

Response to Written Comments on the Draft Sustainable Communities Environmental Assessment

This document includes the comments received during the circulation of the Draft Sustainable Communities Environmental Assessment (SCEA) prepared for the 3200 East Foothill Boulevard Mixed Use Project.

The Draft SCEA was circulated for a 30-day public review period that began on February 8, 2018 and was originally set to close on March 9, 2018. However, the comment period was extended to March 26, 2018. The City received nine comment letters on the Draft SCEA throughout the duration of the comment period. The comment letters are included herein, along with responses to environmental points raised by the commenters.

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Changes made to the text of the Draft SCEA correcting information, data, or intent, other than minor typographical corrections or minor working changes, are noted in the SCEA as changes from the Draft SCEA. Where a comment results in a change to the Draft SCEA text, a notation is made in the response indicating that the text is revised. Changes in text are signified by strikeouts where text is removed and by underlined font where text is added. The comment letters and responses follow.

STATE OF CALIFORNIA
NATIVE AMERICAN HERITAGE COMMISSION
Environmental and Cultural Department
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
Phone (916) 373-3710
Fax (916) 373-5471

Edmund G. Brown Jr., Governor



Letter 1

February 12, 2018

David Sanchez
City of Pasadena
175 North Garfield Avenue
Pasadena, CA 91101

Sent via e-mail: dasanchez@cityofpasadena.net

Re: SCH# 2018021017, 3200 E. Foothill Boulevard Mixed Use Project, City of Pasadena; Los Angeles County, California

Dear Mr. Sanchez:

The Native American Heritage Commission (NAHC) has reviewed the Initial Study/ Environmental Assessment prepared for the project referenced above. The review included the Introduction and Project Description; the Initial Study Environmental Checklist, section 5, Cultural Resources and section 18, Tribal Cultural Resources; and Appendix E, Cultural Resources Technical Study prepared by Rincon Consultants, Inc. for the City of Pasadena. We have the following concerns:

1. The Most Likely Descendant timeline in Mitigation Measure MM-CUL-4 (b) AND in the Cultural Resources Technical Study is incorrect. Public Resources Code 5097.98 specifies that an MLD has **48 hours after being allowed access to the site** to make recommendations for disposition of the remains and associated grave goods.
2. Mitigation language for archaeological resources (such as data recovery and curation) is not always appropriate for or similar to measures specifically for handling Tribal Cultural Resources. Please see the California Natural Resources Agency (2016) "Final Text for tribal cultural resources update to Appendix G: Environmental Checklist Form," <http://resources.ca.gov/ceqa/docs/ab52/Clean-final-AB-52-App-G-text-Submitted.pdf> or the AB-52 Technical Advisory at http://opr.ca.gov/docs/Revised_AB_52_Technical_Advisory_March_2017.pdf for suggested mitigation measures specifically for Tribal Cultural Resources.

The California Environmental Quality Act (CEQA)¹, specifically Public Resources Code section 21084.1, states that a project that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment.² If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an environmental impact report (EIR) shall be prepared.³ In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources with the area of project effect (APE).

CEQA was amended in 2014 by Assembly Bill 52. (AB 52).⁴ **AB 52 applies to any project for which a notice of preparation or a notice of negative declaration or mitigated negative declaration is filed on or after July 1, 2015.** AB 52 created a separate category for "tribal cultural resources"⁵, that now includes "a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment."⁶ Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource.⁷ Your project may also be subject to **Senate Bill 18 (SB 18)** (Burton, Chapter 905, Statutes of 2004), Government Code 65352.3, if it also involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space. **Both SB 18 and AB 52 have tribal consultation requirements.** Additionally, if your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966⁸ may also apply.

Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.

Agencies should be aware that AB 52 does not preclude agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52. For that reason, we urge you to continue to request Native American Tribal Consultation Lists and Sacred Lands File searches from the NAHC. The request forms can be found online at: <http://nahc.ca.gov/resources/forms/>. Additional information regarding AB 52 can be found online

¹ Pub. Resources Code § 21000 et seq.

² Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, § 15064.5 (b); CEQA Guidelines Section 15064.5 (b)

³ Pub. Resources Code § 21080 (d); Cal. Code Regs., tit. 14, § 15064 subd.(a)(1); CEQA Guidelines § 15064 (a)(1)

⁴ Government Code 65352.3

⁵ Pub. Resources Code § 21074

⁶ Pub. Resources Code § 21084.2

⁷ Pub. Resources Code § 21084.3 (a)

⁸ 154 U.S.C. 300101, 36 C.F.R. § 800 et seq.

at http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf, entitled "Tribal Consultation Under AB 52: Requirements and Best Practices".

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The NAHC recommends lead agencies consult with all California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources.

A brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments is also attached.

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Please contact me at gayle.totton@nahc.ca.gov or call (916) 373-3710 if you have any questions.

Sincerely,

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Gayle Totton, B.S., M.A., Ph.D
Associate Governmental Project Analyst

Attachment

cc: State Clearinghouse

Pertinent Statutory Information:

Under AB 52:

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a lead agency shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice.

A lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project,⁹ and prior to the release of a negative declaration, mitigated negative declaration or environmental impact report. For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code § 65352.4 (SB 18)."¹⁰

The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:

- a. Alternatives to the project.
- b. Recommended mitigation measures.
- c. Significant effects.¹¹

1. The following topics are discretionary topics of consultation:

- a. Type of environmental review necessary.
- b. Significance of the tribal cultural resources.
- c. Significance of the project's impacts on tribal cultural resources.

If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency.¹²

With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code sections 6254 (r) and 6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public.¹³

If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:

- a. Whether the proposed project has a significant impact on an identified tribal cultural resource.
- b. Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code section 21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource.¹⁴

Consultation with a tribe shall be considered concluded when either of the following occurs:

- a. The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or
- b. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached.¹⁵

Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code section 21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code section 21082.3, subdivision (b), paragraph 2, and shall be fully enforceable.¹⁶

If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code section 21084.3 (b).¹⁷

An environmental impact report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:

- a. The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code sections 21080.3.1 and 21080.3.2 and concluded pursuant to Public Resources Code section 21080.3.2.
- b. The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.
- c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code section 21080.3.1 (d) and the tribe failed to request consultation within 30 days.¹⁸

⁹ Pub. Resources Code § 21080.3.1, subs. (d) and (e)

¹⁰ Pub. Resources Code § 21080.3.1 (b)

¹¹ Pub. Resources Code § 21080.3.2 (a)

¹² Pub. Resources Code § 21080.3.2 (a)

¹³ Pub. Resources Code § 21082.3 (c)(1)

¹⁴ Pub. Resources Code § 21082.3 (b)

¹⁵ Pub. Resources Code § 21080.3.2 (b)

¹⁶ Pub. Resources Code § 21082.3 (a)

¹⁷ Pub. Resources Code § 21082.3 (e)

¹⁸ Pub. Resources Code § 21082.3 (d)

This process should be documented in the Tribal Cultural Resources section of your environmental document.

Under SB 18:

Government Code § 65352.3 (a) (1) requires consultation with Native Americans on general plan proposals for the purposes of "preserving or mitigating impacts to places, features, and objects described § 5097.9 and § 5091.993 of the Public Resources Code that are located within the city or county's jurisdiction. Government Code § 65560 (a), (b), and (c) provides for consultation with Native American tribes on the open-space element of a county or city general plan for the purposes of protecting places, features, and objects described in Sections 5097.9 and 5097.993 of the Public Resources Code.

- SB 18 applies to **local governments** and requires them to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf
- **Tribal Consultation:** If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.**¹⁹
- **There is no Statutory Time Limit on Tribal Consultation under the law.**
- **Confidentiality:** Consistent with the guidelines developed and adopted by the Office of Planning and Research,²⁰ the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code sections 5097.9 and 5097.993 that are within the city's or county's jurisdiction.²¹
- **Conclusion Tribal Consultation:** Consultation should be concluded at the point in which:
 - The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
 - Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation.²²

NAHC Recommendations for Cultural Resources Assessments:

- Contact the NAHC for:
 - A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
 - A Native American Tribal Contact List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.
 - The request form can be found at <http://nahc.ca.gov/resources/forms/>.
- Contact the appropriate regional California Historical Research Information System (CHRIS) Center (http://ohp.parks.ca.gov/?page_id=1068) for an archaeological records search. The records search will determine:
 - If part or the entire APE has been previously surveyed for cultural resources.
 - If any known cultural resources have been already been recorded on or adjacent to the APE.
 - If the probability is low, moderate, or high that cultural resources are located in the APE.
 - If a survey is required to determine whether previously unrecorded cultural resources are present.
- If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
 - The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
 - The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

Examples of Mitigation Measures That May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:

- Avoidance and preservation of the resources in place, including, but not limited to:
 - Planning and construction to avoid the resources and protect the cultural and natural context.
 - Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.

¹⁹ (Gov. Code § 65352.3 (a)(2)).

²⁰ pursuant to Gov. Code section 65040.2.

²¹ (Gov. Code § 65352.3 (b)).

²² (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

- o Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
 - Protecting the cultural character and integrity of the resource.
 - Protecting the traditional use of the resource.
 - Protecting the confidentiality of the resource.
- o Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
- o Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed.²³
- o Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated.²⁴

The lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.

- o Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources.²⁵ In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
- o Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
- o Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code section 7050.5, Public Resources Code section 5097.98, and Cal. Code Regs., tit. 14, section 15064.5, subdivisions (d) and (e) (CEQA Guidelines section 15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

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²³ (Civ. Code § 815.3 (c)).

²⁴ (Pub. Resources Code § 5097.991).

²⁵ per Cal. Code Regs., tit. 14, section 15064.5(f) (CEQA Guidelines section 15064.5(f)).

Letter 1

COMMENTER: Gayle Totton, Associate Governmental Project Analyst, Environmental and Cultural Department, Native American Heritage Commission

DATE: February 12, 2018

Response to Comment 1

The commenter provides introductory text stating that the NAHC reviewed the Draft SCEA and specifies the sections included in the review.

This is not a comment on the adequacy of the SCEA and raises no environmental issues specific to the proposed project.

Response to Comment 2

The commenter states that the Most Likely Descendant timeline included in mitigation measure MM-CUL-4 is incorrect and should be revised to state that the “MLD has 48 hours after being allowed access to the site to make recommendations for disposition of the remains and associated grave goods.”

In response to this comment, the following text revision has been made on page 95 of the SCEA:

If the Native American Heritage Commission is unable to identify a descendant, or the descendant failed to make a recommendation within ~~2448~~ hours after being allowed access to the site ~~notified by the commission~~, obtain a Native American monitor, and an archaeologist, if recommended by the Native American monitor, and rebury the Native American human remains and any associated grave goods, with appropriate dignity, on the property and in a location that is not subject to further subsurface disturbance where the following conditions occur.

Response to Comment 3

The commenter states that the mitigation language for archaeological resources as provided in Draft SCEA (such as data recovery and curation) is not always appropriate for handling Tribal Cultural Resources (TCR) and recommends using mitigation measures provided by the California Natural Resources Agency or the AB-52 Technical Advisory.

The AB-52 Technical Advisory, provided by OPR, states that if the lead agency determines that a project may cause a substantial adverse change to a tribal cultural resource, and measures are not otherwise identified in the consultation process, the lead agency should select examples of mitigation options provided in the Public Resources Code that they determine to be feasible and can avoid or minimize significant adverse impacts.

Tribal consultation was conducted for the proposed project with the Gabrieleno Band of Mission Indians – Kizh Nation, and the mitigation measures included in the Tribal Cultural Resources section of the SCEA are the result of that consultation. Additionally, the mitigation measures provided in the SCEA for archaeological resources satisfy the level of protection for tribal cultural resources because they

provide specific descriptions for avoiding disturbance of unknown buried cultural resources and for ensuring protection if such resources are discovered. The provisions specified for protection of cultural, archaeological, and paleontological resources would also satisfy protection requirements for tribal cultural resources. Therefore, the mitigation measures provided in the SCEA adequately address potential impacts to TCRs.

Response to Comment 4

The commenter notes that CEQA requires analysis for the potential of a project to have substantial adverse impacts to a historical resource and, if so, requires preparation of an EIR. To determine whether a substantial adverse impact will occur, the lead agency needs to determine whether historical resources are present in the area of project effect.

Historical resources analyses were conducted of the project site to determine if any historical resources exist. See Appendix E of the SCEA. Section 5, *Cultural Resources*, of the SCEA provides a summary of the historical resources analyses, identifies that the project site is considered a historical resource for purposes of CEQA and explains that, with implementation of the mitigation measures included in the SCEA, impacts to historical resources would be less than significant. Therefore, preparation of an EIR is not required.

Response to Comment 5

The commenter recommends that the lead agency consult with legal counsel regarding tribal consultation compliance required by AB 52 and Senate Bill (SB) 18. The commenter further provides general recommendations for lead agencies to use Native American Tribal Consultation Lists and Sacred Lands File searches from the NAHC when seeking to consult with tribes affiliated with their jurisdiction and to conduct all consultation as early as possible.

As discussed on page 198 of the SCEA, the City of Pasadena mailed notices to the identified Native American individuals. Only the Gabrieleno Band of Mission Indians – Kizh Nation tribe responded requesting to receive notification of projects within the City. The City notified the tribe and the tribe requested consultation. The City then conducted consultation with the tribe regarding the proposed project on January 17, 2018. Therefore, tribal consultation was conducted consistent with the requirements of AB 52.

In regards to SB 18, the proposed project does not require an amendment to the General Plan or a specific plan. Therefore, the proposed project does not trigger the consultation requirements for SB 18.

Response to Comment 6

The commenter states that a brief summary of portions of AB 52 and SB 18 are attached to the comment letter.

This is not a comment on the adequacy of the SCEA and raises no environmental issues specific to the proposed project.

Response to Comment 7

The commenter requests to be contacted for any potential questions.

The City will contact the NAHC with any questions or concerns.

Response to Comment 8

The commenter provides one attachment as supportive material that consists of language provided in AB 52 and SB 18.

This is not a comment on the adequacy of the SCEA and raises no environmental issues specific to the proposed project.

Letter 2

MILA A. BUCKNER
DANIEL L. CARDOZO
CHRISTINA M. CARO
THOMAS A. ENSLOW
TANYA A. GULESSERIAN
MARC D. JOSEPH
RACHAEL E. KOSS
COLLIN S. MCCARTHY
LINDA T. SOBczynski

ADAMS BROADWELL JOSEPH & CARDOZO

A PROFESSIONAL CORPORATION
ATTORNEYS AT LAW
801 GATEWAY BOULEVARD, SUITE 1000
SOUTH SAN FRANCISCO, CA 94080-7037

TEL: (650) 589-1660
FAX: (650) 589-5062
ssannadan@adamsbroadwell.com

SACRAMENTO OFFICE

520 CAPITOL MALL, SUITE 350
SACRAMENTO, CA 95814-4721
TEL: (916) 444-6201
FAX: (916) 444-6209

February 21, 2018

VIA EMAIL AND U.S. MAIL

David Reyes, Director
Planning and Community Development
City of Pasadena
175 N. Garfield Avenue
Pasadena, CA 91101
Email: davidreyes@cityofpasadena.net

Mark Jomsky, City Clerk
City Clerk's Office
City of Pasadena
100 N. Garfield Avenue
Pasadena, CA 91101
Email: mjomsky@cityofpasadena.net

VIA EMAIL ONLY

David Sanchez, Senior Planner
Email: dasanchez@cityofpasadena.net

Re: Request for Immediate Access to All Documents Referenced in the Draft Sustainable Communities Environmental Assessment– 3200 E. Foothill Boulevard Mixed Use Project (APNs 5752-023-039 and 5752-023-044)

Dear Mr. Reyes, Mr. Jomsky, and Mr. Sanchez:

We are writing on behalf of Coalition for Responsible Equitable Economic Development (“CREED LA”) to request *immediate access* to any and all documents referenced or relied upon in the Draft Sustainable Communities Environmental Assessment (“SCEA”) and its appendices, prepared for Pasadena Gateway, LLC’s proposed 3200 E. Foothill Boulevard Mixed Use Project (“Project”) that are not otherwise available on the internet.

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February 21, 2018
Page 2

The proposed Project involves the demolition of 29 existing structures on the project site and construction of eight separate mixed-use buildings, subterranean and above-ground parking structures, and landscaping. The proposed buildings would include a total of 550 apartment units and 9,800 square feet of retail space. The project site address is 3200 East Foothill Boulevard, Pasadena, Los Angeles County, CA (Zoning District EPSP-D2-IG-B-4). The Assessor's Parcel Numbers (APNs) are 5752-023-039 and 5752-023-044.

Our request for all documents referenced or relied upon in the Draft SCEA and its appendices is made pursuant to the California Environmental Quality Act (CEQA), which requires that all documents referenced in an environmental review document be made available to the public for the entire comment period.¹ This request excludes a copy of the Draft SCEA for the Project.

We are also writing to request *separately*, pursuant to the California Public Records Act², *immediate access* to all public records referring or related to the Project. This request includes, but is not limited to, any and all correspondence, including electronic mail messages, staff reports, resolutions, memoranda, notes and analyses and public and agency comments. We would appreciate it if the City of Pasadena could prioritize and segregate our request for the documents referenced in the Draft SCEA and get those to us first, since the period for providing comments has already begun.

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We request *immediate access* to review the above documents pursuant to section 6253(a) of the Public Records Act, which requires public records to be “open to inspection at all times during the office hours of the state or local agency” and provides that “every person has a right to inspect any public record.” Gov. Code § 6253(a). Therefore, the ten day response period applicable to a “request for a copy of records” under Section 6253(c) does not apply to this request.

Pursuant to Government Code Section 6253.9, if the requested documents are in electronic format and are 10 MB or less (or can be easily broken into sections of 10 MB or less), please email them to me as attachments. If there are documents

¹ See Pub. Resources Code, § 21092, subd. (b)(1); 14 Cal. Code Reg. § 15087, subd. (c)(5).

² Gov. Code, §§ 6250, et seq.
4183-002acp



February 21, 2018
Page 3

referenced in the SCEA currently available for review, please let me know where those documents are located.

1

My contact information is:

U.S. Mail

Sheila Sannadan
Adams Broadwell Joseph & Cardozo
601 Gateway Boulevard, Suite 1000
South San Francisco, CA 94080-7037

2

Email

ssannadan@adamsbroadwell.com

I will be calling you to arrange for duplication/transmission of the documents. If you have any questions, please call our South San Francisco office at (650) 589-1660. Thank you for your assistance with this matter.

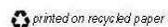
Sincerely,



Sheila M. Sannadan
Legal Assistant

SMS:acp

4188-002a.cp



Letter 2

COMMENTER: Sheila M. Sannadan, Adams Broadwell Joseph and Cardozo Attorneys at Law
on behalf of Coalition for Responsible Equitable Economic Development

DATE: February 21, 2018

Response to Comment 1

The commenter requests immediate access to all referenced and supportive documents in the SCEA and its appendices that are not available on the internet pursuant to Section 6253(a) of the Public Records Act. The commenter separately requests immediate access to all public records, including, but not limited to, all correspondences, staff reports, resolutions, memoranda, notes, analyses, public comments, and agency comments.

All documents, analyses, and database searches referenced in the SCEA were compiled and sent to CREED LA for review on February 26, 2018.

Response to Comment 2

The commenter provides contact information for CREED LA’s legal representative from the law offices of Adams Broadwell Joseph & Cardanzo.

This is not a comment on the adequacy of the SCEA and raises no environmental issues related to the proposed project.

Letter 3

ADAMS BROADWELL JOSEPH & CARDOZO

MILA A. BUCKNER
DANIEL L. CARDOZO
CHRISTINA M. CARO
THOMAS A. ENSLOW
TANYA A. GULESSERIAN
MARC D. JOSEPH
RACHAEL E. KOSS
COLLIN S. MCCARTHY
LINDA T. SOBCZYNSKI

A PROFESSIONAL CORPORATION
ATTORNEYS AT LAW
601 GATEWAY BOULEVARD, SUITE 1000
SOUTH SAN FRANCISCO, CA 94080-7037

TEL: (650) 589-1660
FAX: (650) 589-5062
nlolan@adamsbroadwell.com

SACRAMENTO OFFICE
520 CAPITOL MALL, SUITE 350
SACRAMENTO, CA 95814-4721
TEL: (916) 444-8201
FAX: (916) 444-8209

February 27, 2018

Via Email and U.S. Mail

Mr. David Sanchez
Senior Planner
City of Pasadena
175 N. Garfield Avenue
Pasadena, CA 91101
Email: dasanchez@cityofpasadena.net

Mr. David Reyes, Director
Planning and Community Development
City of Pasadena
175 N. Garfield Avenue
Pasadena, CA 91101
Email: davidreyes@cityofpasadena.net

Re: Request to Extend the Public Review Period for the Draft Sustainable Communities Environmental Assessment- 3200 E. Foothill Boulevard Mixed Use Project

Dear Mr. Sanchez and Mr. Reyes:

On behalf of Coalition for Responsible Equitable Economic Development ("CREED LA"), we respectfully request that the City of Pasadena ("City") extend the public review and comment period for the Draft Sustainable Communities Environmental Assessment ("SCEA") for the 3200 E. Foothill Boulevard Mixed Use Project (APNs 5752-023-039 and 5752-023-044) ("Project") by at least 30 days due to the City's failure to provide timely access to the supporting documents referenced in the Draft SCEA. This request is made pursuant to the California Environmental Quality Act, Pub. Resources Code ("PRC") §§ 21000 et seq. ("CEQA") Section 21092(b)(1), which requires that "all documents referenced in the draft environmental impact report or negative declaration" be available for review and "readily accessible" during the entire comment period.¹ Section 21155.2 requires that notice of a draft Sustainable Communities Environmental Assessment be provided "in the same manner as required for an environmental impact report pursuant to Section 21092".² It also requires a Draft SCEA to be circulated for public comment "for a period of not less than 30 days."³

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¹ PRC §§ 21092(b)(1); 14 Cal. Code Regs. ("CCR") § 15087(c)(5).

² PRC § 21155.2(b)(3)

³ *Id.*
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On February 21, 2018, we submitted a letter to the City requesting “immediate access to any and all documents referenced or relied upon” in the SCEA, pursuant to CEQA Section 21092(b)(1).⁴ The next day, on February 22, 2018, the City’s clerk office sent us two documents from the City’s May 2016 city council meeting regarding the project. The City provided no other documents. In response to our follow up emails and phone calls, Ms. Elidia Gonzalez from the City replied, on February 23, 2018, “[w]e are currently working on getting all the information for PRA0008921. We have a due date of March 1, 2018.”⁵ On the same date, Mr David Gonzales from the City planning department replied that the City will provide the SCEA documentation digitally on Monday, February 26.

On February 26, after the end of the working day, the City sent us a link to the “Draft SCEA Documentation.” The link contains documents that appear in the reference list of the SCEA.

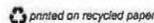
However, the SCEA references numerous critical documents that are not included in the file that was provided to us by the city. Those documents are highly relevant to CREED LA’s and the public’s review of the SCEA hazardous materials, air quality, water quality and other impact analyses for the Project. They include many project-specific and site-specific studies and reviews.

The following documents, all referenced in the SCEA, are examples of documents missing from the City’s response:

- *Draft Removal Action Workplan Former Naval Information Research Foundation Under Sea Center* (Ninyo & Moore. 2017) (the city has only provided a letter from the DTSC approving the plan, but not the plan itself).
- *Memorandum, Defense Environmental Restoration Program (DERP) Report for Army Corps of Engineers, Formerly Used Defense Sites (FUDS) Site No. J09CA105200, December 1992-April 1994*, prepared by Wheeler and Gray.
- *Space Bank, Ltd, Phase I Environmental Assessment Final Report, February 10, 1994*, prepared by Tetra Tech, Inc..

⁴ Letter from Adams, Broadwell, Joseph & Cardozo re Request for Immediate Access to Documents Referenced Draft Sustainable Communities Environmental Assessment– 3200 E. Foothill Boulevard Mixed Use Project (APNs 5752-023-039 and 5752-023-044). (February 21, 2018)

⁵ Email from Elidia Gonzalez, City of Pasadena, February 23, 2018.
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- *UST Closure Report, Removal and Disposal of One 2,000-Gallon and Two 200-Gallon Underground Storage Tanks, NIRF Under Sea Center, October 2, 1998*, prepared for US Army Corps of Engineers, prepared by Maness Corporation.
- *Draft Site Investigation Report, NIRF Under Sea Center Site Inspection, Pasadena, California, DERP-FUDS Project Number J09CA105200, June, 1999*, prepared by US Army Corps of Engineers.
- *Phase I Environmental Site Assessment Report, Space Bank, Ltd., June 21, 1999*, prepared by ATC Associates, Inc..
- *Draft Site Investigation Report and Site Assessment, NIRF Undersea Center, Pasadena, California, prepared for US Army Corps of Engineers, Los Angeles District, July 12, 2002*, prepared by Science Applications International Corporation (SAIC).
- *Final Report, Nonpoint Source Pollution of the Stormwater Drainage System, Naval Information Research Foundation, Undersea Center (AKA NOTS Pasadena), Prepared for US Army Corps of Engineers, December, 2003*, prepared by SAIC.
- *Draft Final Preliminary Endangerment Assessment (PEA) Report, NIRF Undersea Center, Pasadena, California, August 2005*, US Army Corps of Engineers (ACE), Los Angeles District, prepared by Enviroguide.
- *Expedited Phase 2 Environmental Site Assessment Report, Space Bank Mini Storage, February 1, 2006*, prepared by SECOR International, Incorporated
- *Expedited Phase I Environmental Site Assessment Report, Space Bank Mini Storage, March 30, 2006*, prepared by SECOR International, Incorporated
- *Final Focused Site Investigation, Naval Information Research Foundation (NIRF), Undersea Center, Pasadena, California, November 2006*, prepared for US Army Corps of Engineers, prepared by Innovative Technical Solutions, Inc..
- *Soil Vapor Survey Report, Former NIRF Site, April 13, 2007*, prepared by Kennedy/Jenks Consultants.
- *Environmental Summary Report, Former NIRF Site/Space Bank, May 22, 2007*, prepared by Kennedy/Jenks Consultants.
- *Draft Final Phase I Environmental Site Assessment, Space Bank Mini Storage Facility, April 17, 2008*, prepared by Ninyo & Moore.
- *Tenant History Report, Space Bank Facility, July 3, 2008*, prepared by Kennedy/Jenks Consultants.

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- *Removal Action Workplan (RAW), Former Naval Information Research Foundation Under Sea Center (AKA Space Bank Mini Storage Facility, June 16, 2017, prepared by Ninyo & Moore.*
- *Draft Final Remedial Investigation and Feasibility Study (RI/FS), Former Naval Information Research Foundation Undersea Center (AKA Space bank Mini Storage Facility), December 11, 2017, prepared by Ninyo & Moore.*
- *Review of Remedial Investigation and Feasibility Study Report for the Former Naval Information Research Foundation Under Sea Center (AKA Space Bank Mini Storage Facility), DTSC, February 22, 2017.*
- *Executed Amendment to Agreement and Covenant Not to Sue, DTSC, December 13, 2017.*
- *2017a. Department of Transportation. Transportation Impact Analysis (TIA). Outside of CEQA Analysis Category 2. Document.*

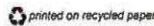
Without access to these documents during the public comment period on the Draft SCEA, CREED LA members and other members of the public are precluded from having the meaningful opportunity to comment on the SCEA that is required by CEQA. The City's failure to make the underlying SCEA documents available during the entire comment period makes public review particularly burdensome in this case because of the SCEA's reliance on missing documents for significance determinations and mitigation measures to address the Project's potentially significant impacts on the environment with regard to hazardous materials, air and water quality impacts, and other resources.

Without having access to these documents, CREED LA members and other members of the public are unable to evaluate the accuracy of the City's hazardous substances analysis, or the efficacy of the City's proposed mitigation measures to address the Project's potentially significant impacts. Additionally, the size of the SCEA and of the many documents on which the City is relying for its CEQA analysis, combined with the Project site's complex history, make it impossible to effectively comment on the SCEA without the referenced documents by the current comment deadline of March 9, 2018.

The courts have held that the failure to provide even a few pages of a CEQA document for a portion of the CEQA review period invalidates the entire CEQA process, and that such a failure must be remedied by permitting additional public

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comment.⁶ It is also well settled that a CEQA document may not rely on hidden studies or documents that are not provided to the public.⁷ By failing to make all documents referenced in the Draft SCEA “readily available” during the current comment period, the City is violating the procedural mandates of CEQA, to the detriment of those members of the public who wish to meaningfully review and comment on the Draft SCEA.

Accordingly, we request that:

- 1) The City immediately provide us with access to the missing documents requested in our February 21, 2018 immediate access request, as well as in this letter.
- 2) The City extend the public review and comment period on the SCEA for at least 30 days from the date on which the City releases all the referenced documents for public review.

Given the shortness of time before the current comment deadline, please contact me as soon as possible with your response to this request, but no later than **Wednesday, February 28, 2018.**

Please feel free to call or email with any questions: Tel: (650) 589-1660, Email: nlotan@adamsbroadwell.com. Thank you for your prompt attention and response to this matter.

Sincerely,

Nirit Lotan
Tanya Gulesserian

NL:acp

⁶ *Ultramar v. South Coast Air Quality Man. Dist.* (1993) 17 Cal.App.4th 689, 699.

⁷ *Santiago County Water District v. County of Orange* (1981) 118 Cal.App.3rd 818, 831 (“Whatever is required to be considered in an EIR must be in that formal report; what any official might have known from other writings or oral presentations cannot supply what is lacking in the report.”).

4183-004acp

COMMENTER: Tanya A. Gulesserian, Adams Broadwell Joseph and Cardozo Attorneys at Law
on behalf of Coalition for Responsible Equitable Economic Development

DATE: February 27, 2018

Response to Comment 1

The commenter requests that the City provide additional documents (listed in the comment letter) that were not included in the previous compilation of referenced documents sent to CREED LA on February 26, 2018. In addition, the commenter requests a 30-day extension to the public review and comment period to review the compilation of documents sent on February 26, 2018 and the additional documentation requested in this letter.

All missing documents, analyses, and database searches listed in the comment letter (see attachment) were compiled and sent to CREED LA for review on February 27, 2018. In addition, the City granted an extension of 15 days for the public review and comment period.



Letter 4

SENT VIA E-MAIL AND USPS:
dasanchez@cityofpasadena.net
David Sanchez, Senior Planner
City of Pasadena – Planning Department
175 No. Garfield Avenue
Pasadena, CA 91101

March 6, 2018

**Draft Sustainable Communities Environmental Assessment (SCEA) for the Proposed
3200 E. Foothill Boulevard Mixed Use Project**

The South Coast Air Quality Management District (SCAQMD) staff appreciates the opportunity to comment on the above-mentioned document. The following comments are meant as guidance for the Lead Agency and should be incorporated into the Final SCEA.

SCAQMD Staff's Summary of Project Description

The Lead Agency proposes to demolish 29 buildings totaling 212,397 square feet and construct eight buildings with 550 residential units totaling 544,906 square feet and subterranean parking on 8.32 acres (Proposed Project). Based on Figure 2 in the Draft SCEA, the Proposed Project is located next to the 210 Freeway. Construction is expected to take approximately 33 months¹.

SCAQMD Staff's Summary of Air Quality Analysis

In the Air Quality Analysis Section, the Lead Agency quantified the Proposed Project's construction and operation emissions and compared them to SCAQMD's regional and localized air quality CEQA significance thresholds. The Lead Agency found that the Proposed Project's air quality impacts from construction would be less than significant after incorporating Mitigation Measure AQ-1 – Construction Equipment Control and applicable project-level mitigation measures from SCAG's 2016 RTP/SCS EIR and the 2015 Pasadena General Plan EIR and the East Pasadena Specific Plan EIR². The Lead Agency also found that the Proposed Project's operational air quality impacts would be less than significant.

Health Risk Assessment from Mobile Sources and Other Sources of Air Pollution

Notwithstanding the court rulings, SCAQMD staff recognizes that the Lead Agencies that approve CEQA documents retain the authority to include any additional information they deem relevant to assessing and mitigating the environmental impacts of a project. Because of SCAQMD's concern about the potential public health impacts of siting sensitive land uses such as residential uses within close proximity of freeways, SCAQMD staff recommends that the Lead Agency review and consider the following comments when making local planning and land use decisions.

Sensitive receptors are people that have an increased sensitivity to air pollution or environmental contaminants. Sensitive receptors include schools, parks, playgrounds, daycare centers, nursing homes, elderly care facilities, hospitals, and residential dwelling units. Based on a review of the Project Description, SCAQMD staff found that the Proposed Project is located in proximity to the 210 Freeway. Residents at the Proposed Project would be exposed to diesel particulate matter (DPM) emissions from vehicles and diesel-fueled heavy-duty trucks traveling on the freeway. DPM is a toxic air contaminant and a carcinogen. To facilitate the purpose and goal of CEQA on public disclosure, SCAQMD staff

¹ Draft SCEA. Page 54.

² Draft SCEA. Pages 55 to 60.

David Sanchez

March 6, 2018

recommends that the Lead Agency consider the impacts of air pollutants on people who will live at the Proposed Project by performing a HRA³ analysis to disclose the potential health risks in the Final SCEA⁴.

Guidance on Siting Sensitive Receptors Near a High-Volume Freeway and Other Sources of Air Pollution
SCAQMD staff recognizes that there are many factors Lead Agencies must consider when making local planning and land use decisions. To facilitate stronger collaboration between Lead Agencies and SCAQMD to reduce community exposure to source-specific and cumulative air pollution impacts, SCAQMD adopted the *Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning* in 2005⁵. This Guidance document provides recommended policies that local governments can use in their General Plans or through local planning to prevent or reduce potential air pollution impacts and protect public health. In addition, guidance on siting incompatible land uses (such as placing homes near freeways) can be found in the California Air Resources Board's *Air Quality and Land Use Handbook: A Community Health Perspective*, which can be found at: <http://www.arb.ca.gov/ch/handbook.pdf>. CARB's Land Use Handbook is a general reference guide for evaluating and reducing air pollution impacts associated with new projects that go through the land use decision-making process.

1

Limits to Enhanced Filtration Units

Many strategies are available to reduce exposure, including, but are not limited to, building filtration systems, sound walls, vegetation barriers, etc. Because of the potential adverse health risks involved with siting sensitive receptors near sources of air pollution, it is essential that any proposed strategy must be carefully evaluated before implementation. In the event that enhanced filtration units are installed at the proposed residential units either as a mitigation measure or project design feature requirement, SCAQMD staff recommends that the Lead Agency consider the limitations of the enhanced filtration. For example, in a study that SCAQMD conducted to investigate filters⁶, a cost burden is expected to be within the range of \$120 to \$240 per year to replace each filter. In addition, because the filters would not have any effectiveness unless the HVAC system is running, there may be increased energy costs to the residents. It is typically assumed that the filters operate 100 percent of the time while residents are indoors, and the environmental analysis does not generally account for the times when the residents have their windows or doors open or are in common space areas of the project. In addition, these filters have no ability to filter out any toxic gases from vehicle exhaust. Therefore, the presumed effectiveness and feasibility of any filtration units should be carefully evaluated in more detail prior to assuming that they will sufficiently alleviate exposures to DPM emissions.

2

Enforceability of Enhanced Filtration Units

If enhanced filtration units are used for the Proposed Project, and to ensure that the enhanced filtration units are enforceable throughout the lifetime of the Proposed Project and that they are effective in reducing exposures to DPM emissions, SCAQMD staff recommends that the Lead Agency provide additional details on future operational and maintenance implementation and monitoring in the Final

3

³ South Coast Air Quality Management District. "Health Risk Assessment Guidance for Analyzing Cancer Risk from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis." Accessed at: <http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/mobile-source-toxics-analysis>.

⁴ SCAQMD has developed the CEQA significance threshold of 10 in one million for cancer risk. When SCAQMD acts as the Lead Agency, SCAQMD staff conducts a HRA, compares the maximum cancer risk to the threshold of 10 in one million to determine the level of significance for health risk impacts, and identifies mitigation measures if the risk is found to be significant.

⁵ South Coast Air Quality Management District. May 2005. "Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning" Accessed at: <http://www.aqmd.gov/docs/default-source/planning/air-quality-guidance/complete-guidance-document.pdf>.

⁶ This study evaluated filters rated MERV 13+ while the proposed mitigation calls for less effective MERV 12 or better filters. Accessed at: <http://www.aqmd.gov/docs/default-source/ceqa/handbook/aqmdpilotstudyfinalreport.pdf>. Also see also 2012 Peer Review Journal article by SCAQMD: <http://d7.iqair.com/sites/default/files/pdf/Polidori-et-al-2012.pdf>.

David Sanchez

March 6, 2018

SCEA to facilitate a good faith effort at full disclosure. At a minimum, the Final SCEA should include the following information:

- Disclosure on increased energy costs for running the HVAC system to prospective residents;
- Disclosure on potential health impacts to prospective residents;
- The responsible implementing and enforcement agency (or entity);
- Recommended schedules for replacing the enhanced filtration units;
- Ongoing monitoring schedules;
- Ongoing cost sharing strategies, if any, for replacing the enhanced filtration units; and
- Criteria for assessing progress in installing and replacing the enhanced filtration units; and process for evaluating the effectiveness of the enhanced filtration units.

