

Appendices

Appendix FEIR-1

Draft EIR Comment Letters



VMT Question on 5420 Sunset Project

1 message

Gibson, Emily@DOT <Emily.Gibson@dot.ca.gov>
To: "polonia.majas@lacity.org" <polonia.majas@lacity.org>

Wed, Aug 25, 2021 at 2:57 PM

Hello Polonia,

My name is Emily Gibson and I am an LD-IGR Coordinator at Caltrans D7. I have been assigned your project, 5420 Sunset, to review. I have some questions about the commercial VMT analysis that I am wondering if you can help me with. I've pasted a screenshot of the discussion of this analysis from the DEIR below:

(a) Commercial VMT

The Project would include up to 95,000 square feet of ground floor commercial uses, including market, retail, and restaurant, that would replace approximately 100,796 square

5420 Sunset Project
Draft Environmental Impact Report

City of Los Angeles
August 2021

Page IV.I-29

IV.I Transportation

feet¹⁷ of existing commercial supermarket, shopping center, and fast-food restaurant uses on the Project Site. Thus, the Project would result in a net reduction of 5,800 square feet in retail floor area and would not exceed the LADOT threshold of 50,000 square feet of net retail uses to warrant further VMT analysis. In addition, consistent with the existing uses, the Project does not propose the commercial uses as regionally serving retail uses and, therefore, would not lead to increased VMT. Therefore, the proposed commercial uses of the Project would not generate net new VMT and the Project would not result in a significant work VMT impact.

I get that the project will result in a net reduction in square feet (SF). I'm wondering though whether a reduction in SF necessarily means a reduction in VMT. For instance, I'm thinking that if a Barnes and Noble were replaced with an In N Out, this would likely result in a reduction in SF, but probably wouldn't result in a reduction in VMT. Thus, I am wondering, is there any other evidence I can review that this reduction in SF will also lead to a reduction in VMT? If missed this evidence in the DEIR or the appendices, sorry in advance!

I also see in the above analysis that LADOT has a threshold of 50,000 SF of **net** retail uses to warrant further VMT analysis. The word "net" jumped out at me because in [OPR's Technical Advisory](#), while it does state that any retail development less than 50,000 SF can be considered local-serving and thus presumed to have a less than significant VMT impact, the advisory doesn't say that a development that results in less than 50,000 SF **net** retail uses should be

presumed to have a less than significant VMT impact. Of course, the City of LA has the discretion to choose its own VMT thresholds. I'm just looking for some additional evidence for why this net threshold was chosen over the threshold that OPR recommends.

In sum, I'm wondering if you can provide/direct me to more evidence that shows why the commercial component of this project will have a less than significant VMT impact (as a side note, the Household VMT analysis makes a lot of sense to me). Please let me know your thoughts on the above when you get the chance. Thank you for your time and help!

Best regards,

Emily Gibson

Associate Transportation Planner, Local Development-Intergovernmental Review

Caltrans District 7, Los Angeles

Emily.Gibson@dot.ca.gov

Work Cell Phone: 213-266-3562

Note: Due to COVID-19, I am teleworking.



Polonia Majas <polonia.majas@lacity.org>

SCH # 2017061075, 5420 Sunset Project

2 messages

Gibson, Emily@DOT <Emily.Gibson@dot.ca.gov>
To: OPR State Clearinghouse <State.Clearinghouse@opr.ca.gov>
Cc: "polonia.majas@lacity.org" <polonia.majas@lacity.org>

Mon, Sep 27, 2021 at 11:50 AM

Hello,

For your records, the attached letter is Caltrans District 7's response to the following project: **SCH # 2017061075, 5420 Sunset Project**. The Lead Agency under CEQA, which is the City of Los Angeles, is CC'ed on this email.

Please let me know if you have any questions or need anything else from me.

Best regards,

Emily Gibson


Associate Transportation Planner, Local Development-Intergovernmental Review

Caltrans District 7, Los Angeles

Emily.Gibson@dot.ca.gov

Work Cell Phone: 213-266-3562

Note: Due to COVID-19, I am teleworking.

 **Response Letter_GTS # 07-LA-2017-03686_SIGNED.pdf**
279K

OPR State Clearinghouse <State.Clearinghouse@opr.ca.gov>
To: "Gibson, Emily@DOT" <Emily.Gibson@dot.ca.gov>, OPR State Clearinghouse <State.Clearinghouse@opr.ca.gov>
Cc: "polonia.majas@lacity.org" <polonia.majas@lacity.org>

Mon, Sep 27, 2021 at 1:30 PM

Thank you for your submittal, the SCH is in receipt of your comments.

Mikayla Vaba

State Clearinghouse

(916) 445-0613

mikayla.vaba@opr.ca.gov

[Quoted text hidden]

DEPARTMENT OF TRANSPORTATION

DISTRICT 7 – Office of Regional Planning

100 S. MAIN STREET, MS 16

LOS ANGELES, CA 90012

PHONE (213) 266-3562

FAX (213) 897-1337

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www.dot.ca.gov

*Making Conservation
a California Way of Life.*

September 27, 2021

Polonia Majas
City of Los Angeles, Department of City Planning
221 N. Figueroa Street, Suite 1350
Los Angeles, CA 90012

RE: 5420 Sunset Project – Draft Environmental
Impact Report (DEIR)
SCH # 2017061075
GTS # 07-LA-2017-03686
Vic. LA-101/PM: 5.844

Dear Polonia Majas:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the above referenced DEIR. The Project proposes the development of a new mixed-use project on a 6.75-acre site located at 5420 Sunset Boulevard within the Hollywood Community Plan and Vermont/Western Station Neighborhood Area Specific Plan areas of the City of Los Angeles. It would replace an existing grocery store, vacant commercial space, fast-food restaurant, and associated parking areas with a new mixed-use development consisting of 735 multi-family residential units and up to 95,000 square feet of neighborhood-serving commercial uses, including market/retail and restaurant uses. The proposed uses would be provided within four buildings and supported by 1,419 vehicle parking spaces as well as 548 bicycle parking spaces. Overall, the Project would remove approximately 100,796 square feet of existing floor area and construct up to 882,250 square feet of new floor area, resulting in an increase of 781,454 square feet of net new floor area within the Project Site. The Floor Area Ratio (FAR) on the Project Site would be a maximum of 3 to 1. The City of Los Angeles is the Lead Agency under the California Environmental Quality Act (CEQA).

The project is located approximately 2,400 feet from the US-101 and SR-2 (also known as Santa Monica Boulevard) interchange. From reviewing the DEIR, Caltrans has the following comments.

Regarding the household Vehicle Miles Traveled (VMT) analysis, Caltrans supports the proposed Transportation Demand Management (TDM) strategies to reduce household VMT. These strategies include providing bike parking and implementing pedestrian network improvements.

Regarding the commercial VMT analysis, please provide additional evidence that a net reduction in square footage of commercial uses would necessarily result in a reduction in VMT. Also, please provide evidence for the LADOT threshold of 50,000 square feet of **net** retail uses to warrant a further VMT analysis. In the December 2018 *Technical Advisory on Evaluating Transportation Impacts* in CEQA by the California Governor's Office of Planning and Research (OPR) (http://opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf) it recommends a threshold of 50,000 square feet of **total** retail uses for conducting a more detailed VMT analysis.

