, 2019, https://www.propublica.org/article/how-the-epa-and-the-pentagon-downplayed-toxic-pfas-chemicals](https://www.propublica.org/article/how-the-epa-and-the-pentagon-downplayed-toxic-pfas-chemicals). The Defense Department says more than 660 US military sites used firefighting foam that could have contaminated local drinking water.)

Because of US EPA's Contaminant Monitoring Rule, California has required testing of drinking water supplies for PFAS since 2013. ([Ca Water Boards, California Releases New PFAS Drinking Water Guidelines, July 17, 2018, https://www.asdwa.org/2018/07/17/california-releases-new-pfas-drinking-water-guidelines/](https://www.asdwa.org/2018/07/17/california-releases-new-pfas-drinking-water-guidelines/) and ProPublica, <https://www.propublica.org/article/suppressed-study-the-epa-underestimated-dangers-of-widespread-chemicals> and CSWRCB, Perfluorooctanoic Acid (PFOA) and Perfluorooctanesulfonic Acid (PFOS), California State Water Resources Control Board. April 04, 2019, https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/PFOA_PFOS.html)

PFAS or perfluoralkyls are associated with cancer, cardiovascular disease, and harm to children, including newborn deaths, birth defects, and delayed development. They cause decreased fertility and infant birth weight, increased liver and immune-system damage, thyroid disease, high blood pressure, pre-eclampsia, and high cholesterol levels. ([ATSDR, ToxFacts for Perfluoralkyls, https://www.atsdr.cdc.gov/toxfaqs/tf.asp?id=1116&tid=237](https://www.atsdr.cdc.gov/toxfaqs/tf.asp?id=1116&tid=237). Both the state and US EPA have documented perfluoroalkyl association with cancer, harm to children, liver damage, developmental delays, endocrine disruption (eg, diabetes, weight gain, cardiovascular disease), neonatal deaths, and neurological and reproductive harm. Perfluoralkyls are very persistent in the environment and in the human body and are especially dangerous because they accumulate and don't break down. State Water Resources Control Board, Perfluorooctanoic Acid (PFOA) & Perfluorooctanesulfonic Acid (PFOS), <https://www.waterboards.ca.gov/gama/docs/pfoa.pdf>)

This Pasadena site also tested and developed many flame retardants, so it likely tested and helped develop the PFAS that became the main military fire-retardants in the 1960s. ([Kennedy/Jenks, ES, p. 4; https://www.envirostor.dtsc.ca.gov/public/deliverable_documents/4649860978/Environmental%20Summary%20Report%20Jenks%20May%2022%202007%20.pdf](https://www.envirostor.dtsc.ca.gov/public/deliverable_documents/4649860978/Environmental%20Summary%20Report%20Jenks%20May%2022%202007%20.pdf)).

16. RDX and TNT are widespread at weapons-testing and manufacturing facilities, says US EPA ([Technical Fact Sheet – Hexahydro-1,3,5-trinitro-1,3,5-triazine \(RDX\), 2014, p. 1, https://www.epa.gov/sites/production/files/2014-03/documents/ffrrofactsheet_contaminant_rdx_january2014_final.pdf](https://www.epa.gov/sites/production/files/2014-03/documents/ffrrofactsheet_contaminant_rdx_january2014_final.pdf)), and they are associated with both carcinogenic and neurotoxic activity ([US EPA, Toxicological Review of Hexahydro-1,3,5-trinitro-1,3,5-triazine \(RDX\), 2018, p. xxv, https://cfpub.epa.gov/ncea/iris/iris_documents/documents/toxreviews/0313tr.pdf](https://cfpub.epa.gov/ncea/iris/iris_documents/documents/toxreviews/0313tr.pdf) and US EPA, [Technical Fact Sheet – Hexahydro-1,3,5-trinitro-1,3,5-triazine \(RDX\), 2014, p. 3, https://www.epa.gov/sites/production/files/2014-S03/documents/ffrrofactsheet_contaminant_rdx_january2014_final.pdf](https://www.epa.gov/sites/production/files/2014-S03/documents/ffrrofactsheet_contaminant_rdx_january2014_final.pdf) and Abadin, Smith,

