

Memorandum

ARUP

To	Guy Bjerke, City of Concord	Date	November 8, 2017
Copies	Joan Ryan, City of Concord	Reference number	251780
From	Dahlia Chazan, Tim Bates, Arup; Mike Biddle, Burke Williams & Sorenson	File reference	4-05
Subject	CNWS Oil Pipeline Easement Status and Development Constraints		

1 Introduction

This memo summarizes Arup's findings regarding three oil pipelines crossing the CNWS property. An aerial photograph depicting the location of the pipelines is enclosed as [Attachment 1](#). The goals of this research were to: 1) identify the planning considerations presented by these pipelines, and 2) investigate the status of the 1966 easement(s).

As identified by Lennar | FivePoint's engineers, CBG, easements for the three oil pipelines ("hazardous liquid pipelines") were granted in the 1950s and 1960s. Today, three high-pressure pipelines on these easements are operated by Phillips 66 Pipeline, Kinder Morgan/SFPP, and Shell Pipeline. Each of the easements have a width of 16.5' and each runs in a largely parallel alignment from the southwestern end of the former CNWS north in the Green Frame along the western border, until reaching Willow Pass Road, at which point the pipelines head west across the Village Neighborhood in the airfield area and intersect the Coast Guard property between Victory Village and Quinault Village.

The City and master developer will have to work with the easement holders to ensure that the planning, design, and construction of new development in proximity to the pipelines is consistent with guidance and requirements for development near pipelines.

2 Planning Considerations

Activities around pipelines are subject to regulation at the local, state, and federal levels. In 1979, Congress enacted comprehensive safety legislation governing the transportation of hazardous liquids by pipeline, the Hazardous Liquids Pipeline Safety Act of 1979, 49 U.S.C. 2001 *et seq.* (HLPSA). The HLPSA expanded the existing statutory authority for safety regulation, which was limited to transportation by common carriers in interstate and foreign commerce, to transportation in facilities used in or affecting interstate or foreign commerce. Modeled largely on the Natural Gas Pipeline Safety Act of 1968, 49 U.S.C. 1671 *et seq.* (NGPSA), the HLPSA provides for a national hazardous liquid

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pipeline safety program with nationally uniform minimal standards and with enforcement administered through a Federal-State partnership. The HLPFA leaves to exclusive Federal regulation and enforcement the “interstate pipeline facilities,” those used for pipeline transportation of hazardous liquids in interstate or foreign commerce. For the remainder of pipeline facilities, denominated “intrastate pipeline facilities,” the HLPFA provides that the same Federal regulation and enforcement will apply unless a State certifies that it will assume those responsibilities. A certified State must adopt the same minimal standards but may adopt additional more stringent standards so long as they are compatible.

Based on a review of the National Pipeline Mapping System, the pipeline facilities in question are “intrastate pipeline facilities”. Pursuant to Government Code Section 51010, the State Fire Marshall exercises exclusive safety regulatory and enforcement authority over intrastate hazardous liquid pipelines and is authorized to implement the HLPFA as necessary to obtain annual federal certification. Accordingly, the three pipelines in question appear to be subject to the exclusive safety regulatory and enforcement authority of the State Fire Marshall.

The State Fire Marshall has adopted regulations as it relates to hazardous liquid pipelines at Title 19, Division 1, Chapter 14, California Code of Regulations; Section 2000 thereof adopts by reference the provisions of the HLPFA (Title 49 of the Code of Federal Regulations, Part 195). It does not appear that the State Fire Marshall has adopted more stringent development constraints than those contained in the HLPFA. Finally, at a local level, jurisdictions can apply their own, more stringent land use and development controls surrounding pipelines. The City of Concord does not appear to have adopted any such controls.

Pursuant to applicable federal law, Section 195.210 (b) of the HLPFA provides that no pipeline may be located within 50 feet of any private dwelling, any industrial building or place of public assembly in which persons work, congregate, or assemble, *unless* it is provided with at least 4 feet of cover. Thus, absent the adoption of more stringent set back requirements, it will be important to understand the depth at which these pipelines are situated. We do not currently have information on the depth of cover.