For more information on determining transportation impacts in terms of VMT on the State Highway System, see Caltrans' updated *Vehicle Miles Traveled-Focused Transportation Impact Study Guide* (TISG), dated May 2020 and released on Caltrans' website in July 2020: <https://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/sb-743/2020-05-20-approved-vmt-focused-tisg-a11y.pdf>. Note that Caltrans' new TISG is largely based on OPR's 2018 Technical Advisory.

The following information is included for your consideration. The mission of Caltrans is to provide a safe and reliable transportation network that serves all people and respects the environment. Furthermore, Caltrans encourages Lead Agencies to implement TDM strategies like those mentioned above, which will reduce VMT and Greenhouse Gas (GHG) emissions. To further reduce VMT, the City should consider providing less vehicle parking. The DEIR states that the project is offering the maximum number of vehicle parking spaces permitted based on the Hollywood Community Plan and Vermont/Western Station Neighborhood Area Specific Plan. We encourage the City to offer the minimum number of parking spaces permitted based on the Specific Plan. This is because parking research suggests that abundant car parking can encourage driving, induce VMT, and undermine a project's ability to encourage use of public transit options, like the Metro station near this project.

Finally, any transportation of heavy construction equipment and/or materials which requires use of oversized-transport vehicles on State highways will need a Caltrans transportation permit. Caltrans supports the measure in the proposed Construction Traffic Management Plan to limit construction traffic to off-peak periods, as this will minimize potential impacts on State facilities. If construction traffic is expected to cause issues on any State facilities, please send us this plan for our review.

If you have any questions about these comments, please contact Emily Gibson, the project coordinator, at Emily.Gibson@dot.ca.gov, and refer to GTS # 07-LA-2017-03686.

Sincerely,



MIYA EDMONSON
IGR/CEQA Branch Chief

cc: Scott Morgan, State Clearinghouse



Polonia Majas <polonia.majas@lacity.org>

Proposed project located at 5420 Sunset Boulevard

1 message

Campbell, Alexis <cp-alexis.campbell@lausd.net>

Tue, Aug 31, 2021 at 2:02 AM

To: "polonia.majas@lacity.org" <polonia.majas@lacity.org>

Cc: "GODEK, GWENN" <gwenn.godek@lausd.net>, "James, Scherrie" <slj9220@lausd.net>

Good Morning,

The Los Angeles Unified School District's Office of Environmental Health and Safety would like the opportunity to comment on the project located at [5420 Sunset Boulevard](#). If you have any questions or concerns, please feel free to contact me.

Kindly,

Alex Campbell

CEQA Assistant Project Manager | CP

LAUSD | OEHS

(d) 213.241.4210

(c) 323.286.7377

<http://achieve.lausd.net/ceqa>



5420 Sunset Boulevard Comment Letter.pdf

41K

Los Angeles Unified School District

Office of Environmental Health and Safety

MEGAN K. REILLY
Interim Superintendent of Schools

CARLOS A. TORRES
Director, Environmental Health and Safety

JENNIFER FLORES
Deputy Director, Environmental Health and Safety

August 31, 2021

Polonia Majas
Los Angeles Department of City Planning
200 North Spring Street
Los Angeles, CA 90012

PROJECT LOCATION: 5420 Sunset Boulevard
PROJECT: 6.75-acre, 75 ft, 735- unit multi-family mixed use, retail and residential development

Presented below are comments submitted on behalf of the Los Angeles Unified School District (LAUSD) regarding the subject project located at 5420 Sunset boulevard. LAUSD is concerned about the potential negative impacts of the project on our students, staff and parents traveling to and from Grant Elementary School due to the fact that the project site is approximately 900 ft from the school. Based on the extent/location of the proposed development, it is our opinion that environmental impacts on the surrounding community (traffic, pedestrian safety) may occur. Since the project may have an environmental impact on LAUSD schools, recommended conditions designed to help reduce or eliminate potential impacts are included in this response.

Traffic/Transportation

LAUSD's Transportation Branch **must be contacted** at (213) 580-2950 regarding the potential impact upon existing school bus routes. The Project Manager or designee will have to notify the LAUSD Transportation Branch of the expected start and ending dates for various portions of the project that may affect traffic within nearby school areas. To ensure that effective conditions are employed to reduce construction and operation related transportation impacts on District sites, including the net increase of 1000 or more daily vehicle trips, we ask that the following language be included in the recommended conditions for traffic impacts:

- School buses must have unrestricted access to schools.
- During the construction phase, truck traffic and construction vehicles may not cause traffic delays for our transported students.
- During and after construction changed traffic patterns, lane adjustment, traffic light patterns, and altered bus stops may not affect school buses' on-time performance and passenger safety.
- Construction trucks and other vehicles are required to stop when encountering school buses using red-flashing-lights must-stop-indicators per the California Vehicle Code.
- Contractors must install and maintain appropriate traffic controls (signs and signals) to ensure vehicular safety.

- Contractors must maintain ongoing communication with LAUSD school administrators, providing sufficient notice to forewarn children and parents when existing vehicle routes to school may be impacted.
- Parents dropping off their children must have access to the passenger loading areas.

Pedestrian Safety

Construction activities that include street closures, the presence of heavy equipment and increased truck trips to haul materials on and off the project site can lead to safety hazards for people walking in the vicinity of the construction site. To ensure that effective conditions are employed to reduce construction and operation related pedestrian safety impacts on District sites, we ask that the following language be included in the recommended conditions for pedestrian safety impacts:

- Contractors must maintain ongoing communication with LAUSD school administrators, providing sufficient notice to forewarn children and parents when existing pedestrian routes to school may be impacted.
- Contractors must maintain safe and convenient pedestrian routes to all nearby schools. The District will provide School Pedestrian Route Maps upon your request.
- Contractors must install and maintain appropriate traffic controls (signs and signals) to ensure pedestrian and vehicular safety.
- Haul routes are not to pass by any school, except when school is not in session.
- No staging or parking of construction-related vehicles, including worker-transport vehicles, will occur on or adjacent to a school property.
- Funding for crossing guards at the contractor's expense is required when safety of children may be compromised by construction-related activities at impacted school crossings.
- Barriers and/or fencing must be installed to secure construction equipment and to minimize trespassing, vandalism, short-cut attractions, and attractive nuisances.
- Contractors are required to provide security patrols (at their expense) to minimize trespassing, vandalism, and short-cut attractions.

The District's charge is to protect the health and safety of students and staff, and the integrity of the learning environment. The comments presented above identify potential environmental impacts related to the proposed project that must be addressed to ensure the welfare of the students attending Grant Elementary School, their teachers and the staff, as well as to assuage the concerns of the parents of these students. Therefore, the recommended conditions set forth in these comments should be adopted as conditions of project approval to offset environmental impacts on the affected school students and staff when school is in session.

Thank you for your attention to this matter. If you need additional information, please contact me at (323) 286-7377.

Regards,

A handwritten signature in blue ink, appearing to read 'Alex Campbell', with a stylized flourish at the end.