3

Compliance with SCAQMD Rule 1403

Since the Proposed Project will demolish 29 buildings, and in the event asbestos is encountered during demolition, SCAQMD staff recommends that the Lead Agency include a discussion to demonstrate compliance with SCAQMD Rule 1403 in the Final SCEA.

Conclusion

Please provide the SCAQMD with written responses to all comments contained herein prior to the certification of the Final SCEA. When responding to issues raised in the comments, response should provide sufficient details giving reasons why specific comments and suggestions are not accepted. There should be good faith, reasoned analysis in response. Conclusory statements unsupported by factual information do not facilitate the purpose and goal of CEQA on public disclosure and are not meaningful or useful to decision makers and to the public who are interested in the Proposed Project.

4

SCAQMD staff is available to work with the Lead Agency to address any air quality questions that may arise from this comment letter. Please contact me at lsun@aqmd.gov if you have any questions.

Sincerely,

Lijin Sun

Lijin Sun, J.D.

Program Supervisor, CEQA IGR

Planning, Rule Development & Area Sources

LS
LAC180213-04
Control Number

COMMENTER: Lijin Sun, Program Supervisor, CEQA IGR, Planning, Rule Development & Area Sources, South Coast Air Quality Management District

DATE: March 6, 2018

Response to Comment 1

The commenter states that, notwithstanding recent court rulings, to facilitate the purpose and goal of the California Environmental Quality Act (CEQA) on public disclosure, SCAQMD staff recommends that the Lead Agency consider the impacts of air pollutants on people who will live at the Proposed Project by performing a Health Risk Assessment (HRA) to disclose the potential health risks in the SCEA. The commenter references guidance documents on siting sensitive receptors near high-volume freeways and other sources of air pollution provided by SCAQMD and the California Air Resources Board (ARB).

As recognized by the commenter, in *California Building Industry Association v Bay Area Air Quality Management District*, the California Supreme Court held that CEQA generally does not require a lead agency to consider the impacts of the existing environment on the future residents or users of a project (S213478, December 17, 2015). An exception to this general rule is a project that may exacerbate a condition in the existing environment. For such a situation, the lead agency is required to analyze the impact of that exacerbated condition on future residents and users of a project as well as other impacted individuals or resources. For example, a development project could exacerbate hazards relating to wildfire by providing additional fuel and ignition sources, resulting in potential impacts to future residents of the project, existing residents, or resources. Thus, the significance determination with respect to toxic air contaminants in the SCEA focuses on whether the project would exacerbate environmental conditions in a manner that would increase the potential to expose people or resources to environmental impacts.

Because the project is a residential development, project operation would not generate toxic air contaminants, nor would the project substantially increase diesel particulates in the area because it would not attract substantial diesel traffic to the project site, like an industrial warehouse or rest area would. Furthermore, as indicated in Table 8 (Estimated Construction Emissions [lbs/day]) and Table 9 (Estimated NO_x [lbs/day] Emissions with Mitigation) of the SCEA, emissions of CO, PM₁₀, PM_{2.5}, NO_x, and ROG during project construction would not exceed SCAQMD's regional thresholds or local significance thresholds, which are designed to be protective of public health; therefore, the project would not exacerbate environmental conditions in a manner that would increase the potential to expose sensitive receptors to environmental impacts and, pursuant to CEQA, a refined HRA is not required.

While an HRA is not required to assess potential significant environmental impacts under CEQA, an HRA was prepared for the project. The HRA is included in the administrative record and the staff report for consideration by City decision makers. The HRA was also provided to the SCAQMD in response to their comment letter.

Response to Comment 2

The commenter states that there are limits to the effectiveness of enhanced filtration units, and that strategies to reduce health risk exposure, including building filtration systems, sound walls, and vegetation barriers, must be carefully evaluated before implementation. The commenter cites a cost burden of between \$120 to \$240 annually associated with replacing filters and increased energy costs associated with running an HVAC system. The commenter also describes limitations on the effectiveness of filters if windows are open or residences are using common space areas of the project site and on removing toxic gases from vehicle exhaust (i.e., toxic air contaminant components of exhaust beyond diesel particulate matter [DPM]).

As noted above, an HRA was prepared for the project that evaluates health risk across the project site and makes recommendations for reducing risk below SCAQMD's risk evaluation criteria. The HRA recommendations are informed by ARB's 2017 technical advisory on how to reduce impacts related to diesel particulate matter entitled, *Strategies to Reduce Air Pollution Exposure near High-Volume Roadways*.¹ ARB envisioned that the advisory would be used by planners and other stakeholders to identify combinations of strategies that can be implemented to reduce exposure at specific developments or to recommend the consideration of these strategies in policy or planning documents. The advisory identifies installation of indoor high efficiency filtration that removes pollution from the air as one of seven possible strategies for reducing impacts from diesel particulates. Four other strategies recommended by ARB do not apply to the project because they are appropriate for plan level documents. These include speed limit reductions on high-speed roadways, traffic signal management, and urban design to reduce concentration of pollutants along street corridors. The advisory also recognizes solid barriers, such as the proposed parking structure that would be located between residences and Interstate 210, as a strategy for reducing the concentration of traffic pollution and associated health risks.

Based ARB's advisory, the potential carcinogenic health risk can be reduced by controlling the amount of diesel exhaust particulates that the residents are exposed to in the indoor environment. According to the advisory, "Research shows that both high efficiency filtration in central ventilation systems and portable air cleaners can effectively remove particles in most circumstances."² The advisory also states that MERV 13 filters remove more than 90 percent of particulates 1.0 to 10 microns in diameter, and more than 75 percent of ultrafine particulate matter (less than 1.0 microns in diameter), while MERV 16 filters remove over 98 percent of ultrafine particulates. Including high efficiency filters on HVAC systems can affect air flow through the system; however, research cited by the ARB advisory indicates that air flow resistance for the highest MERV filters tested did not create substantial issues for the HVAC system. According to the advisory, "a deep pleat MERV16 filter reduced airflow by just 2.7 percent and a 1-inch MERV13 filter reduced airflow by 4.9 percent."³ ARB's advisory also found that, while less efficient than filtration on forced air HVAC systems, portable or stand-alone air cleaning devices can also provide filtration. The ARB found that portable air cleaners with high efficiency filters

¹ California Air Resources Board. 2017. *Strategies to Reduce Air Pollution Exposure near High-Volume Roadways*. <https://www.arb.ca.gov/ch/landuse.htm>

² *Ibid*, page 36

³ *Ibid*, page 37

can typically achieve 30 to 60 percent removal of particles, when sized for the space being treated. Lastly, the advisory recognizes solid barriers, such as the project's proposed parking structure that would be located between residences and Interstate 210, as a strategy for reducing concentrations of traffic pollution and associated health risks. While it is not possible to quantify the risk reduction associated with the proposed parking structure due to modeling limitations, it is clear from ARB's advisory that risk levels would likely be lower throughout the project site than estimated in the HRA; therefore, the HRA provides a conservative estimate of health risk.

Based on guidance provided by the ARB advisory, the HRA includes recommendations to reduce overall cancer risk at exposed residences, such as providing all units with forced air mechanical ventilation with MERV 13 rated filter screens and portable air cleaning devices (see the HRA for full list of recommendations). Regarding the comment on the cost burden of filters, the HRA recommendations include a requirement that the management company be responsible for paying for and replacing HVAC filter screens in accordance with manufacturer recommendations. Regarding the comment about evaluating the effectiveness of filters, the HRA includes an estimate of after-recommendation health risk levels taking into account exposure frequency to outdoor and indoor air on the project site, filter efficiency, and percent of risk associated with DPM. Table 4 of the HRA indicates that the filtration system and other recommendations would reduce the overall cancer risk for all receptors to below the applicable evaluation criteria of ten in one million for the 30-year scenario (95th percentile). The after-recommendation risk estimates contained in the attached HRA do not take into account the risk reduction associated with the proposed parking structure or the recommendation to include portable air cleaning devices for all units, which could be used in the event that outdoor air enters the indoor environment without the benefit of the HVAC system with filter screen (such as through an open window).

Response to Comment 3

The commenter recommends that if enhanced filtration units would be used for the project the City should require disclosure of the increased energy costs for running HVAC systems and potential health impacts to prospective residents; identify the responsible implementing and enforcement agency and schedule for replacing the filtration units; and implement an ongoing monitoring schedule and cost sharing strategy for replacing units, and process for evaluating the effectiveness of the filtration units.

As described above, the HRA recommendations include a requirement that the management company be responsible for paying for and replacing HVAC filter screens in accordance with manufacturer recommendations. City decision makers will consider all HRA recommendations for inclusion as conditions of approval for the project. Although the recommendations would not be mitigation measures under CEQA or subject to a Mitigation Monitoring and Reporting Program, the City would be responsible for monitoring compliance with any requirements included in the conditions of approval for the project; therefore, if included as conditions of approval for the project, the recommendations would be subject to ongoing monitoring and enforcement by City staff.

Response to Comment 4

The commenter states that the project would be required to comply with SCAQMD Rule 1403 in the event that asbestos is encountered during demolition.

This comment is noted. The project applicant would be required to comply with SCAQMD Rule 1403 because this is an existing regulatory requirement.

STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY

EDMUND G. BROWN Jr., Governor

DEPARTMENT OF TRANSPORTATION

DISTRICT 7
100 S. MAIN STREET, MS 16
LOS ANGELES, CA 90012
PHONE (213) 897-8391
FAX (213) 897-1337
TTY 711
www.dot.ca.gov

Letter 5



*Serious Drought.
Making Conservation
a California Way of Life.*

March 8, 2018

Mr. David Sanchez, Senior Planner
City of Pasadena
3200 E. Foothill Boulevard Mixed Use Project
Pasadena, CA 91101

RE: 3200 E. Foothill Boulevard Mixed Use Project
SCH # 2018021017
GTS LA-2018-01341-SCEA-AL
Vic. LA-210/PM R28.852

Dear Mr. Sanchez:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the above referenced project. The proposed project would involve the demolition of 29 existing structures on the project site and construction of eight separate mixed-use buildings, subterranean and above-ground parking structures with 782 parking stalls and 84 bicycle stalls, and landscaping. The project includes a 550 apartment units and 9,800 square feet of retail/restaurant space.

1

The mission of Caltrans is to provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability. Senate Bill 743 (2013) mandated that CEQA review of transportation impacts of proposed development be modified by using Vehicle Miles Traveled (VMT) as the primary metric in identifying transportation impacts for all future development projects. For future project, you may reference to The Governor's Office of Planning and Research (OPR) for more information.

2

<http://opr.ca.gov/ceqa/updates/guidelines/>

Caltrans is aware of challenges that the region faces in identifying viable solutions to alleviating congestion on State and Local facilities. With limited room to expand vehicular capacity, future development should incorporate multi-modal and complete streets transportation elements that will actively promote alternatives to car use and better manage existing parking assets. Prioritizing and allocating space to efficient modes of travel such as bicycling and public transit can allow streets to transport more people in a fixed amount of right-of-way.

3

Caltrans supports the implementation of complete streets and pedestrian safety measures such as road diets and other traffic calming measures. Please note the Federal Highway Administration

*"Provide a safe, sustainable, integrated and efficient transportation system
to enhance California's economy and livability"*

Mr. David Sanchez
March 8, 2018
Page 2 of 3

(FHWA) recognizes the road diet treatment as a proven safety countermeasure, and the cost of a road diet can be significantly reduced if implemented in tandem with routine street resurfacing.

3

We encourage the Lead Agency to integrate transportation and land use in a way that reduces Vehicle Miles Traveled (VMT) and Greenhouse Gas (GHG) emissions by facilitating the provision of more proximate goods and services to shorten trip lengths, and achieve a high level of non-motorized travel and transit use. We also encourage the Lead Agency to evaluate the potential of Transportation Demand Management (TDM) strategies and Intelligent Transportation System (ITS) applications in order to better manage the transportation network, as well as transit service and bicycle or pedestrian connectivity improvements.

4

Currently, public transit stops is near the project site per Table 33 of the Environmental Checklist. The Sierra Madre Villa Gold Line Station is located approximately 0.17 miles southeast of the project site, within the median of the I-210 freeway at Sierra Madre Villa Avenue.

5

The followings are reminders from the Technical Advisory on Evaluating Transportation Impacts in CEQA dated in November 2017.

Recommended threshold for residential projects: A proposed project exceeding a level of 15% below existing VMT per capita may indicate a significant transportation impact. Existing VMT per capita may be measured as regional VMT per capita or as city VMT per capita. Proposed development referencing city VMT per capita must not cumulatively exceed the number of units specified in the SCS for that city, and must be consistent with the SCS.

6

Recommended threshold for office projects: A proposed project exceeding a level of 15 percent below existing regional VMT per employee may indicate a significant transportation impact.

After reviewing the Draft Environmental Impact Report for this project, Caltrans has the following comments:

7

1. Caltrans concurs the assess transit and multimodal impact fees for new developments to fund public transportation infrastructure, bicycle infrastructure, pedestrian infrastructure and other multimodal accommodations.
2. Caltrans also concurs with the City to establish a network of multi-use trails to facilitate safe and direct off-street bicycle and pedestrian travel, and will provide bike racks along these trails at secure, lighted locations.
3. Caltrans would like to participate and add feedback to the annual TDM Survey beginning one year after the issuance of a Certificate of Occupancy for five consecutive years.

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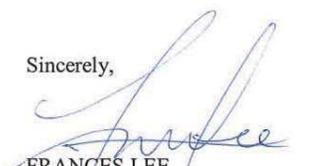
"Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability"

Mr. David Sanchez
March 8, 2018
Page 3 of 3

4. The project is next to I-210, please be reminded that any work performed within the State Right-of-way will require an Encroachment Permit from Caltrans if the restoration is at State Right-of-way. Any modifications to State facilities must meet all mandatory design standard and specifications. 10
5. Storm water run-off is a sensitive issue for Los Angeles and Ventura counties. Please be mindful that projects should be designed to discharge clean run-off water. Additionally, discharge of storm water run-off is not permitted onto State highway facility (I-210) without any storm water management plan. 11
6. Transportation of heavy construction equipment and/or materials, which requires the use of oversized-transport vehicles on State highways, will require a transportation permit from Caltrans when transporting disposed materials. It is recommended that large size truck trips be limited to off-peak commute periods. 12
7. In addition, a truck/traffic construction management plan may be needed for this project when high volume of construction vehicles are working on/near by the State facility. Traffic Management Plans involving lane closures or street detours which may impact the circulation system affecting traffic to and from freeway on/off-ramps should be coordinated with Caltrans. 13

If you have any questions, please feel free to contact project coordinator Mr. Alan Lin at (213) 897-8391 and refer to GTS # LA-2018-01341- SCEA-AL.

Sincerely,



FRANCES LEE
IGR/CEQA Acting Branch Chief

cc: Scott Morgan, State Clearinghouse

*"Provide a safe, sustainable, integrated and efficient transportation system
to enhance California's economy and livability"*

Letter 5

COMMENTER: Frances Lee, IGR/CEQA Acting Branch Chief, California Department of Transportation, District 7

DATE: March 8, 2018

Response to Comment 1

The commenter states appreciation for the opportunity to comment on the proposed project and provides a summary of the project description.

The summary of the project is accurate.

Response to Comment 2

The commenter describes the mission of Caltrans and notes that under Senate Bill 743 transportation impacts are to be evaluated using the metric of Vehicle Miles Traveled (VMT).

The analysis provided in Section 17, *Transportation/Traffic*, of the SCEA is based on the Traffic Impact Analysis (TIA) prepared by the City of Pasadena. As stated in the SCEA and TIA, the City's performance measures and CEQA thresholds are consistent with the City's adopted General Plan and SB 743, and include vehicle miles traveled (VMT) per capita, vehicle trips (VT) per capita, proximity and quality of bicycle network, proximity and quality of transit network, and pedestrian accessibility.

Response to Comment 3

The commenter notes that Caltrans supports incorporation of multi-modal and complete streets transportation elements in future development as well as pedestrian safety measures such as road diets as recommended by the FHWA.

This comment does not pertain to the adequacy of the SCEA and raises no environmental issues specific to the proposed project. Nevertheless, the project would include pedestrian access to the project site by a 22-ft. wide sidewalk along Foothill Boulevard that would provide connections to an internal paseo that would be a publicly accessible walkway providing access to and from Foothill Boulevard and Kinneloa Avenue through the retail/restaurant court and public park spaces. The project would also include 84 bicycle parking stalls (80 residential, 4 retail) distributed throughout the site.

Response to Comment 4

The commenter recommends that the project integrate transportation and land use in a way that reduced VMT and GHG emissions through provision of proximate goods and services to shorten trip lengths and increase non-motorized travel and transit use. The commenter also recommends that the lead agency evaluate the potential of Transportation Demand Management (TDM) strategies and Intelligent Transportation System (ITS) applications to better manage the transportation network.

The proposed project is a mixed-use development that would include residential, retail, and restaurant uses and would be within walking distance of other commercial and office uses in the project area as well as the Sierra Madre Gold Line transit station. This proximity to existing complementary land uses

and transit resources would encourage non-motorized travel. Further, page 184 of the SCEA describes the TDM Plan strategies to be implemented as mitigation for the proposed project that would reduce vehicle trips generated during project operation.

Response to Comment 5

The commenter notes that the Sierra Madre Villa Gold Line Station is approximately 0.17 mile southeast of the project site.

This comment does not pertain to the adequacy of the SCEA and raises no environmental issues specific to the proposed project. However, the site's proximity to the Gold Line Station is expected to facilitate transit use by site residents.

Response to Comment 6

The commenter provides the recommended VMT thresholds for residential and office projects as given in the Technical Advisory on Evaluating Transportation Impacts in CEQA.

See the response to Comment 2. Of note, the Governor's Office of Planning and Research's (OPR's) Technical Advisory on Evaluating Transportation Impacts corresponds with OPR's proposed revisions to the State CEQA Guidelines to add a new Section 15064.3 "Determining the Significance of Transportation Impacts." As noted in part (c) of this proposed new section, if adopted, the provisions of this section will apply statewide beginning on January 1, 2020.

Response to Comment 7

The commenter states that Caltrans concurs with the use of assessing transit and multimodal impact fees for new developments as strategies included under mitigation measure TRA-1.

This comment supports the analysis provided in the SCEA.

Response to Comment 8

The commenter states that Caltrans concurs with strategies to establish a multi-use trail network and provision of bike racks along trails as included under mitigation measure TRA-1.

This comment supports the analysis provided in the SCEA.

Response to Comment 9

The commenter states that Caltrans would like to participate and add feedback to the annual TDM Survey beginning one year after the issuance of a Certificate of Occupancy for five consecutive years.

This comment does not pertain to the SCEA and raises no environmental issues specific to the proposed project; however, this request has been forwarded to City decision makers for their consideration.

Response to Comment 10

The commenter notes the proximity of the project to the I-210 Freeway and provides a reminder that an encroachment permit will be required for work that occurs within a street right-of-way.

Reminder noted. The applicant will be required to obtain all applicable permits prior to the start of construction.

Response to Comment 11

The commenter notes that project should be designed to discharge clean run-off water and that storm water run-off is not permitted onto State highways without a stormwater management plan.

As discussed in Section 10, *Hydrology and Water Quality*, of the SCEA, the project applicant would submit and implement a Standard Urban Stormwater Mitigation Plan (SUSMP), in compliance with City requirements, and would incorporate Low Impact Development stormwater Best Management Practices that would meet the water quality performance criteria specified in the Los Angeles County MS4 Permit. Compliance with the MS4 permit would ensure compliance with the SQMP adopted by the Los Angeles County RWQCB.

Response to Comment 12

The commenter states that use of oversized-transport vehicles on State highways would require a Caltrans transportation permit and that it is recommended that large size truck trips be limited to off-peak commute periods.

This comment does not pertain to the SCEA and raises no environmental issues specific to the proposed project. Nevertheless, necessary permits would be obtained if oversized-transport vehicles are required for project construction. Furthermore, mitigation measure TRA-2(b) on page 191 would require development of a construction management plan that would include a set of comprehensive traffic control measures, including scheduling of major truck trips and deliveries to avoid peak traffic hours.

Response to Comment 13

The commenter notes that a traffic construction management plan may be needed for the project due to potential high volumes of construction vehicles.

See the response to Comment 12.

Response to Comment 14

The commenter requests to contact the project coordinator, Alan Lin, for any questions.

Any questions or concerns will be addressed with Alan Lin.



Letter 6

March 8, 2018

VIA EMAIL

David Sanchez, Senior Planner
175 N. Garfield Avenue
Pasadena, CA 91101
dasanchez@cityofpasadena.net

SUBJECT: COMMENTS ON 3200 EAST FOOTHILL BOULEVARD SCEA

To whom it may concern:

Thank you for the opportunity to comment on the Draft Sustainable Communities Environmental Assessment (SCEA) for the proposed 3200 East Foothill Boulevard project. Please accept and consider these comments on behalf of Golden State Environmental Justice Alliance. Also, Golden State Environmental Justice Alliance formally requests to be added to the public interest list regarding any subsequent environmental documents, public notices, public hearings, and notices of determination for this project. Send all communications to Golden State Environmental Justice Alliance P.O. Box 79222 Corona, CA 92877.

1

1.0 Summary

As we understand it, the project proposes the demolition of 29 existing structures on the project site and construction of eight separate mixed-use buildings, subterranean and above-ground parking structures, and landscaping. The proposed buildings would include a total of 550 apartment units and 9,800 square feet of retail space. Three of the buildings would be four stories, five of the buildings would be five stories, and all buildings would have a maximum

2

height of 60 feet. The project includes a 0.21-acre accessory site at the southwest corner of the site on the west side of Kinneloa Avenue. On an interim basis, the applicant is proposing to redevelop the site as publicly accessible open space.

The project requires the following discretionary actions of the City of Pasadena: (1) a Zoning Map Amendment to change the Zoning Designation from EPSP-d1-IG to PD; (2) a Public Tree Removal Permit to allow the removal of 17 street trees along Foothill Boulevard and Kinneloa Avenue; and (3) a Design Review Permit to approve the project design for consistency with the Zoning Code and Design Guidelines. In addition, the project site requires approval of a Removal Action Workplan (RAW) by the Department of Toxic Substances Control (DTSC) to allow for the removal of on-site contaminants to levels protective of human health and the environment.

2

2.0 Sustainable Communities Environmental Assessment (SCEA) Eligibility

The SCEA evaluates the proposed project's consistency with the Southern California Association of Government (SCAG) Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) and incorporates the feasible mitigation measures, performance standards, and/or criteria from prior applicable environmental impact reports (EIRs) into the proposed project. SB 375 provides CEQA streamlining opportunities for TPPs that are "consistent with the *use designation, density, building intensity, and applicable policies specified for the project area* in either a sustainable communities strategy or an alternative planning strategy, for which the ARB has accepted a metropolitan planning organization's determination that the sustainable communities strategy or the alternative planning strategy would, if implemented, achieve the greenhouse gas emission reduction targets established by ARB (Public Resources Code, § 21155 (a))".

3

The SCEA states the "City Residential place type within the Urban land development category is the *most applicable* to the proposed project." However, the SCEA does **not** state that the proposed project site is located within the boundaries of the **Urban** land development category, or that the SCAG RTP/SCS designated the project site as **Urban**. Exhibit 18 of the Sustainable Communities Strategy (SCS) Background Documentation Appendix to the 2016 SCAG RTP/SCS depicts the project site within the **Compact** land development category¹ (Attachments No. 1 and 2). Because the project site is not located within the Urban land development category, the

¹ Sustainable Communities Strategy (SCS) Background Documentation Appendix http://scagrtpscsc.net/Documents/2016/final/f2016RTPSCS_SCSBackgroundDocumentation.pdf

proposed project is not consistent with the use designation, density, building intensity, and applicable policies of SCAG's RTP/SCS specified for the project area.

According to SCAG's Place Types Categorized into Land Development Categories chart², the Compact land development category corresponds with the Town Residential place type. According to SCAG's UrbanFootprint Place Types list³, Town Residential permits a maximum gross density of 12-35 units per acre and a maximum FAR of 1.2. The project proposes a density of 66 units per acre and a FAR of 1.53. The project is not consistent with the use designation, density, or building intensity of the 2016 SCAG RTP/SCS. The SCEA is invalid as an environmental analysis document and the TPP CEQA Exemption can not be applied to the project. An EIR must be prepared for the proposed project to accurately analyze potentially significant environmental impacts and cumulative impacts resulting from implementation of the project. This comment applies to all environmental analysis sections of the SCEA - Environmental Checklist sections 1 - 20 and any cumulative analysis presented.

3

Golden State Environmental Justice Alliance requests to be added to the public interest list regarding any subsequent environmental documents, public notices, public hearings, and notices of determination for this project. Send all communications to Golden State Environmental Justice Alliance P.O. Box 79222 Corona, CA 92877.

4

Sincerely,



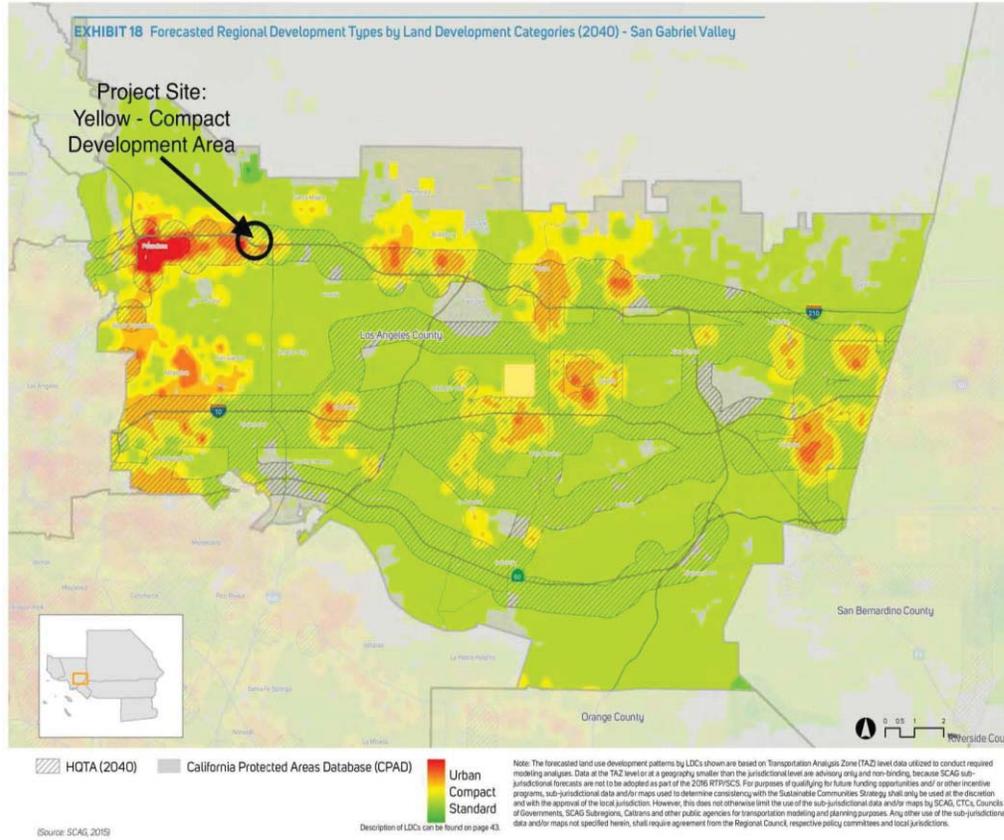
Board of Directors
Golden State Environmental Justice Alliance

Attachments:

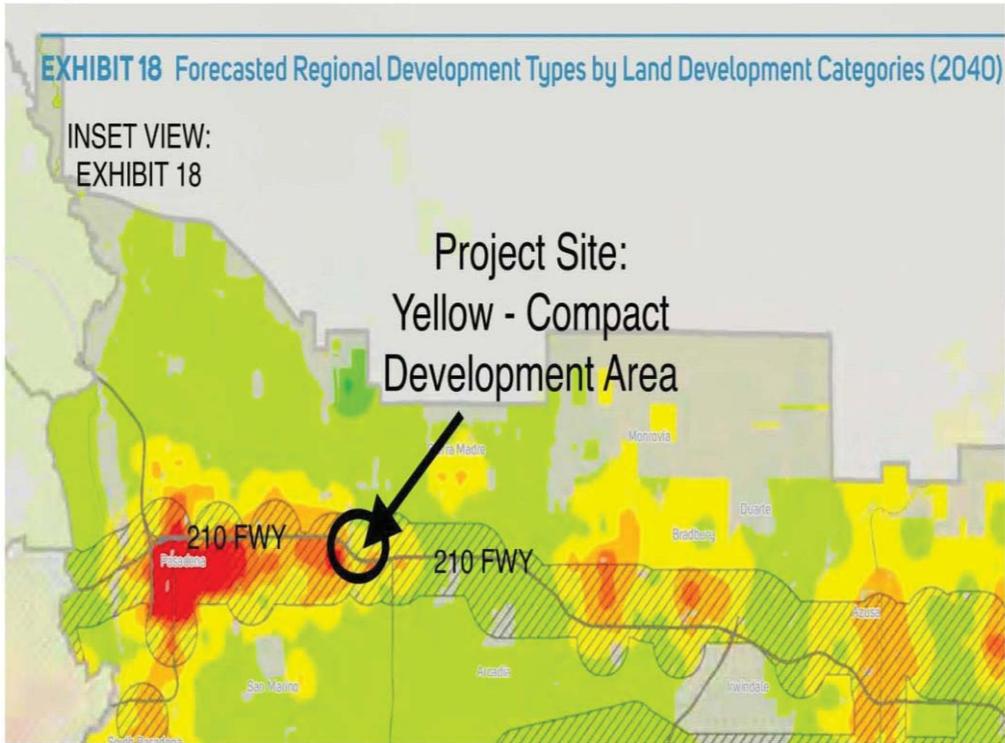
1. Exhibit 18 of SCS Background Documentation Appendix
2. Exhibit 18: Inset View

² Place Types Categorized into Land Development Categories http://scagrtpscs.net/Documents/2016/supplemental/LDC_PlaceType.pdf

³ UrbanFootprint Place Types http://scagrtpscs.net/documents/2016/supplemental/UrbanFootprint_PlaceTypesSummary.pdf



5



5

Letter 6

COMMENTER: Board of Directors, Golden State Environmental Justice Alliance

DATE: March 8, 2018

Response to Comment 1

The commenter provides introductory remarks, and requests to be added to the public interest list regarding subsequent information regarding the proposed project.

Per the commenter’s request, Golden State Environmental Justice Alliance (GSEJA) will be added to the public notification list for the subject project.

Response to Comment 2

The commenter provides a summary of the proposed project.

The commenter’s summary of the proposed project is accurate.

Response to Comment 3

The commenter provides the requirements of SB 375 for CEQA streamlining opportunities for TPPs highlighting that TPP must be consistent with the use, destination, density, building intensity, and applicable policies specified for the project area in either a sustainable communities strategy or an alternative planning strategy. The commenter then states that the SCEA incorrectly determines that the proposed project is consistent with the City Residential place type within the Urban land development category described in SCAG’s 2016 RTP/SCS. Rather, the commenter notes that the project site is within an area designated under a Compact land development category (LDC), and more closely corresponds to the Town Residential place type within this category. However, because the proposed project exceeds the maximum gross density and maximum FAR permitted under the Town Residential place type, the project is not consistent with the use designation, density, or building intensity of the 2016 SCAG RTP/SCS. Lastly, the commenter states that because of this inconsistency, the SCEA is invalid as an environmental analysis document, the TPP CEQA Exemption cannot be applied, and preparation of an EIR is required.

The proposed project is a transit priority project that clearly meets the intent of both SB 375 and SCAG’s Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). The purpose of the CEQA provisions of SB 375 are to revise CEQA to encourage projects “that will help the state achieve its climate goals under AB 32, assist in the achievement of state and federal air quality standards, and increase petroleum conservation.” (See SB 375, Section 1(f).) To meet the state’s AB 32 climate goals, SB 375 requires all metropolitan transportation organizations, including SCAG, to prepare a Sustainable Communities Strategy (SCS) that integrates transportation and land use planning in a manner that results in reduced vehicle miles traveled and, as a result, reduced GHG emissions. The proposed project would fulfill this overarching intent by developing 550 multi-family residential units and 9,800 square feet of neighborhood-serving commercial uses all within 0.3 miles of the Sierra Madre Villa Gold Line Station (this Station is located 700 feet from the southeast corner of the site). The site is also served by eight bus stops within ½-mile radius that provide access to 16 bus lines.

Due to the transit facilities in the vicinity, the project area qualifies as a “High Quality Transit Area” (HQTA). A continually reoccurring theme in the RTP/SCS is to focus new growth around transit, particularly QTAs. In its description of the SCAG region’s existing land use pattern, the RTP/SCS (p. 20) expresses that, “a more compact land development strategy is needed” and in the discussion of land use strategies in Chapter 5, the RTP/SCS (p. 76) states, “QTAs are a cornerstone of land use planning best practice in the SCAG region... Here, households have expanded transportation choices with ready access to a multitude of safe and convenient transportation alternatives to driving alone... Households have more direct and easier access to jobs, schools, shopping, healthcare and entertainment.” Chapter 5 of the RTP/SCS (p. 76) further states that, “The 2016 RTP/SCS overall land use pattern reinforces the trend of focusing new housing and employment in the region’s QTAs... The 2016 RTP/SCS assumes that 46 percent of new housing and 55 percent of new employment locations developed between 2012 and 2040 will be located within QTAs, which comprise only three percent of the total land area in the SCAG region.” The proposed project, which would develop multi-family and commercial uses within a HQTA, is consistent with the land use pattern envisioned by the RTP/SCS.

In addition to the project’s overall consistency with the RTP/SCS and its fulfillment of the overarching goals of integrating land use and transportation, the SCEA (pp. 33-38) provides a detailed analysis of the project’s consistency with the RTP/SCS, including consistency with use designation, density, building intensity and applicable policies, as required by SB 375. However, in contrast to the commenter’s assertion, the RTP/SCS does not identify specific use designations, densities, or building intensities for the project area or, for that matter, for any specific location. Rather, the land use pattern described in the RTP/SCS is intended to accommodate anticipated growth in the region, while providing flexibility to local agencies in designating land uses. The “Land Development Categories” and “Place Types” referenced in the RTP/SCS were developed by SCAG to describe the general conditions that exist and/or are likely to exist within a specific area, reflecting the diversity of land use planning in the region. In developing the RTP/SCS, SCAG used the Place Types in an urban setting design tool to demonstrate urban development in terms of form, scale and function in the built environment (see p. 20 of the RTP/SCS). To that end, the RTP/SCS Appendix “SCS Background Documentation” (p. 4) states, “The LDCs [Land Development Categories] employed in the RTP/SCS are not intended to represent detailed land use policies, but are used to describe the general conditions likely to occur within a specific area if recently emerging trends, such as transit-oriented development, were to continue in concert with the implementation of the 2016 RTP/SCS.”

Of the Place Types and Land Development Categories considered in the RTP/SCS, the SCEA (p. 33) explains that the proposed project is most consistent with the “City Residential” Place Type within the “Urban” Land Development Category. The RTP/SCS provides the following description of the Urban Land Development Category:

Urban: These areas are often found within and directly adjacent to moderate and high density urban centers. Nearly all urban growth in these areas would be considered infill or redevelopment. The majority of housing is multifamily and attached single-family (townhome), which tend to consume less water and energy than the larger types found in greater proportion in less urban locations. These areas are supported by high levels of regional and local transit service. They have well-connected street networks, and the mix and intensity of uses result in a highly walkable environment.

These areas offer enhanced access and connectivity for people who choose not to drive or do not have access to a vehicle.

The project area is consistent with this description in that it is within/near urban areas of moderate to high density, is supported by high levels of regional and local transit, has a well-connected street network, is a walkable location with a mix and intensity of uses, and has growth opportunities that are largely limited to infill development or redevelopment.

The commenter's assertion that the project is within the "Compact" Land Development Category is explicitly based on an exhibit in the "SCS Background Documentation" appendix of the RTP/SCS. This exhibit, "Exhibit 18 Forecasted Regional Development Types by Land Development Categories (2040) - San Gabriel Valley," appears to depict the project site in an interface area between "Urban" and "Compact" Land Development Categories. However, this exhibit does not depict finite boundaries for the three Land Development Categories, but rather uses a spectrum of colors to indicate a wide range of potential land use types and densities. Moreover, this exhibit is shown at the sub-regional level and intentionally not at the parcel-by-parcel level because the RTP/SCS does not dictate any specific land use designations. To that end, Exhibit 18 includes the following disclaimer:

Note: The forecasted land use development patterns by LDCs shown are based on Transportation Analysis Zone (TAZ) level data utilized to conduct required modeling analyses. Data at the TAZ level or at a geography smaller than the jurisdictional level are advisory only and non-binding, because SCAG subjurisdictional forecasts are not to be adopted as part of the 2016 RTP/SCS. For purposes of qualifying for future funding opportunities and/or other incentive programs, sub-jurisdictional data and/or maps used to determine consistency with the Sustainable Communities Strategy shall only be used at the discretion and with the approval of the local jurisdiction. However, this does not otherwise limit the use of the sub-jurisdictional data and/or maps by SCAG, CTCs, Councils of Governments, SCAG Subregions, Caltrans and other public agencies for transportation modeling and planning purposes. Any other use of the sub-jurisdictional data and/or maps not specified herein, shall require agreement from the Regional Council, respective policy committees and local jurisdictions.