[Ingerman, et al, Toxicological Profile for RDX, 2012, Atlanta, Agency for Toxic Substances and Disease Registry, 2012, <https://www.ncbi.nlm.nih.gov/books/NBK154146/> and Agency for Toxic](#)

[Substances and Disease Registry, 2,4,6-Trinitrotoluene \(TNT\), 2011, <https://www.atsdr.cdc.gov/substances/toxsubstance.asp?toxid=125> and Paquet et al, Analysis of the key intermediates of RDX \(hexahydro-1,3,5-trinitro-1,3,5-triazine\) in groundwater, Journal of Environmental Monitoring, 2011, <https://pubs.rsc.org/en/content/articlelanding/2011/em/c1em10329f#!divAbstract> California Waterboards, NDMA and Other Nitrosamines, \[https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/NDMA.html\]\(https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/NDMA.html\) and Lijinsky, N-Nitrosamines as Environmental Carcinogens, ACS Symposium Series,101, N-Nitrosamines, pp 165-173, <https://pubs.acs.org/doi/10.1021/bk-1979-0101.ch010> and ProPublica, Bombs in our Backyard, <https://www.propublica.org/series/bombs-in-our-backyard>](#)

17. California Drinking Water Standards, <http://www.gswater.com/download/California-Drinking-Water-Standards-rev-21218.pdf>

18. City of Pasadena, SCEA, 4200 East Foothill, 2018, pp. 12-14, <https://ww5.cityofpasadena.net/planning/wp-content/uploads/sites/56/2018/01/3200-E-Foothill-SCEA.pdf> lists the site contaminants, and neither perfluoroalkyls nor RDX nor TNT are listed.

The MK 32,42,43, 44 torpedoes, made at the site (City of Pasadena, SCEA, Appendix RAW, p. 4, <https://ww5.cityofpasadena.net/planning/wp-content/uploads/sites/56/2018/01/3200-E-Foothill-Appendices.pdf>) used HBX explosives (Torpedoes of the USA, 2019, http://www.navweaps.com/Weapons/WTUS_PostWWII.php), and the two main components of HBX are RDX and TNT (Headquarters, US Army Materiel Command, Engineering Design Handbook, Explosives Series, 1971, pp. 156-62, <https://apps.dtic.mil/dtic/tr/fulltext/u2/764340.pdf>). The Polaris missiles used nuclear explosives, and the SUBROCs torpedoes (made at the site) use either HBX or nuclear explosives (US Bureau of Naval Personnel, Introduction to Sonar, Navy Training Course, p. 13, https://archive.org/stream/introductiontos00unit/introductiontos00unit_djvu.txt).

This means that of 7 weapons manufactured onsite (MK 32,42,43,44 torpedoes and SUBROCS torpedoes), 5 of these 7 weapons (71%) had RDX and TNT as their main components. Yet the site was never tested for RDX and TNT.

The site also had extensive “combustion” laboratories for bench-scale propellant tests (Kennedy/Jenks, ES, pp. 4, 5, 11, 15, https://www.envirostor.dtsc.ca.gov/public/deliverable_documents/4649860978/Environmental%20Summary%20Report%20Jenks%20May%2022%202007%20.pdf; SCEA Appendix E, pp. 25-26, 31 and Appendix J, pp. 2-3, <https://ww5.cityofpasadena.net/planning/wp-content/uploads/sites/56/2018/01/3200-E-Foothill-Appendices.pdf>), and RDX was used in experimental propellants, at least since the 1950s (US Patent 3507719, p. 4, <https://patentimages.storage.googleapis.com/ba/8d/7b/b284c6bc5d8aff/US3507719.pdf>). Thus, for both these reasons, the site likely did experiments on propellants that used RDX.