Alex Campbell
Assistant CEQA Project Manager



Polonia Majas <polonia.majas@lacity.org>

Request for Immediate Access to All Documents Referenced in the Draft Environmental Impact Report for 5420 Sunset Project (Case No. ENV-2017-1084-EIR)

2 messages

Alisha C. Pember <apember@adamsbroadwell.com>

Fri, Aug 20, 2021 at 4:44 PM

To: "vince.bertoni@lacity.org" <vince.bertoni@lacity.org>, "CityClerk@lacity.org" <CityClerk@lacity.org>, "polonia.majas@lacity.org" <polonia.majas@lacity.org>

Cc: "Sheila M. Sannadan" <ssannadan@adamsbroadwell.com>, Maya Smith <msmith@adamsbroadwell.com>

Good afternoon,

Please see the attached correspondence.

If you have any questions, please contact Sheila Sannadan.

Thank you.

Alisha Pember

Alisha C. Pember
Adams Broadwell Joseph & Cardozo
601 Gateway Boulevard, Suite 1000
South San Francisco, CA 94080
(650) 589-1660 voice, Ext. 24
apember@adamsbroadwell.com

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L5451-001acp - 5420 Sunset - Imm Acc DEIR Ref Docs Request.pdf
163K

Anna Orellana <anna.orellana@lacity.org>

Mon, Aug 23, 2021 at 6:38 AM

To: Beatrice Pacheco <beatrice.pacheco@lacity.org>, Polonia Majas <polonia.majas@lacity.org>

Cc: Lourdes Sanchez <lourdes.sanchez@lacity.org>, William Lamborn <william.lamborn@lacity.org>, Milena Zasadzien <milena.zasadzien@lacity.org>, Lisa Webber <lisa.webber@lacity.org>

Hello

Vince received this email.

Thanks

----- Forwarded message -----

From: **Vince Bertoni** <vince.bertoni@lacity.org>

Date: Mon, Aug 23, 2021 at 6:24 AM

Subject: Fwd: Request for Immediate Access to All Documents Referenced in the Draft Environmental Impact Report for 5420 Sunset Project (Case No. ENV-2017-1084-EIR)

To: Anna Orellana <anna.orellana@lacity.org>



Vincent P. Bertoni, AICP

Pronouns: He, His, Him

Director of Planning

Los Angeles City Planning

200 N. Spring St., Suite 525C

Los Angeles, CA 90012

Planning4LA.org

T: (213) 978-1271 | F: (213) 978-1275

E: vince.bertoni@lacity.org



[Quoted text hidden]



Anna Orellana

Secretary

Los Angeles City Planning

200 N. Spring St., Room 525

Los Angeles, CA 90012

Planning4LA.org

T: (213) 978-1271



L5451-001acp - 5420 Sunset - Imm Acc DEIR Ref Docs Request.pdf

163K

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*Not admitted in California.
Licensed in Colorado.

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FAX: (916) 444-6209

RECEIVED
CITY OF LOS ANGELES

AUG 26 2021

CITY PLANNING DEPT.
EXECUTIVE OFFICE

August 20, 2021

Via Email and U.S. Mail

Vince Bertoni, Director of Planning
City Planning Department
City of Los Angeles
200 N. Spring St., Suite 525
Los Angeles, CA 90012
Email: vince.bertoni@lacity.org

Holly L. Wolcott, City Clerk
Office of the City Clerk
200 N. Spring Street
City Hall - Room 360
Los Angeles, CA 90012
Email: CityClerk@lacity.org

Via Email Only

Polonia Majas, Planner
Email: polonia.majas@lacity.org

**Re: Request for Immediate Access to All Documents Referenced in
the Draft Environmental Impact Report for 5420 Sunset Project
(Case No. ENV-2017-1084-EIR)**

Dear Mr. Bertoni, Ms. Wolcott, and Ms. Majas,

We are writing on behalf of Coalition for Responsible Equitable Economic Development ("CREED LA") to request ***immediate access*** to any and all documents referenced, incorporated by reference, or relied upon in the Draft Environmental Impact Report ("DEIR") prepared for the 5420 Sunset Project (Case No. ENV-2017-1084-EIR) ("Project"), proposed by 5420 Sunset Boulevard LP, LLC ("Applicant"). This request excludes any documents that are currently available by URL link in the "References" sections of the DEIR.

The Project proposes the development of four six-story mixed-use buildings across 882,250 square feet. The Project consists of 735 multi-family residential units, as well as residential lobbies and leasing offices, pools, spas, and recreational facilities, and up to 95,000 square feet of commercial uses, including market/retail and restaurant uses. The Project also proposes approximately 96,800 square feet of open space including landscaped courtyards, a public plaza, and landscaped paseos,

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August 20, 2021

Page 2

as well as 1,419 parking spaces in two subterranean parking levels and one at-grade parking level, and 548 bicycle parking spaces. The Project site is located at 5420 Sunset Boulevard, in the City of Los Angeles.

Our request for immediate access to all documents referenced in the DEIR is made pursuant to the California Environmental Quality Act ("CEQA"), which requires that all documents referenced, incorporated by reference, and relied upon in an environmental review document be made available to the public for the entire comment period.¹ I will be contacting you to arrange for the review/duplication/transmission of the requested records soon. In the interim, if you have any questions or concerns regarding this request, my contact information is:

U.S. Mail

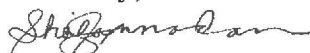
Sheila Sannadan
Adams Broadwell Joseph & Cardozo
601 Gateway Boulevard, Suite 1000
South San Francisco, CA 94080-7037

Email

ssannadan@adamsbroadwell.com

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

¹ See Public Resources Code § 21092(b)(1) (stating that "all documents referenced in the draft environmental impact report" shall be made "available for review"); 14 Cal. Code Reg. § 15087(c)(5) (stating that all documents incorporated by reference in the EIR . . . shall be readily accessible to the public"); see also *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 442, as modified (Apr. 18, 2007) (EIR must transparently incorporate and describe the reference materials relied on in its analysis); *Santiago County Water District v. County of Orange* (1981) 118 Cal.App.3rd 818, 831 ("[W]hatever is required to be considered in an EIR must be in that formal report. . ."), internal citations omitted.

L5451-001acp



Polonia Majas <polonia.majas@lacity.org>

Request for Access to Public Records - 5420 Sunset Project (Case No. ENV-2017-1084-EIR)

2 messages

Alisha C. Pember <apember@adamsbroadwell.com>

Fri, Aug 20, 2021 at 4:48 PM

To: "polonia.majas@lacity.org" <polonia.majas@lacity.org>, "planning.recordsmgmt@lacity.org" <planning.recordsmgmt@lacity.org>, "vince.bertoni@lacity.org" <vince.bertoni@lacity.org>, "beatrice.pacheco@lacity.org" <beatrice.pacheco@lacity.org>

Cc: "Sheila M. Sannadan" <ssannadan@adamsbroadwell.com>, Maya Smith <msmith@adamsbroadwell.com>

Good afternoon,

Please see the attached correspondence.

If you have any questions, please contact Sheila Sannadan.

Thank you.