Even if the project site, or a portion thereof, was forecasted by SCAG to fall within the "Compact" Land Development Category, the fact that the proposed project is designed more in line with an "Urban" Place Type would only have a positive effect on the implementation of the RTP/SCS, because it would result in additional residential and commercial uses being located within an HQTAs and, thus, less vehicle miles traveled than what was forecasted by SCAG.

The commenter further asserts that the "Town Residential" Place Type is the applicable use designation for the project and that the proposed project is not consistent with this use designation or the corresponding density or building intensity. This assertion is based on a table that is a reference document noted in the "SCS Background Documentation" appendix to the RTP/SCS titled, "Place Types Categorized into Land Development Categories." This table corresponds Place Types with Land Development Categories as applied to the modeling for the RTP/SCS. This table does not apply Place Types to any specific locations or geographies. Moreover, as previously noted, the RTP/SCS does not identify any specific use designations, densities, or building intensities for the project site or any specific location.

In conclusion, the proposed project is a transit priority project that is consistent with RTP/SCS and is, therefore, eligible to utilize the Sustainable Communities Environmental Assessment CEQA document option created by SB 375.

Response to Comment 4

The commenter repeats the request for the GSEJA be added to the public interest list regarding future documents and notices regarding the proposed project.

Per the commenter's request, Golden State Environmental Justice Alliance will be added to the public notification list for the subject project.

Response to Comment 5

The commenter includes maps as supplemental material to their comment letter.

The supplemental material is noted; however, this comment does not pertain to the SCEA and raises no environmental issues specific to the proposed project.

Sanchez, David

From: Laura Ellersieck [REDACTED]
Sent: Friday, March 09, 2018 5:16 AM
To: Sanchez, David
Subject: Comments on Draft SCEA for 3200 E. Foothill Blvd

Letter 7

Mr Sanchez,

The following is my submission of written comments on the Draft SCEA for 3200 East Foothill Blvd. aka "Space Bank".
They are roughly in the same order as the document, not in order of importance.

1

Thank you,

Laura Ellersieck
[REDACTED]

Page 25, Photo 9, Correction.

Caption says "View looking southwest towards the northwest corner of the project site".
It should say the northeast corner.

2

Page 26, first bullet. "Drought tolerant planning"

Is this really meant to say "planning" or is it supposed to be "planting"?
Appears again on page 100.

3

Page 26. Why only "Pre-plumb" for solar water and pool heating?

4

Page 27.

- Description of drainage facilities is confusing given that existing drainage facilities need to be dug up for contamination.
- Has the storm drain taking water offsite "parallel to the 210 freeway" been tested for contamination?

5

6

Page 29, Table 2, Surrounding Land Uses

I object to the fact that for the south, east, and west it lists uses far beyond the immediately adjacent use, but for the north it only mentions PCC-CEC and the narrow parcel width of "assorted retail stores", omitting the single family residential neighborhood beyond. Our neighborhood is much closer then the stuff on the other side of the freeway and the other side of Sierra Madre Villa and, except during Santa Ana conditions, our prevailing breeze comes from

7

the south and only slightly west. (I did note that the noise study section does take into account our residential area).

7

Biological resources section

Pages 66 and 72 only mention the street trees along Foothill: "Vegetation is limited to street trees located parallel to the existing buildings lining Foothill Boulevard."

But there are also street trees on Kinneloa Ave and on page 28 it says that 17 street trees will be removed on Foothill and Kinneloa.

(Seems like the vegetation sentence was copied from something that predates the street trees being planted on Kinneloa).

8

I wonder when a private developer is required to replace street trees they remove, especially mature ones, how much and for how long are they required to insure the replacements are properly cared for and replace them again if they don't survive? Established middle aged trees don't cost the city as much to care for as young ones do.

9

Historic information - page 28

Cultural Resources section pages 80-81.

Cultural Resources Study appendix

The background information has some lofty cut and paste about Pasadena City's wealthy history but makes little mention of the history of this site prior to the era of research usage.

There is no mention at all of the working class of Pasadena, who are often ignored in historical documents. In particular, the inhabitants of what was then unincorporated East Pasadena. This parcel was part of a community which became known to many as Chihuahuita. It was a community largely comprised of people who immigrated, or were from families who immigrated, from Mexico. Many initially worked for the railroad. These workers tended the agriculture and provided the labor to build a lot of those fantastic Pasadena buildings and other infrastructure. They made their homes and raised their families here.

Yet their existence and story is left completely unmentioned in this document. The furniture company and stone works are mentioned. Nothing about the smaller properties and buildings along Titley Ave (now renamed Kinneloa; what was then the northern end of Kinneloa is now an un-named stub street to the west).

10

Elderly neighborhood members I spoke to in the past 12 years had memories from their youth and stories from before them. They had heard that Titley Ave was named after a Mr. Titley, who either owned or controlled a lot of land in the area in the teens to early 20s. There was a grocery store on Titley Ave, which may have had rental bungalows associated with it. They also spoke of a Mexican American Catholic church building with green siding on the corner of Titley and Foothill. It held dances in the late 30s to early 40s which teenagers from all around the area attended even if they were not members of that church. This may well have been the San Juan Church, labeled at the corner of Titley and Foothill on the 1930 Sanborn Fire Insurance Map, Figure 4 in the appendix Cultural Resources Study. (These buildings along Titley appear to still be there in the 1938 and 1949 aerial photographs, figures 5 and 6).

Obviously there aren't any remaining bits of stuff on the site from that period to be preserved, but that doesn't mean the history description should exclude mentioning that part of its history. These environmental documents become a historical document that gets copied forward.

Noise from construction equipment

- There is mention of mufflers, etc, but I didn't see what is often the biggest nuisance noise, that beep-beep-beep from construction vehicles backing up. It travels great distances. This irritating noise can go on for hours on end when earth moving equipment is in use. The noise often seems to be much in excess of what is needed to warn someone in the immediate vicinity of the vehicle. I don't know what the regulations are regarding that noise, but there should be some restriction. 11
- What about the noise of demolishing the existing building slabs? In my experience, that pounding makes a lot more noise and vibration than other construction activities, but I did not notice it mentioned. (I assume there will be no pile driving). 12

Appendix H - Transportation Impact Analysis.

- We want to minimize traffic added to Foothill Blvd. Eastbound is already frequently backed up past the freeway overpass during evening rush hour. The intersection with Sierra Madre Villa is frequently congested.
 - As dictated by the East Pasadena Specific Plan, hundreds of thousands were spent on opening the Kinneloa underpass roughly 10 years ago for the express purpose of mitigating the anticipated increased development on Foothill and Colorado Blvds.
 - A directly adjacent property such as 3200 Foothill should take maximum advantage with direct vehicle access to Kinneloa Ave.
 - For unexplained reasons, the driveway between the parking structure and Kinneloa Ave has been restricted to exit only. This means that vehicles headed from the south for the parking structure must pass it by and enter via Foothill Blvd. This will either cause them to bypass Kinneloa and start adding to the Foothill congestion further away, or cause added congestion at the driveway entrance to the underground parking on Kinneloa, the two signals on Foothill, and then driving all the way south again to the parking structure.
 - If northbound right-turn entry to the parking structure was allowed from Kinneloa, anybody coming from the south or west could easily avoid Foothill. Without it, they have to go north to Foothill one place or another. (It makes sense to disallow left turn entry since such a vehicle would have just been on Foothill Blvd).
- Other than some (unprovided) numbers that were put into a computer model, there is no explanation for how the average daily and peak hour trip numbers were arrived at. 13
- There is no breakdown on how many of those trips are expected to go in each direction, how far they would go, whether they would use the freeway vs staying on surface streets. Does the model generate estimates to that level of detail? 14
- It says the nearest arterial monitoring station for determining traffic impacts is Foothill at Rosemead and for the freeway at Rosemead. Each of these are well east of the project, opposite the most likely direction of travel; but apparently that is considered irrelevant. Foothill Blvd at Sierra Madre Villa is already jammed and it will be further negatively affected. And of course, there is no accounting for other nearby projects that are also in the pipeline. 15
- For vehicle trip mitigation, the development management is to do an annual traffic demand management survey for five years, starting one year after occupancy, to show a minimum reduction of 23% of vehicle 16
- 17

trips. What happens if that cannot be demonstrated? There is no indication that they will be required to take any additional mitigation steps or for a longer time.	17
<ul style="list-style-type: none"> • Traffic Impact Analysis page 3: <ul style="list-style-type: none"> ○ Santa Paula is described as having one traffic lane in each direction plus parking on each side. Not really. Parking is not allowed on some blocks. Where cars are parked on both sides, cars really cannot safely pass each other in the street; they must take turns one at a time. Santa Paula is heavily impacted by PCC-CEC students using it to park when classes are in session; our neighborhood is much nicer than the parking lot, parking is free, and the walk distance to classes is about the same. ○ Why are La Tierra and Alameda mentioned, but not Mataro or Estado, which are just as affected by traffic avoiding the Foothill/Sierra Madre Villa intersection? Sunnyslope Ave is much further away, but I can understand its mention since it is the nearest route to the north from Foothill that does not include Santa Paula or Sierra Madre Villa Ave. 	18
<ul style="list-style-type: none"> • I suggest the developer should be required to install signage at each driveway exit and intersection indicating the preferred route for getting to the 210 West and 210 East. 	19
<ul style="list-style-type: none"> • Development should be required to provide easy-to-notice instructions to each lessee of a parking space which shows the preferred routes to and from the freeway for each travel direction specific to the garage location of the parking space. 	20
	21

Letter 7

COMMENTER: Laura Ellersieck, Resident, City of Pasadena

DATE: March 9, 2018

Response to Comment 1

The commenter introduces written comments on the Draft SCEA and notes that the comments are listed in the same order of appearance as the Draft SCEA, not in order of importance.

The commenter's clarification is noted. This is not a comment on the adequacy of the SCEA and raises no environmental issues related to the proposed project. Specific concerns raised by the commenter are addressed in Responses to Comments 2 to 21.

Response to Comment 2

The commenter states that the caption under Photo 9 on page 25 of the Draft SCEA, which states "View looking southwest towards the northwest corner of the project site," should be corrected to replace "northwest corner" with "northeast corner".

This commenter's correction is accurate. The caption under Photo 9 on page 25 of the SCEA has been revised as follows: "View looking southwest towards the northeast ~~northwest~~ corner of the project site."

Response to Comment 3

The commenter notes that first listed bullet on pages 26 and 100 of the Draft SCEA state "Drought tolerant planting," and questions whether it should say "planting".

This commenter's correction is accurate. The bullets on pages 26 and 100 of the SCEA have been revised as follows: "Drought tolerant planting ~~planting~~."

Response to Comment 4

The comment asks why the sustainability features associated with the proposed project, listed on page 26 of the Draft SCEA, only designate "pre-plumb" for solar water and pool heating.

At this time, solar water and pool heating are not proposed. However, project site infrastructure will accommodate these features at a future undetermined date.

Response to Comment 5

The commenter states that the description of drainage facilities on page 27 of the Draft SCEA is unclear given that existing drainage facilities need to be dug up for contamination.

As stated on page 27 of the SCEA, approximately 75 percent of the project site drains to the southeast portion of the site where there are seepage pits that on-site water filters through before entering the drainage system. Therefore, it is not expected that the drainage facilities are contaminated due to the existing filtration system. Nonetheless, a Remedial Investigation/Feasibility Study (RI/FS) and a Removal Action Work Plan (RAW) have been prepared in coordination with the Los Angeles Regional Water Quality Control Board (LARWQCB) and the California Department of Toxic Substances Control (DTSC) for the remediation of shallow soils at the site. The RAW includes a Soil Management Plan that

requires treatment for unknown contamination or sediment that may be discovered during construction of the project. In addition, we have revised the description on page 27 of the SCEA to clarify the description of the drainage facilities. The revisions are as follows:

Connections for utilities including sewer, water, gas, electric, and telecommunications, would be installed onsite. ~~The proposed project would be able to use existing drainage facilities for flows from the project site.~~ The majority of existing surface drainage on-site flows southeasterly into a “ridged” pavement area. Approximately 25 percent of on-site drainage is directed towards Kinneloa Avenue, with the remaining portions directed towards the southeast corner of the site. Stormwater is then collected and conveyed via concrete swale areas throughout the site. The collected stormwater is then discharged into a storm drain located parallel to the 210 Freeway. The existing drainage system includes seepage pits that on-site water filters through before entering the drainage system that flows directly to the County facility. Therefore, the seepage pits and the portions of the drainage system that lead up to the seepage pits would be removed under the proposed project; however, the portion of the drainage system after the seepage pits that flows to the County drainage facility would remain and would be able to be used for the proposed project. The direction of these drainage flows would remain constant after development of the proposed project. ~~No improvements to drainage facilities would be required as the proposed project would reduce on-site water flows compared to pre-existing site conditions.~~

Response to Comment 6

The commenter asks if the storm drain that is “parallel to the 210 freeway” currently taking water offsite has been tested for contamination.

As discussed in Section 4.8 of the RAW, site investigations identified the seepage pits as hot spots. Therefore, the seepage pits and the portions of the drainage system that lead up to the seepage pits would be removed under the proposed project. See the full response to Comment 5.

Response to Comment 7

The commenter notes that Table 2, *Surrounding Land Uses*, on page 29 of the Draft SCEA does not mention the single-family residential neighborhood located north of the project site beyond the retail stores and Pasadena Community College along Foothill Boulevard.

The single-family residential neighborhood was not listed in Table 2; the nearest residences in this neighborhood are located a minimum of 200 feet north of the project site. Table 2 on page 29 of the SCEA has been revised as shown below to include the single-family residential neighborhood north of the project site. It should be noted that at a distance of 200 feet, this residential neighborhood would not be substantially impacted by the majority of environmental issues analyzed in the SCEA. As indicated by the commenter, Section 13, *Noise*, considers potential impacts to this residential neighborhood.

Table 1 Surrounding Land Uses

Project Area	Surrounding Land Uses
Project site (East of N. Kinneloa Avenue)	<p>North: Foothill Boulevard with assorted retail stores, satellite Pasadena Community College campus, <u>single-family residential neighborhood</u> beyond</p> <p>South: Interstate 210 Freeway with parking lots, CVS Pharmacy, and assorted retail stores beyond</p> <p>East: Kaiser Permanente medical offices, residential apartments, theaters</p>

	West: N. Kinneloa Avenue with the Accessory site, Dewey Pest Control site, and Interstate 210 Freeway beyond
Accessory site (West of N. Kinneloa Avenue)	<p>North: Dewey Pest Control site and Foothill Boulevard, satellite Pasadena Community College campus, and parking lots, <u>single-family residential neighborhood</u> beyond</p> <p>South and West: Interstate 210 Freeway with parking lots, CVS Pharmacy, and assorted retail beyond</p> <p>East: N. Kinneloa Avenue with the main project site, and Kaiser Permanente medical offices beyond</p>

Response to Comment 8

The commenter states that, although pages 66 and 72 of the Draft SCEA mention that vegetation is limited to street trees located parallel to the existing buildings lining Foothill Boulevard, there are also street trees along Kinneloa Avenue. The commenter adds that page 28 of the Draft SCEA states that 17 trees would be removed on Foothill Boulevard and Kinneloa Avenue and wonders whether the statement, found on Pages 66 and 72 of the Draft SCEA, reflected the condition prior to street trees being planted on Kinneloa Avenue.

The commenter’s clarification is accurate. Street trees are currently located along Foothill Boulevard and Kinneloa Avenue. However, as discussed in Section 4, *Biological Resources*, no sensitive biological species are known to use these trees as habitat. In addition, Mitigation Measure BIO-1 would apply to all vegetation removal activities, including removal of street trees on Kinneloa Avenue and Foothill Boulevard, to ensure that there would be no impacts to migratory birds during tree removal. Nonetheless, the following revisions have been made on pages 66 and 72 in Section 4, *Biological Resources*, of the SCEA for further clarification:

On page 66: “The portion of the project site proposed for development is currently a self-storage facility that is surrounded by a Kaiser Permanente medical facility, a pest control facility, auto repair businesses, and other industrial and commercial buildings. There is no vegetation currently on-site apart from street trees that line the project boundaries building frontage along Foothill Boulevard and Kinneloa Avenue. The site does not contain native habitat and does not support any candidate, sensitive, or special-status species.”

On Page 72: “The area proposed for development is an existing self-storage facility located within the East Pasadena Specific Plan area, which is an urbanized portion of Pasadena that does not contain any native habitat. Vegetation is limited to street trees that line the project boundaries along Foothill Boulevard and Kinneloa Avenue ~~located parallel to the existing buildings lining Foothill Boulevard~~. The project site and surrounding area do not support the movement or dispersal of fish or wildlife, do not contain any natural or physical features that connect habitat areas, and do not contain any wildlife nursery sites.”

On Page 72: “The ordinance also aims to protect public trees located at all places within the City as well as mature trees in applicable zoning districts. The project site contains street trees lining Foothill Boulevard and Kinneloa Avenue, all of which are proposed for removal. However, tree removal activities under construction of the proposed project would be conducted in accordance with the removal procedures stipulated in the ordinance, which include acquiring a tree removal permit and giving adequate notice of tree removal activities.”

Response to Comment 9

The commenter wonders about the extent of time a developer is required to maintain replacement trees and replace trees again if they don't survive whenever a project requires tree removal. The commenter notes that established middle aged trees are not as expensive to maintain as young trees.

Landscaping maintenance is not an issue under CEQA and this is not a comment on the adequacy of the SCEA. However, Section 8.52, City Trees and Tree Protection Ordinance, of the Pasadena Municipal Code establishes the requirements for the removal and replacement of trees. Through the City's application process, the City will review the plans for the tree removals and replacement, and will also determine the maintenance requirements for landscaping throughout the project site.

Response to Comment 10

The commenter states that the historical background information on page 28 of the Draft SCEA, pages 80-81 in Section 5, *Cultural Resources*, of the Draft SCEA, and the Cultural Resources Technical Study (Appendix E of the Draft SCEA) do not mention the history of the working class of the City of Pasadena and the project site's history as part of a community largely comprised of people who immigrated from Mexico. The commenter adds a discussion of stories heard from elderly residents in the community that are related to the history of Titley Avenue (now known as Kinneloa Avenue) and adjacent buildings.

The project site is currently occupied by the Space Bank Mini Storage Facility, but was historically used as a research and development center for underwater ordnance. As discussed in Section 5, *Cultural Resources*, of the SCEA, weapons research and development was typically a collaborative process that included the efforts of military personnel, private contractors, and universities, and set the most appropriate theme to which to evaluate the cultural significance of the project site. As such, the period of significance for this theme generally follows the timeline of the Cold War, beginning in 1946 and ending in 1989. Although a brief discussion is included about the City's history, the historical background provided in the Cultural Resources Technical Study and SCEA largely focuses on the military-related history that is specific to the project site.

Response to Comment 11

The commenter states that the construction noise analysis in Section 13, *Noise*, of the Draft SCEA does not discuss the "beep-beep-beep" noise associated with construction vehicles that are in reverse. The commenter states that this noise is irritating and often in excess of what is needed to warn someone on the construction site, and adds that there should be a restriction to regulate this noise.

The commenter's suggestion is noted; however, this "beeping" noise would occur only intermittently during construction of the proposed project and would not alter the overall noise level estimates provided in the SCEA. It should also be noted that the purpose of the "beeping" noise is to be excessively audible to effectively warn nearby construction workers, pedestrians, and other vehicles of a heavy-duty vehicle moving in reverse. It is understood that the "beeping" noise can be a temporary annoyance for nearby noise-sensitive receptors; however, this noise universally helps prioritize and ensure overall safety on and near project sites during construction periods.

Response to Comment 12

The commenter states that construction noise and vibration generated from the demolition of existing concrete slabs on the project site is not included in the construction noise analysis, and adds that the associated "pounding" creates more noise and vibration than other construction activities.

Potential noise and vibration impacts from demolition were in fact analyzed in the SCEA. The construction equipment included in the construction noise and vibration analysis in Section 13, *Noise*, of the SCEA was compiled based on construction and engineering information provided by the applicant for the project and CalEEMod Version 2016.3.2 defaults for construction of mixed-use

residential and commercial project. As shown in Table 27 of the SCEA, the demolition phase of project construction includes an excavator, which would be used to break apart the asphalt surface on the project site. Use of the excavator would generate noise levels up to 75 dBA Lmax at 100 feet from the source, which is less than the 85 dBA maximum noise level allowed under Pasadena Municipal Code Section 9.36.070 (see Table 27). As shown in Table 22 of the SCEA, the construction vibration analysis includes a subset of construction equipment that would generate the highest vibration impacts, which consist of a large bulldozer, loaded trucks, and a small bulldozer. Operation of these pieces of equipment would exceed the applicable vibration thresholds at various distances; however, Mitigation Measures N-1 and N-2 would reduce vibration impacts below thresholds.

Response to Comment 13

The commenter states that eastbound Foothill Boulevard and its intersection with Sierra Madre Villa are frequently congested with traffic. The commenter adds that the proposed access drive off Kinneloa Avenue is restricted to exit only, which would cause vehicles to bypass Kinneloa to enter the project site via Foothill Boulevard and increase congestion on Foothill Boulevard and Kinneloa Avenue. The commenter states that people arriving at the project site from the south or west could avoid Foothill Boulevard if northbound right-turn entry to the parking structure were allowed from Kinneloa Avenue.

The Kinneloa Avenue driveway access operations have been revised to both operate as inbound and outbound driveways. The northerly Kinneloa Avenue driveway is still proposed to operate as both an entrance and exit driveway. The southerly Kinneloa Avenue driveway is revised to allow northbound right-turn entry only, and unrestricted exit. Southbound entry will be restricted at the southerly Kinneloa Avenue driveway will be restricted with no left-turn signage for southbound vehicles and a raised median installed in private property.

Response to Comment 14

The commenter states that the Transportation Impact Analysis (Appendix H of the Draft SCEA) does not explain how the average daily and peak hour trip numbers were calculated.

According to page 8 of the Transportation Impact Analysis, the City's calibrated travel demand forecasting model (TDF) built on SCAG's regional model was used to analyze the incremental changes in vehicle miles traveled (VMT) per capita and vehicle trips (VT) per capita associated with implementation of the proposed project. The TDF model uses TransCAD software that simulates traffic levels and travel patterns for the City of Pasadena. The program consists of input files that summarize the City's land uses, street network, travel characteristics, and other key factors. Using this data, the model performs a series of calculations to determine the amount of trips generated, the beginning and ending location of each trip, and the route taken by the trip. The project's impacts on the transportation system are analyzed using the calibrated TDF model. The results are based on the project's vehicular and non-vehicular trip generation characteristics, trip length, and its interaction with other surrounding/citywide land uses, and the City's transportation network.

The Transportation Impact Analysis also analyzes the project's regional transportation impacts based on Congestion Management Program guidelines for Los Angeles County. According to page 10 of the Transportation Impact Analysis, the project would generate 3,648 daily trips, 344 AM peak hour trips, and 333 PM peak hour trips. The proposed project's daily and peak hour trips were calculated based on Institute of Transportation Engineers (ITE) trips rates for the proposed land uses.

The table below summarizes the trip generation calculation data:

Responses to Comments on the Draft Sustainable Communities Environmental Assessment

Trip Generation Rates (proposed)											
Proposed Use	Land Use Code	Amount	Units	Measure	Daily	AM Peak Hour			PM Peak Hour		
						In	Out	Total	In	Out	Total
Apartment	220	550	DU	1	6.65	0.10	0.41	0.51	0.40	0.22	0.62
Retail	San Diego	5,800	SF	1000	40.00	0.72	0.48	1.20	1.80	1.80	3.60
High-Turnover (Sit-Down) Restaurant	932	4,000	SF	1000	127.2	5.99	5.53	11.52	6.58	4.57	11.15

Trip Generation Rates (previous)											
Previous Use	Land Use Code	Amount	Units	Measure	Daily	AM Peak Hour			PM Peak Hour		
						In	Out	Total	In	Out	Total
Space Bank Site**						See Note Below					

Volumes											
Proposed Use	Land Use Code	Amount	Units	Measure	Daily	AM Peak Hour			PM Peak Hour		
						In	Out	Total	In	Out	Total
Apartment					3658	56	224	281	222	119	341
Retail					232	4	3	7	10	10	21
High-Turnover (Sit-Down) Restaurant					509	24	22	46	26	18	45
Total Project Trips					4398	84	280	399	258	148	406
Internal Trip Capture	0%				0	0	0	0	0	0	0
Walk-In	0%				0	0	0	0	0	0	0
Transit Trips	5%				220	4	14	20	13	7	20
Pass-By Trips	0%				0	0	0	0	0	0	0
Net Project Vehicle Trips					4178	80	266	379	245	141	386

Volumes											
Previous Use	Land Use Code	Amount	Units	Measure	Daily	AM Peak Hour			PM Peak Hour		
						In	Out	Total	In	Out	Total
Space Bank Site**					530	19	16	35	26	27	53
Net Project Vehicle Trips					530	19	16	35	26	27	53

					3648	61	250	344	219	114	333
Less CMP Transit Adjustment (5%)											

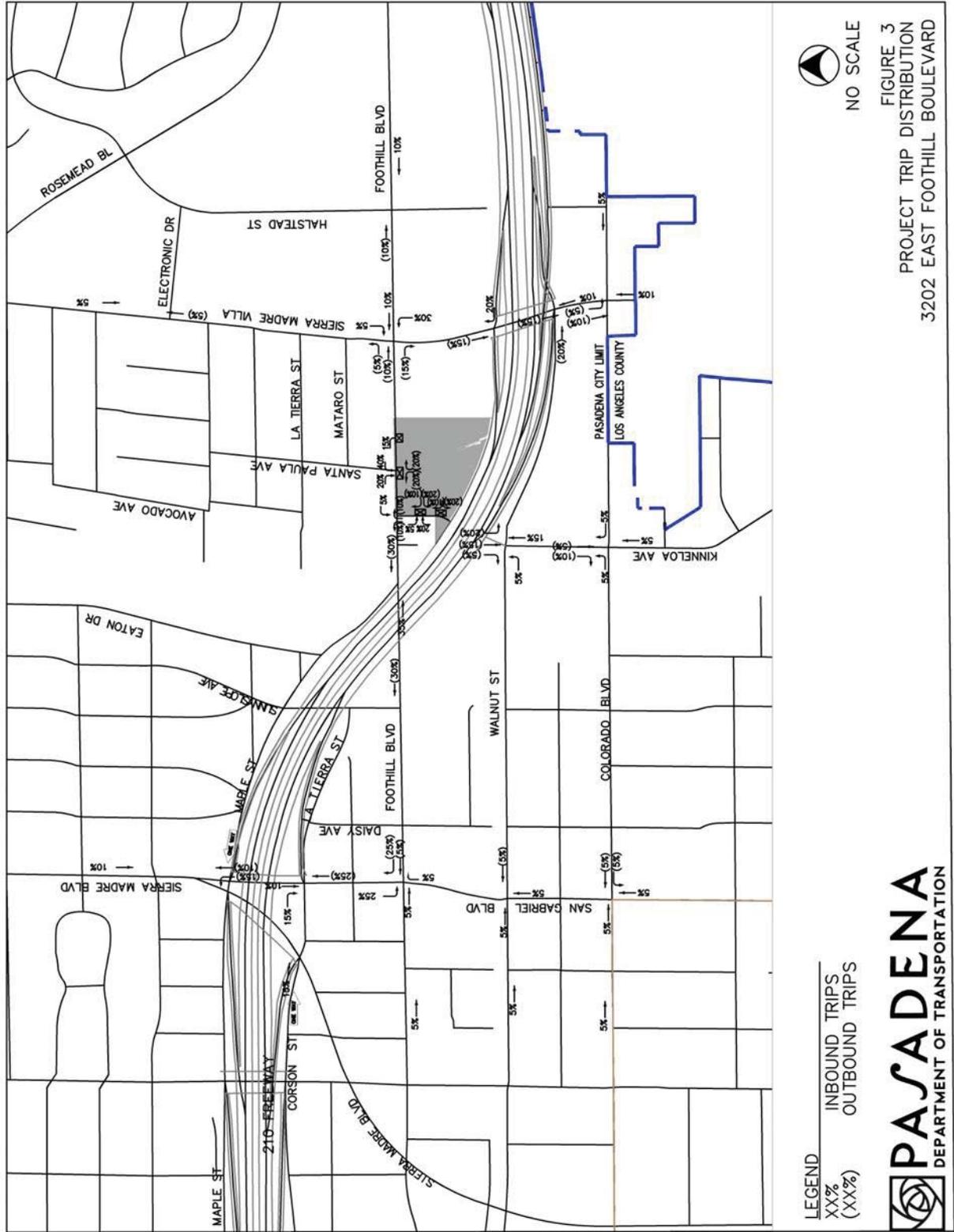
** Trip generation for the existing Space Bank land use based on existing weekday AM and PM peak period driveway traffic counts conducted by City Traffic Counters on Wednesday, October 12, 2016. See Appendix for a summary of the existing site driveway counts. Daily trip ends volume derived from the assumption that PM peak hour-traffic volume represents ten percent (10%) of the daily traffic volume.

Response to Comment 15

The commenter states that there is no breakdown of how trips would be distributed from the project site and questions whether the models used for the Transportation Impact Analysis generate estimates to that level of detail.

Refer to Response to Comment 14, which discusses how the City’s TDF program analyzes a project’s traffic impacts.

Also, the following figure describes how, in the Transportation Impact Analysis, the project trips were distributed:



Response to Comment 16

The commenter notes that, according to the Transportation Impact Analysis, the nearest arterial monitoring station for determining traffic impacts is Foothill Boulevard at Rosemead Boulevard, and City of Pasadena

the nearest mainline freeway monitoring station is at Rosemead Boulevard. The commenter states that both locations are east of the project site, and also located opposite the most likely direction of travel for project-generated trips. The commenter adds that Foothill Boulevard at Sierra Madre Villa is already congested and would be further negatively affected by the proposed project.

The latest Congestion Management Program (CMP) for Los Angeles County requires local jurisdictions to consider the regional transportation impacts that may result from major development projects through the local land use approval process. The geographic area examined in the traffic study must include the following, at minimum:

- All CMP arterial monitoring intersections where the proposed project will add 50 or more trips during either the AM or PM weekday peak hours of adjacent street traffic
- If CMP arterial segments are being analyzed rather than intersections, the study area must include all segments where the proposed project will add 50 or more peak hour trips.
- Mainline freeway monitoring locations where the project will add 150 or more peak hour trips
- Caltrans must also be consulted through the Notice of Preparation (NOP) process to identify other specific locations to be analyzed on the state highway system.

The arterial monitoring station locations in Pasadena are:

- Arroyo Parkway at California Boulevard (CMP ID 119)
- Pasadena Avenue/ St John Avenue at California Boulevard (CMP ID 120)
- Rosemead Boulevard at Foothill Boulevard (CMP ID 121)

The mainline freeway monitoring locations in Pasadena are:

- 110 Freeway at Pasadena Avenue (CMP Station 1050)
- 134 Freeway west of San Rafael Avenue (CMP Station 1056)
- 210 Freeway west of Routes 134 and 710 (CMP Station 1060)
- 210 Freeway at Rosemead Boulevard (CMP Station 1061)

The studied monitoring stations are the nearest to the project site. As discussed on page 10 of the Transportation Impact Analysis the project would not add a significant number of trips to either monitoring station based on Congestion Management Program criteria. The City of Pasadena also conducted a Non-CEQA Transportation Impact Analysis for City use to identify if neighborhood protection measures are appropriate. However, the Non-CEQA analysis does not assess transportation impacts pursuant to CEQA.

Response to Comment 17

The commenter notes that, for vehicle trip mitigation, the developer is required to do an annual traffic demand management survey for five years, starting one year after project occupancy, to show a minimum reduction of 23% of vehicle trips. The commenter asks what would happen if a reduction is not achieved and adds that the Transportation Impact Analysis does not indicate that the developer would be required to take any additional mitigation measures to reduce vehicle trips.

The project has been conditioned to implement TDM measures above and beyond the City's Trip Reduction Ordinance (TRO) requirements to reduce the project impact to a less than significant level. Based on guidance provided by the California Air Pollution Control Officers Association (CAPCOA) in the *Quantifying Greenhouse Gas Measures* manual and on the professional judgement of the City's DOT, the additional TDM measures would reduce the project's vehicle trips/capita to below the City's threshold of significance. Mitigation Measure TRA-1 further includes a TDM survey requirement to maximize the effectiveness of TDM Plan. As identified by CAPCOA, a TDM survey can further reduce vehicle usage by enhancing the effectiveness of the TDM plan. The TDM annual survey required by City's TRO allows staff to monitor the effectiveness of the TDM measures and adjust them as needed. DOT believes the required vehicular trip reductions are attainable.

Response to Comment 18

The commenter notes that, although page 3 of the Transportation Impact Analysis states that Santa Paula Avenue is described as having one traffic lane in each direction plus parking on each side, parking is not allowed on some blocks of Santa Paula Avenue. The commenter states that, where cars are parked on both sides, cars cannot safely pass each other in the street and must take turns. The commenter adds that Santa Paula Avenue is impacted by Pasadena Community College students that park along the street when classes are in session.

As discussed on page 3 of the Transportation Impact Analysis, Santa Paula Avenue is described as having one through travel line for each direction of travel with parking generally allowed on both sides of the roadway in the project vicinity. The proposed project would accommodate the project's parking needs on-site; therefore, it would not add to the students currently parking along Santa Paula Avenue. In addition, it should be noted that parking is not an environmental issue under CEQA.

Response to Comment 19

The commenter asks why page 3 of the Transportation Impact Analysis only mentions La Tierra Street and Alameda Street, but not Mataro Street or Estado Street, which would also be affected by traffic avoiding the Foothill Boulevard and Sierra Madre Villa intersection.

To protect the neighborhood to the north of the project and residents along streets noted by commenter, the project has been conditioned to modify the existing traffic signal and construct a raised median to prohibit project's vehicular trip to and from Santa Paula Street north of Foothill Boulevard.

Response to Comment 20

The commenter suggests that the developer should be required to install signage at each driveway exit and intersection that indicates the preferred route for getting to the 210 Freeway heading both west and east.

The commenter's suggestion is noted.

Response to Comment 21

The commenter suggests that the developer should be required to provide easy-to-notice instructions to each lessee of a parking space showing the preferred routes to and from the freeway for each direction of travel.

The commenter's suggestion is noted.

Letter 8

MILA A. BUCKNER
DANIEL L. CARDOZO
CHRISTINA M. CARO
THOMAS A. ENSLOW
TANYA A. GULESSERIAN
MARC D. JOSEPH
RACHAEL E. KOSS
COLLIN S. MCCARTHY
LINDA T. SOB CZYNSKI

ADAMS BROADWELL JOSEPH & CARDOZO

A PROFESSIONAL CORPORATION
ATTORNEYS AT LAW
601 GATEWAY BOULEVARD, SUITE 1000
SOUTH SAN FRANCISCO, CA 94080-7037

TEL (650) 589-1660
FAX (650) 589-5062
nigian@adamsbroadwell.com

SACRAMENTO OFFICE
520 CAPITOL MALL, SUITE 350
SACRAMENTO, CA 95814-4721
TEL (916) 444-6201
FAX (916) 444-6209

March 26, 2018

Via Email and Overnight Mail

David Sanchez, Senior Planner
City of Pasadena
175 N. Garfield Avenue
Pasadena, CA 91101
dasanchez@cityofpasadena.net

**Re: Comments on the Draft Sustainable Communities
Environmental Assessment- 3200 E. Foothill Boulevard Mixed Use
Project**

Dear Mr. Sanchez:

Please accept these comments on behalf of Coalition for Responsible Equitable Economic Development ("CREED LA") regarding the City of Pasadena's ("City") Sustainable Communities Environmental Assessment (SCEA) for the proposed 3200 East Foothill Boulevard Mixed Use Project ("Project") proposed by Pasadena Gateway, LLC ("Applicant"). The Project proposes to demolish 29 existing structures on the Project site and construct eight separate mixed-use buildings, subterranean and above-ground parking structures, and landscaping. The proposed buildings would include a total of 550 apartment units and 9,800 square feet of retail space. The Project also proposes to develop a 0.21-acre accessory site for recreational use. The Project site address is 3200 East Foothill Boulevard, Pasadena, Los Angeles County, CA (Zoning District EPSP-D2-IG-B-4). The APNs are 5752-023-039 and 5752-023-044.

The SCEA and public notices state that the Project requires the following discretionary actions of the City of Pasadena: (1) a Zoning Map Amendment (Planned Development application) to change the Zoning Designation from EPSP-D1-IG (East Pasadena Specific Plan subarea d1, General Industrial District) to PD (Planned Development) and establish a Planned Development Plan; (2) a Public Tree Removal Permit to allow the removal of 17 street trees along Foothill Boulevard and Kinneloa Avenue; and (3) a Design Review Permit to approve the

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Project design for consistency with the Zoning Code and Design Guidelines (collectively, "Project Approvals"). In addition, the Project site requires approval of a Removal Action Workplan ("RAW") by the Department of Toxic Substances Control ("DTSC") to allow for the removal of on-site contaminants to levels protective of human health and the environment.