Pursuant to applicable state law, Section 14010, Article 2, Subchapter 1, Chapter 13, Division 1, Title 5, California Code of Regulations, provides that a school site shall not be located within 1500 feet of a pipeline that “can pose a safety hazard as determined by a risk analysis study.” Other than these 2 provisions, state and federal laws and regulations do not provide detailed guidance on setbacks for different types of land uses.

Further, independent of land use, California Government Code Section 51014.6 provides that the primary requirement is that pipeline operators have unimpeded access to the entire pipeline easement for operations, maintenance, and emergencies, which has implications for development adjacent to the easement that might otherwise “prevent complete and unimpaired access to the easement”; further, the easement should not be planted with trees and shrubs that would inhibit aerial observation of the pipeline, though this does not prohibit revegetation of landscape material that was disturbed by construction of the pipeline or planting and harvesting seasonal agricultural crops.

Finally, although not regulatory in nature, the pipeline operators have prepared more detailed guidelines (explained in Section 2.5) for construction and development in close proximity to pipelines.

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While these setbacks and specifications are not enshrined in state and federal regulation, they represent the industry's attempt to provide a set of standard practices.

2.1 Federal regulation

At the federal level, the Code of Federal Regulations Title 49, Part 195, regulates hazardous liquid pipelines and establishes standards for their design and operation.¹ It makes provisions for the siting of pipelines, and provides the following guidance on setbacks and restrictions on land uses in close proximity to a pipeline easement.

Part 195 establishes:

- 195.210 Pipeline location.

(a) Pipeline right-of-way must be selected to avoid, as far as practicable, areas containing private dwellings, industrial buildings, and places of public assembly.

(b) No pipeline may be located within 50 feet (15 meters) of any private dwelling, or any industrial building or place of public assembly in which persons work, congregate, or assemble, unless it is provided with at least 12 inches (305 millimeters) of cover in addition to that prescribed in §195.248.

- 195.248 Cover over buried pipeline.

In industrial, commercial, and residential areas, pipelines should be at least 36 inches below the surface (and below the level of cultivation).

Part 195 also requires operators to regularly inspect pipelines by walking, driving, flying or other means.

2.2 State regulation

At the state level, the State Fire Marshal serves as the regulatory and enforcement authority over intrastate pipelines. Recall that the State Fire Marshall has adopted by reference the aforementioned federal regulations set forth in Part 195. In addition, California Government Code Title 5 (Local Agencies), Division 1, Part 1, Chapter 5.5 establishes the following guidelines for intrastate pipelines:²

- No structures or improvements may be constructed within a pipeline easement.
- No structure, wall, or fence adjacent to the easement may be built that would prevent complete and unimpaired surface access to the easement.

¹ Code of Federal Regulations Title 49 Part 195 is available online: https://www.ecfr.gov/cgi-bin/text-idx?SID=ae6ec6ffd005de5d8d9b4f1ad6654645&mc=true&tpl=/ecfrbrowse/Title49/49cfr195_main_02.tpl

² The full text of the Chapter 5.5 can be found on the California Legislative Information website: http://leginfo.ca.gov/faces/codes_displayText.xhtml?lawCode=GOV&division=1.&title=5.&part=1.&chapter=5.5.

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- No shrubbery or shielding in or along the easement may be built that will impair aerial observation.
- The easement may be revegetated following pipeline construction and the operator may permit seasonal agriculture, if desired.
- Operators are permitted to conduct any necessary activities within their easement, including construct, replace, relocate, repair, or operate the pipeline.

Beyond these regulations, California has also established regulations setting the minimum distance between sites for school facilities and pipelines. Section 14010 of Title 5 of the California Code of Regulations establishes standards for construction of school facilities which prevent a school site from being located within 1,500 feet of a pipeline easement that poses a safety hazard as determined by a risk analysis study.³ Thus, any required school properties must be sited to maintain this minimum setback distance.

Additionally, the California Department of Education has published a School Site Selection and Approval Guide, which offers further guidance related to pipelines:⁴

- School site cannot contain hazardous substance pipelines (including crude oil and refined liquid products) “unless the pipeline is a natural gas line which is used only to supply natural gas to that school or neighborhood.”
- A geological and environmental hazards report for a proposed school site would document all high-pressure pipelines and fuel transmission lines within 1,500 feet of a proposed site.

Section 14010 of Title 5 of the California Code of Regulations sets forth numerous additional criteria unrelated to oil pipelines that will need to be factored in relative to the siting of a school site.