19. ARMBRUSTER, GOLDSMITH, & DELVAC for Pasadena Gateway, Re: 3200 East Foothill Boulevard, https://ww5.cityofpasadena.net/commissions/wp-content/uploads/sites/28/2018/05/2018-05-09-Planning-Commission-Item-3B_3200-E.-Foothill-Bldv.-Planned-Development-Attachment-G.pdf

20. City of Pasadena, SCEA, p. 139, <https://ww5.cityofpasadena.net/planning/wp-content/uploads/sites/56/2018/01/3200-E-Foothill-SCEA.pdf>

21. Ca Dept of Toxic Substances Control, Agreement Not to Sue, p. 2 and Exhibit E, Revised Scope of Work, https://www.envirostor.dtsc.ca.gov/public/deliverable_documents/5340940713/Executed%20Amendment%20to%20PPA12.2017.pdf and https://www.envirostor.dtsc.ca.gov/public/deliverable_documents/8377835929/Final%20PPA%20Pasadena%20Gateway%20PPA.pdf

22. Anthony Zampello, Watermaster for the Raymond and the San Gabriel Water Basins (both of which include Pasadena), gave this warning on 3-13-19 ([Shrader-Frechette email, 3-13-19](#)).
23. City of Pasadena, SCEA, Appendix J (Remedial Investigation, Appendix A, Response to DTSC Comments, p. 8 of 20), <https://ww5.cityofpasadena.net/planning/wp-content/uploads/sites/56/2018/01/3200-E-Foothill-Appendices.pdf>
24. City of Pasadena, SCEA, Appendix J (Remedial Investigation), Appendix A, Response to DTSC Comments, p. 4 of 20, <https://ww5.cityofpasadena.net/planning/wp-content/uploads/sites/56/2018/01/3200-E-Foothill-Appendices.pdf>
25. City of Pasadena, SCEA, pp. 10-11, <https://ww5.cityofpasadena.net/planning/wp-content/uploads/sites/56/2018/01/3200-E-Foothill-SCEA.pdf>
26. City of Pasadena, SCEA, Appendix J, RI, p. 21, <https://ww5.cityofpasadena.net/planning/wp-content/uploads/sites/56/2018/01/3200-E-Foothill-Appendices.pdf>
27. City of Pasadena, SCEA, Appendix J, RI, pp. 38-39, <https://ww5.cityofpasadena.net/planning/wp-content/uploads/sites/56/2018/01/3200-E-Foothill-Appendices.pdf>
28. City of Pasadena, SCEA, pp. 10-11, <https://ww5.cityofpasadena.net/planning/wp-content/uploads/sites/56/2018/01/3200-E-Foothill-SCEA.pdf>
29. City of Pasadena, SCEA, Appendix J, RI, pp. 43-44, <https://ww5.cityofpasadena.net/planning/wp-content/uploads/sites/56/2018/01/3200-E-Foothill-Appendices.pdf> CA Dept of Toxic Substances Control, says “EPA data validation is required to verify that historical and current site data is usable and can be relied upon to be an accurate representation of chemical concentrations in soil and soil gas at the site” (City of Pasadena, SCEA, Appendix J, RI, p. 43, <https://ww5.cityofpasadena.net/planning/wp-content/uploads/sites/56/2018/01/3200-E-Foothill-Appendices.pdf>)
30. http://articles.latimes.com/1991-08-27/news/mn-1546_1_fraud-fine and http://articles.latimes.com/1990-11-14/local/me-4177_1_la-jolla and <http://www.thefrontpageonline.com/op-ed/a-closer-look-at-parties-involved-in-reaching-the-oilfield-decisions> and <https://freepress.org/article/and-so-fracking-cover-begins>
31. Project on Government Oversight, <https://www.contractormisconduct.org/contractors/47/saic> and <https://www.contractormisconduct.org/search?q=tetra+tech> and Engineering News Record, <https://www.enr.com/articles/46260-us-joins-suits-citing-tetra-tech-fraud-in-navy-site-cleanup>
32. <https://www.sfchronicle.com/science/article/Toxic-soil-went-from-SF-s-Hunters-Point-to-12854269.php> and <https://sf.curbed.com/2018/7/25/17614574/hunters-point-homeowners-lawsuit-developer-contamination-toxic-cleanup> and <https://www.bizjournals.com/sanfrancisco/news/2018/05/02/bayview-lawsuit-hunters-point-tetra-tech-ttk.html>

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