1

The SCEA and public notices are incorrect. The Project actually requires a Zoning Map Amendment to change the zoning designation from EPSP-D2-IG (East Pasadena Specific Plan subarea d2, General Industrial District) to PD (Planned Development) and a Planned Development Plan.

In addition, as explained more fully below, the SCEA prepared for the Project is significantly flawed and does not comply with the requirements of the California Environmental Quality Act ("CEQA"), Public Resources Code section 21000 *et seq.* Moreover, no substantial evidence supports the City's conclusion that the Project will result in less than significant impacts. In addition, substantial evidence shows that the Project would result in significant impacts from hazards and air quality. The City may not approve the Project until the City prepares a sustainable communities environmental impact report ("SCEIR") that adequately analyzes the Project's significant and potentially significant impacts and incorporates all feasible mitigation measures to reduce those impacts to less than significant levels.

2

We prepared these comments with the assistance of air quality expert Hadley Nolan and hazardous materials expert Matt Hagemann, P.G., C.Hg. of Soil / Water / Air Protection Enterprise ("SWAPE"). SWAPE's technical comments and curriculum vitae are attached hereto as Exhibit A and are fully incorporated herein.

3

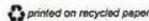
We urge the City to reject the SCEA and direct staff to prepare an SCEIR to evaluate the Project's unmitigated, significant and potentially significant impacts.

I. STATEMENT OF INTEREST

CREED LA is an unincorporated association of individuals and labor organizations that may be adversely affected by the potential public and worker health and safety hazards, and the environmental and public service impacts of the Project. The coalition includes the Sheet Metal Workers Local 105, International Brotherhood of Electrical Workers Local 11, Southern California

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Pipe Trades District Council 16, along with their members, their families, and other individuals who live and work in the City of Pasadena.

Individual members of CREED LA and its member organizations include Carlos Blas De La Torre, Christian Blas, Mario Polanco, Oscar Blas, Erik Flores, Fernando Medina, Tarik Streetz, Shomari Davis and Jose Pina. These individuals live, work, recreate, and raise their families in the City of Pasadena and surrounding communities. Accordingly, they would be directly affected by the Project's environmental and health and safety impacts. Individual members may also work on the Project itself. They will be first in line to be exposed to any health and safety hazards that exist onsite.

4

In addition, CREED LA has an interest in enforcing environmental laws that encourage sustainable development and ensure a safe working environment for its members. Environmentally detrimental projects can jeopardize future jobs by making it more difficult and more expensive for business and industry to expand in the region, and by making the area less desirable for new businesses and new residents. Indeed, continued environmental degradation can, and has, caused construction moratoriums and other restrictions on growth that, in turn, reduce future employment opportunities.

II. LEGAL BACKGROUND

CEQA requires that an agency analyze the potential environmental impacts of its proposed actions in an environmental impact report ("EIR") (except in certain limited circumstances).¹ The EIR is the very heart of CEQA.² "The foremost principle in interpreting CEQA is that the Legislature intended the act to be read so as to afford the fullest possible protection to the environment within the reasonable scope of the statutory language."³

5

CEQA has two primary purposes. First, CEQA is designed to inform decision makers and the public about the potential, significant environmental effects of a project.⁴ "Its purpose is to inform the public and its responsible officials of the

¹ See, e.g., PRC § 21100.

² *Dunn-Edwards v. BAAQMD* (1992) 9 Cal.App.4th 644, 652.

³ *Comtys. for a Better Env' v. Cal. Res. Agency* (2002) 103 Cal. App.4th 98, 109 ("*CBE v. CRA*").

⁴ 14 CCR § 15002(a)(1).
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environmental consequences of their decisions before they are made. Thus, the EIR “protects not only the environment but also informed self-government.”⁵ The EIR has been described as “an environmental ‘alarm bell’ whose purpose it is to alert the public and its responsible officials to environmental changes before they have reached ecological points of no return.”⁶

Second, CEQA requires public agencies to avoid or reduce environmental damage when “feasible” by requiring “environmentally superior” alternatives and all feasible mitigation measures.⁷ The EIR serves to provide agencies and the public with information about the environmental impacts of a proposed project and to “identify ways that environmental damage can be avoided or significantly reduced.”⁸ If the project will have a significant effect on the environment, the agency may approve the project only if it finds that it has “eliminated or substantially lessened all significant effects on the environment where feasible” and that any unavoidable significant effects on the environment are “acceptable due to overriding concerns.”⁹

5

The Sustainable Communities Environmental Assessment (“SCEA”) is a form of CEQA document that was established by SB 375. Its goal is not to undercut or circumvent CEQA requirements, but to provide incentive for Transit Priority Projects (“TPPs”) that are consistent with a larger effort to reduce GHG emissions by providing a streamlined channel for such projects. Thus, the SCEA must comply with CEQA’s informational goal, as well as with CEQA’s goal to reduce or avoid adverse environmental impacts when feasible. As explained below, while the City may use the streamlined process provided for TPPs under CEQA section 21155.2, an SCEA is not the proper CEQA document in this case. Instead, the City is required to prepare a sustainable communities environmental impact report (“SCEIR”) in order to fully analyze and mitigate the Project’s impacts.

⁵ *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal. 3d 553, 564.

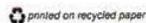
⁶ *Berkeley Keep Jets Over the Bay v. Bd. of Port Comm’rs.* (2001) 91 Cal. App. 4th 1344, 1354 (“*Berkeley Jets*”); *County of Inyo v. Yorty* (1973) 32 Cal.App.3d 795, 810.

⁷ 14 CCR§ 15002(a)(2) and (3); see also *Berkeley Jets*, 91 Cal.App.4th at 1354; *Citizens of Goleta Valley*, 52 Cal.3d at 564.

⁸ 14 CCR §15002(a)(2).

⁹ PRC § 21081; 14 CCR § 15092(b)(2)(A) & (B).

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**III. THE PROJECT WILL BE DETRIMENTAL TO PUBLIC HEALTH AND
THUS DOES NOT QUALIFY FOR PLANNED DEVELOPMENT
REZONE**

The proposed Project would be located on a site zoned as IG – General Industrial District – in the East Pasadena Specific Plan (“the Specific Plan” or “EPSP”). The General Industrial District *does not allow* for residential, mixed-use projects.¹⁰ Therefore, the Applicant proposes to rezone the industrial site to Planned Development (“PD”) in order to override the Specific Plan Zoning.¹¹

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The process of approving a rezone to a PD requires the City Council, among other things, to make a finding that “(t)he proposed amendment would not be detrimental to the public interest, health, safety, convenience, or general welfare of the City.”¹² As described below, the Project is located on a site that was historically used by the U.S. Navy for research and development of weapon systems. As a result, a long list of contaminants of concern (COCs) exist on the site at levels which exceed allowed health risk levels, and extensive remedial actions are required. Also as described below, no substantial evidence supports the City’s conclusion that the COCs on the site will be brought to a level that will not pose a risk to human health. Therefore, the City lacks substantial evidence to support a finding that “(t)he proposed amendment would not be detrimental to the public interest, health, safety, convenience, or general welfare of the City.”¹³

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**IV. THE PROJECT FAILS TO COMPLY WITH THE EAST PASADENA
SPECIFIC PLAN**

The proposed Project also conflicts with the Specific Plan goals. The SCEA superficially describes the Specific Plan as a plan which “promotes new development that balances the needs of residential and commercial uses while preserving the quality of life in the area in terms of existing air quality, traffic, safety, and sense of community.” However, the Specific Plan chapter which lists the “Purposes of the EPSP Zoning Districts”, clearly explains that the vision for the

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¹⁰ East Pasadena Specific Plan, p. 5.
¹¹ Pasadena Zoning Code §17.26.020.C.
¹² Pasadena Zoning Code, §17.74.070.B.
¹³ Pasadena Zoning Code, §17.74.070.B.
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area is for primarily commercial and industrial use. Purposes C, D, E, F and G all point to a distinctive commercial and industrial purpose, including:

“Allow sufficient expansion opportunities for businesses to grow and to maintain quality job opportunities (...) [s]trengthen the City’s tax and employment base by supporting and protecting existing industrial uses (...) and [s]ustain and create business development opportunities (...).”¹⁴

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The EPSP allows for limited residential development; however in subarea d2, where the Project is located, it calls for mixed use development “in appropriate areas.”¹⁵ Clearly this area, with its history of use as a research and testing site for weapon systems, and its resulting situation of heavily contaminated soils and soil gas, is not such an appropriate area.

V. THE SCEA FAILS TO ADEQUATELY DISCLOSE, ANALYZE, AND MITIGATE SIGNIFICANT HAZARDOUS MATERIALS IMPACTS

A. The SCEA violates CEQA by incorporating mitigation measures into the Project description.

CEQA requires the City’s environmental document to disclose, investigate and analyze the Project’s potentially significant impacts. The SCEA fails to do so by impermissibly compressing the analysis of the impacts and mitigation measures into a single issue under the Project description, instead of properly analyzing the impacts and discussing possible mitigation in the relevant discussion section.

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In *Lotus v. Department of Transportation*, an EIR approved by CalTrans contained several measures “[t]o help minimize potential stress on the redwood trees” during construction of a highway.¹⁶ Although those measures were clearly separate mitigation, the project proponents considered them “part of the project,” and the EIR concluded that because of the planned implementation of those measures, no significant impacts were expected.¹⁷ However, the Appellate Court

¹⁴ East Pasadena Specific Plan, section 17.32.020.

¹⁵ East Pasadena Specific Plan, section 17.32.020.O.

¹⁶ *Lotus v. Department of Transportation* (2014) 223 Cal.App.4th 645, 650.

¹⁷ *Id.*, at 651.

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found that because the EIR had “compress[ed] the analysis of impacts and mitigation measures into a single issue, the EIR disregard[ed] the requirements of CEQA.”¹⁸

The SCEA suffers from the same critical flaw. The Project is located on a site that was used by the navy for testing and scientific work involving classified materials, torpedoes, and other weapon systems.¹⁹ As a result, hazardous materials are present “in soil and soil vapor, and potentially in groundwater beneath the property.”²⁰ These hazardous materials include chemicals which may pose extreme health risks to humans and to the environment, and include, among other toxic contaminants, arsenic, lead, volatile organic compounds and perchlorate.²¹ After listing the contaminants of concern (“COCs”) on the site, the SCEA’s Project Description states:

“Based on the findings of previous site assessments and in response to DTSC requirements, Ninyo & Moore developed a RI/FS and a RAW. The proposed Project includes implementing these documents. Accordingly, the following remediation measures would be implemented as part of the Project to address COCs during redevelopment activities.”²²

At this point, the SCEA’s Project Description describes the two main remedial actions: 1) storm drain system and associated contaminated sediments removal and 2) impacted soil excavations. The Project Description includes the estimated volumes of soil that will be excavated but states that “[e]xcavations may be adjusted based on field conditions.”²³ Also, in the Project Description section, the SCEA states that, following the excavations, more soil gas surveys will be conducted, and further steps may be required depending on the results. Further steps range from more excavations, to the installment of passive systems to prevent VOC’s migration, to the conversion of those systems to active systems.

In section 3, named “Incorporation of Feasible Mitigation Measures, Performance Standards, and Criteria from Prior Applicable EIRs,” the SCEA

¹⁸ *Id.*, at 656.

¹⁹ SCEA, p. 8.

²⁰ SCEA, p. 10.

²¹ SCEA, p. 12-13.

²² SCEA, p. 14

²³ SCEA, p. 14

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purportedly describes the Project's potential impacts and applicable mitigation measures. Under the "Hazards and Hazardous materials" section of the "environmental checklist," the City analyzes the potential impacts associated with hazardous substances.²⁴ In particular, CEQA requires the City to discuss and analyze whether the Project would "be located on a site included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?"²⁵

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In the paragraphs that follow, the SCEA acknowledges that the Project is located on a site that is listed as a State Response facility and as a Formerly Used Defense Site on the DTSC EnviroStor database and Cortese list, and as a Military Cleanup Site on the State Water Resources Control Board GeoTracker database. It also briefly repeats the list of COCs that were identified on the site, including metals, VOCs, dioxins and furans, PAHs, and perchlorate.²⁶ However, without describing the contaminant levels as compared to thresholds of significance, explaining what those exceedances mean to the public and the environment and disclosing the significant hazards to the public and the environment, the SCEA merely concludes:

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"Given the levels of contamination present at the project site, operation of the proposed project could expose construction workers and potential future residents to contaminated soil vapor, soil, and groundwater. However, planned remedial excavation activities as outlined in the RAW and RI/FS, discussed in the Project Description, would reduce contaminant levels for identified COCs to be less than significant. Implementation of the assessment and remedial activities as outlined in the RAW would reduce health risks to levels that would allow for residential use."²⁷

In other words, the SCEA's brief paragraph comprises the whole analysis of the significant impacts from the long list of COCs that were identified on the site. The SCEA then moves on to discuss other hazards that were not addressed in the RAW

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²⁴ SCEA p. 119.

²⁵ SCEA p. 124; CEQA Guidelines, Appendix G, VIII(d).

²⁶ SCEA p. 124

²⁷ SCEA p. 125

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or RI/FS (i.e., the water in the anechoic chamber and the possible groundwater contamination).

The SCEA's paragraph and its reference to the Project Description clearly violate CEQA and the court's directive in *Lotus*. When criticizing the agency's failure to identify any standards of significance, the *Lotus* court held:

"Caltrans compounds this omission by incorporating the proposed mitigation measures into its description of the project and then concluding that any potential impacts from the project will be less than significant. As the trial court held, the "avoidance, minimization and/or mitigation measures," as they are characterized in the EIR, are not "part of the project." They are mitigation measures designed to reduce or eliminate the damage...[a]bsent a determination regarding the significance of the impacts... it is impossible to determine whether mitigation measures are required or to evaluate whether other more effective measures than those proposed should be considered."²⁸

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Similarly, CEQA requires an SCEA to "contain measures that either avoid or mitigate to a level of insignificance all potentially significant or significant effects of the project required to be identified in the initial study."²⁹ Just like for projects requiring an EIR – where the agency can approve the project if it finds "[c]hanges or alterations have been required in, or incorporated into, the project which mitigate or avoid the significant effects" – this Project and the SCEA may be approved if the City finds that "[c]hanges or alterations have been required in or incorporated into the project that avoid or mitigate the significant effects to a level of insignificance."³⁰ In either case, making the required finding is impossible without first identifying, analyzing and assessing the level of significance of each impact and considering mitigation measures. All this, as the *Lotus* court indicated, has to be done in a *separate* discussion of mitigation measures, and cannot be incorporated into the project's description. The SCEA, by settling for a short description of crucial mitigation measures within the project description, and without analyzing the impacts and the proposed mitigation, violates CEQA.

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²⁸ *Lotus v. Department of Transportation*, 223 Cal.App.4th at 655-656.

²⁹ PRC § 21155.2(b)(2).

³⁰ Compare PRC §21081(a)(1) and PRC § 21155.2(b)(5)(B)(i). Alternatively, just like for an EIR, the City may find that such changes are within the responsibility of another agency. (Compare PRC §21081(a)(2) and PRC § 21155.2(b)(5)(B)(ii).)

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B. The City lacks substantial evidence to support the conclusion that the Project's impacts are less than significant.

1. The City lacks substantial evidence to support the conclusion that impacts from hazardous materials are less than significant.

As described above, in the Environmental Checklist section of the SCEA, the City analyzes the Project's impacts from hazards and hazardous substances. In particular, CEQA requires the City to analyze whether the project would "be located on a site included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?" The SCEA acknowledges that the Project is located on a listed site.³¹ However, the City concludes that the impact would be "less than significant with mitigation incorporated." As shown below, the City's conclusion is not supported by substantial evidence.

a. VOCs in the soil pose a potentially significant impact which is not mitigated in the SCEA.

In the Project Description section, the SCEA acknowledges the presence of volatile organic compounds ("VOCs") in the soil vapor at levels which exceed the DTSC Human Health Screening Levels. However, in the SCEA's analysis of the associated impacts, it is clear that the magnitude of the risk is not yet known and, ultimately, the Project's measures that may be implemented to reduce the risk would not ensure the risk would be mitigated to a less than significant level.

Regarding the presence of VOCs in soil vapor, the SCEA's Project Description states:

"Tetrachloroethylene (PCE), trichloroethylene (TCE), and carbon tetrachloride exceeded the DTSC California Human Health Screening Levels (CHHSL) of 0.470 µg/L, 1.3 µg/L, and 0.063 µg/L, respectively, for residential soil vapor at various locations throughout the site. Concentrations of carbon tetrachloride, PCE, TCE and dibromochloromethane in soil vapor exceed the cancer risk and hazard index set forth by the US EPA. PCE and carbon

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³¹ SCEA p. 124.
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tetrachloride have been detected at depths up to 150 feet below grade in soil vapor.” (SCEA p. 12)

The SCEA’s Project Description then describes the steps that would be implemented to address the risk from VOCs. As it turns out, more soil gas surveys would be conducted and, depending on the results, step-out excavations may be needed. Then, after site-wide grading, another survey would be conducted, and again, depending on the results, systems to prevent the migration of VOCs into indoor air would be installed on the Project site. The systems would be passive but, again depending on the results of yet another survey, may be converted to active systems:

“Following remedial excavation activities and prior to mass grading of the site, Ninyo & Moore would conduct a soil gas survey. Results of the survey would be used to conduct a Human Health Risk Assessment to evaluate if VOCs in soil gas pose a vapor intrusion health risk. If soil vapor concentrations detected during the initial soil gas survey exceed health risk criteria, i.e., a calculated cancer risk greater than 1×10^{-6} and/or hazard index greater than 1, Ninyo & Moore would conduct step-out excavations, per the RAW. An additional soil gas survey would be conducted after step-out excavations and site-wide grading have been conducted. If a human health risk remains, passive systems to prevent the migration of VOCs into indoor air would be installed at the site, per Ninyo & Moore’s 2017 RI/FS. The system may include impermeable vapor barriers and subslab passive venting systems. The venting system would be designed so that it could be converted to an active venting system if the passive system does not reduce VOC contaminant levels to below health risk thresholds. An active venting system would include the use of fans to depressurize the subslab area, thus actively removing vapors from beneath the building. Based on information provided by the DTSC, if passive or active systems are utilized to prevent vapor migration, a Land Use Covenant would be required, and recorded, and an Operation and Maintenance (O&M) Plan would be developed for the systems.³²

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There are three problems with this description of the Project’s mobilization of VOC contaminated soil and construction and operation of the Project on soils with VOCs in soil vapor.

³² SCEA, p. 14
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First, in the SCEA's analysis of the Project's potentially significant impacts, the City acknowledges the VOCs on site require remediation,³³ but *ignores completely* the significance of the impact to the public, the aforementioned plan and how that plan would mitigate impacts to below significance thresholds. In fact, the SCEA fails to include *any* mitigation measure that directly addresses the VOCs and the significant risk they pose to the public, including workers and residents, as a result of Project construction and operation. Instead, the SCEA states:

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"Given the levels of contamination present at the project site, operation of the proposed project could expose construction workers and potential future residents to contaminated soil vapor, soil, and groundwater. However, planned remedial excavation activities as outlined in the RAW and RI/FS, discussed in the Project Description, would reduce contaminant levels for identified COCs to be less than significant. Implementation of the assessment and remedial activities as outlined in the RAW would reduce health risks to levels that would allow for residential use."³⁴

As discussed above, describing measures as part of the project violates CEQA.

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Second, the City fails to discuss the potential impact of VOCs on the health of the public, including future residents. The court in *Bakersfield Citizens for Local Control* held that to properly analyze an impact, it must be correlated with the adverse health effects it creates.³⁵ No such analysis or correlation is made by the City.

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Finally, even if the City could ignore CEQA's requirement to analyze, describe the significance of and require mitigation for significant hazards impacts, the City lacks substantial evidence to support its conclusion that impacts from VOCs would be reduced below a level of significance with the measures described in the Project Description, RAW and RI/FS. Specifically, none of the mitigation measures described by the City anywhere in the SCEA would reduce the Project's impacts from VOCs below a level of significance.

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³³ SCEA, p. 124.

³⁴ SCEA, p. 125

³⁵ *Bakersfield Citizens for Local Control v. City of Bakersfield*, 124 Cal. App. 4th 1184, 1219-1220. 4183-006acp

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The City acknowledges the fact that step-out excavations may not reduce the VOCs in soil gas below the level of significance. The City also acknowledges that installment of passive venting systems may fail to reduce the VOCs in soil gas below the level of significance.³⁶ However, the City completely ignores what measure would be taken if, after converting the venting systems from passive to active, the VOC levels remain above public health risk thresholds.

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This flaw in the City's analysis becomes even more apparent when turning to the Remedial Action Workplan (RAW) that the City refers to in its Project Description. As it turns out, the RAW identifies mitigation measures that would eliminate the risk of VOCs, and the venting systems are not such a measure.

Specifically, Section 6.3 of the RAW discusses "Evaluation of Removal Action Alternatives." With regard to the VOCs, alternative 2 outlines the same path outlined in the Project description, i.e. excavations, installment of passive vapor mitigation systems ("VMS") and should they fail, converting them to active systems. Regarding this alternative, the RAW merely states that "VMSs installed beneath structures are commonly used in the industry as an effective means of mitigating potential vapor intrusion into buildings."³⁷ By contrast, alternative 3 discusses the installment of soil vapor extraction wells ("SVE") instead of VMS. The RAW then concludes: "[s]uch a process of removing VOCs from soil gas at the site would eliminate any potential vapor intrusion threat to future residential site users, but would be a costly and time-intensive process."³⁸ This alternative, which "would eliminate" the significant impact, is not discussed anywhere in the SCEA.

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The SCEA states, "[b]ased on information provided by the DTSC, if passive or active systems are utilized to prevent vapor migration, a Land Use Covenant would be required, and recorded, and an Operation and Maintenance (O&M) Plan would be developed for the systems."³⁹ As the City knows, a Land Use Covenant and an O&M plan do not mitigate the impact to less than significant.

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³⁶ SCEA, P. 14

³⁷ Ninyo & Moore. 2017. Draft Removal Action Workplan Former Naval Information Research Foundation Under Sea Center, p. 46.

³⁸ Ninyo & Moore. 2017. Draft Removal Action Workplan Former Naval Information Research Foundation Under Sea Center, p. 47

³⁹ SCEA, p. 14-15.

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None of the measures referenced in or described in the SCEA's Project Description reduce hazards impacts to less than significant or prohibit the public from occupying the Project if active systems are unable to reduce VOC vapors to below a level of significance. Therefore, the Project would result in significant unmitigated impacts. The City failed to perform its duty under CEQA to provide the public with information about the Project's significant impacts and its duty to mitigate such impacts below a level of significance. The City lacks substantial evidence to support its conclusion that such impacts are less than significant with mitigation. If the City finds that no other mitigation measures are feasible, the City must find that the impact is significant and unavoidable. The City must disclose the significant impact in an SCEIR and may consider whether there are overriding considerations that outweigh the Project's significant impact on public health.

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b. Water in the anechoic tank pose a potentially significant impact which is not mitigated in the SCEA.

In the "Hazards and Hazardous materials" section of the "environmental checklist," the City analyzes the potential impacts associated with hazardous substances. Before turning to the specific questions in the checklist, the City states:

"In addition to the COCs addressed in the 2017 RAW and RI/FS, Rincon has identified the following additional concerns which have not been addressed in the RAW or RI/FS.

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- Water remaining in an onsite anechoic tank previously used for torpedo testing may contain elevated concentrations of metals or other COCs, therefore sampling and analysis of the water and offsite disposal would be necessary."⁴⁰

The RAW indeed does not discuss the hazards from the water in the tank. However, the tank is mentioned in the list detailing past environmental investigations. There, a report prepared by the United States Army Corps of Engineers ("USACE") in June 1999 is mentioned as recommending "removal of surface water from the anechoic tank located in Building 5 (due to detections of chromium and TPH)."

⁴⁰ SCEA, p.120.
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Question (a) in the “Hazards and Hazardous materials” section requires the City to analyze “[w]ould the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?” To this, the City answers:

“Any water remaining in the anechoic chamber historically used for testing torpedoes in Building 5, in addition to surface water reportedly present in Building 103, may need to be disposed of due to elevated levels of cadmium, copper, lead, mercury, chromium, and/or TPH. These waters will need to be properly characterized, i.e., samples collected and analyzed for COCs by a state-certified laboratory prior to disposal. Depending on analytical results, disposal of the water may represent a risk during handling and transport. Therefore, construction activities associated with the proposed project would involve the transport to and disposal of these hazardous materials at an approved disposal facility. However, hazards associated with transport and disposal could be reduced to less than significant with the implementation of mitigation measure HAZ-1.”⁴¹

HAZ- 1 states:

“Any surface water remaining onsite in connection with historical research and development of weapons systems, in particular, water located in the anechoic tank within Building 5 and surface water reportedly present in Building 103, shall be properly characterized, i.e., water samples collected and analyzed for COCs by a state-certified laboratory. Analytical results will determine if the waste water will be classified as a non-hazardous or hazardous waste. Handling and transport of waste water shall be conducted in accordance with applicable local, state and federal regulations, including EPA RCRA (40 CFR Part 262), Federal and State OSHA, DOT, and DTSC (CCR Title 22).”⁴²

This analysis of the potential impact from water in the tank, and the proposed mitigation measure, fails to comply with CEQA. The City may not rely solely on compliance with regulations or laws where those regulations or laws do not address

⁴¹ SCEA, p. 121

⁴² SCEA p. 126
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the potentially significant impacts and where the impacts would be potentially significant. The City must conduct an analysis of impacts and identify enforceable mitigation.

The City acknowledges that hazards from handling and transport of the contaminated water are reasonably foreseeable. The city should therefore analyze potentially significant impacts from handling and transport of contaminated water, including impacts along the Project's proposed travel routes and the Project's proposed receiving facilities for the contamination. The City's analysis must be a fact-specific analysis, not a bare assertion that the contaminated water disposal will be in compliance with applicable regulations. Without such a fact-specific analysis, no substantial evidence supports the conclusion that potential impacts from the handling of the contaminated water will be reduced to less than significant.

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VI. THE CITY LACKS SUBSTANTIAL EVIDENCE TO SUPPORT THE CONCLUSION THAT IMPACTS ON AIR QUALITY ARE LESS THAN SIGNIFICANT.

In the "Air Quality" section of the "environmental checklist," the City analyzes the Project's potentially significant impacts on air quality. Question (d) in this section asks "would the project [e]xpose sensitive receptors to substantial pollutant concentrations?" This requires the City to analyze certain pollutants, including Toxic Air Contaminants ("TACs"). As explained in the SCEA:

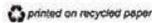
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"Certain population groups, such as children, the elderly, and people with health problems, are particularly sensitive to air pollution. Sensitive receptors are defined as land uses that are more likely to be used by these population groups and include health care facilities, retirement homes, school and playground facilities, and residential areas."⁴³

The City acknowledges that the Kaiser Permanente medical office building is a sensitive receptor located approximately 50 feet to the east. However, it goes on to conclude that the Project would have a "less than significant" impact on sensitive receptors from TACs. ⁴⁴ As explained below, this conclusion is not supported by substantial evidence.

⁴³ SCEA, p. 62

⁴⁴ SCEA, p. 62
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Regarding impacts from Project construction, the City claims emissions are “temporary” and would not exceed significance thresholds:

“Construction activities associated with the proposed project, such as haul truck trips and operation of heavy construction equipment, would generate diesel exhaust particulates and other TACs. The SCAQMD currently does not currently provide TAC emission thresholds for construction activities. However, as discussed under impacts *b* and *c* and shown in Table 6, construction activities would be temporary and emissions from construction activities, including those produced from diesel exhaust, would not exceed SCAQMD thresholds. Therefore, it is not likely that construction activities would generate long-term levels of TACs that would impact nearby sensitive receptors.”⁴⁵

Relying on the argument that emissions are temporary and would not exceed thresholds, the City concludes that “it is not likely” that sensitive receptors would be impacted. The City never actually conducted any kind of health risk assessment or other assessment of impacts to sensitive receptors. As explained by SWAPE, the City’s justification for failing to evaluate the health risk posed to sensitive receptors is incorrect and inconsistent with SCAQMD’s recommendations. Without performing a health risk assessment, the City lacks substantial evidence to support the City’s conclusion that impacts from TACs during construction would be less than significant:

“[S]imply stating that ‘it is not likely that construction activities would generate long-term levels of TACs’ does not justify the omission of a construction HRA. The [SCAQMD] recommends that health risk impacts from short-term projects also be assessed. SCAQMD’s Guidance document states,

“Since these short-term calculations are only meant for projects with limits on the operating duration, these short-term cancer risk assessments can be thought of as being the equivalent to a 30-year cancer risk estimate and the appropriate thresholds would still apply (i.e. for a 5-year project, the maximum

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⁴⁵ SCEA, p. 63
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emissions during the 5-year period would be assessed on the more sensitive population, from the third trimester to age 5, after which the project's emissions would drop to 0 for the remaining 25 years to get the 30-year equivalent cancer risk estimate)".⁴⁶

Thus, the City must prepare a health risk assessment to determine whether or not the Project would expose sensitive receptors to substantial air pollutants during construction activities. The Draft SCEA should include a quantitative analysis and comparison of the results to applicable thresholds. The SCAQMD provides a specific numerical threshold of 10 in one million for determining a project's health risk impact.⁴⁷ Therefore, the City's analysis must compare the Project's construction health risk to this threshold in order to determine the Project's potentially significant health risk impact. "By failing to prepare a health risk assessment, the Draft SCEA fails to provide a comprehensive analysis of the Project's impacts to sensitive receptors that may occur when construction exposes people to substantial air pollutants."⁴⁸

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Regarding the Project's operational impacts on sensitive receptors, the SCEA merely states:

"Operation of the proposed project would generally not involve use of heavy-duty trucks with the exception of occasional trash trucks or delivery trucks. Other traffic generated by the proposed project would primarily include resident vehicle trips. However, as discussed in impacts b and c and shown in Table 8, mobile vehicle emissions would be substantially below SCAQMD thresholds, therefore long-term TAC emissions would be nominal. Overall, TAC emissions from construction and operational activities would be less than significant."⁴⁹

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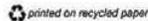
As SWAPE explains, "[s]imply because the Project proposes residential and retail land uses does not mean that the Project will inherently have a less than significant

⁴⁶ <http://www.aqmd.gov/docs/default-source/planning/risk-assessment/riskassprocjune15.pdf?sfvrsn=2>, p. IX-2

⁴⁷ <http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf?sfvrsn=2>

⁴⁸ Exhibit A: SWAPE Comments, p. 2-3.

⁴⁹ SCEA, p. 63
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impact on the health of nearby neighbors, nor does it mean that a health risk assessment for the proposed Project is not needed”⁵⁰

The omission of a quantified health risk assessment not only results in the lack of any substantial evidence to back the City’s conclusion, but it is inconsistent with the most recent guidance published by Office of Environmental Health Hazard Assessment (OEHHA), the organization responsible for providing recommendations and guidance on how to conduct health risk assessments in California. The organization’s most recent Risk Assessment Guidelines were formally adopted in March of 2015.⁵¹ As explained by SWAPE:

“According to the Project’s CalEEMod output files, the Project will generate 4,423 vehicle trips per day during operation, which will emit substantial amounts of diesel particulate matter (DPM), potentially exposing nearby sensitive receptors to substantial air pollutants. (Appendix C, pp. 148, pp. 191, pp. 234). The OEHHA document recommends that exposure from projects lasting more than 6 months should be evaluated for the duration of the project, and recommends that an exposure duration of 30 years be used to estimate individual cancer risk for the maximally exposed individual resident (MEIR). Even though the SCEA does not state the expected lifetime of the Project, we can reasonably assume that the Project will operate for at least 30 years, if not more. Therefore, per OEHHA guidelines, health risk impacts from Project construction and operation should have been evaluated in the Draft SCEA.”⁵²

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SWAPE prepared a simple health risk screening assessment (“HRSA”), consistent with EPA’s recommendations and with the OEHHA and SCAQMD Guidelines, to model the Project’s potential health risks impacts on sensitive receptors. SWAPE’s conclusion is that “[t]he excess cancer risk posed to adults, children, and infants at the MEIR located approximately 50 meters away, over the course of Project construction and operation are 29, 190, and 91 in one million, respectively” and that “[t]he infant, child, adult, and lifetime cancer risks exceed the SCAQMD threshold of 10 in one million.”⁵³ As SWAPE notes, such screening level assessment is

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⁵⁰ Exhibit A: SWAPE Comments, p. 3.

⁵¹ “Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments.” OEHHA, February 2015, available at: http://oehha.ca.gov/air/hot_spots/hotspots2015.html

⁵² Exhibit A: SWAPE Comments, p. 3-4, FN omitted.

⁵³ Exhibit A: SWAPE Comments, p. 7

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conservative and tends to err on the side of health protection. The meaning of this, however, is that the City must prepare a more refined health risk assessment using site-specific meteorology and equipment data. Only after performing such a health risk assessment can the City reach a conclusion, supported by substantial evidence, regarding the Project's impact on sensitive receptors.

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SWAPE also lists feasible mitigation measures available to reduce operational emissions from the Project. Only after performing a health impact assessment, and implementing mitigation measures as required to reduce those impacts below levels of significance, can the City conclude, based on substantial evidence, that Project would result in "no significant impact."

VII. CONCLUSION

The Project will result in significant impacts to public health from hazards and air quality impacts, which were not adequately analyzed and mitigated to less than significant levels. The Project is inconsistent with the Specific Plan and the Zoning Code. Moreover, the SCEA violates CEQA by incorporating mitigation measures into the Project Description and failing to explain the significance of impacts to people and the environment.

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For the foregoing reasons, we respectfully request that the City of Pasadena reject the SCEA and deny the Project Approvals, until the City prepares and circulates the public a Draft SCEIR, as required by CEQA, and modifies the Project to be consistent with all laws, regulations and policies.

Sincerely,

Tanya A. Gulesserian
Nirit Lotan



Attachments

NL:acp

4183-006acp

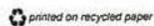


EXHIBIT A



2656 29th Street, Suite 201
Santa Monica, CA 90405

Matt Hagemann, P.G., C.Hg.
(949) 887-9013
mhagemann@swape.com

March 8, 2018

Nirit Lotan
Adams Broadwell Joseph & Cardozo
601 Gateway Boulevard, Suite 1000
South San Francisco, CA 94080

Subject: Comments on the 3200 East Foothill Boulevard Mixed-Use Project

Dear Ms. Lotan,

We reviewed the February 2018 Draft Sustainable Communities Environmental Assessment (Draft SCEA) for the 3200 East Foothill Boulevard Mixed-Use Project ("Project") located in the City of Pasadena. The proposed Project seeks to demolish 29 existing structures totaling 212,397 square feet and to construct eight separate mixed-use buildings, subterranean and above-ground parking structures, and landscaping. Within these mixed-use buildings, the Project proposes to construct a total of 550 residential apartment units, 9,800 square feet of retail/restaurant space, and 839 parking stalls. The Project also proposes to develop a 0.21-acre accessory site for recreational use.

Our review concludes that although the Draft SCEA determines that emissions from the I-210 would not significantly impact nearby receptors, it fails to adequately evaluate the Project's construction and operational health risk impacts posed to nearby sensitive receptors. As a result, the health impacts associated with construction and operation of the proposed Project have not been fully evaluated. As such, we find the Draft SCEA's conclusion that the project's impact on exposure of sensitive receptors to substantial pollutant concentrations is less than significant is not supported by substantial evidence. In addition, we prepared a screening level health risk assessment and found that the excess cancer risk posed to adults, children, and infants over the course of Project construction and operation exceed the SCAQMD threshold of 10 in one million. A revised Draft SCEA must be prepared and recirculated to adequately assess the Project's significant impacts on public health during construction and operation.

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Air Quality

Diesel Particulate Matter Health Risk Emissions Inadequately Evaluated

The Draft SCEA conducts a health risk assessment (HRA) to evaluate the health risk posed to nearby sensitive receptors from exposure to toxic air contaminant (TAC) emissions from Interstate I-210 near

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the Project site. The HRA concludes that impacts to nearby sensitive receptors would be significant, but that implementation of filtration systems and several other measures “would reduce the overall cancer risk for all receptors below the ten in one million level for the 40-year scenario” (Appendix D, p. 17). Although the Draft SCEA determines that emissions from the I-210 would not significantly impact nearby receptors, the Draft SCEA fails to evaluate, whatsoever, the health risk posed to nearby residents as a result of exposure to emissions generated by construction and operation of the proposed Project. As a result, the Project’s potential health-related impacts have not been fully evaluated, and its conclusion that the project’s impact on exposure of sensitive receptors to substantial pollutant concentrations is less than significant is not supported by substantial evidence. The Draft SCEA attempts to justify the omission of a construction health risk assessment by stating that,

“Construction activities associated with the proposed project, such as haul truck trips and operation of heavy construction equipment, would generate diesel exhaust particulates and other TACs. The SCAQMD currently does not currently provide TAC emission thresholds for construction activities. However, as discussed under impacts *b* and *c* and shown in Table 6, construction activities would be temporary and emissions from construction activities, including those produced from diesel exhaust, would not exceed SCAQMD thresholds. Therefore, it is not likely that construction activities would generate long-term levels of TACs that would impact nearby sensitive receptors” (p. 63).