Finally, if there are public drinking water wells within 1,000 feet of a pipeline, each pipeline operator must prepare a pipeline wellhead protection plan pursuant to Government Code Section 51017.2 in order to address potential contamination to the public water well from a pipeline rupture or leak.

2.3 Local regulations

The City of Concord Municipal Code does not provide any guidance on setbacks from, or development standards related to, hazardous materials pipelines. The U.S. DOT Pipeline & Hazardous Materials Safety Administration (PHMSA) provides guidance to local communities on development near pipelines.⁵ It offers general recommendations and offers examples how communities have implemented

³ California Code of Regulations Title 5 School Facilities Construction standards is available on the Department of Education website: <http://www.cde.ca.gov/ls/fa/sf/title5regs.asp>. The Department of Education also provides a guidance protocol on assessing school site pipeline risk: <http://www.cde.ca.gov/ls/fa/sf/pipeline.asp>.

⁴ The entire school siting guide is available on the Department of Education website: <http://www.cde.ca.gov/ls/fa/sf/schoolsiteguide.asp>

⁵ The PHMSA provides a wide variety of resources for communities to establish guidelines further restricting uses near pipelines. <https://primis.phmsa.dot.gov/comm/pipa/LandUsePlanning.htm?nocache=4645>

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“planning areas” and “consultation zones” to facilitate planning for safe development near pipelines—beyond simply establishing a setback.

2.4 Easement language

The language of the three pipeline easements in the CNWS provides for the pipeline operators to safely operate, maintain, repair, and replace the pipeline. They do not specify any further use constraints or setbacks in relation to the 16.5 foot width of the easement itself. The easement language allows for the U.S. Government (grantor of the easement) to terminate the easements in whole or in part if the government determines that the pipeline constitutes an undue interference with any of its activities. If terminated, the cost of pipeline removal would fall to the operator.

2.5 Oil industry guidelines

The American Petroleum Institute (API) has prepared guidelines⁶ that establish recommended setbacks, distances, and other specifications for how various construction, utility, and development activities interact with pipelines. In general, these guidelines call for uninhabited structures and development to be set back at least 25 feet from the pipeline, and inhabited buildings or places of public assembly to be set back 50 feet. The guidelines also explain that the pipeline easement should be kept clear in order to enable aerial surveillance, routine maintenance, and emergency response access. In some cases, ornamental trees and landscaping in the easement may be permitted. Guidance for access and maintenance of the easement right-of-way essentially replicate California regulations, as noted in section 2.2.

Additionally, Phillips 66 Pipeline provided Arup their generic guidelines for development activities in close proximity to their pipelines.⁷ Like the API guidelines, these include numerous criteria for setbacks, permitted and restricted uses near pipelines, including the following:

- Uninhabited buildings, engineering works, patios, or other temporary or permanent structures: 25 foot setback from the pipeline. Some temporary uses, such as parking construction equipment, may be permitted in the easement right-of-way with prior written approval from the permittor (Phillips).
- Inhabited structures, including private dwellings, industrial buildings, or places of public assembly: 50 foot setback from the pipeline (to be included as a deed or plat restriction on any parcel carved out of the lands that abut the right-of-way).
- Parallel utilities: 25 feet (with minimum height of 20 feet for overhead cables) from pipeline.
- Non-parallel utility poles, guy wires, and anchors: 8 feet from pipeline.
- Parallel roads: 25 feet from road edge to pipeline.

⁶ The API guidelines are available online from Phillips 66 Pipeline: <http://www.phillips66pipeline.com/am-site/media/api-guidelines-for-property-development.pdf>

⁷ The Phillips 66 Pipeline Encroachment Guidelines are attached.

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- Roads passing over the pipeline should cross at an angle as close to 90 degrees as possible, and depth of cover shall be at least 48 inches under road surfaces from top of pipe to top of surface.
- Fences will not be allowed on the easement right-of-way without prior approval of the permittor and must be easily removable.
- Trees or deep-rooted plants are not permitted in the right-of-way.
- Pipeline greenbelt: 25 feet on either side of pipeline, or width of the easement, to be established when platting any new residential or commercial subdivision subject to the permittor's easement in order to provide that no lot lines or fences cross into the right-of-way.