Alisha Pember

Alisha C. Pember
Adams Broadwell Joseph & Cardozo
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L5451-002acp - 5420 Sunset - PRA Request.pdf

136K

Anna Orellana <anna.orellana@lacity.org>

Mon, Aug 23, 2021 at 6:39 AM

To: Polonia Majas <polonia.majas@lacity.org>, Beatrice Pacheco <beatrice.pacheco@lacity.org>

Cc: William Lamborn <william.lamborn@lacity.org>, Milena Zasadzien <milena.zasadzien@lacity.org>, Lisa Webber <lisa.webber@lacity.org>, Lourdes Sanchez <lourdes.sanchez@lacity.org>

Hello

Vince received this email today.

ADAMS BROADWELL JOSEPH & CARDOZO

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KENDRA D. HARTMANN*
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RACHAEL E. KOSS
AIDAN P. MARSHALL

Of Counsel

MARC D. JOSEPH
DANIEL L. CARDOZO

August 20, 2021

*Not admitted in California.
Licensed in Colorado.

VIA EMAIL AND U.S. MAIL

Polonia Majas, Planner
City of Los Angeles
Department of City Planning
221 N. Figueroa St., Suite 1350
Los Angeles, CA. 90012
Email: polonia.majas@lacity.org

VIA EMAIL ONLY

Planning Records Management
Department
Email: planning.recordsmgmt@lacity.org

Vince Bertoni, Director of Planning
Email: vince.bertoni@lacity.org

Beatrice Pacheco, Chief Clerk
Los Angeles City Planning
Records Management
Email: beatrice.pacheco@lacity.org

VIA ONLINE PRA PORTAL

<https://clerk.lacity.org/contact-us/RecordsRequest>

Re: Request for Access to Public Records - 5420 Sunset Project (Case No. ENV-2017-1084-EIR)

Dear Ms. Majas, Mr. Bertoni, Ms. Pacheco, and Planning Records Management Department,

We are writing on behalf of Coalition for Responsible Equitable Economic Development ("CREED LA") to request access to any and all public records referring or related to the 5420 Sunset Project (Case No. ENV-2017-1084-EIR) ("Project"), proposed by 5420 Sunset Boulevard LP, LLC ("Applicant"). This request includes, but is not limited to, any and all materials, applications, correspondence,

L5451-002acp

August 20, 2021
Page 2

resolutions, memos, notes, analyses, electronic mail messages, files, maps, charts, and/or any other documents related to the Project.

The Project proposes the development of four six-story mixed-use buildings across 882,250 square feet. The Project consists of 735 multi-family residential units, as well as residential lobbies and leasing offices, pools, spas, and recreational facilities, and up to 95,000 square feet of commercial uses, including market/retail and restaurant uses. The Project also proposes approximately 96,800 square feet of open space including landscaped courtyards, a public plaza, and landscaped paseos, as well as 1,419 parking spaces in two subterranean parking levels and one at-grade parking level, and 548 bicycle parking spaces. The Project site is located at 5420 Sunset Boulevard, in the City of Los Angeles.

We are making this request pursuant to the California Public Records Act ("Act") and request the above documents pursuant to section 6253 of the Act. In addition, we request these materials pursuant to Article I, section 3(b) of the California Constitution, which provides a constitutional right of access to information concerning the conduct of the government. Article I, section 3(b) provides that any statutory right to information shall be broadly construed to provide the greatest access to government information and further requires that any statute that limits the right of access to information be narrowly construed.

If any of the requested items are available on the Internet, we request that the City of Los Angeles provide us with a direct link for downloading the responsive documents. Pursuant to Government Code section 6253.9, if the requested documents are in electronic format, please send them via a file hosting program such as Dropbox. Alternatively, if the electronic records are 10 MB or less (or can be easily broken into chunks of 10 MB or less), they can be emailed as attachments.

We will pay for any direct costs of duplication associated with filling this request up to \$200. However, please contact me at (650) 589-1660 with a cost estimate before copying/scanning the materials.

My contact information is:

L5451-002acp

August 20, 2021
Page 3

U.S. Mail

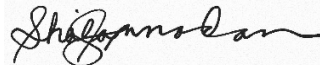
Sheila Sannadan
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South San Francisco, CA 94080-7037

Email

ssannadan@adamsbroadwell.com

I will be contacting 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

L5451-002acp

Thanks

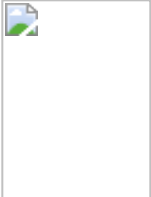
----- Forwarded message -----

From: **Vince Bertoni** <vince.bertoni@lacity.org>

Date: Mon, Aug 23, 2021 at 6:25 AM

Subject: Fwd: Request for Access to Public Records - 5420 Sunset Project (Case No. ENV-2017-1084-EIR)

To: Anna Orellana <anna.orellana@lacity.org>



Vincent P. Bertoni, AICP

Pronouns: He, His, Him

Director of Planning

Los Angeles City Planning

200 N. Spring St., Suite 525C

Los Angeles, CA 90012

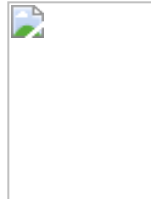
Planning4LA.org

T: (213) 978-1271 | F: (213) 978-1275

E: vince.bertoni@lacity.org



[Quoted text hidden]



Anna Orellana

Secretary

Los Angeles City Planning

200 N. Spring St., Room 525

Los Angeles, CA 90012

Planning4LA.org

T: (213) 978-1271



L5451-002acp - 5420 Sunset - PRA Request.pdf

136K



Polonia Majas <polonia.majas@lacity.org>

Request for Mailed Notice of Actions and Hearings – 5420 Sunset Project (Case No. ENV-2017-1084-EIR)

2 messages

Alisha C. Pember <apember@adamsbroadwell.com>

Fri, Aug 20, 2021 at 4:53 PM

To: "vince.bertoni@lacity.org" <vince.bertoni@lacity.org>, "CityClerk@lacity.org" <CityClerk@lacity.org>, "polonia.majas@lacity.org" <polonia.majas@lacity.org>

Cc: "Sheila M. Sannadan" <ssannadan@adamsbroadwell.com>, Maya Smith <msmith@adamsbroadwell.com>

Good afternoon,

Please see the attached correspondence.

If you have any questions, please contact Sheila Sannadan.

Thank you.

Alisha Pember

Alisha C. Pember
Adams Broadwell Joseph & Cardozo
601 Gateway Boulevard, Suite 1000
South San Francisco, CA 94080
(650) 589-1660 voice, Ext. 24
apember@adamsbroadwell.com

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 **L5451-003acp - 5420 Sunset - CEQA Notice Request.pdf**
129K

Anna Orellana <anna.orellana@lacity.org>

Mon, Aug 23, 2021 at 6:40 AM

To: Polonia Majas <polonia.majas@lacity.org>, Beatrice Pacheco <beatrice.pacheco@lacity.org>

Cc: Lourdes Sanchez <lourdes.sanchez@lacity.org>, William Lamborn <william.lamborn@lacity.org>, Milena Zasadzien <milena.zasadzien@lacity.org>, Lisa Webber <lisa.webber@lacity.org>

Hello

Vince received this email today.