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Additionally, the Draft SCEA determines that the Project would not expose nearby sensitive receptors to significant TAC emissions during operation, again without conducting an adequate HRA (p. 63). In order to support this finding of a less than significant impact, the Draft SCEA states,

“Operation of the proposed project would generally not involve use of heavy-duty trucks with the exception of occasional trash trucks or delivery trucks. Other traffic generated by the proposed project would primarily include resident vehicle trips. However, as discussed in impacts *b* and *c* and shown in Table 8, mobile vehicle emissions would be substantially below SCAQMD thresholds, therefore long-term TAC emissions would be nominal. Overall, TAC emissions from construction and operational activities would be less than significant” (p. 63).

However, this justification for failing to evaluate the health risk posed to the sensitive receptors near the Project site is incorrect for several reasons.

First, simply stating that “it is not likely that construction activities would generate long-term levels of TACs” does not justify the omission of a construction HRA. The South Coast Air Quality Management District (SCAQMD) recommends that health risk impacts from short-term projects also be assessed. SCAQMD’s Guidance document states,

“Since these short-term calculations are only meant for projects with limits on the operating duration, these short-term cancer risk assessments can be thought of as being the equivalent to a 30-year cancer risk estimate and the appropriate thresholds would still apply (i.e. for a 5-year

project, the maximum emissions during the 5-year period would be assessed on the more sensitive population, from the third trimester to age 5, after which the project's emissions would drop to 0 for the remaining 25 years to get the 30-year equivalent cancer risk estimate)¹.

Thus, the City must prepare a health risk assessment to determine whether or not a Project would expose sensitive receptors to substantial air pollutants during construction activities. The Draft SCEA should include a quantitative analysis and comparison of the results to applicable thresholds. The SCAQMD provides a specific numerical threshold of 10 in one million for determining a project's health risk impact.² Therefore, the analysis must compare the Project's construction health risk to this threshold in order to determine the Project's health risk impact. By failing to prepare a health risk assessment, the Draft SCEA fails to provide a comprehensive analysis of the Project's impacts to sensitive receptors that may occur when construction exposes people to substantial air pollutants.

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Second, the Project Applicant cannot simply state that "operation of the proposed project would generally not involve use of heavy-duty trucks with the exception of occasional trash trucks or delivery trucks" in order to justify the omission of an operational HRA. Simply because the Project proposes residential and retail land uses does not mean that the Project will inherently have a less than significant impact on the health of nearby neighbors, nor does it mean that a health risk assessment for the proposed Project is not needed.

The omission of a quantified health risk assessment is inconsistent with the most recent guidance published by Office of Environmental Health Hazard Assessment (OEHHA), the organization responsible for providing recommendations and guidance on how to conduct health risk assessments in California. In February of 2015, OEHHA released its most recent *Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments*, which was formally adopted in March of 2015.³ This guidance document describes the types of projects that warrant the preparation of a health risk assessment. As previously stated, grading and construction activities for the proposed Project will produce emissions of DPM through the exhaust stacks of construction equipment over an approximate 34- to 35-month period (p. 10). The OEHHA document recommends that all short-term projects lasting at least two months be evaluated for cancer risks to nearby sensitive receptors.⁴

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Once construction is complete, Project operation will generate truck trips, which will generate additional exhaust emissions, thus continuing to expose nearby sensitive receptors to DPM emissions. According to the Project's CalEEMod output files, the Project will generate 4,423 vehicle trips per day during operation, which will emit substantial amounts of diesel particulate matter (DPM), potentially exposing nearby sensitive receptors to substantial air pollutants. (Appendix C, pp. 148, pp. 191, pp. 234). The

¹ <http://www.aqmd.gov/docs/default-source/planning/risk-assessment/riskassprocjune15.pdf?sfvrsn=2>, p. IX-2

² <http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf?sfvrsn=2>

³ "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, available at: http://oehha.ca.gov/air/hot_spots/hotspots2015.html

⁴ "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, available at: http://oehha.ca.gov/air/hot_spots/2015/2015GuidanceManual.pdf, p. 8-18

OEHHA document recommends that exposure from projects lasting more than 6 months should be evaluated for the duration of the project, and recommends that an exposure duration of 30 years be used to estimate individual cancer risk for the maximally exposed individual resident (MEIR).⁵ Even though the Draft SCEA does not state the expected lifetime of the Project, we can reasonably assume that the Project will operate for at least 30 years, if not more. Therefore, per OEHHA guidelines, health risk impacts from Project construction and operation should have been evaluated in the Draft SCEA. These recommendations reflect OEHHA's most recent health risk assessment policy, and as such, an assessment of health risks to nearby sensitive receptors from construction and operation should be included in a revised CEQA evaluation for the Project.

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Updated Health Risk Assessment Indicates Significant Health Impact

In an effort to demonstrate the potential risk posed by Project construction and operation to nearby sensitive receptors, we prepared a simple screening-level health risk assessment. The results of our assessment, as described below, provide substantial evidence that the Project's construction and operational DPM emissions may result in a potentially significant health risk impact that was not previously identified.

As of 2011, the Environmental Protection Agency (EPA) recommends AERSCREEN as the leading air dispersion model, due to improvements in simulating local meteorological conditions based on simple input parameters.⁶ The model replaced SCREEN3, and AERSCREEN is included in the OEHHA⁷ and the California Air Pollution Control Officers Association's (CAPCOA)⁸ guidance as the appropriate air dispersion model for Level 2 health risk screening assessments ("HRSA"). A Level 2 HRSA utilizes a limited amount of site-specific information to generate maximum reasonable downwind concentrations of air contaminants to which nearby sensitive receptors may be exposed. If an unacceptable air quality hazard is determined to be possible using AERSCREEN, a more refined modeling approach is required prior to approval of the Project.

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We prepared a preliminary health risk screening assessment of the Project's health-related impact to sensitive receptors using the annual PM10 exhaust estimates from the Draft SCEA's annual CalEEMod output files (Appendix A, pp. 118). According to the Draft SCEA, the closest residential receptor to the Project site is located approximately 200 feet, or 61 meters, from the Project site (p. 155). Consistent with recommendations set forth by OEHHA, we used a residential exposure duration of 30 years, starting from the infantile stage of life. We also assumed that construction and operation of the Project would occur in quick succession, with no gaps between each Project phase. The Project's CalEEMod output files indicate that construction activities will generate approximately 525 pounds of DPM over

⁵ "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, available at: http://oehha.ca.gov/air/hot_spots/2015/2015GuidanceManual.pdf, p. 8-6, 8-15

⁶ "AERSCREEN Released as the EPA Recommended Screening Model," USEPA, April 11, 2011, available at: http://www.epa.gov/ttn/scram/guidance/clarification/20110411_AERSCREEN_Release_Memo.pdf

⁷ "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, available at: http://oehha.ca.gov/air/hot_spots/2015/2015GuidanceManual.pdf

⁸ "Health Risk Assessments for Proposed Land Use Projects," CAPCOA, July 2009, available at: http://www.capcoa.org/wp-content/uploads/2012/03/CAPCOA_HRA_LU_Guidelines_8-6-09.pdf

the 932-day construction period. The AERSCREEN model relies on a continuous average emission rate to simulate maximum downward concentrations from point, area, and volume emission sources. To account for the variability in equipment usage and truck trips over Project construction, we calculated an average DPM emission rate by the following equation.

$$\text{Emission Rate } \left(\frac{\text{grams}}{\text{second}} \right) = \frac{525 \text{ lbs}}{932 \text{ days}} \times \frac{453.6 \text{ grams}}{\text{lbs}} \times \frac{1 \text{ day}}{24 \text{ hours}} \times \frac{1 \text{ hour}}{3,600 \text{ seconds}} = 0.002955 \text{ g/s}$$

Using this equation, we estimated a construction emission rate of 0.002955 grams per second (g/s). The Project's CalEEMod output files also indicate that operational activities will generate approximately 389 pounds of DPM per year over the 27.4-years of operation. Applying the same equation used to estimate the construction DPM emission rate, we estimated the following emission rate for Project operation.

$$\text{Emission Rate } \left(\frac{\text{grams}}{\text{second}} \right) = \frac{389 \text{ lbs}}{365 \text{ days}} \times \frac{453.6 \text{ grams}}{\text{lbs}} \times \frac{1 \text{ day}}{24 \text{ hours}} \times \frac{1 \text{ hour}}{3,600 \text{ seconds}} = 0.005589 \text{ g/s}$$

Using this equation, we estimated an operational emission rate of 0.005589 g/s. Construction and operational activity was simulated as an 8.32-acre rectangle area source in AERSCREEN, with dimensions of 215 meters by 157 meters. A release height of three meters was selected to represent the height of exhaust stacks on operational equipment and other heavy-duty vehicles, and an initial vertical dimension of one and a half meters was used to simulate instantaneous plume dispersion upon release. An urban meteorological setting was selected with model-default inputs for wind speed and direction distribution.

The AERSCREEN model generates maximum reasonable estimates of single-hour DPM concentrations from the Project site. EPA guidance suggests that in screening procedures, the annualized average concentration of an air pollutant be estimated by multiplying the single-hour concentration by 10%.⁹ For example, for the MEIR the single-hour concentration estimated by AERSCREEN for Project construction is approximately 2.774 µg/m³ DPM at approximately 50 meters downwind. Multiplying this single-hour concentration by 10%, we can get annualized average concentration of 0.2774 µg/m³ for Project construction at the MEIR. For Project operation, the single-hour concentration at the MEIR estimated by AERSCREEN is approximately 5.248 µg/m³ DPM at approximately 50 meters downwind. Multiplying this single-hour concentration by 10%, we get an annualized average concentration of 0.5248 µg/m³ for Project operation at the MEIR.

We calculated the excess cancer risk to the residential receptors located closest to the Project site using applicable health risk assessment methodologies prescribed by OEHHA and the SCAQMD. Consistent with the construction schedule proposed by the Draft SCEA, the annualized average concentration for construction was used for the entirety of the infantile stage of life (0-2 years) and for the first 0.6 years of the child stage of life (2 to 16 years). The annualized average concentration for operation was used for the remainder of the 30-year exposure period, which makes up the remainder of the child stages of

⁹ http://www.epa.gov/ttn/scram/guidance/guide/EPA-454R-92-019_OCR.pdf

life (2 to 16 years) and adult stages of life (16 to 30 years). Consistent with OEHHA guidance, we used Age Sensitivity Factors (ASFs) to account for the heightened susceptibility of young children to the carcinogenic toxicity of air pollution.¹⁰ According to the updated guidance, quantified cancer risk should be multiplied by a factor of ten during the first two years of life (infant) and should be multiplied by a factor of three during the child stage of life (2 to 16 years). Furthermore, in accordance with guidance set forth by OEHHA, we used 95th percentile breathing rates for infants.¹¹ We used a cancer potency factor of 1.1 (mg/kg-day)⁻¹ and an averaging time of 25,550 days. The results of our calculations are shown below.

The Maximum Exposed Individual at an Existing Residential Receptor (MEIR)					
Activity	Duration (years)	Concentration (µg/m ³)	Breathing Rate (L/kg-day)	ASF	Cancer Risk
Construction	2.00	0.2774	1090	10	9.1E-05
Infant Exposure Duration	2.00			Infant Exposure	9.1E-05
Construction	0.60	0.2774	572	3	4.3E-06
Operation	13.40	0.5248	572	3	1.8E-04
Child Exposure Duration	14.00			Child Exposure	1.9E-04
Operation	14.00	0.5248	261	1	2.9E-05
Adult Exposure Duration	14.00			Adult Exposure	2.9E-05
Lifetime Exposure Duration	30.00			Lifetime Exposure	3.1E-04

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The excess cancer risk posed to adults, children, and infants at the MEIR located approximately 50 meters away, over the course of Project construction and operation are 29, 190, and 91 in one million, respectively. Furthermore, the excess cancer risk over the course of a residential lifetime (30 years) at the MEIR is approximately 310 in one million. Consistent with OEHHA guidance, exposure was assumed to begin in the infantile stage of life to provide the most conservative estimates of air quality hazards. The infant, child, adult, and lifetime cancer risks exceed the SCAQMD threshold of 10 in one million.

It should be noted that our analysis represents a screening-level health risk assessment, which is known to be more conservative, and tends to err on the side of health protection.¹² The purpose of a screening-level health risk assessment, however, is to determine if a more refined health risk assessment needs to be conducted. If the results of a screening-level health risk are above applicable thresholds, then the Project needs to conduct a more refined health risk assessment that is more representative of site specific concentrations. Our screening-level health risk assessment demonstrates that construction and

¹⁰ "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, available at: <https://oehha.ca.gov/media/downloads/cnr/2015guidancemanual.pdf>

¹¹ "Supplemental Guidelines for Preparing Risk Assessments for the Air Toxics 'Hot Spots' Information and Assessment Act," June 5, 2015, available at: <http://www.aqmd.gov/docs/default-source/planning/risk-assessment/ab2588-risk-assessment-guidelines.pdf?sfvrsn=6>, p. 19

¹² "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, available at: <https://oehha.ca.gov/media/downloads/cnr/2015guidancemanual.pdf>

¹³ http://oehha.ca.gov/air/hot_spots/2015/2015GuidanceManual.pdf p. 1-5

operation of the Project could result in a significant health risk impact, when correct exposure assumptions and up-to-date, applicable guidance are used. As a result, a refined health risk assessment must be prepared to examine air quality impacts generated by Project construction and operation using site-specific meteorology and specific equipment usage schedules. An updated Draft SCEA must be prepared to adequately evaluate the Project's health risk impact, and should include additional mitigation measures to reduce these impacts to a less-than-significant level.

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Feasible Mitigation Measures Available to Reduce Operational Emissions

Our health risk analysis demonstrates that the Project's operational DPM emissions may present a potentially significant impact. In an effort to reduce the Project's emissions, we identified several additional mitigation measures that are applicable to the Project. Additional, feasible mitigation measures can be found in CAPCOA's *Quantifying Greenhouse Gas Mitigation Measures*, which reduce GHG emissions, as well as Criteria Air Pollutants such as particulate matter.¹³ Therefore, to reduce the Project's mobile-source DPM emissions, consideration of the following measures should be made.

- Incorporate Bike Lane Street Design (On-Site)
 - Incorporating bicycle lanes, routes, and shared-use paths into street systems, new subdivisions, and large developments can reduce VMTs. These improvements can help reduce peak-hour vehicle trips by making commuting by bike easier and more convenient for more people. In addition, improved bicycle facilities can increase access to and from transit hubs, thereby expanding the "catchment area" of the transit stop or station and increasing ridership. Bicycle access can also reduce parking pressure on heavily-used and/or heavily-subsidized feeder bus lines and auto-oriented park-and-ride facilities.
- Limit Parking Supply
 - This mitigation measure will change parking requirements and types of supply within the Project site to encourage "smart growth" development and alternative transportation choices by project residents and employees. This can be accomplished in a multi-faceted strategy:
 - Elimination (or reduction) of minimum parking requirements
 - Creation of maximum parking requirements
 - Provision of shared parking
- Implement Commute Trip Reduction Program- Voluntary or Required
 - Implementation of a Commute Trip Reduction (CTR) program with employers will discourage single-occupancy vehicle trips and encourage alternative modes of transportation such as carpooling, taking transit, walking, and biking. The main difference between a voluntary and a required program is:
 - Monitoring and reporting is not required
 - No established performance standards (i.e. no trip reduction requirements)

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¹³<http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf>

- The CTR program should provide employees with assistance in using alternative modes of travel, and provide both “carrots” and “sticks” to encourage employees. The CTR program should include all of the following to apply the effectiveness reported by the literature:
 - Carpooling encouragement
 - Ride-matching assistance
 - Preferential carpool parking
 - Flexible work schedules for carpools
 - Half time transportation coordinator
 - Vanpool assistance
 - Bicycle end-trip facilities (parking, showers and lockers)
- Provide Ride-Sharing Programs
 - Increasing the vehicle occupancy by ride sharing will result in fewer cars driving the same trip, and thus a decrease in VMT. The project should include a ride-sharing program as well as a permanent transportation management association membership and funding requirement. The project can promote ride-sharing programs through a multi-faceted approach such as:
 - Designating a certain percentage of parking spaces for ride sharing vehicles
 - Designating adequate passenger loading and unloading and waiting areas for ride-sharing vehicles
 - Providing a web site or message board for coordinating rides
- Implement Subsidized or Discounted Transit Program
 - This project can provide subsidized/discounted daily or monthly public transit passes to incentivize the use of public transport. The project may also provide free transfers between all shuttles and transit to participants. These passes can be partially or wholly subsidized by the employer, school, or development. Many entities use revenue from parking to offset the cost of such a project.
- Implement Commute Trip Reduction Marketing
 - The project can implement marketing strategies to reduce commute trips. Information sharing and marketing are important components to successful commute trip reduction strategies. Implementing commute trip reduction strategies without a complementary marketing strategy will result in lower VMT reductions. Marketing strategies may include:
 - New employee orientation of trip reduction and alternative mode options
 - Event promotions
 - Publications
- Implement Preferential Parking Permit Program
 - The project can provide preferential parking in convenient locations (such as near public transportation or building front doors) in terms of free or reduced parking fees, priority parking, or reserved parking for commuters who carpool, vanpool, ride-share or use

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alternatively fueled vehicles. The project should provide wide parking spaces to accommodate vanpool vehicles.

- Implement Car-Sharing Program
 - This project should implement a car-sharing project to allow people to have on-demand access to a shared fleet of vehicles on an as-needed basis. User costs are typically determined through mileage or hourly rates, with deposits and/or annual membership fees. The car-sharing program could be created through a local partnership or through one of many existing car-share companies. Car-sharing programs may be grouped into three general categories: residential- or citywide-based, employer-based, and transit station-based. Transit station-based programs focus on providing the “last-mile” solution and link transit with commuters’ final destinations. Residential-based programs work to substitute entire household based trips. Employer-based programs provide a means for business/day trips for alternative mode commuters and provide a guaranteed ride home option.
- Implement Employee Parking “Cash-Out”
 - The project can require employers to offer employee parking “cash-out.” The term “cash-out” is used to describe the employer providing employees with a choice of forgoing their current subsidized/free parking for a cash payment equivalent to the cost of the parking space to the employer.

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When combined together, these measures offer a cost-effective, feasible way to incorporate lower-emitting design features into the proposed Project, which subsequently, reduces emissions released during Project operation. An updated Draft SCEA must be prepared to include additional mitigation measures, as well as include a health risk analysis to ensure that the necessary mitigation measures are implemented to reduce the health risk to below thresholds. The Project Applicant also needs to demonstrate commitment to the implementation of these measures prior to Project approval, to ensure that the Project’s DPM emissions are reduced to the maximum extent possible.

Sincerely,



Matt Hagemann, P.G., C.Hg.



Hadley Nolan

Tel: (949) 887-9013
Email: mhagemann@swape.com

Matthew F. Hagemann, P.G., C.Hg., QSD, QSP

**Geologic and Hydrogeologic Characterization
Investigation and Remediation Strategies
Litigation Support and Testifying Expert
Industrial Stormwater Compliance
CEQA Review**

Education:

M.S. Degree, Geology, California State University Los Angeles, Los Angeles, CA, 1984.
B.A. Degree, Geology, Humboldt State University, Arcata, CA, 1982.

Professional Certifications:

California Professional Geologist
California Certified Hydrogeologist
Qualified SWPPP Developer and Practitioner

Professional Experience:

Matt has 30 years of experience in environmental policy, contaminant assessment and remediation, stormwater compliance, and CEQA review. He spent nine years with the U.S. EPA in the RCRA and Superfund programs and served as EPA's Senior Science Policy Advisor in the Western Regional Office where he identified emerging threats to groundwater from perchlorate and MTBE. While with EPA, Matt also served as a Senior Hydrogeologist in the oversight of the assessment of seven major military facilities undergoing base closure. He led numerous enforcement actions under provisions of the Resource Conservation and Recovery Act (RCRA) and directed efforts to improve hydrogeologic characterization and water quality monitoring. For the past 15 years, as a founding partner with SWAPE, Matt has developed extensive client relationships and has managed complex projects that include consultation as an expert witness and a regulatory specialist, and a manager of projects ranging from industrial stormwater compliance to CEQA review of impacts from hazardous waste, air quality and greenhouse gas emissions.

Positions Matt has held include:

- Founding Partner, Soil/Water/Air Protection Enterprise (SWAPE) (2003 – present);
- Geology Instructor, Golden West College, 2010 – 2014, 2017;
- Senior Environmental Analyst, Komex H2O Science, Inc. (2000 -- 2003);

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- Executive Director, Orange Coast Watch (2001 – 2004);
- Senior Science Policy Advisor and Hydrogeologist, U.S. Environmental Protection Agency (1989–1998);
- Hydrogeologist, National Park Service, Water Resources Division (1998 – 2000);
- Adjunct Faculty Member, San Francisco State University, Department of Geosciences (1993 – 1998);
- Instructor, College of Marin, Department of Science (1990 – 1995);
- Geologist, U.S. Forest Service (1986 – 1998); and
- Geologist, Dames & Moore (1984 – 1986).

Senior Regulatory and Litigation Support Analyst:

With SWAPE, Matt’s responsibilities have included:

- Lead analyst and testifying expert in the review of over 300 environmental impact reports and negative declarations since 2003 under CEQA that identify significant issues with regard to hazardous waste, water resources, water quality, air quality, greenhouse gas emissions, and geologic hazards. Make recommendations for additional mitigation measures to lead agencies at the local and county level to include additional characterization of health risks and implementation of protective measures to reduce worker exposure to hazards from toxins and Valley Fever.
- Stormwater analysis, sampling and best management practice evaluation at more than 100 industrial facilities.
- Expert witness on numerous cases including, for example, MTBE litigation, air toxins at hazards at a school, CERCLA compliance in assessment and remediation, and industrial stormwater contamination.
- Technical assistance and litigation support for vapor intrusion concerns.
- Lead analyst and testifying expert in the review of environmental issues in license applications for large solar power plants before the California Energy Commission.
- Manager of a project to evaluate numerous formerly used military sites in the western U.S.
- Manager of a comprehensive evaluation of potential sources of perchlorate contamination in Southern California drinking water wells.
- Manager and designated expert for litigation support under provisions of Proposition 65 in the review of releases of gasoline to sources drinking water at major refineries and hundreds of gas stations throughout California.

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With Komex H2O Science Inc., Matt’s duties included the following:

- Senior author of a report on the extent of perchlorate contamination that was used in testimony by the former U.S. EPA Administrator and General Counsel.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of MTBE use, research, and regulation.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of perchlorate use, research, and regulation.
- Senior researcher in a study that estimates nationwide costs for MTBE remediation and drinking water treatment, results of which were published in newspapers nationwide and in testimony against provisions of an energy bill that would limit liability for oil companies.
- Research to support litigation to restore drinking water supplies that have been contaminated by MTBE in California and New York.

- Expert witness testimony in a case of oil production-related contamination in Mississippi.
- Lead author for a multi-volume remedial investigation report for an operating school in Los Angeles that met strict regulatory requirements and rigorous deadlines.
- Development of strategic approaches for cleanup of contaminated sites in consultation with clients and regulators.

Executive Director:

As Executive Director with Orange Coast Watch, Matt led efforts to restore water quality at Orange County beaches from multiple sources of contamination including urban runoff and the discharge of wastewater. In reporting to a Board of Directors that included representatives from leading Orange County universities and businesses, Matt prepared issue papers in the areas of treatment and disinfection of wastewater and control of the discharge of grease to sewer systems. Matt actively participated in the development of countywide water quality permits for the control of urban runoff and permits for the discharge of wastewater. Matt worked with other nonprofits to protect and restore water quality, including Surfrider, Natural Resources Defense Council and Orange County CoastKeeper as well as with business institutions including the Orange County Business Council.

Hydrogeology:

As a Senior Hydrogeologist with the U.S. Environmental Protection Agency, Matt led investigations to characterize and cleanup closing military bases, including Mare Island Naval Shipyard, Hunters Point Naval Shipyard, Treasure Island Naval Station, Alameda Naval Station, Moffett Field, Mather Army Airfield, and Sacramento Army Depot. Specific activities were as follows:

- Led efforts to model groundwater flow and contaminant transport, ensured adequacy of monitoring networks, and assessed cleanup alternatives for contaminated sediment, soil, and groundwater.
- Initiated a regional program for evaluation of groundwater sampling practices and laboratory analysis at military bases.
- Identified emerging issues, wrote technical guidance, and assisted in policy and regulation development through work on four national U.S. EPA workgroups, including the Superfund Groundwater Technical Forum and the Federal Facilities Forum.

At the request of the State of Hawaii, Matt developed a methodology to determine the vulnerability of groundwater to contamination on the islands of Maui and Oahu. He used analytical models and a GIS to show zones of vulnerability, and the results were adopted and published by the State of Hawaii and County of Maui.

As a hydrogeologist with the EPA Groundwater Protection Section, Matt worked with provisions of the Safe Drinking Water Act and NEPA to prevent drinking water contamination. Specific activities included the following:

- Received an EPA Bronze Medal for his contribution to the development of national guidance for the protection of drinking water.
- Managed the Sole Source Aquifer Program and protected the drinking water of two communities through designation under the Safe Drinking Water Act. He prepared geologic reports, conducted

- Expert witness testimony in a case of oil production-related contamination in Mississippi.
- Lead author for a multi-volume remedial investigation report for an operating school in Los Angeles that met strict regulatory requirements and rigorous deadlines.
- Development of strategic approaches for cleanup of contaminated sites in consultation with clients and regulators.

Executive Director:

As Executive Director with Orange Coast Watch, Matt led efforts to restore water quality at Orange County beaches from multiple sources of contamination including urban runoff and the discharge of wastewater. In reporting to a Board of Directors that included representatives from leading Orange County universities and businesses, Matt prepared issue papers in the areas of treatment and disinfection of wastewater and control of the discharge of grease to sewer systems. Matt actively participated in the development of countywide water quality permits for the control of urban runoff and permits for the discharge of wastewater. Matt worked with other nonprofits to protect and restore water quality, including Surfrider, Natural Resources Defense Council and Orange County CoastKeeper as well as with business institutions including the Orange County Business Council.

Hydrogeology:

As a Senior Hydrogeologist with the U.S. Environmental Protection Agency, Matt led investigations to characterize and cleanup closing military bases, including Mare Island Naval Shipyard, Hunters Point Naval Shipyard, Treasure Island Naval Station, Alameda Naval Station, Moffett Field, Mather Army Airfield, and Sacramento Army Depot. Specific activities were as follows:

- Led efforts to model groundwater flow and contaminant transport, ensured adequacy of monitoring networks, and assessed cleanup alternatives for contaminated sediment, soil, and groundwater.
- Initiated a regional program for evaluation of groundwater sampling practices and laboratory analysis at military bases.
- Identified emerging issues, wrote technical guidance, and assisted in policy and regulation development through work on four national U.S. EPA workgroups, including the Superfund Groundwater Technical Forum and the Federal Facilities Forum.

At the request of the State of Hawaii, Matt developed a methodology to determine the vulnerability of groundwater to contamination on the islands of Maui and Oahu. He used analytical models and a GIS to show zones of vulnerability, and the results were adopted and published by the State of Hawaii and County of Maui.

As a hydrogeologist with the EPA Groundwater Protection Section, Matt worked with provisions of the Safe Drinking Water Act and NEPA to prevent drinking water contamination. Specific activities included the following:

- Received an EPA Bronze Medal for his contribution to the development of national guidance for the protection of drinking water.
- Managed the Sole Source Aquifer Program and protected the drinking water of two communities through designation under the Safe Drinking Water Act. He prepared geologic reports, conducted

public hearings, and responded to public comments from residents who were very concerned about the impact of designation.

- Reviewed a number of Environmental Impact Statements for planned major developments, including large hazardous and solid waste disposal facilities, mine reclamation, and water transfer.

Matt served as a hydrogeologist with the RCRA Hazardous Waste program. Duties were as follows:

- Supervised the hydrogeologic investigation of hazardous waste sites to determine compliance with Subtitle C requirements.
- Reviewed and wrote "part B" permits for the disposal of hazardous waste.
- Conducted RCRA Corrective Action investigations of waste sites and led inspections that formed the basis for significant enforcement actions that were developed in close coordination with U.S. EPA legal counsel.
- Wrote contract specifications and supervised contractor's investigations of waste sites.

With the National Park Service, Matt directed service-wide investigations of contaminant sources to prevent degradation of water quality, including the following tasks:

- Applied pertinent laws and regulations including CERCLA, RCRA, NEPA, NRDA, and the Clean Water Act to control military, mining, and landfill contaminants.
- Conducted watershed-scale investigations of contaminants at parks, including Yellowstone and Olympic National Park.
- Identified high-levels of perchlorate in soil adjacent to a national park in New Mexico and advised park superintendent on appropriate response actions under CERCLA.
- Served as a Park Service representative on the Interagency Perchlorate Steering Committee, a national workgroup.
- Developed a program to conduct environmental compliance audits of all National Parks while serving on a national workgroup.
- Co-authored two papers on the potential for water contamination from the operation of personal watercraft and snowmobiles, these papers serving as the basis for the development of nation-wide policy on the use of these vehicles in National Parks.
- Contributed to the Federal Multi-Agency Source Water Agreement under the Clean Water Action Plan.

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Policy:

Served senior management as the Senior Science Policy Advisor with the U.S. Environmental Protection Agency, Region 9.

Activities included the following:

- Advised the Regional Administrator and senior management on emerging issues such as the potential for the gasoline additive MTBE and ammonium perchlorate to contaminate drinking water supplies.
- Shaped EPA's national response to these threats by serving on workgroups and by contributing to guidance, including the Office of Research and Development publication, *Oxygenates in Water: Critical Information and Research Needs*.
- Improved the technical training of EPA's scientific and engineering staff.
- Earned an EPA Bronze Medal for representing the region's 300 scientists and engineers in negotiations with the Administrator and senior management to better integrate scientific

principles into the policy-making process.

- Established national protocol for the peer review of scientific documents.

Geology:

With the U.S. Forest Service, Matt led investigations to determine hillslope stability of areas proposed for timber harvest in the central Oregon Coast Range. Specific activities were as follows:

- Mapped geology in the field, and used aerial photographic interpretation and mathematical models to determine slope stability.
- Coordinated his research with community members who were concerned with natural resource protection.
- Characterized the geology of an aquifer that serves as the sole source of drinking water for the city of Medford, Oregon.

As a consultant with Dames and Moore, Matt led geologic investigations of two contaminated sites (later listed on the Superfund NPL) in the Portland, Oregon, area and a large hazardous waste site in eastern Oregon. Duties included the following:

- Supervised year-long effort for soil and groundwater sampling.
- Conducted aquifer tests.
- Investigated active faults beneath sites proposed for hazardous waste disposal.

Teaching:

From 1990 to 1998, Matt taught at least one course per semester at the community college and university levels:

- At San Francisco State University, held an adjunct faculty position and taught courses in environmental geology, oceanography (lab and lecture), hydrogeology, and groundwater contamination.
- Served as a committee member for graduate and undergraduate students.
- Taught courses in environmental geology and oceanography at the College of Marin.

Matt is currently a part time geology instructor at Golden West College in Huntington Beach, California where he taught from 2010 to 2014 and in 2017.

Invited Testimony, Reports, Papers and Presentations:

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Presentation to the Public Environmental Law Conference, Eugene, Oregon.

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Invited presentation to U.S. EPA Region 9, San Francisco, California.

Hagemann, M.F., 2005. Use of Electronic Databases in Environmental Regulation, Policy Making and Public Participation. Brownfields 2005, Denver, Colorado.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Nevada and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Las Vegas, NV (served on conference organizing committee).

Hagemann, M.F., 2004. Invited testimony to a California Senate committee hearing on air toxins at schools in Southern California, Los Angeles.

Brown, A., Farrow, J., Gray, A. and **Hagemann, M., 2004.** An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to the Ground Water and Environmental Law Conference, National Groundwater Association.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Arizona and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Phoenix, AZ (served on conference organizing committee).

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in the Southwestern U.S. Invited presentation to a special committee meeting of the National Academy of Sciences, Irvine, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a tribal EPA meeting, Pechanga, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a meeting of tribal representatives, Parker, AZ.

Hagemann, M.F., 2003. Impact of Perchlorate on the Colorado River and Associated Drinking Water Supplies. Invited presentation to the Inter-Tribal Meeting, Torres Martinez Tribe.

Hagemann, M.F., 2003. The Emergence of Perchlorate as a Widespread Drinking Water Contaminant. Invited presentation to the U.S. EPA Region 9.

Hagemann, M.F., 2003. A Deductive Approach to the Assessment of Perchlorate Contamination. Invited presentation to the California Assembly Natural Resources Committee.

Hagemann, M.F., 2003. Perchlorate: A Cold War Legacy in Drinking Water. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. From Tank to Tap: A Chronology of MTBE in Groundwater. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. A Chronology of MTBE in Groundwater and an Estimate of Costs to Address Impacts to Groundwater. Presentation to the annual meeting of the Society of Environmental Journalists.

Hagemann, M.F., 2002. An Estimate of the Cost to Address MTBE Contamination in Groundwater (and Who Will Pay). Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to a meeting of the U.S. EPA and State Underground Storage Tank Program managers.

Hagemann, M.F., 2001. From Tank to Tap: A Chronology of MTBE in Groundwater. Unpublished report.

Hagemann, M.F., 2001. Estimated Cleanup Cost for MTBE in Groundwater Used as Drinking Water. Unpublished report.

Hagemann, M.F., 2001. Estimated Costs to Address MTBE Releases from Leaking Underground Storage Tanks. Unpublished report.

Hagemann, M.F., and VanMouwerik, M., 1999. Potential Water Quality Concerns Related to Snowmobile Usage. Water Resources Division, National Park Service, Technical Report.

VanMouwerik, M. and **Hagemann, M.F.** 1999, Water Quality Concerns Related to Personal Watercraft Usage. Water Resources Division, National Park Service, Technical Report.

Hagemann, M.F., 1999, Is Dilution the Solution to Pollution in National Parks? The George Wright Society Biannual Meeting, Asheville, North Carolina.

Hagemann, M.F., 1997, The Potential for MTBE to Contaminate Groundwater. U.S. EPA Superfund Groundwater Technical Forum Annual Meeting, Las Vegas, Nevada.

Hagemann, M.F., and Gill, M., 1996, Impediments to Intrinsic Remediation, Moffett Field Naval Air Station, Conference on Intrinsic Remediation of Chlorinated Hydrocarbons, Salt Lake City.

Hagemann, M.F., Fukunaga, G.L., 1996, The Vulnerability of Groundwater to Anthropogenic Contaminants on the Island of Maui, Hawaii. Hawaii Water Works Association Annual Meeting, Maui, October 1996.

Hagemann, M.F., Fukunaga, G.L., 1996, Ranking Groundwater Vulnerability in Central Oahu, Hawaii. Proceedings, Geographic Information Systems in Environmental Resources Management, Air and Waste Management Association Publication VIP-61.

Hagemann, M.F., 1994. Groundwater Characterization and Cleanup at Closing Military Bases in California. Proceedings, California Groundwater Resources Association Meeting.

Hagemann, M.F. and Sabol, M.A., 1993. Role of the U.S. EPA in the High Plains States Groundwater Recharge Demonstration Program. Proceedings, Sixth Biennial Symposium on the Artificial Recharge of Groundwater.

Hagemann, M.F., 1993. U.S. EPA Policy on the Technical Impracticability of the Cleanup of DNAPL-contaminated Groundwater. California Groundwater Resources Association Meeting.

Hagemann, M.F., 1992. Dense Nonaqueous Phase Liquid Contamination of Groundwater: An Ounce of Prevention... Proceedings, Association of Engineering Geologists Annual Meeting, v. 35.

Other Experience:

Selected as subject matter expert for the California Professional Geologist licensing examinations, 2009-2011.

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HADLEY KATHRYN NOLAN



SOIL WATER AIR PROTECTION ENTERPRISE
2656 29th Street, Suite 201
Santa Monica, California 90405
Mobile: (678) 551-0836
Office: (310) 452-5555
Fax: (310) 452-5550
Email: hadley@swape.com

EDUCATION

UNIVERSITY OF CALIFORNIA, LOS ANGELES B.S. ENVIRONMENTAL SCIENCES & ENVIRONMENTAL SYSTEMS AND SOCIETY *JUNE 2016*

PROJECT EXPERIENCE

SOIL WATER AIR PROTECTION ENTERPRISE **SANTA MONICA, CA**

AIR QUALITY SPECIALIST

SENIOR PROJECT ANALYST: CEQA ANALYSIS & MODELING

- Modeled construction and operational activities for proposed land use projects using CalEEMod to quantify criteria air pollutant and greenhouse gas (GHG) emissions.
- Organized presentations containing figures and tables that compare results of criteria air pollutant analyses to thresholds.
- Quantified ambient air concentrations at sensitive receptor locations using AERSCREEN, a U.S. EPA recommended screening level dispersion model.
- Conducted construction and operational health risk assessments for residential, worker, and school children sensitive receptors.
- Prepared reports that discuss adequacy of air quality and health risk analyses conducted for proposed land use developments subject to CEQA review by verifying compliance with local, state, and regional regulations.