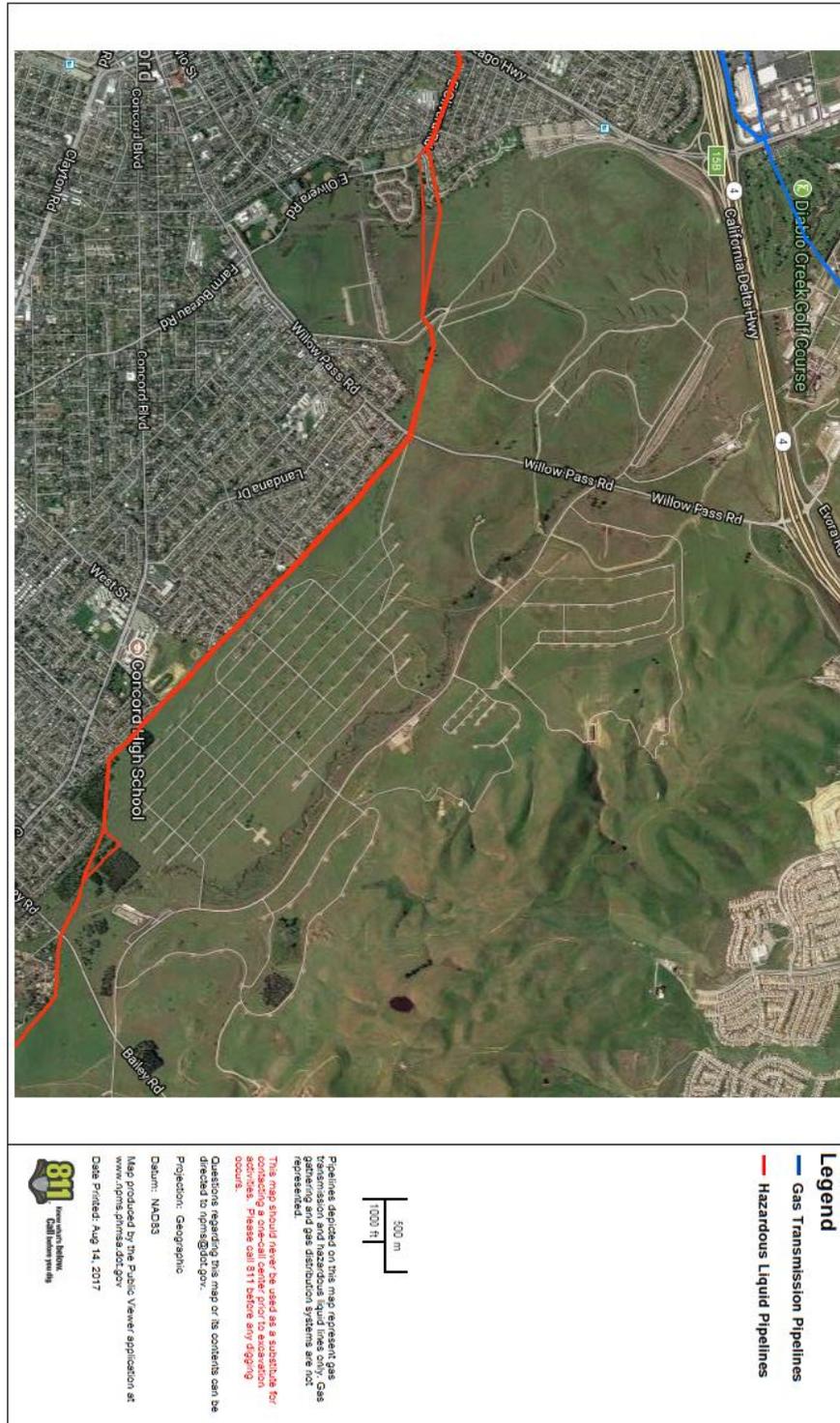
The guidelines include other conditions and notes, including for utilities and the construction phase of nearby projects.

3 1966 easement status

CBG identified the 1966 easement as having a 50 year term, which expired in 2016. This easement contains a pipeline operated by Shell Pipeline. We were unable to find someone at Shell to confirm this statement and explain the current status, but understand generally that easements are often renewed without being formally recorded.

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ATTACHMENT 1 DEPICTION OF PIPELINE LOCATIONS



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