Thanks

----- Forwarded message -----

From: **Vince Bertoni** <vince.bertoni@lacity.org>

Date: Mon, Aug 23, 2021 at 6:25 AM

Subject: Fwd: Request for Mailed Notice of Actions and Hearings – 5420 Sunset Project (Case No. ENV-2017-1084-EIR)

To: Anna Orellana <anna.orellana@lacity.org>



LOS ANGELES
CITY PLANNING

Vincent P. Bertoni, AICP

Pronouns: He, His, Him

Director of Planning

Los Angeles City Planning

200 N. Spring St., Suite 525C

Los Angeles, CA 90012

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T: (213) 978-1271 | F: (213) 978-1275

E: vince.bertoni@lacity.org



[Quoted text hidden]



LOS ANGELES
CITY PLANNING

Anna Orellana

Secretary

Los Angeles City Planning

200 N. Spring St., Room 525

Los Angeles, CA 90012

Planning4LA.org

T: (213) 978-1271



L5451-003acp - 5420 Sunset - CEQA Notice Request.pdf
129K

ADAMS BROADWELL JOSEPH & CARDOZO

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KELILAH D. FEDERMAN
ANDREW J. GRAF
TANYA A. GULESSERIAN
KENDRA D. HARTMANN*
DARIEN K. KEY
RACHAEL E. KOSS
AIDAN P. MARSHALL

Of Counsel

MARC D. JOSEPH
DANIEL L. CARDOZO

*Not admitted in California
Licensed in Colorado

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FAX: (916) 444-6209

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CITY OF LOS ANGELES

AUG 26 2021

CITY PLANNING DEPT.
EXECUTIVE OFFICE

Via Email and U.S. Mail

Vince Bertoni, Director of Planning
City Planning Department
City of Los Angeles
200 N. Spring St., Suite 525
Los Angeles, CA 90012
Email: vince.bertoni@lacity.org

CITY CLERK

Holly L. Wolcott, City Clerk
Office of the City Clerk
200 N. Spring Street
City Hall - Room 360
Los Angeles, CA 90012
Email: CityClerk@lacity.org

Via Email Only

Polonia Majas, Planner
Email: polonia.majas@lacity.org

**Re: Request for Mailed Notice of Actions and Hearings – 5420 Sunset
Project (Case No. ENV-2017-1084-EIR)**

Dear Mr. Bertoni, Ms. Wolcott, and Ms. Majas,

We are writing on behalf of Coalition for Responsible Equitable Economic Development ("CREED LA") to request mailed notice of the availability of any environmental review document, prepared pursuant to the California Environmental Quality Act, related to the 5420 Sunset Project (Case No. ENV-2017-1084-EIR) ("Project"), proposed by 5420 Sunset Boulevard LP, LLC ("Applicant").

The Project proposes the development of four six-story mixed-use buildings across 882,250 square feet. The Project consists of 735 multi-family residential units, as well as residential lobbies and leasing offices, pools, spas, and recreational facilities, and up to 95,000 square feet of commercial uses, including market/retail and restaurant uses. The Project also proposes approximately 96,800 square feet of open space including landscaped courtyards, a public plaza, and landscaped paseos, as well as 1,419 parking spaces in two subterranean parking levels and one at-

L5451-003acp

August 20, 2021

Page 2

grade parking level, and 548 bicycle parking spaces. The Project site is located at 5420 Sunset Boulevard, in the City of Los Angeles.

We also request mailed notice of any and all hearings and/or actions related to the Project. These requests are made pursuant to Public Resources Code Sections 21092.2, 21080.4, 21083.9, 21092, 21108, 21152, and 21167(f) and Government Code Section 65092, which require local agencies to mail such notices to any person who has filed a written request for them with the clerk of the agency's governing body.

Please send the above requested items by email and U.S. Mail to our South San Francisco Office as follows:

U.S. Mail

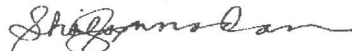
Sheila M. Sannadan
Adams Broadwell Joseph & Cardozo
601 Gateway Boulevard, Suite 1000
South San Francisco, CA 94080-7037

Email

ssannadan@adamsbroadwell.com

Please call me at (650) 589-1660 if you have any questions. Thank you for your assistance with this matter.

Sincerely,



Sheila M. Sannadan
Legal Assistant

SMS:acp

L5451-003acp



Polonia Majas <polonia.majas@lacity.org>

5420 Sunset Project - Hearings

2 messages

Sheila M. Sannadan <ssannadan@adamsbroadwell.com>

Thu, Sep 16, 2021 at 1:03 PM

To: "polonia.majas@lacity.org" <polonia.majas@lacity.org>

Good Afternoon Ms. Majas,

Could you please tell me whether there are any hearings scheduled, or tentatively scheduled, for the 5420 Sunset Project? Also, is there an estimate release date of the FEIR for this project?

Thank you.

Sheila

Sheila Sannadan

Legal Assistant

Adams Broadwell Joseph & Cardozo
601 Gateway Boulevard, Suite 1000
South San Francisco, CA 94080
Phone (650) 589-1660
Fax (650) 589-5062

ssannadan@adamsbroadwell.com

Polonia Majas <polonia.majas@lacity.org>

Thu, Sep 16, 2021 at 3:23 PM

To: "Sheila M. Sannadan" <ssannadan@adamsbroadwell.com>

Good afternoon,

There are no tentative hearings currently scheduled for the 5420 Sunset Project. Since the DEIR was recently released there hasn't been any discussion regarding the release date of the FEIR.

Please feel free to contact me at any time for an update.

[Quoted text hidden]

--

Polonia Majas



Planning Assistant
Los Angeles City Planning
221 N. Figueroa St., Suite 1350
Los Angeles, CA 90012
Planning4LA.org
T: (213) 847-3625



Alisha C. Pember

From: Sheila M. Sannadan
Sent: Tuesday, September 28, 2021 11:09 AM
To: polonia.majas@lacity.org
Cc: vince.bertoni@lacity.org; beatrice.pacheco@lacity.org; william.lamborn@lacity.org; lourdes.sanchez@lacity.org; Aidan P. Marshall
Subject: 5420 Sunset Project - AERMOD files (native format)

Good Morning Ms. Majas,

We are requesting *immediate access* to files from the DEIR's AERMOD dispersion model analysis for the 5420 Sunset Project. Specifically, we request access to the unlocked, underlying AERMOD files in their native format. These unlocked files are necessary for us to validate the findings in the DEIR's Health Risk Assessment. Our request is made pursuant to Pub. Resources Code § 21092(b)(1), which requires that "all documents referenced" and "all documents incorporated by reference" in an environmental review document shall be "readily accessible to the public during the lead agency's normal working hours" during the entire public comment period. On August 20, 2021, we requested that the City provide immediate access to any and all documents referenced or relied upon in the DEIR prepared for the Project. In response, the City provided us access to a physical case file in the City's planning department office. This file was missing the aforementioned AERMOD files.

Given the shortness of time before the current comment deadline on the DEIR, please send us the files via email as soon as possible.

Thank you for your assistance.