SENIOR PROJECT ANALYST: GREENHOUSE GAS MODELING AND DETERMINATION OF SIGNIFICANCE

- Evaluated environmental impact reports for proposed projects to identify discrepancies with the methods used to quantify and assess GHG impacts.
- Quantified GHG emissions for proposed projects using CalEEMod to produce reports, tables, and figures that compare emissions to applicable CEQA thresholds and reduction targets.
- Determined compliance of proposed land use developments with AB 32 GHG reduction targets, with GHG significance thresholds recommended by Air Quality Management Districts in California, and with guidelines set forth by CEQA.

PROJECT ANALYST: ASSESSMENT OF AIR QUALITY IMPACTS FROM PROPOSED DIRECT TRANSFER FACILITY

- Assessed air quality impacts resulting from implementation of a proposed Collection Service Agreement for Exclusive Residential and Commercial Garbage, Recyclable Materials, and Organic Waste Collection Services for a community.
- Organized tables and maps to demonstrate potential air quality impacts resulting from proposed hauling trip routes.
- Conducted air quality analyses that compared quantified criteria air pollutant emissions released during construction of direct transfer facility to the Bay Area Air Quality Management District's (BAAQMD) significance thresholds.
- Prepared final analytical report to demonstrate local and regional air quality impacts, as well as GHG impacts.

PROJECT ANALYST: EXPOSURE ASSESSMENT OF LEAD PRODUCTS FOR PROPOSITION 65 COMPLIANCE DETERMINATION

- Calculated human exposure and lifetime health risk for over 300 lead products undergoing Proposition 65 compliance review.
- Compiled and analyzed laboratory testing data and produced tables, charts, and graphs to exhibit emission levels.
- Compared finalized testing data to Proposition 65 Maximum Allowable Dose Levels (MADLs) to determine level of compliance.
- Prepared final analytical lead exposure Certificate of Merit (COM) reports and organized supporting data for use in environmental enforcement statute Proposition 65 cases.

ACCOMPLISHMENTS

- Academic Honoree, Dean's List, University of California, Los Angeles **MAR 2013, MAR 2014, JAN 2015, JAN 2016**

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```
3200construction.log
Start date and time 03/07/18 13:55:45
AERSCREEN 16216

3200 E Foothill Construction

3200 E Foothill Construction

----- DATA ENTRY VALIDATION -----
METRIC          ENGLISH
** AREADATA **  -----
Emission Rate:  0.295E-02 g/s      0.235E-01 lb/hr
Area Height:    3.00 meters        9.84 feet
Area Source Length: 215.00 meters  705.38 feet
Area Source Width: 157.00 meters  515.09 feet
Vertical Dimension: 1.50 meters    4.92 feet
Model Mode:    URBAN
Population:    142059
Dist to Ambient Air: 1.0 meters    3. feet

** BUILDING DATA **

No Building Downwash Parameters

** TERRAIN DATA **

No Terrain Elevations
Source Base Elevation: 0.0 meters  0.0 feet
Page 1
```

32

```
3200construction.log
Start date and time 03/07/18 13:55:45
AERSCREEN 16216

3200 E Foothill Construction

3200 E Foothill Construction

----- DATA ENTRY VALIDATION -----
METRIC          ENGLISH
** AREADATA **  -----
Emission Rate:  0.295E-02 g/s      0.235E-01 lb/hr
Area Height:    3.00 meters        9.84 feet
Area Source Length: 215.00 meters  705.38 feet
Area Source Width: 157.00 meters  515.09 feet
Vertical Dimension: 1.50 meters    4.92 feet
Model Mode:     URBAN
Population:     142059
Dist to Ambient Air: 1.0 meters    3. feet

** BUILDING DATA **

No Building Downwash Parameters

** TERRAIN DATA **

No Terrain Elevations
Source Base Elevation: 0.0 meters  0.0 feet
Page 1
```

32

3200construction.log

Probe distance: 5000. meters 16404. feet

No flagpole receptors

No discrete receptors used

** FUMIGATION DATA **

No fumigation requested

** METEOROLOGY DATA **

Min/Max Temperature: 250.0 / 310.0 K -9.7 / 98.3 Deg F

Minimum Wind Speed: 0.5 m/s

Anemometer Height: 10.000 meters

Dominant Surface Profile: Urban

Dominant Climate Type: Average Moisture

Surface friction velocity (u*): not adjusted

DEBUG OPTION OFF

AERSCREEN output file:

32

Page 2

```
3200construction.out          3200construction.log

*** AERSCREEN Run is Ready to Begin

No terrain used, AERMAP will not be run
*****

SURFACE CHARACTERISTICS & MAKEMET
obtaining surface characteristics...

Using AERMET seasonal surface characteristics for Urban with Average Moisture
Season      Albedo    Bo        zo
Winter      0.35      1.50      1.000
Spring      0.14      1.00      1.000
Summer      0.16      2.00      1.000
Autumn      0.18      2.00      1.000

Creating met files aerscreen_01_01.sfc & aerscreen_01_01.pfl

Creating met files aerscreen_02_01.sfc & aerscreen_02_01.pfl

Creating met files aerscreen_03_01.sfc & aerscreen_03_01.pfl

Creating met files aerscreen_04_01.sfc & aerscreen_04_01.pfl

Buildings and/or terrain present or rectangular area source, skipping probe

FLOWSECTOR  started 03/07/18 13:58:49
*****
Page 3
```

32

3200construction.log

```
Running AERMOD
Processing winter

Processing surface roughness sector 1
*****
Processing wind flow sector 1
AERMOD Finishes Successfully for FLOWSECTOR stage 2 winter sector 0

***** WARNING MESSAGES *****
*** NONE ***

*****
Processing wind flow sector 2
AERMOD Finishes Successfully for FLOWSECTOR stage 2 winter sector 5

***** WARNING MESSAGES *****
*** NONE ***

*****
Processing wind flow sector 3
AERMOD Finishes Successfully for FLOWSECTOR stage 2 winter sector 10

***** WARNING MESSAGES *****
*** NONE ***

*****
Page 4
```

32

```
Processing wind flow sector 4 3200construction.log

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 15

***** WARNING MESSAGES *****
*** NONE ***

*****
Processing wind flow sector 5

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 20

***** WARNING MESSAGES *****
*** NONE ***

*****
Processing wind flow sector 6

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 25

***** WARNING MESSAGES *****
*** NONE ***

*****
Processing wind flow sector 7

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 30

***** WARNING MESSAGES *****
*** NONE ***

*****
Page 5
```

32

```
3200construction.log
Processing wind flow sector 8
AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 35
***** WARNING MESSAGES *****
*** NONE ***
*****
Processing wind flow sector 9
AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 40
***** WARNING MESSAGES *****
*** NONE ***
*****
Running AERMOD
Processing Spring
Processing surface roughness sector 1
*****
Processing wind flow sector 1
AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 0
***** WARNING MESSAGES *****
*** NONE ***
*****
Processing wind flow sector 2
```

```
3200construction.log  
  
AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 5  
  
***** WARNING MESSAGES *****  
*** NONE ***  
  
*****  
Processing wind flow sector 3  
  
AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 10  
  
***** WARNING MESSAGES *****  
*** NONE ***  
  
*****  
Processing wind flow sector 4  
  
AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 15  
  
***** WARNING MESSAGES *****  
*** NONE ***  
  
*****  
Processing wind flow sector 5  
  
AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 20  
  
***** WARNING MESSAGES *****  
*** NONE ***  
  
*****  
Processing wind flow sector 6  
  
Page 7
```

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3200construction.log

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 25

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 7

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 30

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 8

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 35

***** WARNING MESSAGES *****

*** NONE ***

Processing wind flow sector 9

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 40

***** WARNING MESSAGES *****

*** NONE ***

Page 8

32

```
Running AERMOD          3200construction.log
Processing Summer

Processing surface roughness sector 1

*****
Processing wind flow sector 1

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 0

***** WARNING MESSAGES *****
*** NONE ***

*****
Processing wind flow sector 2

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 5

***** WARNING MESSAGES *****
*** NONE ***

*****
Processing wind flow sector 3

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 10

***** WARNING MESSAGES *****
*** NONE ***

*****
Processing wind flow sector 4
```

32

```
3200construction.log
AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 15

***** WARNING MESSAGES *****
*** NONE ***

*****
Processing wind flow sector 5

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 20

***** WARNING MESSAGES *****
*** NONE ***

*****
Processing wind flow sector 6

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 25

***** WARNING MESSAGES *****
*** NONE ***

*****
Processing wind flow sector 7

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 30

***** WARNING MESSAGES *****
*** NONE ***

*****
Processing wind flow sector 8

Page 10
```

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```
3200construction.log

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 35

***** WARNING MESSAGES *****
*** NONE ***

*****
Processing wind flow sector 9

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 40

***** WARNING MESSAGES *****
*** NONE ***

*****

Running AERMOD
Processing Autumn

Processing surface roughness sector 1

*****
Processing wind flow sector 1

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 0

***** WARNING MESSAGES *****
*** NONE ***

*****
Processing wind flow sector 2

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 5
Page 11
```

32

3200construction.log

```
***** WARNING MESSAGES *****
*** NONE ***

*****
Processing wind flow sector 3

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 10

***** WARNING MESSAGES *****
*** NONE ***

*****
Processing wind flow sector 4

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 15

***** WARNING MESSAGES *****
*** NONE ***

*****
Processing wind flow sector 5

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 20

***** WARNING MESSAGES *****
*** NONE ***

*****
Processing wind flow sector 6
```

Page 12

32

```
3200construction.log
AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 25

***** WARNING MESSAGES *****
*** NONE ***

*****
Processing wind flow sector 7

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 30

***** WARNING MESSAGES *****
*** NONE ***

*****
Processing wind flow sector 8

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 35

***** WARNING MESSAGES *****
*** NONE ***

*****
Processing wind flow sector 9

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 40

***** WARNING MESSAGES *****
*** NONE ***

FLOWSECTOR ended 03/07/18 13:59:24

REFINE started 03/07/18 13:59:24
Page 13
```

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3200construction.log

AERMOD Finishes Successfully for REFINE stage 3 Winter sector 0

***** WARNING MESSAGES *****

*** NONE ***

REFINE ended 03/07/18 13:59:28

AERSCREEN Finished Successfully

With no errors or warnings

check log file for details

Ending date and time 03/07/18 13:59:28

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3200construction_max_conc_distance.txt

Concentration	Distance	Elevation	Diag	Season/Month	Zo sector	Date				
HO	DT/DZ	ZICNV	ZIMCH	M-O LEN	ZO	BOWEN	ALBEDO	REF	WS	HT
0.23607E+01	1.00	0.00	25.0	winter	0-360	10011001				
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0				
310.0 2.0										
0.25682E+01	25.00	0.00	25.0	winter	0-360	10011001				
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0				
310.0 2.0										
0.27744E+01	50.00	0.00	0.0	winter	0-360	10011001				
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0				
310.0 2.0										
0.29539E+01	75.00	0.00	0.0	winter	0-360	10011001				
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0				
310.0 2.0										
0.31123E+01	100.00	0.00	5.0	winter	0-360	10011001				
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0				
310.0 2.0										
0.32083E+01	125.00	0.00	35.0	winter	0-360	10011001				
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0				
310.0 2.0										
* 0.32226E+01	131.00	0.00	35.0	winter	0-360	10011001				
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0				
310.0 2.0										
0.24140E+01	150.00	0.00	35.0	winter	0-360	10011001				
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0				
310.0 2.0										
0.18869E+01	175.00	0.00	35.0	winter	0-360	10011001				
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0				
310.0 2.0										
0.15387E+01	200.00	0.00	35.0	winter	0-360	10011001				
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0				
310.0 2.0										
0.13155E+01	225.00	0.00	30.0	winter	0-360	10011001				
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0				
310.0 2.0										
0.11524E+01	250.00	0.00	30.0	winter	0-360	10011001				
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0				
310.0 2.0										
0.10283E+01	275.00	0.00	25.0	winter	0-360	10011001				
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0				
310.0 2.0										
0.93217E+00	300.00	0.00	0.0	winter	0-360	10011001				
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0				
310.0 2.0										
0.85058E+00	325.00	0.00	0.0	winter	0-360	10011001				
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0				
310.0 2.0										
0.78014E+00	350.00	0.00	0.0	winter	0-360	10011001				
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0				
310.0 2.0										
0.71925E+00	375.00	0.00	0.0	winter	0-360	10011001				
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0				
310.0 2.0										
0.66585E+00	400.00	0.00	0.0	winter	0-360	10011001				
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0				
310.0 2.0										
0.61879E+00	425.00	0.00	0.0	winter	0-360	10011001				
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0				
310.0 2.0										
0.57727E+00	450.00	0.00	0.0	winter	0-360	10011001				
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0				
310.0 2.0										

3200construction_max_conc_distance.txt									
0.53998E+00	475.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0			
310.0 2.0									
0.50694E+00	500.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0			
310.0 2.0									
0.47701E+00	525.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0			
310.0 2.0									
0.45006E+00	550.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0			
310.0 2.0									
0.42554E+00	575.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0			
310.0 2.0									
0.40323E+00	600.00	0.00	5.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0			
310.0 2.0									
0.38282E+00	625.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0			
310.0 2.0									
0.36437E+00	650.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0			
310.0 2.0									
0.34713E+00	675.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0			
310.0 2.0									
0.33118E+00	700.00	0.00	5.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0			
310.0 2.0									
0.31663E+00	725.00	0.00	5.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0			
310.0 2.0									
0.30305E+00	750.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0			
310.0 2.0									
0.29059E+00	775.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0			
310.0 2.0									
0.27889E+00	800.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0			
310.0 2.0									
0.26797E+00	825.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0			
310.0 2.0									
0.25774E+00	850.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0			
310.0 2.0									
0.24814E+00	875.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0			
310.0 2.0									
0.23918E+00	900.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0			
310.0 2.0									
0.23078E+00	925.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0			
310.0 2.0									
0.22291E+00	950.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0			
310.0 2.0									
0.21543E+00	975.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0			
310.0 2.0									

3200construction_max_conc_distance.txt									
0.20835E+00	1000.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000	1.50		0.35	0.50	10.0	
310.0 2.0									
0.20167E+00	1025.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000	1.50		0.35	0.50	10.0	
310.0 2.0									
0.19538E+00	1050.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000	1.50		0.35	0.50	10.0	
310.0 2.0									
0.18942E+00	1075.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000	1.50		0.35	0.50	10.0	
310.0 2.0									
0.18379E+00	1100.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000	1.50		0.35	0.50	10.0	
310.0 2.0									
0.17840E+00	1125.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000	1.50		0.35	0.50	10.0	
310.0 2.0									
0.17328E+00	1150.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000	1.50		0.35	0.50	10.0	
310.0 2.0									
0.16842E+00	1175.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000	1.50		0.35	0.50	10.0	
310.0 2.0									
0.16380E+00	1200.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000	1.50		0.35	0.50	10.0	
310.0 2.0									
0.15940E+00	1225.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000	1.50		0.35	0.50	10.0	
310.0 2.0									
0.15516E+00	1250.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000	1.50		0.35	0.50	10.0	
310.0 2.0									
0.15111E+00	1275.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000	1.50		0.35	0.50	10.0	
310.0 2.0									
0.14725E+00	1300.00	0.00	5.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000	1.50		0.35	0.50	10.0	
310.0 2.0									
0.14358E+00	1325.00	0.00	5.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000	1.50		0.35	0.50	10.0	
310.0 2.0									
0.14005E+00	1350.00	0.00	5.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000	1.50		0.35	0.50	10.0	
310.0 2.0									
0.13667E+00	1375.00	0.00	5.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000	1.50		0.35	0.50	10.0	
310.0 2.0									
0.13341E+00	1400.00	0.00	5.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000	1.50		0.35	0.50	10.0	
310.0 2.0									
0.13030E+00	1425.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000	1.50		0.35	0.50	10.0	
310.0 2.0									
0.12732E+00	1450.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000	1.50		0.35	0.50	10.0	
310.0 2.0									
0.12446E+00	1475.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000	1.50		0.35	0.50	10.0	
310.0 2.0									
0.12172E+00	1500.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000	1.50		0.35	0.50	10.0	
310.0 2.0									

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3200construction_max_conc_distance.txt									
0.11908E+00	1525.00	0.00	0.0			winter	0-360	10011001	
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50		0.35	0.50	10.0
310.0 2.0									
0.11653E+00	1550.00	0.00	0.0			winter	0-360	10011001	
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50		0.35	0.50	10.0
310.0 2.0									
0.11406E+00	1575.00	0.00	0.0			winter	0-360	10011001	
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50		0.35	0.50	10.0
310.0 2.0									
0.11168E+00	1600.00	0.00	0.0			winter	0-360	10011001	
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50		0.35	0.50	10.0
310.0 2.0									
0.10939E+00	1625.00	0.00	0.0			winter	0-360	10011001	
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50		0.35	0.50	10.0
310.0 2.0									
0.10718E+00	1650.00	0.00	0.0			winter	0-360	10011001	
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50		0.35	0.50	10.0
310.0 2.0									
0.10503E+00	1675.00	0.00	0.0			winter	0-360	10011001	
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50		0.35	0.50	10.0
310.0 2.0									
0.10295E+00	1700.00	0.00	0.0			winter	0-360	10011001	
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50		0.35	0.50	10.0
310.0 2.0									
0.10094E+00	1725.00	0.00	0.0			winter	0-360	10011001	
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50		0.35	0.50	10.0
310.0 2.0									
0.99000E-01	1750.00	0.00	0.0			winter	0-360	10011001	
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50		0.35	0.50	10.0
310.0 2.0									
0.97122E-01	1775.00	0.00	0.0			winter	0-360	10011001	
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50		0.35	0.50	10.0
310.0 2.0									
0.95314E-01	1800.00	0.00	5.0			winter	0-360	10011001	
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50		0.35	0.50	10.0
310.0 2.0									
0.93560E-01	1825.00	0.00	5.0			winter	0-360	10011001	
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50		0.35	0.50	10.0
310.0 2.0									
0.91859E-01	1850.00	0.00	5.0			winter	0-360	10011001	
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50		0.35	0.50	10.0
310.0 2.0									
0.90217E-01	1875.00	0.00	10.0			winter	0-360	10011001	
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50		0.35	0.50	10.0
310.0 2.0									
0.88626E-01	1900.00	0.00	10.0			winter	0-360	10011001	
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50		0.35	0.50	10.0
310.0 2.0									
0.87085E-01	1924.99	0.00	10.0			winter	0-360	10011001	
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50		0.35	0.50	10.0
310.0 2.0									
0.85583E-01	1950.00	0.00	10.0			winter	0-360	10011001	
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50		0.35	0.50	10.0
310.0 2.0									
0.84123E-01	1975.01	0.00	10.0			winter	0-360	10011001	
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50		0.35	0.50	10.0
310.0 2.0									
0.82704E-01	2000.01	0.00	10.0			winter	0-360	10011001	
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50		0.35	0.50	10.0
310.0 2.0									
0.81328E-01	2025.00	0.00	5.0			winter	0-360	10011001	
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50		0.35	0.50	10.0
310.0 2.0									

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3200construction_max_conc_distance.txt											
0.79996E-01	2050.00	0.00	5.0		winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
0.78703E-01	2075.00	0.00	5.0		winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
0.77444E-01	2100.00	0.00	5.0		winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
0.76219E-01	2125.00	0.00	5.0		winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
0.75026E-01	2150.00	0.00	5.0		winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
0.73866E-01	2175.00	0.00	5.0		winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
0.72739E-01	2200.00	0.00	0.0		winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
0.71643E-01	2225.00	0.00	0.0		winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
0.70575E-01	2250.00	0.00	0.0		winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
0.69536E-01	2275.00	0.00	0.0		winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
0.68523E-01	2300.00	0.00	0.0		winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
0.67536E-01	2325.00	0.00	0.0		winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
0.66573E-01	2350.00	0.00	0.0		winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
0.65629E-01	2375.00	0.00	0.0		winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
0.64708E-01	2400.00	0.00	0.0		winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
0.63809E-01	2425.00	0.00	0.0		winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
0.62932E-01	2450.00	0.00	0.0		winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
0.62076E-01	2475.00	0.00	0.0		winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
0.61234E-01	2500.00	0.00	0.0		winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
0.60412E-01	2525.00	0.00	0.0		winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
0.59609E-01	2550.00	0.00	0.0		winter	0-360	10011001				
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										

3200construction_max_conc_distance.txt									
0.58824E-01	2575.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0 2.0									
0.58058E-01	2600.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0 2.0									
0.57308E-01	2625.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0 2.0									
0.56576E-01	2650.00	0.00	5.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0 2.0									
0.55862E-01	2675.00	0.00	5.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0 2.0									
0.55163E-01	2700.00	0.00	5.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0 2.0									
0.54478E-01	2725.00	0.00	5.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0 2.0									
0.53806E-01	2750.00	0.00	5.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0 2.0									
0.53807E-01	2775.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0 2.0									
0.53150E-01	2800.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0 2.0									
0.52508E-01	2825.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0 2.0									
0.51878E-01	2850.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0 2.0									
0.51261E-01	2875.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0 2.0									
0.50657E-01	2900.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0 2.0									
0.50066E-01	2925.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0 2.0									
0.49486E-01	2950.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0 2.0									
0.48918E-01	2975.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0 2.0									
0.48361E-01	3000.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0 2.0									
0.47814E-01	3025.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0 2.0									
0.47279E-01	3050.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0 2.0									
0.46753E-01	3075.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0 2.0									

3200construction_max_conc_distance.txt									
0.46238E-01	3100.00	0.00	5.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0			
310.0 2.0									
0.45732E-01	3125.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0			
310.0 2.0									
0.45237E-01	3150.00	0.00	5.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0			
310.0 2.0									
0.44750E-01	3175.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0			
310.0 2.0									
0.44272E-01	3200.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0			
310.0 2.0									
0.43803E-01	3225.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0			
310.0 2.0									
0.43342E-01	3250.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0			
310.0 2.0									
0.42890E-01	3275.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0			
310.0 2.0									
0.42446E-01	3300.00	0.00	5.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0			
310.0 2.0									
0.42010E-01	3325.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0			
310.0 2.0									
0.41582E-01	3350.00	0.00	5.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0			
310.0 2.0									
0.41161E-01	3375.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0			
310.0 2.0									
0.40747E-01	3400.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0			
310.0 2.0									
0.40341E-01	3425.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0			
310.0 2.0									
0.39941E-01	3450.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0			
310.0 2.0									
0.39548E-01	3475.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0			
310.0 2.0									
0.39162E-01	3500.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0			
310.0 2.0									
0.38783E-01	3525.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0			
310.0 2.0									
0.38410E-01	3550.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0			
310.0 2.0									
0.38042E-01	3575.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0			
310.0 2.0									
0.37681E-01	3600.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50	0.35	0.50	10.0			
310.0 2.0									

3200construction_max_conc_distance.txt									
0.37326E-01	3625.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0 2.0									
0.36977E-01	3650.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0 2.0									
0.36633E-01	3675.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0 2.0									
0.36295E-01	3700.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0 2.0									
0.35962E-01	3725.00	0.00	15.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0 2.0									
0.35634E-01	3750.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0 2.0									
0.35312E-01	3775.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0 2.0									
0.34994E-01	3800.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0 2.0									
0.34682E-01	3825.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0 2.0									
0.34374E-01	3849.99	0.00	15.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0 2.0									
0.34071E-01	3875.00	0.00	5.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0 2.0									
0.33772E-01	3900.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0 2.0									
0.33478E-01	3925.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0 2.0									
0.33189E-01	3950.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0 2.0									
0.32904E-01	3975.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0 2.0									
0.32623E-01	4000.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0 2.0									
0.32346E-01	4025.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0 2.0									
0.32073E-01	4050.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0 2.0									
0.31804E-01	4075.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0 2.0									
0.31539E-01	4100.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0 2.0									
0.31278E-01	4125.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0 2.0									

3200construction_max_conc_distance.txt									
0.31020E-01	4150.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50			0.35 0.50 10.0			
310.0 2.0									
0.30767E-01	4175.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50			0.35 0.50 10.0			
310.0 2.0									
0.30516E-01	4200.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50			0.35 0.50 10.0			
310.0 2.0									
0.30269E-01	4225.00	0.00	5.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50			0.35 0.50 10.0			
310.0 2.0									
0.30026E-01	4250.00	0.00	15.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50			0.35 0.50 10.0			
310.0 2.0									
0.29786E-01	4275.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50			0.35 0.50 10.0			
310.0 2.0									
0.29549E-01	4300.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50			0.35 0.50 10.0			
310.0 2.0									
0.29316E-01	4325.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50			0.35 0.50 10.0			
310.0 2.0									
0.29086E-01	4350.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50			0.35 0.50 10.0			
310.0 2.0									
0.28859E-01	4375.00	0.00	10.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50			0.35 0.50 10.0			
310.0 2.0									
0.28635E-01	4400.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50			0.35 0.50 10.0			
310.0 2.0									
0.28414E-01	4425.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50			0.35 0.50 10.0			
310.0 2.0									
0.28196E-01	4449.99	0.00	10.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50			0.35 0.50 10.0			
310.0 2.0									
0.27980E-01	4475.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50			0.35 0.50 10.0			
310.0 2.0									
0.27768E-01	4500.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50			0.35 0.50 10.0			
310.0 2.0									
0.27558E-01	4525.00	0.00	10.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50			0.35 0.50 10.0			
310.0 2.0									
0.27351E-01	4550.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50			0.35 0.50 10.0			
310.0 2.0									
0.27147E-01	4575.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50			0.35 0.50 10.0			
310.0 2.0									
0.26945E-01	4600.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50			0.35 0.50 10.0			
310.0 2.0									
0.26746E-01	4625.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50			0.35 0.50 10.0			
310.0 2.0									
0.26550E-01	4650.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50			0.35 0.50 10.0			
310.0 2.0									

3200construction_max_conc_distance.txt									
0.26356E-01	4675.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0 2.0									
0.26164E-01	4700.00	0.00	35.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0 2.0									
0.25975E-01	4725.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0 2.0									
0.25788E-01	4750.00	0.00	5.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0 2.0									
0.25604E-01	4775.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0 2.0									
0.25422E-01	4800.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0 2.0									
0.25241E-01	4825.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0 2.0									
0.25064E-01	4850.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0 2.0									
0.24888E-01	4875.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0 2.0									
0.24715E-01	4900.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0 2.0									
0.24543E-01	4924.99	0.00	15.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0 2.0									
0.24374E-01	4950.00	0.00	5.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0 2.0									
0.24206E-01	4975.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0 2.0									
0.24041E-01	5000.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000	0.020 -999.	21.	6.0	1.000	1.50	0.35	0.50	10.0	
310.0 2.0									

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```
3200operation.log
Start date and time 03/07/18 13:59:33
AERSCREEN 16216

3200 E Foothill Operation.out

----- DATA ENTRY VALIDATION -----
METRIC ENGLISH
** AREADATA ** -----
Emission Rate: 0.559E-02 g/s 0.444E-01 lb/hr
Area Height: 3.00 meters 9.84 feet
Area Source Length: 215.00 meters 705.38 feet
Area Source Width: 157.00 meters 515.09 feet
Vertical Dimension: 1.50 meters 4.92 feet
Model Mode: URBAN
Population: 142059
Dist to Ambient Air: 1.0 meters 3. feet

** BUILDING DATA **

No Building Downwash Parameters

** TERRAIN DATA **

No Terrain Elevations
Source Base Elevation: 0.0 meters 0.0 feet

Probe distance: 5000. meters 16404. feet
Page 1
```

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3200operation.log

No flagpole receptors

No discrete receptors used

** FUMIGATION DATA **

No fumigation requested

** METEOROLOGY DATA **

Min/Max Temperature: 250.0 / 310.0 K -9.7 / 98.3 Deg F

Minimum Wind Speed: 0.5 m/s

Anemometer Height: 10.000 meters

Dominant Surface Profile: Urban

Dominant Climate Type: Average Moisture

Surface friction velocity (u*): not adjusted

DEBUG OPTION OFF

AERSCREEN output file:
3200operation.out

32

Page 2

3200operation.log

*** AERSCREEN Run is Ready to Begin

No terrain used, AERMAP will not be run

SURFACE CHARACTERISTICS & MAKEMET

Obtaining surface characteristics...

Using AERMET seasonal surface characteristics for Urban with Average Moisture

Season	Albedo	Bo	zo
Winter	0.35	1.50	1.000
Spring	0.14	1.00	1.000
Summer	0.16	2.00	1.000
Autumn	0.18	2.00	1.000

Creating met files aerscreen_01_01.sfc & aerscreen_01_01.pfl

Creating met files aerscreen_02_01.sfc & aerscreen_02_01.pfl

Creating met files aerscreen_03_01.sfc & aerscreen_03_01.pfl

Creating met files aerscreen_04_01.sfc & aerscreen_04_01.pfl

Buildings and/or terrain present or rectangular area source, skipping probe

FLOWSECTOR started 03/07/18 14:00:14

Running AERMOD

Page 3

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```
3200operation.log
Processing Winter
Processing surface roughness sector 1
*****
Processing wind flow sector 1
AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 0
***** WARNING MESSAGES *****
*** NONE ***
*****
Processing wind flow sector 2
AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 5
***** WARNING MESSAGES *****
*** NONE ***
*****
Processing wind flow sector 3
AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 10
***** WARNING MESSAGES *****
*** NONE ***
*****
Processing wind flow sector 4
```

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```
3200operation.log
AERMOD Finishes Successfully for FLOWSECTOR stage 2 winter sector 15

***** WARNING MESSAGES *****
*** NONE ***

*****
Processing wind flow sector 5

AERMOD Finishes Successfully for FLOWSECTOR stage 2 winter sector 20

***** WARNING MESSAGES *****
*** NONE ***

*****
Processing wind flow sector 6

AERMOD Finishes Successfully for FLOWSECTOR stage 2 winter sector 25

***** WARNING MESSAGES *****
*** NONE ***

*****
Processing wind flow sector 7

AERMOD Finishes Successfully for FLOWSECTOR stage 2 winter sector 30

***** WARNING MESSAGES *****
*** NONE ***

*****
Processing wind flow sector 8
```

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```
3200operation.log
AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 35

***** WARNING MESSAGES *****
*** NONE ***

*****
Processing wind flow sector 9

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector 40

***** WARNING MESSAGES *****
*** NONE ***

*****

Running AERMOD
Processing Spring

Processing surface roughness sector 1

*****
Processing wind flow sector 1

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 0

***** WARNING MESSAGES *****
*** NONE ***

*****
Processing wind flow sector 2

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 5

Page 6
```

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3200operation.log

```
***** WARNING MESSAGES *****  
*** NONE ***
```

```
*****  
Processing wind flow sector 3
```

```
AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 10
```

```
***** WARNING MESSAGES *****  
*** NONE ***
```

```
*****  
Processing wind flow sector 4
```

```
AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 15
```

```
***** WARNING MESSAGES *****  
*** NONE ***
```

```
*****  
Processing wind flow sector 5
```

```
AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 20
```

```
***** WARNING MESSAGES *****  
*** NONE ***
```

```
*****  
Processing wind flow sector 6
```

```
AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 25  
Page 7
```

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3200operation.log

```
***** WARNING MESSAGES *****
*** NONE ***

*****
Processing wind flow sector 7

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 30

***** WARNING MESSAGES *****
*** NONE ***

*****
Processing wind flow sector 8

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 35

***** WARNING MESSAGES *****
*** NONE ***

*****
Processing wind flow sector 9

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector 40

***** WARNING MESSAGES *****
*** NONE ***

*****

Running AERMOD
Processing Summer
```

32

Page 8

```
3200operation.log

Processing surface roughness sector 1

*****
Processing wind flow sector 1

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 0

***** WARNING MESSAGES *****
*** NONE ***

*****
Processing wind flow sector 2

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 5

***** WARNING MESSAGES *****
*** NONE ***

*****
Processing wind flow sector 3

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 10

***** WARNING MESSAGES *****
*** NONE ***

*****
Processing wind flow sector 4

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 15
```

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```
3200operation.log
***** WARNING MESSAGES *****
*** NONE ***

*****
Processing wind flow sector 5

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 20

***** WARNING MESSAGES *****
*** NONE ***

*****
Processing wind flow sector 6

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 25

***** WARNING MESSAGES *****
*** NONE ***

*****
Processing wind flow sector 7

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 30

***** WARNING MESSAGES *****
*** NONE ***

*****
Processing wind flow sector 8

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 35
```

```
3200operation.log

***** WARNING MESSAGES *****
*** NONE ***

*****
Processing wind flow sector 9

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector 40

***** WARNING MESSAGES *****
*** NONE ***

*****

Running AERMOD
Processing Autumn

Processing surface roughness sector 1

*****
Processing wind flow sector 1

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 0

***** WARNING MESSAGES *****
*** NONE ***

*****
Processing wind flow sector 2

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 5

***** WARNING MESSAGES *****
Page 11
```

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```
3200operation.log
*** NONE ***
*****
Processing wind flow sector 3
AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 10
***** WARNING MESSAGES *****
*** NONE ***
*****
Processing wind flow sector 4
AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 15
***** WARNING MESSAGES *****
*** NONE ***
*****
Processing wind flow sector 5
AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 20
***** WARNING MESSAGES *****
*** NONE ***
*****
Processing wind flow sector 6
AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 25
```

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```
***** WARNING MESSAGES 3200operation.log *****
*** NONE ***

*****
Processing wind flow sector 7

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 30

***** WARNING MESSAGES *****
*** NONE ***

*****
Processing wind flow sector 8

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 35

***** WARNING MESSAGES *****
*** NONE ***

*****
Processing wind flow sector 9

AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector 40

***** WARNING MESSAGES *****
*** NONE ***

FLOWSECTOR ended 03/07/18 14:00:49

REFINE started 03/07/18 14:00:49

AERMOD Finishes Successfully for REFINE stage 3 Winter sector 0
Page 13
```

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3200operation.log

```
***** WARNING MESSAGES *****  
*** NONE ***
```

```
REFINE ended 03/07/18 14:00:52
```

```
*****
```

```
AERSCREEN Finished Successfully
```

```
With no errors or warnings
```

```
Check log file for details
```

```
*****
```

```
Ending date and time 03/07/18 14:00:52
```

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3200operation_max_conc_distance.txt

Concentration	Distance	Elevation	Diag	Season/Month	Zo	sector	Date
HO	DT/DZ	ZICNV	ZIMCH	M-O	LEN	ZO	HT
REF TA	HT	W*				BOWEN	ALBEDO
REF TA	HT	W*				REF	WS
0.44658E+01	1.00	0.00	25.0	winter		0-360	10011001
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50		0.35	0.50	10.0
310.0 2.0							
0.48584E+01	25.00	0.00	25.0	winter		0-360	10011001
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50		0.35	0.50	10.0
310.0 2.0							
0.52483E+01	50.00	0.00	0.0	winter		0-360	10011001
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50		0.35	0.50	10.0
310.0 2.0							
0.55878E+01	75.00	0.00	0.0	winter		0-360	10011001
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50		0.35	0.50	10.0
310.0 2.0							
0.58876E+01	100.00	0.00	5.0	winter		0-360	10011001
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50		0.35	0.50	10.0
310.0 2.0							
0.60692E+01	125.00	0.00	35.0	winter		0-360	10011001
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50		0.35	0.50	10.0
310.0 2.0							
* 0.60963E+01	131.00	0.00	35.0	winter		0-360	10011001
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50		0.35	0.50	10.0
310.0 2.0							
0.45665E+01	150.00	0.00	35.0	winter		0-360	10011001
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50		0.35	0.50	10.0
310.0 2.0							
0.35694E+01	175.00	0.00	35.0	winter		0-360	10011001
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50		0.35	0.50	10.0
310.0 2.0							
0.29108E+01	200.00	0.00	35.0	winter		0-360	10011001
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50		0.35	0.50	10.0
310.0 2.0							
0.24885E+01	225.00	0.00	30.0	winter		0-360	10011001
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50		0.35	0.50	10.0
310.0 2.0							
0.21800E+01	250.00	0.00	30.0	winter		0-360	10011001
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50		0.35	0.50	10.0
310.0 2.0							
0.19453E+01	275.00	0.00	25.0	winter		0-360	10011001
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50		0.35	0.50	10.0
310.0 2.0							
0.17634E+01	300.00	0.00	0.0	winter		0-360	10011001
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50		0.35	0.50	10.0
310.0 2.0							
0.16090E+01	325.00	0.00	0.0	winter		0-360	10011001
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50		0.35	0.50	10.0
310.0 2.0							
0.14758E+01	350.00	0.00	0.0	winter		0-360	10011001
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50		0.35	0.50	10.0
310.0 2.0							
0.13606E+01	375.00	0.00	0.0	winter		0-360	10011001
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50		0.35	0.50	10.0
310.0 2.0							
0.12596E+01	400.00	0.00	0.0	winter		0-360	10011001
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50		0.35	0.50	10.0
310.0 2.0							
0.11706E+01	425.00	0.00	0.0	winter		0-360	10011001
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50		0.35	0.50	10.0
310.0 2.0							
0.10920E+01	450.00	0.00	0.0	winter		0-360	10011001
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50		0.35	0.50	10.0
310.0 2.0							

3200operation_max_conc_distance.txt									
0.10215E+01	475.00	0.00	0.0	winter	0-360	10011001			
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.95898E+00	500.00	0.00	0.0	winter	0-360	10011001			
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.90236E+00	525.00	0.00	0.0	winter	0-360	10011001			
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.85138E+00	550.00	0.00	0.0	winter	0-360	10011001			
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.80500E+00	575.00	0.00	0.0	winter	0-360	10011001			
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.76279E+00	600.00	0.00	5.0	winter	0-360	10011001			
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.72419E+00	625.00	0.00	0.0	winter	0-360	10011001			
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.68928E+00	650.00	0.00	0.0	winter	0-360	10011001			
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.65667E+00	675.00	0.00	0.0	winter	0-360	10011001			
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.62650E+00	700.00	0.00	5.0	winter	0-360	10011001			
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.59898E+00	725.00	0.00	5.0	winter	0-360	10011001			
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.57328E+00	750.00	0.00	0.0	winter	0-360	10011001			
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.54970E+00	775.00	0.00	0.0	winter	0-360	10011001			
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.52757E+00	800.00	0.00	0.0	winter	0-360	10011001			
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.50692E+00	825.00	0.00	0.0	winter	0-360	10011001			
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.48756E+00	850.00	0.00	0.0	winter	0-360	10011001			
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.46942E+00	875.00	0.00	0.0	winter	0-360	10011001			
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.45246E+00	900.00	0.00	0.0	winter	0-360	10011001			
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.43658E+00	925.00	0.00	0.0	winter	0-360	10011001			
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.42168E+00	950.00	0.00	0.0	winter	0-360	10011001			
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.40753E+00	975.00	0.00	0.0	winter	0-360	10011001			
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									

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3200operation_max_conc_distance.txt									
0.39414E+00	1000.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50	0.35	0.50	10.0			
310.0 2.0									
0.38151E+00	1025.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50	0.35	0.50	10.0			
310.0 2.0									
0.36960E+00	1050.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50	0.35	0.50	10.0			
310.0 2.0									
0.35833E+00	1075.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50	0.35	0.50	10.0			
310.0 2.0									
0.34768E+00	1100.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50	0.35	0.50	10.0			
310.0 2.0									
0.33748E+00	1125.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50	0.35	0.50	10.0			
310.0 2.0									
0.32780E+00	1150.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50	0.35	0.50	10.0			
310.0 2.0									
0.31861E+00	1175.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50	0.35	0.50	10.0			
310.0 2.0									
0.30987E+00	1200.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50	0.35	0.50	10.0			
310.0 2.0									
0.30155E+00	1225.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50	0.35	0.50	10.0			
310.0 2.0									
0.29352E+00	1250.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50	0.35	0.50	10.0			
310.0 2.0									
0.28586E+00	1275.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50	0.35	0.50	10.0			
310.0 2.0									
0.27855E+00	1300.00	0.00	5.0		winter	0-360	10011001		
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50	0.35	0.50	10.0			
310.0 2.0									
0.27161E+00	1325.00	0.00	5.0		winter	0-360	10011001		
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50	0.35	0.50	10.0			
310.0 2.0									
0.26494E+00	1350.00	0.00	5.0		winter	0-360	10011001		
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50	0.35	0.50	10.0			
310.0 2.0									
0.25853E+00	1375.00	0.00	5.0		winter	0-360	10011001		
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50	0.35	0.50	10.0			
310.0 2.0									
0.25238E+00	1400.00	0.00	5.0		winter	0-360	10011001		
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50	0.35	0.50	10.0			
310.0 2.0									
0.24649E+00	1425.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50	0.35	0.50	10.0			
310.0 2.0									
0.24085E+00	1450.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50	0.35	0.50	10.0			
310.0 2.0									
0.23545E+00	1475.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50	0.35	0.50	10.0			
310.0 2.0									
0.23025E+00	1500.00	0.00	0.0		winter	0-360	10011001		
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50	0.35	0.50	10.0			
310.0 2.0									

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3200operation_max_conc_distance.txt											
0.22526E+00	1525.00	0.00	0.0		winter	0-360	10011001				
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50	0.35	0.50	10.0					
310.0 2.0											
0.22043E+00	1550.00	0.00	0.0		winter	0-360	10011001				
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50	0.35	0.50	10.0					
310.0 2.0											
0.21576E+00	1575.00	0.00	0.0		winter	0-360	10011001				
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50	0.35	0.50	10.0					
310.0 2.0											
0.21126E+00	1600.00	0.00	0.0		winter	0-360	10011001				
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50	0.35	0.50	10.0					
310.0 2.0											
0.20693E+00	1625.00	0.00	0.0		winter	0-360	10011001				
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50	0.35	0.50	10.0					
310.0 2.0											
0.20275E+00	1650.00	0.00	0.0		winter	0-360	10011001				
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50	0.35	0.50	10.0					
310.0 2.0											
0.19869E+00	1675.00	0.00	0.0		winter	0-360	10011001				
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50	0.35	0.50	10.0					
310.0 2.0											
0.19476E+00	1700.00	0.00	0.0		winter	0-360	10011001				
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50	0.35	0.50	10.0					
310.0 2.0											
0.19095E+00	1725.00	0.00	0.0		winter	0-360	10011001				
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50	0.35	0.50	10.0					
310.0 2.0											
0.18728E+00	1750.00	0.00	0.0		winter	0-360	10011001				
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50	0.35	0.50	10.0					
310.0 2.0											
0.18373E+00	1775.00	0.00	0.0		winter	0-360	10011001				
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50	0.35	0.50	10.0					
310.0 2.0											
0.18031E+00	1800.00	0.00	5.0		winter	0-360	10011001				
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50	0.35	0.50	10.0					
310.0 2.0											
0.17699E+00	1825.00	0.00	5.0		winter	0-360	10011001				
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50	0.35	0.50	10.0					
310.0 2.0											
0.17377E+00	1850.00	0.00	5.0		winter	0-360	10011001				
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50	0.35	0.50	10.0					
310.0 2.0											
0.17066E+00	1875.00	0.00	10.0		winter	0-360	10011001				
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50	0.35	0.50	10.0					
310.0 2.0											
0.16766E+00	1900.00	0.00	10.0		winter	0-360	10011001				
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50	0.35	0.50	10.0					
310.0 2.0											
0.16474E+00	1924.99	0.00	10.0		winter	0-360	10011001				
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50	0.35	0.50	10.0					
310.0 2.0											
0.16190E+00	1950.00	0.00	10.0		winter	0-360	10011001				
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50	0.35	0.50	10.0					
310.0 2.0											
0.15914E+00	1975.01	0.00	10.0		winter	0-360	10011001				
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50	0.35	0.50	10.0					
310.0 2.0											
0.15645E+00	2000.01	0.00	10.0		winter	0-360	10011001				
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50	0.35	0.50	10.0					
310.0 2.0											
0.15385E+00	2025.00	0.00	5.0		winter	0-360	10011001				
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50	0.35	0.50	10.0					
310.0 2.0											

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3200operation_max_conc_distance.txt									
0.15133E+00	2050.00	0.00	5.0	winter	0-360	10011001			
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.14888E+00	2075.00	0.00	5.0	winter	0-360	10011001			
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.14650E+00	2100.00	0.00	5.0	winter	0-360	10011001			
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.14418E+00	2125.00	0.00	5.0	winter	0-360	10011001			
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.14193E+00	2150.00	0.00	5.0	winter	0-360	10011001			
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.13973E+00	2175.00	0.00	5.0	winter	0-360	10011001			
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.13760E+00	2200.00	0.00	0.0	winter	0-360	10011001			
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.13553E+00	2225.00	0.00	0.0	winter	0-360	10011001			
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.13351E+00	2250.00	0.00	0.0	winter	0-360	10011001			
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.13154E+00	2275.00	0.00	0.0	winter	0-360	10011001			
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.12962E+00	2300.00	0.00	0.0	winter	0-360	10011001			
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.12776E+00	2325.00	0.00	0.0	winter	0-360	10011001			
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.12594E+00	2350.00	0.00	0.0	winter	0-360	10011001			
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.12415E+00	2375.00	0.00	0.0	winter	0-360	10011001			
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.12241E+00	2400.00	0.00	0.0	winter	0-360	10011001			
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.12071E+00	2425.00	0.00	0.0	winter	0-360	10011001			
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.11905E+00	2450.00	0.00	0.0	winter	0-360	10011001			
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.11743E+00	2475.00	0.00	0.0	winter	0-360	10011001			
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.11584E+00	2500.00	0.00	0.0	winter	0-360	10011001			
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.11428E+00	2525.00	0.00	0.0	winter	0-360	10011001			
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.11276E+00	2550.00	0.00	0.0	winter	0-360	10011001			
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									

3200operation_max_conc_distance.txt									
0.11128E+00	2575.00	0.00	0.0	winter	0-360	10011001			
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.10983E+00	2600.00	0.00	0.0	winter	0-360	10011001			
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.10841E+00	2625.00	0.00	0.0	winter	0-360	10011001			
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.10702E+00	2650.00	0.00	5.0	winter	0-360	10011001			
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.10567E+00	2675.00	0.00	5.0	winter	0-360	10011001			
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.10435E+00	2700.00	0.00	5.0	winter	0-360	10011001			
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.10306E+00	2725.00	0.00	5.0	winter	0-360	10011001			
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.10179E+00	2750.00	0.00	5.0	winter	0-360	10011001			
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.10179E+00	2775.00	0.00	0.0	winter	0-360	10011001			
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.10054E+00	2800.00	0.00	0.0	winter	0-360	10011001			
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.99329E-01	2825.00	0.00	0.0	winter	0-360	10011001			
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.98138E-01	2850.00	0.00	0.0	winter	0-360	10011001			
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.96972E-01	2875.00	0.00	0.0	winter	0-360	10011001			
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.95829E-01	2900.00	0.00	0.0	winter	0-360	10011001			
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.94710E-01	2925.00	0.00	0.0	winter	0-360	10011001			
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.93613E-01	2950.00	0.00	0.0	winter	0-360	10011001			
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.92538E-01	2975.00	0.00	0.0	winter	0-360	10011001			
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.91484E-01	3000.00	0.00	0.0	winter	0-360	10011001			
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.90451E-01	3025.00	0.00	0.0	winter	0-360	10011001			
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.89437E-01	3050.00	0.00	0.0	winter	0-360	10011001			
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.88444E-01	3075.00	0.00	0.0	winter	0-360	10011001			
-1.30 0.043 -9.000 0.020 -999. 21.			6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									

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3200operation_max_conc_distance.txt									
0.87469E-01	3100.00	0.00	5.0	winter	0-360	10011001			
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000	1.50	0.35	0.50	10.0		
310.0 2.0									
0.86512E-01	3125.00	0.00	0.0	winter	0-360	10011001			
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000	1.50	0.35	0.50	10.0		
310.0 2.0									
0.85574E-01	3150.00	0.00	5.0	winter	0-360	10011001			
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000	1.50	0.35	0.50	10.0		
310.0 2.0									
0.84653E-01	3175.00	0.00	0.0	winter	0-360	10011001			
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000	1.50	0.35	0.50	10.0		
310.0 2.0									
0.83750E-01	3200.00	0.00	5.0	winter	0-360	10011001			
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000	1.50	0.35	0.50	10.0		
310.0 2.0									
0.82862E-01	3225.00	0.00	0.0	winter	0-360	10011001			
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000	1.50	0.35	0.50	10.0		
310.0 2.0									
0.81991E-01	3250.00	0.00	5.0	winter	0-360	10011001			
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000	1.50	0.35	0.50	10.0		
310.0 2.0									
0.81136E-01	3275.00	0.00	0.0	winter	0-360	10011001			
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000	1.50	0.35	0.50	10.0		
310.0 2.0									
0.80296E-01	3300.00	0.00	5.0	winter	0-360	10011001			
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000	1.50	0.35	0.50	10.0		
310.0 2.0									
0.79471E-01	3325.00	0.00	0.0	winter	0-360	10011001			
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000	1.50	0.35	0.50	10.0		
310.0 2.0									
0.78660E-01	3350.00	0.00	0.0	winter	0-360	10011001			
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000	1.50	0.35	0.50	10.0		
310.0 2.0									
0.77864E-01	3375.00	0.00	0.0	winter	0-360	10011001			
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000	1.50	0.35	0.50	10.0		
310.0 2.0									
0.77081E-01	3400.00	0.00	5.0	winter	0-360	10011001			
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000	1.50	0.35	0.50	10.0		
310.0 2.0									
0.76312E-01	3425.00	0.00	0.0	winter	0-360	10011001			
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000	1.50	0.35	0.50	10.0		
310.0 2.0									
0.75557E-01	3450.00	0.00	0.0	winter	0-360	10011001			
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000	1.50	0.35	0.50	10.0		
310.0 2.0									
0.74814E-01	3475.00	0.00	0.0	winter	0-360	10011001			
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000	1.50	0.35	0.50	10.0		
310.0 2.0									
0.74084E-01	3500.00	0.00	0.0	winter	0-360	10011001			
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000	1.50	0.35	0.50	10.0		
310.0 2.0									
0.73366E-01	3525.00	0.00	0.0	winter	0-360	10011001			
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000	1.50	0.35	0.50	10.0		
310.0 2.0									
0.72659E-01	3550.00	0.00	5.0	winter	0-360	10011001			
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000	1.50	0.35	0.50	10.0		
310.0 2.0									
0.71965E-01	3575.00	0.00	0.0	winter	0-360	10011001			
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000	1.50	0.35	0.50	10.0		
310.0 2.0									
0.71282E-01	3600.00	0.00	15.0	winter	0-360	10011001			
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000	1.50	0.35	0.50	10.0		
310.0 2.0									

3200operation_max_conc_distance.txt									
0.70610E-01	3625.00	0.00	0.0	winter	0-360	10011001			
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.69949E-01	3650.00	0.00	0.0	winter	0-360	10011001			
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.69299E-01	3675.00	0.00	0.0	winter	0-360	10011001			
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.68659E-01	3700.00	0.00	0.0	winter	0-360	10011001			
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.68030E-01	3725.00	0.00	15.0	winter	0-360	10011001			
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.67410E-01	3750.00	0.00	5.0	winter	0-360	10011001			
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.66800E-01	3775.00	0.00	0.0	winter	0-360	10011001			
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.66199E-01	3800.00	0.00	0.0	winter	0-360	10011001			
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.65608E-01	3825.00	0.00	5.0	winter	0-360	10011001			
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.65026E-01	3849.99	0.00	15.0	winter	0-360	10011001			
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.64452E-01	3875.00	0.00	5.0	winter	0-360	10011001			
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.63888E-01	3900.00	0.00	0.0	winter	0-360	10011001			
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.63332E-01	3925.00	0.00	5.0	winter	0-360	10011001			
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.62784E-01	3950.00	0.00	0.0	winter	0-360	10011001			
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.62244E-01	3975.00	0.00	5.0	winter	0-360	10011001			
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.61712E-01	4000.00	0.00	0.0	winter	0-360	10011001			
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.61189E-01	4025.00	0.00	5.0	winter	0-360	10011001			
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310.0 2.0									
0.60672E-01	4050.00	0.00	0.0	winter	0-360	10011001			
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.60164E-01	4075.00	0.00	5.0	winter	0-360	10011001			
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									
0.59663E-01	4100.00	0.00	25.0	winter	0-360	10011001			
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310.0 2.0									
0.59168E-01	4125.00	0.00	15.0	winter	0-360	10011001			
-1.30 0.043 -9.000	0.020 -999.	21.	6.0 1.000 1.50		0.35	0.50	10.0		
310.0 2.0									

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3200operation_max_conc_distance.txt											
0.58681E-01	4149.99	0.00	20.0					winter	0-360	10011001	
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310.0	2.0										
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310.0	2.0										
0.57728E-01	4200.00	0.00	0.0					winter	0-360	10011001	
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310.0	2.0										
0.57261E-01	4225.00	0.00	10.0					winter	0-360	10011001	
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310.0	2.0										
0.56801E-01	4250.00	0.00	10.0					winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
0.56347E-01	4275.00	0.00	0.0					winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
0.55899E-01	4300.00	0.00	0.0					winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
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-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
0.55022E-01	4350.00	0.00	10.0					winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
0.54592E-01	4375.00	0.00	5.0					winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
0.54168E-01	4400.00	0.00	0.0					winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
0.53750E-01	4425.00	0.00	0.0					winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
0.53338E-01	4449.99	0.00	10.0					winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
0.52930E-01	4475.00	0.00	10.0					winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
0.52529E-01	4499.99	0.00	35.0					winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
0.52132E-01	4525.00	0.00	10.0					winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
0.51741E-01	4550.00	0.00	0.0					winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
0.51354E-01	4575.00	0.00	20.0					winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
0.50973E-01	4599.99	0.00	40.0					winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
0.50596E-01	4625.00	0.00	0.0					winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										
0.50225E-01	4650.00	0.00	0.0					winter	0-360	10011001	
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35	0.50	10.0
310.0	2.0										

3200operation_max_conc_distance.txt									
0.49858E-01	4675.00	0.00	5.0	winter	0-360	10011001			
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35 0.50 10.0
310.0	2.0								
0.49495E-01	4700.00	0.00	15.0	winter	0-360	10011001			
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35 0.50 10.0
310.0	2.0								
0.49137E-01	4725.00	0.00	0.0	winter	0-360	10011001			
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35 0.50 10.0
310.0	2.0								
0.48784E-01	4750.00	0.00	0.0	winter	0-360	10011001			
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35 0.50 10.0
310.0	2.0								
0.48435E-01	4775.00	0.00	0.0	winter	0-360	10011001			
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35 0.50 10.0
310.0	2.0								
0.48090E-01	4800.00	0.00	5.0	winter	0-360	10011001			
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35 0.50 10.0
310.0	2.0								
0.47750E-01	4825.00	0.00	15.0	winter	0-360	10011001			
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35 0.50 10.0
310.0	2.0								
0.47413E-01	4850.00	0.00	0.0	winter	0-360	10011001			
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35 0.50 10.0
310.0	2.0								
0.47081E-01	4875.00	0.00	25.0	winter	0-360	10011001			
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35 0.50 10.0
310.0	2.0								
0.46753E-01	4899.99	0.00	35.0	winter	0-360	10011001			
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35 0.50 10.0
310.0	2.0								
0.46429E-01	4924.99	0.00	15.0	winter	0-360	10011001			
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35 0.50 10.0
310.0	2.0								
0.46108E-01	4950.00	0.00	0.0	winter	0-360	10011001			
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35 0.50 10.0
310.0	2.0								
0.45791E-01	4975.00	0.00	15.0	winter	0-360	10011001			
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35 0.50 10.0
310.0	2.0								
0.45479E-01	5000.00	0.00	0.0	winter	0-360	10011001			
-1.30	0.043	-9.000	0.020	-999.	21.	6.0	1.000	1.50	0.35 0.50 10.0
310.0	2.0								

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Letter 8

COMMENTER: Tanya A. Gulesserian, Adams Broadwell Joseph and Cardozo Attorneys at Law
on behalf of Coalition for Responsible Equitable Economic Development

DATE: March 26, 2018

Response to Comment 1

The commenter summarizes the project description, lists the required discretionary actions associated with the proposed project, and states that the project also requires approval of a Removal Action Workplan by the Department of Toxic Substances Control (DTSC). The commenter states that the Draft SCEA and public notices are incorrect, and that the project requires a Zoning Map Amendment to change the zoning designation from EPSP-D2-IG (East Pasadena Specific Plan subarea d2, General Industrial District) to PD (Planned Development), instead of ESPS-D1-IG.

The existing zoning is EPSP-D2-IG. This correction is noted and will be revised throughout the SCEA.

Response to Comment 2

The commenter alleges that the Draft SCEA does not comply with the requirements of CEQA and that there is no substantial evidence to support the City's conclusion that the project would result in less than significant impacts. The commenter further alleges that evidence shows that the project would result in significant impacts from hazards and air quality. The commenter requests preparation of a sustainable communities environmental impact report (SCEIR).

Based on the significance determinations provided in the SCEA, as well as the responses to the comments provided herein, the potentially significant impacts associated with air quality and hazards would be reduced to less than significant levels through implementation of the proposed mitigation measures and incorporation of the feasible mitigation measures, performance standards, and criteria from prior applicable EIRs. Therefore, preparation of a SCEIR is not warranted.

Response to Comment 3

The commenter discloses that they prepared their comments with the assistance of Soil Water/Air Protection Enterprise (SWAPE), which is included as Exhibit A to the comment letter, and urges that the City reject the SCEA and instead prepare an SCEIR.

Responses to Comments 27-31, below, address SWAPE's comments.

Response to Comment 4

The commenter includes a description of SWAPE, lists various organization members that live in the City of Pasadena, and states that SWAPE's interest is to enforce environmental laws that encourage sustainable development and ensure a safe working environment for its members.

This comment does not pertain to the adequacy of the SCEA and raises no environmental issues specific to the proposed project.

Response to Comment 5

The commenter includes a background of CEQA's purpose in the environmental review process, and states that a SCEA is not the proper document for the streamlined process allowed under CEQA. The commenter asserts that an SCEIR is required for the project.

See Response to Comment 2.

Response to Comment 6

The commenter states that the existing IG (General Industrial) zone does not allow for residential, mixed-use projects, so the request for a rezone is necessary to override the existing zoning. Further, the commenter states that the project will be detrimental to public health and thus does not qualify for a Planned Development rezone.

See Response to Comments 2 and 7.

Response to Comment 7

The commenter states an opinion that there is no substantial evidence that supports the City's conclusion that the contaminants of concerns at the site will be brought to a level that will not pose a risk to human health.

According to Exhibit E of the Executed Amendment to Agreement and Covenant Not to Sue for the Former Naval Information Research Foundation Under Sea Center Site, Pasadena Gateway, LLC (Pasadena Gateway), the Los Angeles Regional Water Quality Control Board (LARWQCB) and the California Department of Toxic Substances Control (DTSC) have entered into an agreement which requires Pasadena Gateway to develop a Remedial Investigation/Feasibility Study (RI/FS) and a Removal Action Work Plan (RAW) for the remediation of shallow soils at the site. The RI/FS has been reviewed and approved by DTSC, and the RAW has been submitted to DTSC and is pending approval. The agreement requires the RAW to be implemented, and a Removal Action Completion Report to be submitted to the DTSC. The DTSC will review the Removal Action Completion Report and will certify that remedial actions have been completed for the site, provided that the following conditions have been met:

- All response actions have been completed as necessary to ensure that hazardous materials at the site no longer pose a significant risk
- DTSC has determined that response action standards and objectives have been met
- DTSC has approved the Removal Action Completion Report
- DTSC has approved the final Operations and Maintenance (O&M) Plan, if necessary and appropriate

Thus, DTSC is responsible for determining that site soils have been adequately remediated to allow for residential land use. Contaminants of concern may currently exist at the site at concentrations that exceed acceptable health risks. The proposed project cannot proceed unless DTSC has verified that contaminant levels on-site do not exceed regulatory action levels. However, the extent of the on-site contaminant levels has been characterized and legally mandatory remediation has been imposed by DTSC. Implementation of the RI/FS and RAW would be adequate to remediate the site to a condition that is suitable for residential use, and no further analysis or mitigation is required in the SCEA. The DTSC analysis and the referenced agreement between DTSC, LARWQB, and Pasadena Gateway constitute the evidence that the City relied on reaching this conclusion. See also Response to Comment 9.

Response to Comment 8

The commenter states that, while the Specific Plan allows for mixed-use development in "appropriate areas," the proposed project is not consistent with the Specific Plan goals since a contaminated site is not an appropriate area.

See Response to Comment 7, which discusses the project's site suitability for residential use post site remediation. As discussed in Section 11, *Land Use and Planning*, of the SCEA, the East Pasadena Specific Plan encourages innovative housing developments through mixed-use and live-work projects

in appropriate areas. The proposed project would replace an existing self-storage facility with a new mixed-use residential development. Development would include 550 residential dwellings, including live-work spaces, supporting retail, public open space, and two parking structures. The project would also include an internal publicly-accessible paseo providing shoppers pedestrian access to onsite retail use while also promoting public/private interaction and mixing. The proposed project also supports alternative modes of transportation as it is in close proximity to and would be served by multiple public transit services, such as the Metro Gold Line and Pasadena Area Rapid Transit System.

Response to Comment 9

The commenter states that the Draft SCEA fails to analyze the project’s potentially significant impacts associated with site contamination by compressing the analysis and implementation of remedial actions into the project description instead of analyzing the issue in the relevant “Hazards and Hazardous Materials” discussion section.

The RAW is included in the Project Description because it is a component of the proposed project. Approval of the RAW by DTSC is one of the project’s required discretionary approvals and the project could not proceed without implementation of the RAW. To that end, DTSC specifically requested that the City include the RAW and its implementation in the Project Description of the CEQA document in a telephone conversation between City staff and DTSC on December 27, 2018 and a teleconference meeting between City staff, DTSC, and Rincon on January 16, 2018. In addition to describing the RAW and its requirements in the Project Description, the actions set forth by the RAW are analyzed in detail in Section 9, *Hazards and Hazardous Materials* of the SCEA (see pp. 120-129). Based on this analysis, additional mitigation measures were included to ensure that the RAW complies with applicable federal provisions governing hazardous waste sites. Upon completion of the remedial actions contained in the RAW and the additional mitigation measures included in the SCEA, potential hazards would be reduced to a less than significant level.

In contrast to the commenter’s assertion, the SCEA does not “compress the analysis of impacts and mitigation measures into a single issue.” Rather, the SCEA provides a detailed description of the RAW, which is a critical project component, in the Project Description section (see pp. 10-15) and provides an analysis of the project’s potential environmental impacts related to hazardous materials in the Initial Study Checklist portion of the SCEA (see pp. 120-129). This analysis characterizes and discloses all of the potential environmental impacts related to hazardous materials and summarizes the relevant components of the RAW to the extent that they alleviate potential environmental impacts. This analysis allows for meaningful consideration of whether mitigation measures are required and whether other more effective measures than those proposed should be considered. To that end, the analysis in the SCEA identifies the potential environmental consequences arising from the project and allows for the thoughtful analysis of the sufficiency of the totality of measures to mitigate those consequences.

Finally, in contrast to the commenter’s assertion, the SCEA does discuss and analyze whether the project would “be located on a site included on a list of hazardous material sites compiles pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?” The Checklist (see pp. 124-129) discusses in depth the databases searched pursuant to Section 65962.5, and the elements of the Project (through the RAW and RI/FS) and mitigation measures that would reduce impacts to less than significant, as further discussed above.

Response to Comment 10

The commenter states that the Draft SCEA does not disclose the contaminant levels of the site, describe the relationship between these exceedances in contamination with the surrounding environment, or show that remediation per the RAW would reduce contamination impacts below significance thresholds.

The SCEA indicates that health risk assessments found that polycyclic aromatic hydrocarbons (PAHs) in soil and tetrachloroethylene (PCE), trichloroethylene (TCE), carbon tetrachloride, and dibromochloromethane in soil vapor exceeded the cancer risk and hazard index set forth by the US EPA. In addition, the SCEA notes that elevated concentrations of arsenic and TPH have been detected onsite, that lead, mercury, and hexavalent chromium have been detected at concentrations exceeding RSLs set forth by the US EPA, and that dioxins and furans have been detected at concentrations exceeding preliminary remediation goals (PRGs) set forth by the US EPA, which were in effect in 1999, when the assessment was conducted.

Although the SCEA does not provide specific concentrations of contaminants of concern, concentrations are provided in Ninyo & Moore's RI/FS and RAW, which are public documents that describe in detail contaminant levels and health risks. These documents were provided to the commenter on February 28, 2018 and have been added to the SCEA as Appendix J (RI/FS) and Appendix K (RAW).

A Human Health Screening Evaluation was conducted by Ninyo & Moore for select COCs and was summarized in Section 7 of the RI/FS. Site-specific cleanup goals were proposed in Section 5 of the RAW. A summary follows:

Lead – detected at a maximum concentration of 2,230 mg/kg, exceeding the RSL/DTSC SL for lead in residential soil of 80 mg/kg. Lead hotspots will be removed during remedial excavation activities.

The proposed site-specific cleanup goal for lead is the DTSC SL of 80 mg/kg.

Mercury – detected at a maximum concentration of 13 mg/kg, exceeding the DTSC SL for mercury in residential soil of 1 mg/kg. Mercury hotspots in soil will be removed during remedial excavation activities. The proposed site-specific cleanup goal for mercury is the DTSC SL of 1.0mg/kg.

Arsenic – Detected in soil at concentrations exceeding the DTSC-SL of 1.1 mg/kg and/or assumed background concentration of 12 mg/kg. The proposed cleanup goal for arsenic is the background concentration of 12 mg/kg.

PAHs – exceeded RSLs/SLs in sediment samples collected from the storm drain catch basins. Proposed cleanup goals for the PAHs benzo(a)pyrene and benzo(b)fluoranthene in soil are the US EPA RSLs of 0.11 mg/kg and 1.1 mg/kg, respectively. Cleanup goals were not established for any other PAHs.

Petroleum Hydrocarbons – Hydrocarbon concentrations had been detected at concentrations exceeding the San Francisco Bay Regional Water Quality Control Board Environmental Screening Levels in soil collected from the storm drain catch basins. Proposed cleanup goals for TPHg, TPHd, and TPHmo are the SFBRWQCB ESLs of 100 mg/kg, 230 mg/kg, and 5,100 mg/kg, respectively.

Dioxins – detected in sediment from a storm drain catch basin located near a former incinerator. A site-specific cleanup goal was not proposed for dioxin, however the catch basin will be removed during remediation activities.

Hexavalent Chromium – The SCEA notes that although hexavalent chromium was detected in soil at concentrations exceeding the RSL, Ninyo & Moore determined that chromium concentrations were in fact within background concentrations for the region, and DTSC concurred. Therefore, a site-specific cleanup goal was not established for hexavalent chromium.

Volatile Organic Compounds (VOCs) PCE, TCE, carbon tetrachloride, dibromochloromethane – Ninyo & Moore developed a human health screening evaluation (HHSE) based on the 95% upper confidence level of VOCs in soil vapor. HHSE calculations indicated that PCE, TCE, carbon tetrachloride, and dibromochloromethane were present at concentrations that exceeded the acceptable cancer risk of 1.0×10^{-6} . The cumulative cancer risk for all detected VOCs in soil gas totaled 3.4×10^{-4} . Proposed site-specific cleanup goals for VOCs in soil vapor are depth-dependent, ranging from 0.238 µg/l to 0.705 µg/l for carbon tetrachloride, from 1.83 µg/l to 5.47 µg/l for PCE, and 4.25 µg/l to 12.4 µg/l for TCE, based on a health risk assessment conducted by Ninyo & Moore. A cleanup goal was not proposed for dibromochloromethane.

Although the HHSE did not indicate that the 95% UCL for PCE in soil exceeded the 1×10^{-6} cancer risk, a cleanup goal of 0.59 mg/kg, the DTSC SL, was proposed.

The facts for this project are unlike those in *Lotus v. Department of Transportation*, as cited by the commenter. Here, the conditions onsite have been analyzed by an expert resource agency, and legally required actions must be taken to clean up the site. What the commenter appears to demand is a re-analysis of the efficacy of the RAW and RI/RF, and a second-guessing of DTSC's conclusion that compliance therewith will mitigate the conditions currently on the site. The City may rely on DTSC's expertise and imposition of legally required actions rather than re-analyzing what has already been analyzed and conditioned for clean-up.

Also, see Response to Comment 7.

Response to Comment 11

The commenter states that the Draft SCEA fails to analyze the project's potentially significant impacts associated with site contamination by compressing the analysis and implementation of remedial actions into the project description instead of analyzing the issue in detail in the relevant "Hazards and Hazardous Materials" discussion section.

See Response to Comment 9.

Response to Comment 12

The commenter states that making the required significance finding involves identifying, analyzing, and assessing the level of significance. Further, crucial mitigation measures should not be incorporated into the project's description without analyzing the impact in detail.

The removal action outlined in the RAW, which, wholly independent of this project, must be implemented and certified by the DTSC, would eliminate or reduce contamination in shallow soil resulting from the former use of the project site for research and development to a level appropriate for residential use. That is the nature and legal requirement of the agreement entered into with the DTSC. The RAW is, therefore, a necessary component of the proposed project, so it is included in the Project Description. The actions proposed by the RAW are analyzed in detail in Section 9, *Hazards and Hazardous Materials*. Based on this analysis and the necessary outcome that will follow compliance with the RAW, additional mitigation measures were included to ensure compliance with applicable federal provisions governing hazardous waste sites. Also, see Responses to Comments 7, 9 and 10.

Response to Comment 13

The commenter states that the magnitude of risk associated with on-site volatile organic compounds (VOC) is now known and the project's measures that may be implemented to reduce the risk would not ensure a less than significant impact.

Health risk modeling has been performed for current on-site conditions, but the post-remediation health risks and reductions of contaminant concentrations, including VOCs, are not known. While the effectiveness of the removal action cannot be guaranteed at this time, post-remediation assessment, including soil vapor sampling and confirmation soil sampling, will provide DTSC with the necessary data to evaluate when the site is suitable for residential use. As noted above, the site cannot be occupied until DTSC certifies the site for residential use. If contaminants of concern remain at concentrations exceeding acceptable health risk levels, residential use will not be approved by the DTSC. See also responses to comments 10 and 14-17.

Response to Comment 14

The commenter states that the Draft SCEA fails to include any mitigation measure that directly addresses the VOCs and the associated risk, and adds that the Draft SCEA does not disclose the “significance of the impact”.

The proposed removal actions and installation of systems intended to prevent vapor intrusion outlined in the RAW and RI/FS directly address potential migration of VOCs into the future buildings, and are intended to reduce the impact of VOCs on the public to a less than significant level.

As noted in Response to Comment 10, site-specific cleanup goals have been proposed for VOCs in soil gas. Ninyo & Moore plan to excavate soil in identified hot-spot areas. Following remedial excavation additional soil vapor sampling will be conducted to determine if cleanup goals for soil vapor have been met. If soil vapor concentrations continue to exceed cleanup goals, additional excavation will be conducted. However, if excavation fails to reduce soil vapor concentrations Ninyo & Moore will install passive vapor mitigation systems (VMSs) beneath all slab-on-grade residential structures. The VMS may include an impermeable vapor barrier and sub-slab passive or active venting system. Post-construction vapor sampling conducted above the vapor barrier will determine whether passive or active venting will be implemented. Ninyo & Moore indicated that the VMSs would eliminate the exposure pathway for vapor intrusion to impact site residential and commercial receptors, thereby reducing the impact of VOCs on the public to a less than significant level.

If these measures fail to reduce the impact to a less than significant level, the site will not be certified for residential use by the DTSC.

Response to Comment 15

The commenter states that discussing mitigation measures as part of the project description violates CEQA.

See Responses to Comments 9 and 12.

Response to Comment 16

The commenter states that the City fails to discuss the health effects to the public, including future residents, associated with VOCs.

A Health Risk/Hazard Characterization was included in Ninyo & Moore’s RI/FS, which is a public document that was provided to the commenter on February 28, 2018. Please see response to Comment 10.

Response to Comment 17

The commenter again states that the City lacks evidence to support its conclusion that impacts from VOCs would be reduced below a level of significance with the measures described in the project description, RAW, and RI/FS. The commenter adds that none of the mitigation measures described by the City anywhere in the SCEA would reduce the project’s impacts from VOCs to below a level of significance.

As noted previously, in accordance with the executed agreement between Pasadena Gateway, LLC, the LARQCB, and DTSC, Ninyo & Moore will conduct hot spot excavations to remediate VOCs in soil and soil gas once structures are removed from the site. Following remedial excavation, additional soil vapor samples will be collected and a subsequent health risk assessment (HRA) will be developed based on the new data. If the updated HRA indicates that VOC concentrations in soil continue to pose an unacceptable health risk, then a vapor mitigation system will be installed beneath all slab-on-grade buildings at the site.

As noted by Ninyo & Moore in the RI/FS, VOCs, soil gas are believed to be associated with historical research and development activities, which ceased over 40 years ago. Thus, Ninyo & Moore state that

current or future migration of VOCs is unlikely. VOCs in soil gas naturally attenuate over time and should eventually reach levels that no longer require remediation. Although passive or active soil vapor mitigation systems will not reduce VOC concentrations in soil gas, such systems will reduce the impact of VOCs on the public to less than significant levels until such time as VOC concentrations have naturally attenuated and are no longer present at concentrations representing a human health risk.