Regards,
Sheila

Sheila Sannadan
Legal Assistant
Adams Broadwell Joseph & Cardozo
601 Gateway Boulevard, Suite 1000
South San Francisco, CA 94080
Phone (650) 589-1660
Fax (650) 589-5062
ssannadan@adamsbroadwell.com



Polonia Majas <polonia.majas@lacity.org>

Request to Extend the Public Review and Comment Period for the Draft Environmental Impact Report for 5420 Sunset Project (Case No. ENV-2017-1084-EIR)

2 messages

Alisha C. Pember <apember@adamsbroadwell.com>

Thu, Sep 30, 2021 at 3:46 PM

To: "polonia.majas@lacity.org" <polonia.majas@lacity.org>, "planning.recordsmgmt@lacity.org" <planning.recordsmgmt@lacity.org>, "vince.bertoni@lacity.org" <vince.bertoni@lacity.org>, "beatrice.pacheco@lacity.org" <beatrice.pacheco@lacity.org>

Cc: Christina Caro <ccaro@adamsbroadwell.com>, "Aidan P. Marshall" <amarshall@adamsbroadwell.com>

Good afternoon,

Please see the attached correspondence re our **Request to Extend the Public Review and Comment Period for the Draft Environmental Impact Report for 5420 Sunset Project (Case No. ENV-2017-1084-EIR)** and **Exhibits A-B**.

We will also upload the attached to the online PRA portal.

If you have any questions, please contact Aidan Marshall.

Thank you.

Alisha Pember

Alisha C. Pember
Adams Broadwell Joseph & Cardozo
601 Gateway Boulevard, Suite 1000
South San Francisco, CA 94080
(650) 589-1660 voice, Ext. 24
apember@adamsbroadwell.com

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L5451-004acp - ABJ Request for Extension 5420 Sunset Project and Exhibits A-B.pdf

294K

Polonia Majas <polonia.majas@lacity.org>

Thu, Sep 30, 2021 at 4:13 PM

To: William Lamborn <william.lamborn@lacity.org>

ADAMS BROADWELL JOSEPH & CARDOZO

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amarshall@adamsbroadwell.com

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KELILAH D. FEDERMAN
ANDREW J. GRAF
TANYA A. GULESSERIAN
KENDRA D. HARTMANN*
DARIEN K. KEY
RACHAEL E. KOSS
AIDAN P. MARSHALL
TARA C. MESSING

Of Counsel

MARC D. JOSEPH
DANIEL L. CARDOZO

September 30, 2021

*Not admitted in California.
Licensed in Colorado.

VIA EMAIL AND U.S. MAIL

Polonia Majas, Planner
City of Los Angeles
Department of City Planning
221 N. Figueroa St., Suite 1350
Los Angeles, CA. 90012
Email: polonia.majas@lacity.org

VIA EMAIL ONLY

Planning Records Management
Department
Email: planning.recordsmgmt@lacity.org

Vince Bertoni, Director of Planning
Email: vince.bertoni@lacity.org

Beatrice Pacheco, Chief Clerk
Los Angeles City Planning
Records Management
Email: beatrice.pacheco@lacity.org

VIA ONLINE PRA PORTAL

<https://clerk.lacity.org/contact-us/RecordsRequest>

**Re: Request to Extend the Public Review and Comment Period for
the Draft Environmental Impact Report for 5420 Sunset Project
(Case No. ENV-2017-1084-EIR).**

Dear Ms. Majas and Planning Records Management Department:

On behalf of Coalition for Responsible Equitable Economic Development Los Angeles ("CREED LA"), we respectfully request that the City of Los Angeles ("City") extend the public review and comment period for the Draft Environmental Impact Report ("DEIR") prepared for the 5420 Sunset Project (Case No. ENV-2017-1084-EIR), proposed by 5420 Sunset Boulevard LP, LLC ("Applicant") due to the City's

L5451-004acp

failure to provide timely access to documents referenced in the DEIR to the public for the entire comment period.

The California Environmental Quality Act (“CEQA”) and the CEQA Guidelines require that “all documents referenced” and “all documents incorporated by reference” in an environmental review document shall be “readily accessible to the public during the lead agency’s normal working hours” during the entire public comment period.¹ On August 20, 2021, we requested that the City provide immediate access to any and all documents referenced or relied upon in the DEIR prepared for the Project.² On August 30, 2021, the City informed us that the documents referenced in the Draft EIR are contained on a CD in a physical case file in the City’s planning department office.

After copying and reviewing the contents of this CD, we learned that it did not contain critical reference documents. Specifically, the City failed to provide access to files from the DEIR’s AERMOD dispersion model analysis. Access to the unlocked, underlying AERMOD files in their native format is necessary for the public to validate the findings in the DEIR’s Health Risk Assessment. As soon as we became aware these files were missing from the City’s production of documents, we emailed the City requesting immediate access to the files.³ As of the time of this letter, we have not received a response from the City regarding this request.

The courts have held that the failure to provide even a few pages of a CEQA document for a portion of the review and comment period invalidates the entire CEQA process, and that such a failure must be remedied by permitting additional public comment.⁴ It is also well settled that a CEQA document may not rely on hidden studies or documents that are not provided to the public.⁵ By failing to make all documents referenced and incorporated by reference in the DEIR “readily

¹ Pub. Resources Code § 21092(b)(1); 14 C.C.R. § 15072(g)(4); see *Ultramar v. South Coast Air Quality Man. Dist.* (1993) 17 Cal.App.4th 689, 699.

² **Exhibit A:** Letter from Adams, Broadwell, Joseph & Cardozo (“ABJC”) to the City of Los Angeles re: Request for Immediate Access to All Documents Referenced in the Draft Environmental Impact Report for 5420 Sunset Project (Case No. ENV-2017-1084-EIR) (August 20, 2021).

³ **Exhibit B:** Email from Sheila M. Sannadan, ABJC, to Polonia Majas, City of Los Angeles, re: 5420 Sunset Project - AERMOD files (native format) (September 28, 2021).

⁴ *Ultramar*, 17 Cal.App.4th at 699.

⁵ *Santiago Cty. Water Dist. v. Cty. of Orange* (1981) 118 Cal.App.3d 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.”).

September 30, 2021

Page 3

available” during the current comment period, the City is violating the clear procedural mandates of CEQA to the detriment of CREED LA and other members of the public who wish to meaningfully review and comment on the DEIR.

Without access to all of the relevant documents relied upon and incorporated by reference by the City in its preparation of the DEIR during the entire public comment period, CREED LA and other members of the public are precluded from having this meaningful opportunity to review the DEIR. In particular, the public is unable to evaluate the accuracy of the analyses contained in the DEIR and the significance of any impacts the Project may or may not have on the environment.

Accordingly, we request that:

- 1) The City immediately provide us with access to the unlocked, underlying files from the DEIR's AERMOD dispersion model analysis in their native format, files from all other technical analyses in their native formats, as well any other documents referenced in the DEIR not included in the previous production of documents.
- 2) The City extend the public review and comment period for the DEIR by at least 30 days from the date on which the City releases these 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 Friday, October 1, 2021.

Sincerely,



Aidan P. Marshall

APM:acp

Attachments

L5451-004acp

EXHIBIT A

ADAMS BROADWELL JOSEPH & CARDOZO

A PROFESSIONAL CORPORATION

ATTORNEYS AT LAW

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KELILAH D. FEDERMAN
ANDREW J. GRAF
TANYA A. GULESSERIAN
KENDRA D. HARTMANN*
DARIEN K. KEY
RACHAEL E. KOSS
AIDAN P. MARSHALL

Of Counsel

MARC D. JOSEPH
DANIEL L. CARDOZO

August 20, 2021

*Not admitted in California.
Licensed in Colorado.

Via Email and U.S. Mail

Vince Bertoni, Director of Planning
City Planning Department
City of Los Angeles
200 N. Spring St., Suite 525
Los Angeles, CA 90012
Email: vince.bertoni@lacity.org

Holly L. Wolcott, City Clerk
Office of the City Clerk
200 N. Spring Street
City Hall - Room 360
Los Angeles, CA 90012
Email: CityClerk@lacity.org

Via Email Only

Polonia Majas, Planner
Email: polonia.majas@lacity.org

Re: Request for Immediate Access to All Documents Referenced in the Draft Environmental Impact Report for 5420 Sunset Project (Case No. ENV-2017-1084-EIR)

Dear Mr. Bertoni, Ms. Wolcott, and Ms. Majas,

We are writing on behalf of Coalition for Responsible Equitable Economic Development ("CREED LA") to request ***immediate access*** to any and all documents referenced, incorporated by reference, or relied upon in the Draft Environmental Impact Report ("DEIR") prepared for the 5420 Sunset Project (Case No. ENV-2017-1084-EIR) ("Project"), proposed by 5420 Sunset Boulevard LP, LLC ("Applicant"). This request excludes any documents that are currently available by URL link in the "References" sections of the DEIR.

The Project proposes the development of four six-story mixed-use buildings across 882,250 square feet. The Project consists of 735 multi-family residential units, as well as residential lobbies and leasing offices, pools, spas, and recreational facilities, and up to 95,000 square feet of commercial uses, including market/retail and restaurant uses. The Project also proposes approximately 96,800 square feet of open space including landscaped courtyards, a public plaza, and landscaped paseos,

L5451-001acp

August 20, 2021
Page 2

as well as 1,419 parking spaces in two subterranean parking levels and one at-grade parking level, and 548 bicycle parking spaces. The Project site is located at 5420 Sunset Boulevard, in the City of Los Angeles.

Our request for ***immediate access*** to all documents referenced in the DEIR is made pursuant to the California Environmental Quality Act (“CEQA”), which requires that all documents referenced, incorporated by reference, and relied upon in an environmental review document be made available to the public for the entire comment period.¹ I will be contacting you to arrange for the review/duplication/transmission of the requested records soon. In the interim, if you have any questions or concerns regarding this request, my contact information is:

U.S. Mail

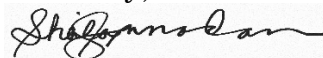
Sheila Sannadan
Adams Broadwell Joseph & Cardozo
601 Gateway Boulevard, Suite 1000
South San Francisco, CA 94080-7037

Email

ssannadan@adamsbroadwell.com

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

¹ See Public Resources Code § 21092(b)(1) (stating that “all documents referenced in the draft environmental impact report” shall be made “available for review”); 14 Cal. Code Reg. § 15087(c)(5) (stating that all documents incorporated by reference in the EIR . . . shall be readily accessible to the public”); see also *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 442, as modified (Apr. 18, 2007) (EIR must transparently incorporate and describe the reference materials relied on in its analysis); *Santiago County Water District v. County of Orange* (1981) 118 Cal.App.3rd 818, 831 (“[W]hatever is required to be considered in an EIR must be in that formal report. . .”), internal citations omitted.

L5451-001acp

EXHIBIT B

Alisha C. Pember

From: Sheila M. Sannadan
Sent: Tuesday, September 28, 2021 11:09 AM
To: polonia.majas@lacity.org
Cc: vince.bertoni@lacity.org; beatrice.pacheco@lacity.org; william.lamborn@lacity.org; lourdes.sanchez@lacity.org; Aidan P. Marshall
Subject: 5420 Sunset Project - AERMOD files (native format)

Good Morning Ms. Majas,

We are requesting *immediate access* to files from the DEIR's AERMOD dispersion model analysis for the 5420 Sunset Project. Specifically, we request access to the unlocked, underlying AERMOD files in their native format. These unlocked files are necessary for us to validate the findings in the DEIR's Health Risk Assessment. Our request is made pursuant to Pub. Resources Code § 21092(b)(1), which requires that "all documents referenced" and "all documents incorporated by reference" in an environmental review document shall be "readily accessible to the public during the lead agency's normal working hours" during the entire public comment period. On August 20, 2021, we requested that the City provide immediate access to any and all documents referenced or relied upon in the DEIR prepared for the Project. In response, the City provided us access to a physical case file in the City's planning department office. This file was missing the aforementioned AERMOD files.

Given the shortness of time before the current comment deadline on the DEIR, please send us the files via email as soon as possible.

Thank you for your assistance.

Regards,
Sheila

Sheila Sannadan
Legal Assistant
Adams Broadwell Joseph & Cardozo
601 Gateway Boulevard, Suite 1000
South San Francisco, CA 94080
Phone (650) 589-1660
Fax (650) 589-5062
ssannadan@adamsbroadwell.com

FYI - Request to Extend Public Review 5420 Sunset Project. Please let me know what I need to do regarding this email request?

Thanks,

[Quoted text hidden]

--



LOS ANGELES
CITY PLANNING

Polonia Majas

Planning Assistant

Los Angeles City Planning

221 N. Figueroa St., Suite 1350

Los Angeles, CA 90012

T: (213) 847-3625 | Planning4LA.org



L5451-004acp - ABJ Request for Extension 5420 Sunset Project and Exhibits A-B.pdf

294K



Polonia Majas <polonia.majas@lacity.org>

5420 Sunset Blvd DEIR Comments

2 messages

Lorrie J. LeLe <ljele@adamsbroadwell.com>

Mon, Oct 4, 2021 at 4:04 PM

To: "polonia.majas@lacity.org" <polonia.majas@lacity.org>

Cc: "Aidan P. Marshall" <amarshall@adamsbroadwell.com>

Please find attached comments.

Thank you,

Lorrie LeLe

Legal Assistant

Adams Broadwell Joseph & Cardozo

520 Capitol Mall, Suite 350

Sacramento, CA 95814

ljele@adamsbroadwell.com | Phone: 916.444.6201 Ext. 10 | Fax: 916.444.6209 |

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 **5451-005j - 5420 Sunset Blvd DEIR Comments.pdf**
6288K

Lorrie J. LeLe <ljele@adamsbroadwell.com>

Mon, Oct 4, 2021 at 4:51 PM

To: "polonia.majas@lacity.org" <polonia.majas@lacity.org>

Cc: "Aidan P. Marshall" <amarshall@adamsbroadwell.com>

Please find attached the comment references for your convenience that go along with our comments filed earlier this date.

<https://www.dropbox.com/sh/n8016yncvtor2pn/AACg4wYZ0tHgr-lm7hBgIET3a?dl=0>

[Quoted text hidden]

ADAMS BROADWELL JOSEPH & CARDOZO

A PROFESSIONAL CORPORATION

ATTORNEYS AT LAW

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October 4, 2021

Via Email and Overnight Mail

Polonia Majas, Planner
City of Los Angeles
Department of City Planning
221 N. Figueroa St., Suite 1350
Los Angeles, CA. 90012
Email: polonia.majas@lacity.org

**Re: Comments on the Draft Environmental Impact Report – 5420
Sunset Project (Case No. ENV-2017-1084-EIR; SCH No. 2017061075).**

Dear Ms. Majas:

We are writing on behalf of Coalition for Responsible Equitable Economic Development Los Angeles (“CREED LA”) to provide comments on the Draft Environmental Impact Report (“DEIR”) prepared by the City of Los Angeles (“City”) for the 5420 Sunset Project (Case No. ENV-2017-1084-EIR; SCH No. 2017061075) (“Project”), proposed by 5420 Sunset Boulevard LP, LLC (“Applicant”).