According to the DTSC's *Final Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air (Vapor Intrusion Guidance)* dated October, 2011, the most commonly accepted mitigation techniques are subslab venting and subslab depressurization. According to the DTSC's *Vapor Intrusion Mitigation Advisory* dated October, 2011, subslab venting systems are designed to function by venting soil gases or providing a pathway to allow soil gas to migrate to the exterior of the building rather than entering the building. These systems draw outside air to the sub-slab area, which dilutes and reduces volatile chemical concentrations. Vapors are directed to the edge of the foundation by perforated collection pipes that are installed in the venting layer, beneath the slab, or at the periphery of the foundation. A sub-slab liner is also emplaced beneath the building. Sub-slab venting systems and sub-slab depressurization are the most commonly used mitigation techniques, and subslab venting systems are commonly used in new construction sites as a preemptive measure against vapor intrusion and have a successful track record of performance, according to the DTSC. Thus, the remediation activities proposed by Ninyo & Moore are expected to reduce VOC impacts to less than significant levels.

The commenter has not provided evidence to suggest that these measures are not sufficient to reduce the VOC impact to less than significant.

Response to Comments 18 and 19

The commenter states that the City ignores what measure would be taken if, after converting the venting systems from passive to active, the VOC levels remain above public health risk thresholds.

The commenter further states that, according to the RAW, alternative 3 includes the installment of soil vapor extraction wells (SVEs) that would eliminate any potential vapor intrusion threat to future residences. The commenter notes that this alternative was not included anywhere in the Draft SCEA. Although the RAW discusses soil vapor extraction (SVE) as a potential remedial alternative, it was not ultimately selected for remediation of the site. Upon evaluation of the three remedial alternatives, Ninyo and Moore recommended excavation of identified impacted soil as the primary remedial alternative. Following excavation, if deemed necessary based on results of additional soil vapor sampling, a subslab vapor mitigation system would be required to be installed. The RAW concluded that these measures would be sufficiently protective of human health and the environment. Therefore, SVE was not included as a potential remediation alternative in the SCEA because it will not be utilized as part of the DTSC imposed remediation efforts. See also Response to Comment 17.

Response to Comment 20

The commenter states that the Land Use Covenant and O&M plan would not mitigate the impact associated with VOC concentrations to a less than significant level.

The Land Use Covenant and the O&M plan are not mitigation measures in and of themselves, but rather are the mechanisms that would ensure the appropriate installation and maintenance of the venting systems that would reduce VOC concentrations to a less than significant level.

Response to Comment 21

The commenter states that the City failed to perform its duty under CEQA to provide the public with information about the project's significant impacts and its duty to mitigate such impacts below a level

of significance. The commenter adds that the City lacks evidence to support its conclusion that such impacts are less than significant with mitigation.

The SCEA discloses all potentially significant health hazards associated with the project site. As noted in response to Comment 7, because remediation of the site is overseen by the DTSC, the site will not be certified for residential use until impacts have been reduced to less than significant. As noted above, Task 7 in Exhibit E of the Agreement Not to Sue issued by the DTSC states that the DTSC will issue certification after the following conditions have been met:

1. A site inspection has been performed by DTSC to ensure that all response actions have been completed as necessary to ensure that hazardous materials at the site no longer pose a significant risk
 2. DTSC has determined that response action standards and objectives have been met
 3. DTSC has approved the Removal Action Completion Report
 4. DTSC has approved the final Operations and Maintenance Plan, if necessary and appropriate.
- Once these conditions have been met, DTSC will certify that the site has been adequately remediated to allow for unrestricted land use. The proposed project cannot proceed unless DTSC has verified that contaminant levels on-site do not exceed regulatory action levels and the site is suitable for residential use. Once DTSC has certified the site, impacts from historical land use will have been reduced to less than significant.

Response to Comment 22

The commenter states that the analysis of the potential impact from water in the onsite anechoic tank, and the proposed mitigation measure, fails to comply with CEQA because the City cannot rely solely on compliance with regulations or laws where those regulations or laws do not address potentially significant impacts. The commenter adds that the City must conduct an analysis of impacts and identify enforceable mitigation.

Ninyo and Moore visited the property on April 6, 2018 to inspect the property for existing surface water (see Appendix L of the SCEA). Based on their observations, no water is currently present within the anechoic tank, therefore, disposal of contaminated water will not be necessary during redevelopment activities at the site.

Response to Comment 23

The commenter notes that a construction health risk assessment was not conducted as part of the Draft SCEA and adds that the City's conclusion that impacts from TACs would be less than significant is not supported by evidence.

See Response to Comment 24. SCAQMD's Health Risk Assessment procedures recommend evaluating risk from extended exposures measured across several years, and not for infrequent operational exposure to diesel truck deliveries or trash hauling.^{4,5} Section 3, *Air Quality*, of the SCEA provides an analysis of TACs, which found that TAC emissions from construction and operational activities would not exceed SCAQMD thresholds and would be less than significant. Furthermore, the City received a comment letter on the SCEA from the SCAQMD (dated March 6, 2018). While the SCAQMD recommended that the Lead Agency consider the impacts of air pollutants on people who will live at the proposed project by performing a refined HRA to disclose the potential health risks associated with

4 SCAQMD. 2015. Risk Assessment (RA) Procedures for Rules 1401 and 212. Accessed April 2018 at <http://www.aqmd.gov/home/permits/risk-assessment>

5 SCAQMD. 2016. AB2588 Supplemental Guidelines. Accessed April 2018 at

<http://www.aqmd.gov/home/regulations/compliance/toxic-hot-spots-ab-2588/health-risk-assessment>

proximity to the I-210 Freeway, the SCAQMD did not recommend that the City prepare an HRA to analyze impacts related to construction and operation of the proposed project.

The applicant submitted a Health Risk Assessment dated April 27, 2018, and proposed responses to comments submitted by CREED. As set forth in Response to Comment No. 1 to Letter No. 4, an HRA is not required to assess potential significant environmental impacts under CEQA. Nonetheless, an HRA was prepared for the project and is included in the administrative record and the staff report for consideration by City decision makers. The City further responded to CREED's comments and justified the lack of a construction health risk assessment (see Responses to Letter No. 8). However, the City has also reviewed the HRA and responses to comments submitted by the applicant in direct response to CREED's Letter No. 8, as well as the applicant's proposed amendments to increase the protection afforded by Mitigation Measure No. AQ-1. The City finds applicant's HRA and responses to be credible, and accepts the changes made to Mitigation Measure No. AQ-1 as a condition of approval offered by the applicant and memorialized in the recommended conditions of approval for the project as Condition No. 21.

Response to Comment 24

The commenter states that based on a screening-level health risk assessment (HRA) prepared by their technical consultant, Soil/Water/Air Protection Enterprise (SWAPE), the Project's construction and operational diesel particulate matter emissions may result in a potentially significant health risk and a refined HRA should be required. The commenter asserts that a construction and operational HRA is recommended by the South Coast Air Quality Management District (SCAQMD) and the Office of Environmental Health Hazard Assessment (OEHHA).

The City follows SCAQMD guidance for air quality analysis. SCAQMD's Health Risk Assessment procedures recommend evaluating risk from extended exposures measured across several years, and not for infrequent operational exposure to diesel truck deliveries or trash hauling.^{6,7} The City received a comment letter on the Draft SCEA from the SCAQMD (dated March 6, 2018). While the SCAQMD recommended that the Lead Agency consider the impacts of air pollutants on people who will live at the proposed project by performing a refined HRA to disclose the potential health risks associated with proximity to the I-210 Freeway, the SCAQMD did not recommend that the City prepare an HRA to analyze impacts related to construction and operation of the proposed project.

SCAQMD also recommends HRAs for certain air quality evaluations; however, the circumstances of those evaluations do not apply to the proposed project. More specifically, certain stationary sources are required to prepare HRAs to demonstrate compliance with AB 2588 and SCAQMD Rule 1401 and Rule 1402, which regulate facility emissions. The SCAQMD's *Procedures for Rules 1401 and 212* include guidance for short-term project HRAs (Tier 2 analysis); however, these recommendations are for emissions from sources such as portable equipment, including generators, or air pollution control equipment used for soil remediation projects, not for diesel delivery trips or trash hauling trips that would access the project site during the operational phase.

SCAQMD has adopted guidance on the use of HRAs for analyzing mobile source emissions.⁸ However, this guidance refers to emissions associated with facilities such as truck stops and distribution centers where large volumes of daily heavy duty diesel trucks congregate, creating a long-term emission

6 SCAQMD. 2015. Risk Assessment (RA) Procedures for Rules 1401 and 212. Accessed April 2018 at <http://www.aqmd.gov/home/permits/risk-assessment>

7 SCAQMD. 2016. AB2588 Supplemental Guidelines. Accessed April 2018 at

<http://www.aqmd.gov/home/regulations/compliance/toxic-hot-spots-ab-2588/health-risk-assessment>

8 SCAQMD. 2002. Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis. Accessed April 2018 at <http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/mobile-source-toxics-analysis>

source. The California Air Resources Board (ARB) states that health risk assessments are warranted for distribution centers that generate 100 heavy duty truck trips per day or more.⁹ Therefore, the HRA guidance for mobile source emissions is not relevant for the project's periodic garbage (assuming trash pickup once a week) and delivery truck trips to the proposed 9,800-square foot (sf) retail space and 550 residences.

In 2015, OEHHA adopted the Air Toxics Hot Spots Program Guidance Manual for the Preparation of Risk Assessments (2015 Guidance Manual).¹⁰ The 2015 Guidance Manual was developed by OEHHA, in conjunction with the California Air Resources Board (CARB), for use in implementing the Air Toxics Hot Spots Program.¹¹ The Air Toxics Hot Spots Program requires stationary sources (e.g., power generation facilities, refineries, and chemical plants) to report the types and quantities of certain substances routinely released into the air. The intent in developing the 2015 Guidance Manual was to provide health risk assessment procedures for use in the Air Toxics Hot Spots Program or for the permitting of new or modified stationary sources. The project is not a "Hot Spots" Program project, but rather involves the construction of mixed-use buildings with residential and retail uses.

The Air Toxics Hot Spots Information and Assessment Act requires stationary sources (facilities) to report the type and quantity of substances they routinely release into the air. The regulation requires that toxic air emissions from facilities be quantified and compiled into an inventory according to criteria and guidelines developed by ARB, that each facility be prioritized to determine whether a risk assessment is conducted, that risk assessments be conducted according to methods developed by OEHHA and that the public be notified of significant risks. OEHHA clarifies its Hot Spot risk assessment program does not apply to roadways because the program only addresses stationary sources. Thus, it is inappropriate to utilize the hot spot analysis to assess operational emissions of exhaust DPM from a mixed use project, as the vast majority of exhaust emissions are from mobile sources that would not occur onsite.

Instead, a comparison of on-site operational emissions to SCAQMD-recommended regional significance thresholds and local significance thresholds (LSTs), which are designed to be protective of public health, is the appropriate method for evaluating project operational emissions. These thresholds are applicable to all project emissions sources, including mobile emissions, which are generally attributed to off-site, regional vehicle miles travelled and not travel near or on the project site. As shown in Table 9 of Section 2, *Air Quality*, of the SCEA, the project's operational emissions would be below SCAQMD's recommended regional thresholds and LSTs for all pollutants, including DPM (which makes up a portion of total PM₁₀ emissions). The analysis provided is sufficient to support the SCEA's conclusion that no significant health risk from operational emissions would result. The SCEA adequately analyzed the health risks associated with project operation using the appropriate methodology and use of the methodology referenced by the commenter would be inappropriate for a project of this type.

As noted above, the vast majority of project exhaust emissions would occur off-site as they are associated with mobile sources. Although not applicable to off-site mobile emissions per SCAQMD methodology, even if total project exhaust DPM emissions were compared to SCAQMD's operational local significance thresholds (LSTs) for the project site, impacts would continue to be less than significant. LSTs represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard, and are developed based on the ambient concentrations of that pollutant for each source

9 ARB. 2005. Air Quality and Land Use Handbook: A Community Health Perspective. Accessed April 2018 at <https://www.arb.ca.gov/ch/handbook.pdf>

10 Office of Environmental Health Hazard Assessment. Air Toxicology and Epidemiology, Adoption of Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments. March 6, 2015. Available at: http://www.oehha.ca.gov/air/hot_spots/hotspots2015.html.

11 Health and Safety Code Section 44360 et. seq.

receptor area and distance to the nearest sensitive receptor. The project site is located in Source Receptor Area (SRA-8) and the applicable LST for a receptor 25 meters away from the project site is 3 pounds per day of PM₁₀.¹² Net new project operational emissions of exhaust PM₁₀ would be approximately 167 pounds per year or 0.5 pounds per day (see Response to Comment 31 below for detailed calculation), which is well below the operational LST of 3 pounds per day of PM₁₀ even when the off-site component of exhaust PM₁₀ is not removed from the analysis. Thus, the conclusions in the SCEA are adequately supported by information in the record and no further analysis is necessary.

Response to Comment 25

This comment summarizes the findings of a screening level analysis prepared by SWAPE.

Specific comments regarding SWAPE's screening level analysis are provided in Response to Comment 30. The SWAPE analysis and related technical appendices were carefully reviewed for purposes of considering the potential of the project to result in health risk impacts. Based on this evaluation, multiple methodological flaws were identified and, as a result, the SWAPE results are inaccurate. These flaws are detailed in response to Response to Comment 30.

Response to Comment 26

The commenter summarizes the key points of the commenter letter, addressed in responses to Comments 1 through 26, and requests that the City deny the required project approvals until the City prepares and circulates a Draft SCEIR.

See the responses to the comments provided herein. Based on the significance determinations provided in the SCEA, as well as the responses to the comments provided herein, the potentially significant impacts associated with air quality and hazards would be reduced to less than significant levels through implementation of the proposed mitigation measures and incorporation of the feasible mitigation measures, performance standards, and criteria from prior applicable EIRs. Therefore, preparation of a SCEIR is not warranted.

Response to Comment 27

The commenter summarizes the project description and states that the Draft SCEA's conclusions that the project's impact on exposure of sensitive receptors to pollutant concentrations is less than significant is not supported by substantial evidence. The commenter requests a revised SCEA for recirculation to assess the project's significant impacts on public health during construction and operation.

See Response to Comment 24.

Response to Comment 28

The commenter notes that a construction health risk assessment was not conducted as part of the Draft SCEA and adds that the City's conclusion that impacts from TACs would be less than significant is not supported by evidence.

See Responses to Comments 23 and 24 regarding the impacts from TACs and the applicability of HRAs.

Response to Comment 29

The commenter states that the project would generate truck trips and 4,423 vehicle trips per day, which would generate exhaust emissions of DPM, potentially exposing nearby sensitive receptors to

12 SCAQMD/ 2009. Appendix C. Mass Rate LST Look Up Table. Accessed April 2018 at: <http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significancethresholds/appendix-c-mass-rate-lst-look-up-tables.pdf?sfvrsn=2>.

substantial air pollutants. The commenter asserts that a construction and operational HRA is recommended by OEHHA.

The CalEEMod analysis of the proposed project conservatively overestimates operational emissions from daily vehicle trips because it assumes the project would generate approximately 4,423 vehicle trips per day. In reality, and as detailed in the Transportation Impact Analysis (TIA; Appendix H of the SCEA), the project would generate 3,648 daily trips, approximately 18 percent fewer trips than that analyzed in the SCEA. Moreover, the CalEEMod analysis applies a fleet mix assumption, including trip percentages for passenger cars as well as heavy duty trucks, to project trip generation rates that are based on ARB's On-Road Mobile Emissions Inventory for the region. Therefore, the SCEA's estimate of operational exhaust emissions includes emissions from both passenger car trips and truck trips to the project site. Regarding OEHHA's guidance on the applicability of HRAs, please refer to Response to Comment 24 above.

Response to Comment 30

The SWAPE letter states that operational emissions of diesel particulate matter (DPM) were estimated based on the annual CalEEMod model output file from the Draft SCEA and this estimate forms the basis for their screening health risk assessment.

The SWAPE assessment substantially overestimates potential diesel exhaust emissions from operation of the proposed project. The analysis states that the annual CalEEMod model output file was used to calculate total PM₁₀ exhaust emissions (including DPM). However, it is unclear where SWAPE's estimate of 389 pounds of DPM per year for project operation comes from. The Air Quality and Greenhouse Gas Study (Appendix C of the SCEA) contains annual CalEEMod model output files that show that project operational emissions of exhaust PM₁₀ would be 0.0903 tons per year, or approximately 181 pounds per year, from all operational sources. Moreover, as detailed in Section 3, *Air Quality*, of the SCEA and the Air Quality and Greenhouse Gas Study (Appendix C of the SCEA), operational emissions associated with existing on-site storage facility buildings were also modeled in CalEEMod in order to estimate net new operational emissions. CalEEMod output files for existing uses on the project site were missing from Appendix C of the SCEA, but have been incorporated in the SCEA. As shown therein, existing operational emissions of exhaust PM₁₀ is approximately 0.0072 tons per year, or approximately 14 pounds per year, from all operational sources. Therefore, net new project operational emissions of exhaust PM₁₀ would be approximately 167 pounds per year (181 – 14 pounds per year), from all operational sources, which is less than half of the total DPM emissions used in SWAPE's screening health risk assessment.

In addition, as noted in Response to Comment 29 above, the CalEEMod analysis conservatively overestimates emissions of exhaust PM₁₀ because it evaluated 4,423 vehicle trips per day to the project site, which is 775 more vehicle trips than that estimated in the TIA. Therefore, annual emissions of exhaust PM₁₀ would likely be even lower than 167 pounds per year. Lastly, SWAPE used the combination of both on-site and off-site mobile emissions (regional emissions) to represent on-site emissions (localized emissions). This assumption is the equivalent of having all vehicle trips that would travel regionally to and from the project site (up to 17 miles based on CalEEMod defaults for various residential and commercial trip types) exclusively on the project site. All of the factors described above contribute to the gross overestimation of predicted health risk provided by SWAPE's screening-level health risk assessment. As a result SWAPE's screening HRA greatly overestimates the health impacts associated with project operation and should not serve as the basis for requiring the preparation of a refined HRA.

See also Response to Comment 24.

Response to Comment 31

The commenter recommends mitigation measures to reduce project operational emissions.

As discussed in Response to Comment 24 above, the operational analysis provided in the SCEA is sufficient to support the conclusion that no significant health risk from operational emissions would result from the project. As such, additional mitigation measures are not necessary to reduce operational air quality impacts to a less than significant level. As discussed in Response to Comment 30 above, SWAPE's screening HRA greatly overestimates health risk associated with project operation and should not serve as the basis for requiring mitigation or the preparation of a refined HRA. In addition, the proposed project would include Mitigation Measure TRA-1, Transportation Demand Management Plan Strategies, which would incorporate unbundled parking for residential uses, a subsidized Metro transit program, and improvements to three local bus stops serving the project to reduce the project's vehicle trips.

Response to Comment 32

The comment letter includes supplemental materials consisting of two resumes and numerical calculation data.

This is not a comment on the adequacy of the SCEA and raises no environmental issues associated with the proposed project.



Metro

Los Angeles County
Metropolitan Transportation Authority

One Gateway Plaza
Los Angeles, CA 90012-2952

213.922.2000 Tel
metro.net

Letter 9

March 26, 2018

David Sanchez
Planning & Community Development Department
City of Pasadena
175 N. Garfield Avenue,
Pasadena, CA, 91101

**RE: Comment Letter for 3200 E. Foothill Boulevard Mixed Use Project – 3200 E. Foothill Boulevard
– Notice of Availability of a Draft Sustainable Communities Environmental Assessment**

Dear Mr. Sanchez:

Thank you for the opportunity to comment on the Notice of Availability of a Draft Sustainable Communities Environmental Assessment for the 3200 E. Foothill Boulevard Mixed Use Project ("Project") located at 3200 Foothill Boulevard in the City of Pasadena. This letter conveys recommendations from the Los Angeles County Metropolitan Transportation Authority (Metro) concerning issues that are germane to our agency's statutory responsibility in relation to our facilities and services that may be affected by the proposed Project.

Metro is committed to working with stakeholders across the County to support the development of transit oriented communities (TOCs). TOCs are built by considering transit within a broader community and creating vibrant, compact, walkable, and bikeable places centered around transit stations and hubs with the goal of encouraging the use of transit and other alternatives to driving. Metro appreciates the opportunity to collaborate with local municipalities, developers, and other stakeholders in their land use planning and development efforts, and to find partnerships that support TOCs across Los Angeles County.

Project Description

The proposed Project will involve the demolition of 29 existing structures on the Project site and the construction of eight separate mixed-use buildings, subterranean and above-ground parking structures, and landscaping. The proposed buildings would include a total of 550 apartment units and 9,000 square feet of retail space. Three of the buildings would be four stories, five of the buildings would be five stories, and all buildings would have a maximum height of 60 feet. A total of 782 vehicle parking stalls and 84 bicycle parking stalls would be provided.

Metro Comments

Gold Line ROW Adjacency

It is noted that the southern boundary of the Project site is adjacent to the 210 Foothill Freeway, along which the Metro Gold Line light rail trains operate on a railroad right-of-way (ROW). Additionally, the

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proposed Project is in close proximity to the Sierra Madre Villa Station. The following concerns related to the project's proximity to the Metro Gold Line ROW should be addressed:

1. The Project sponsor is advised that the Metro Gold Line light rail currently operates weekday peak service as often as every seven minutes in both directions and that trains may operate, in and out of revenue service, 24 hours a day, seven days a week, in the ROW proximate to the proposed Project.
2. Considering the proximity of the proposed Project to the railroad ROW, the Metro Gold Line will produce noise, vibration and visual impacts. A recorded Noise Easement Deed in favor of Metro is required, a form of which is attached. The easement recorded in the Deed will extend to successors and tenants as well. In addition, any noise mitigation required for the Project must be borne by the developers of the Project and not Metro.
3. The Project sponsor should be advised that Metro may request reimbursement for costs incurred as a result of Project construction/operation issues that cause delay or harm to Metro service delivery or infrastructure.

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{cont.}

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Metro Bus Service Adjacency

Metro bus lines 267/264 and 487 operate on Foothill Boulevard, directly adjacent to the proposed Project. The following comments address issues regarding bus operations:

1. Although the Project is not expected to result in any long-term impacts on transit, the Project sponsor should be aware of the bus facilities and services that are present. The existing Metro bus stops must be maintained as part of the final Project.
2. During construction, the stop must be maintained or relocated consistent with the needs of Metro Bus operations. Please contact Metro Bus Operations Control Special Events Coordinator at 213-922-4632 and Metro's Stops and Zones Department at 213-922-5190 at least 30 days in advance of initiating construction activities. Other municipal buses may also be impacted and should be included in construction outreach efforts.
3. Metro encourages the installation of bus shelters with benches, way finding signage, enhanced crosswalks, ADA-compliant curb and ramps, pedestrian lighting, as well as a continuous canopy of shade trees, and other amenities along all public street frontages of the development site to improve pedestrian safety and comfort to access the nearby bus stops and rail station. The City should consider requiring the installation of such amenities as part of the conditions of approval for the Project.
4. Driveways accessing parking and loading at the Project site should be located away from transit stops, and be designed and configured to avoid potential conflicts with on-street transit services and pedestrian traffic to the greatest degree possible. Vehicular driveways should not be located in or directly adjacent to areas that are likely to be used as waiting areas for transit.
5. Final design of the bus stop and surrounding sidewalk area must be ADA-compliant and allow passengers with disabilities a clear path of travel to the bus stop from the proposed development.

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Transit Orientation

Considering the proximity to the Sierra Madre Villa Station, Metro would like to identify the potential synergies associated with transit-oriented development:

1. Metro supports development of commercial and residential properties near transit stations and understands that increasing development near stations represents a mutually beneficial opportunity to increase ridership and enhance transportation options for the users of developments. Metro encourages the City and Project sponsor to be mindful of the Project's proximity to the Sierra Madre Villa Station, including orienting pedestrian pathways toward the station.
2. Metro strongly encourages the incorporation of transit-oriented, pedestrian-oriented parking provision strategies such as the reduction or removal of minimum parking requirements for specific areas and the exploration of shared parking opportunities or parking benefit districts. These strategies could be pursued to encourage more transit-oriented development and reduce automobile-orientation in design and travel demand as there may be more parking than necessary at the Project site given its transit-rich location.
3. With an anticipated increase in traffic, Metro encourages an analysis of impacts on non-motorized transportation modes and consideration of improved non-motorized access to the station including pedestrian connections and bike lanes/paths. Appropriate analyses could include multi-modal LOS calculations, pedestrian audits, etc.
4. The Project should address First-Last Mile connections to transit, encouraging development that is transit accessible with bicycle and pedestrian-oriented street design connecting stations with housing and employment concentrations. For reference, please view the First Last Mile Strategic Plan, authored by Metro and the Southern California Association of Governments (SCAG), available on-line at:
http://media.metro.net/docs/sustainability_path_design_guidelines.pdf
5. Metro encourages the installation of wide sidewalks, pedestrian lighting, a continuous canopy of shade trees, enhanced crosswalks with ADA-compliant curb ramps, and other amenities along all of the site's public street frontages of the development site to improve pedestrian safety and comfort to access the nearby bus stops and rail station. The City should consider requiring the installation of such amenities as part of the conditions of approval for the Project.
6. Any planned wayfinding signage that includes Metro content, information, and/or branding must conform to Metro's Signage Standards. For a copy of the latest standards, please contact Lance Glover at 213.922.2360 / GloverL@metro.net. Metro reserves the right to review and approve any use of its information on such signage.

Active Transportation

Metro encourages the Project to promote bicycle use through adequate short-term bicycle parking, such as ground level bicycle racks, as well as secure and enclosed long-term bicycle parking, such as bike lockers or secured bike room, for residents, guests, and employees. Bicycle parking facilities should be highly visible, easy to locate, and sited so they can be safely and conveniently accessed. The Project sponsor should coordinate with Metro Bike Share program for potential Bike Share station at

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this development. Additionally, the Project sponsor should help facilitate safe and convenient connections for pedestrians, people riding bicycles, and transit users to/from the Project site and nearby destinations such as Sierra Madre Station. The Project is also encouraged to support these connections with wayfinding signage inclusive of all modes of transportation..

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If you have any questions regarding this response, please contact Derek Hull at 213-922-3051 or by email at DevReview@metro.net. Metro looks forward to reviewing the Final Sustainable Communities Environmental Assessment. Please send it to the following address:

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Metro Development Review
One Gateway Plaza MS 99-23-4
Los Angeles, CA 90012-2952

Sincerely,



Derek Hull
Manager, Transportation Planning

Attachments: Noise Easement Deed

RECORDING REQUESTED BY
AND WHEN RECORDED MAIL TO:

LOS ANGELES COUNTY METROPOLITAN
TRANSPORTATION AUTHORITY
Real Estate Department
Deputy Executive Officer - Real Estate
P: 213-922-2415 F: 213-922-2400
One Gateway Plaza, Mail Stop 99-18-4
Los Angeles, CA 90012-2932

Space Above Line for Recorder's Use

[Recording of this Public Document is Exempt from all Recording Fees and Taxes Pursuant to
Government Code Section 6103]

Public Agency - No Tax Statement

NOISE EASEMENT DEED

For valuable consideration, receipt of which is hereby acknowledged, **(Name of Owner)**, a
_____, for themselves, their heirs, administrators, executors,
successors, assigns, tenants, and lessees do hereby grant, bargain, sell, and convey to the
LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY, a public
agency existing under the authority of the laws of the State of California ("Grantee"), its
successors and assigns, for the use and benefit of the public and its employees, a perpetual,
assignable easement in that certain real property in the City of Los Angeles, County of Los
Angeles, State of California described in Exhibit "A" attached hereto and incorporated herein by
this reference,

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Said easement shall encompass and cover the entirety of the Grantors' Property
having the same boundaries as the described Property and extending from the sub-
surface upwards to the limits of the atmosphere of the earth, the right to cause in said
easement area such noise, vibrations, fumes, dust, fuel particles, light, sonic
disturbances, and all other effects that may be caused or may have been caused by
the operation of public transit vehicles traveling along the Project right of way.

Grantor hereby waives all rights to protest, object to, make a claim or bring suit
or action of any purpose, including or not limited to, property damage or personal
injuries, against Grantee, its successors and assigns, for any necessary operating and
maintenance activities and changes related to the Project which may conflict with
Grantors' use of Grantors' property for residential and other purposes, and Grantors
hereby grants an easement to the Grantee for such activities.

The granting of said Easement shall also establish the Grantors' right to further modify or
develop the Property for any permitted use. However, Grantor's rights of development shall
not interfere with the continued operation of Grantee's Project.

It is understood and agreed that these covenants and agreements shall be permanent, perpetual, will run with the land and that notice shall be made to and shall be binding upon all heirs, administrators, executors, successors, assigns, tenants and lessees of the Grantor. The Grantee is hereby expressly granted the right of third party enforcement of this easement.

IN WITNESS WHEREOF, the undersigned has caused its/their signature to be affixed this day of _____, 20__

By: _____
Name

By: _____
Name

(ATTACH NOTARY SEAL AND CERTIFICATE HERE.)

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CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

CIVIL CODE § 1189

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California)
County of _____)

On _____ before me, _____
Date Here Insert Name and Title of the Officer

personally appeared _____
Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____
Signature of Notary Public

Place Notary Seal Above

OPTIONAL

Though this section is optional, completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.

Description of Attached Document

Title or Type of Document: _____ Document Date: _____

Number of Pages: _____ Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer(s)

Signer's Name: _____ Signer's Name: _____

Corporate Officer — Title(s): _____ Corporate Officer — Title(s): _____

Partner — Limited General Partner — Limited General

Individual Attorney in Fact Individual Attorney in Fact

Trustee Guardian or Conservator Trustee Guardian or Conservator

Other: _____ Other: _____

Signer Is Representing: _____ Signer Is Representing: _____

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CERTIFICATE OF ACCEPTANCE

This is to certify that the interest in the real property conveyed by the foregoing Grant Deed from _____, a **California Limited Partnership**, ("Grantor") to **LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY**, a public agency existing under the authority of the laws of the State of California ("LACMTA"), is hereby accepted by the undersigned on behalf of the LACMTA pursuant to authority conferred by resolution of the Board of Directors of the LACMTA, and the Grantee hereby consents to the recordation of this Deed by its duly authorized officer.

Dated this ____ day of _____, 20__

By: _____
Velma C. Marshall
Deputy Executive Officer - Real Estate

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COMMENTER: Derek Hull, Manager, Transportation Planning, Metropolitan Transportation Authority Development Review

DATE: March 26, 2018

Response to Comment 1

The commenter states appreciation for the opportunity to comment on the proposed project, briefly explains that the comment letter conveys Metro’s recommendations for facilities and services that may be impacted by the project, and discusses Metro’s role in working with stakeholders to support the development of transit oriented communities (TOCs). The commenter also provides a summary of the project description and notes that the southern boundary of the project site is adjacent to the I-210 freeway and is in close proximity to the Sierra Madre Vila Station. The commenter then states that the Metro Gold Line light rail operates in the ROW proximate to the proposed project.

This is not a comment on the adequacy of the SCEA and raises no environmental issues specific to the proposed project. Please see the responses to Comments 2 through 14 for responses to specific comments.

Response to Comment 2

The commenter states that due to the proximity of the proposed project to the railroad ROW, the Metro Gold Line will produce noise, vibration, and visual impacts for which a recorded Noise Easement Deed in favor of Metro is required. The commenter further states that any noise mitigation required for the project will be borne by the developer of the project.

The analysis of potential noise, vibration, and visual impacts of the Metro Gold Line would be an impact of the environment on the project. Based on direction from the California Supreme Court decision in *California Building Industry Association v. Bay Area Air Quality Management District* in 2015, impacts of the environment (such as health risks) on a project are not significant environmental effects under CEQA. The commenter’s request, therefore, for imposition by the City on the Project of a requirement to enter in to a Noise Easement Deed has no nexus under CEQA. However, as required by State law, the project will need to be designed to achieve an interior noise level of 45 dB CNEL or lower in all habitable rooms. Metro can contact the property owner to arrange a private agreement to address concerns about effects on the property caused by Metro Gold line operations; however, the City would have no involvement in this private agreement.

Response to Comment 3

The commenter advises that Metro may request reimbursement for costs incurred as a result of project construction/operation issues that cause delay or harm to Metro service delivery or infrastructure.

Advisory noted. This is not a comment on the adequacy of the SCEA and raises no environmental issues specific to the proposed project. Further, as discussed Section 17, *Transportation/Traffic*, of the SCEA, the proposed project would be subject to SCAG measure MM-TRA-2(b) which requires

determination of traffic management strategies to reduce potential impacts to existing traffic and transit operations from construction and operation of the proposed project.

Response to Comment 4

The commenter notes that Metro bus lines operate on Foothill Boulevard adjacent to the project site and states that existing Metro bus stops must be maintained as part of the final project.

As discussed in Section 17, *Transportation/Traffic*, of the SCEA, the proposed project would not adversely affect existing bus stops or bus service; nevertheless, the proposed project would be subject to -TRA-1, which requires various improvements at the bus stops serving the property that may include sidewalk improvements, transit amenities, and the installation of BusFinders to improve accessibility and provide the real-time predicted arrivals of buses.

Response to Comment 5

The commenter states that the adjacent bus stop bus be maintained or relocated during project construction and requests that Metro Bus Operations Control Special Events Coordinator and Metro's Stops and Zones Department be contacted at least 30 days in advance of initiating construction activities.

Construction activities associated with the proposed project are not anticipated to affect existing bus stops or services, as discussed on page 196 of the SCEA in Section 17, *Transportation/Traffic*. However, if relocation of bus facilities is needed, the developer will contact the appropriate Metro departments prior to construction. In addition, the proposed project would be subject to SCAG measure MM-TRA-2(b), which requires determination of traffic management strategies to reduce potential impacts to existing traffic and transit operations from construction and operation of the proposed project.

Response to Comment 6

The commenter notes that Metro encourages installation of pedestrian amenities along all public street frontages of the project site to improve safety and comfort to access nearby bus stops and the rail station, and suggests that the installation of such amenities be required by the City as part of the conditions of approval for the proposed project.

As discussed in Section 17, *Transportation/Traffic*, the proposed project would be subject to the SCAG measure MM-TRA-1, which would require compliance with the adopted Congestion Management Plan through adoption of transportation mitigation strategies, including expanding pedestrian safety elements such as lighting, street trees, and way finding signage.

Response to Comment 7

The commenter states that the driveways accessing parking and loading at the project site should be located away from transit stops and designed and configured to avoid potential conflicts with on-street transit services and pedestrian traffic.

As shown in Figure 3 of the SCEA, access driveways for the proposed project would be located at the northeastern corner of the project site along Foothill Boulevard and at the southwestern corner of the project site on Kinneloa Avenue. These driveways would not be in proximity to any existing bus stops and would not conflict with on-street transit services. In addition, the primary pedestrian access point

for the site would be provided at an extension of Santa Paula Avenue that would bisect the site from the northern public frontage. The extension would be for pedestrian access only and would not be in proximity to the proposed driveways. Therefore, no conflicts with transit services or pedestrian traffic are anticipated.

Response to Comment 8

The commenter states that the final design of the bus stop and surrounding sidewalk area must be ADA-compliant and allow a clear path of travel between the bus stop and project site for disabled passengers.

See Response to Comment 4. In addition, if relocation or maintenance of a bus stop is required, the final design would comply with existing applicable regulations.

Response to Comment 9

Due to the project site's proximity to the Sierra Madre Villa Station, the commenter identifies potential synergies between the project and Metro associated with transit-oriented development, including but not limited to, locating commercial and residential development near existing transit stations, reduction and/or removal of minimum parking requirements and use of shared parking opportunities, and improved non-motorized access to the light rail station via pedestrian connections and bike lanes. The commenter also encourages an analysis of impacts on non-motorized transportation modes.

This is not a comment on the adequacy of the SCEA and raises no environmental issues specific to the proposed project. Nevertheless, the proposed project would include 84 bicycle racks to help foster an alternative means of transportation for project tenants and visitors. In addition, page 184 of the SCEA includes an analysis of non-motorized transportation modes, which presents the results of the City's analyses of the proximity and quality of the bicycle network and pedestrian accessibility.

Response to Comment 10

The commenter states that the proposed project should address first-last mile connections to transit and encourage development that is transit accessible with bicycle and pedestrian-oriented street design connecting stations with housing and employment concentrations.

See Response to Comment 6 regarding pedestrian connections and pedestrian-oriented street design. See Response to Comment 9 regarding bicycle access.

Response to Comment 11

The commenter states that the City should consider installation of pedestrian public street amenities as conditions of approval for the proposed project.

See Response to Comment 6.

Response to Comment 12

The commenter states that any wayfinding signage that includes Metro content, information, and/or branding must conform to Metro's signage Standards.

This is not a comment on the adequacy of the SCEA and raises no environmental issues specific to the proposed project, but signage would conform to applicable standards.

Response to Comment 13

The commenter states that Metro encourages the proposed project to promote bicycle use through adequate short-term and long-term bicycle parking. The commenter states that the project sponsor should coordinate with Metro Bike Share program for a potential Bike Share station at the project site and should help facilitate safe and convenient connections for pedestrian, bicyclists, and transit-users to and from the project site and nearby destinations.

See Response to Comments 7 and 9.

Response to Comment 14

The commenter provides contact information for any questions regarding the comment letter.

Contact information is noted.

Response to Comment 15

The commenter provides one attachment as supportive materials, which is a Noise Easement Deed

See Response to Comment 2.