The Project proposes the development of four six-story mixed-use buildings across 882,250 square feet. The Project consists of 735 multi-family residential units, as well as residential lobbies and leasing offices, pools, spas, and recreational facilities, and up to 95,000 square feet of commercial uses, including market/retail and restaurant uses. The Project also proposes approximately 96,800 square feet of open space including landscaped courtyards, a public plaza, and landscaped paseos, as well as 1,419 parking spaces in two subterranean parking levels and one at-grade parking level, and 548 bicycle parking spaces. The Project site is located at 5420 Sunset Boulevard, in the City of Los Angeles.

Several discretionary approvals are required to implement the Project, including a Main Conditional Use Permit (“MCUP”) pursuant to Los Angeles Municipal Code (“LAMC”) Section 12.24(W)(1) for the sales and/or dispensing of

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alcoholic beverages within the commercial uses of the Project, Site Plan Review pursuant to LAMC Section 16.05, Project Permit Compliance Review under the Vermont/Western Station Neighborhood Area Specific Plan, haul route approval, and construction permits.¹

We have conducted our review of the DEIR with the assistance of air quality and hazardous resources expert James J. Clark, Ph.D.² The City must separately respond to his technical comments.

Based upon our review of the DEIR and supporting documentation, we conclude that the DEIR fails to comply with the requirements of CEQA. The DEIR fails to adequately disclose significant air quality, public health, and noise impacts. As a result of its shortcomings, the DEIR lacks substantial evidence to support its conclusions and fails to properly mitigate the Project's significant environmental impacts. Further, the City cannot make the requisite findings under the LAMC for an MCUP. The City cannot approve the Project until the errors and omissions in the DEIR are remedied, and a revised DEIR is recirculated for public review and comment which fully discloses and mitigates the Project's potentially significant environmental and public health 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 impacts of the Project. The coalition includes the Sheet Metal Workers Local 105, International Brotherhood of Electrical Workers Local 11, Southern California Pipe Trades District Council 16, and District Council of Iron Workers of the State of California, along with their members, their families, and other individuals who live and work in the City of Los Angeles.

Individual members of CREED LA and its member organizations include Jorge L. Aceves, Gerry Bustos, John Ferruccio, and Chris S. Macias. These individuals live, work, recreate, and raise their families in the City of Los Angeles and surrounding communities. Accordingly, they would be directly affected by the Project's environmental and health and safety impacts. Individual members may

¹ DEIR, pg. II-29.

² Dr. Clark's technical comments and curricula vitae are attached hereto as Exhibit A.
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also work on the Project itself. They will be first in line to be exposed to any health and safety hazards that exist onsite.

CREED LA seeks to ensure a sustainable construction industry over the long-term by supporting projects that have positive impacts for the community, and which minimize adverse environmental and public health impacts. 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 has two basic purposes, neither of which the DEIR satisfies. First, CEQA is designed to inform decision makers and the public about the potential, significant environmental effects of a project.³ CEQA requires that an agency analyze potentially significant environmental impacts in an EIR.⁴ The EIR should not rely on scientifically outdated information to assess the significance of impacts, and should result from “extensive research and information gathering,” including consultation with state and federal agencies, local officials, and the interested public.⁵ To be adequate, the EIR should evidence the lead agency’s good faith effort at full disclosure.⁶ 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.”⁷ “Thus, the EIR protects not only the environment but also informed self-government.”⁸

³ CEQA Guidelines, § 15002, subd. (a)(1).

⁴ See Pub. Resources Code, § 21000; CEQA Guidelines, § 15002.

⁵ *Berkeley Keep Jets Over the Bay Comm. v. Board of Port Comm.* (“*Berkeley Jets*”) (2001) 91 Cal.App.4th 1344, 1367.; *Schaeffer Land Trust v. San Jose City Council* (1989) 215 Cal.App.3d 612, 620.

⁶ CEQA Guidelines, § 15151; see also *Laurel Heights Improvement Assn. v. Regents of University of California* (“*Laurel Heights I*”) (1988) 47 Cal.3d 376, 406.

⁷ *County of Inyo v. Yorty* (1973) 32 Cal.App.3d 795, 810.

⁸ *Citizens of Goleta Valley v. Bd. of Supervisors* (1990) 52 Cal.3d 553, 564 (citations omitted).
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Second, CEQA directs public agencies to avoid or reduce environmental damage when possible by requiring alternatives or mitigation measures.⁹ The EIR serves to provide public agencies and the public in general with information about the effect that a proposed project is likely to have on the environment and to “identify ways that environmental damage can be avoided or significantly reduced.”¹⁰ If a project has a significant effect on the environment, the agency may approve the project only upon a finding 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” specified in CEQA section 21081.¹¹

As these comments will demonstrate, the DEIR fails to comply with the requirements of CEQA and may not be used as the basis for approving the Project. It fails in significant aspects to perform its function as an informational document that is meant “to provide public agencies and the public in general with detailed information about the effect which a proposed project is likely to have on the environment” and “to list ways in which the significant effects of such a project might be minimized.”¹² The DEIR also lacks substantial evidence to support the City’s proposed findings that the Project will not result in any significant, unmitigated impacts

III. THE CITY FAILED TO PROVIDE TIMELY ACCESS TO DOCUMENTS REFERENCED AND INCORPORATED BY REFERENCE IN THE DEIR

The City violated CEQA and improperly truncated the DEIR public comment period by failing to make all documents referenced or relied on in the DEIR available for public review during the Project’s public comment period.¹³ As a result, CREED LA was unable to complete its review and analysis of the DEIR and its supporting evidence during the current public comment period, which ends on October 4, 2021. Our request that the City extend the public comment period was denied. We therefore provide these initial comments on the DEIR and reserve our right to submit supplemental comments on the DEIR at a future date.

⁹ CEQA Guidelines, § 15002, subd. (a)(2)-(3); *Berkeley Jets*, *supra*, 91 Cal.App.4th at 1354.

¹⁰ CEQA Guidelines, § 15002, subd. (a)(2).

¹¹ *Id.*, subd. (b)(2)(A)-(B).

¹² *Laurel Heights I*, *supra*, 47 Cal.3d at p. 391.

¹³ *See* PRC § 21092(b)(1); 14 CCR § 15087(c)(5).

Access to all of the documents referenced in the DEIR is necessary to conduct a meaningful review of its analyses, conclusions, and mitigation measures and to assess the Project's potential environmental impacts. CEQA requires that "all documents referenced" and "incorporated by reference" in the draft environmental impact report be available for review and "readily accessible" during the entire comment period.¹⁴ The courts have held that the failure to provide even a few pages of a CEQA document for a portion of the review and comment period invalidates the entire CEQA process, and that such a failure must be remedied by permitting additional public comment.¹⁵ It is also well-settled that a CEQA document may not rely on hidden studies or documents that are not provided to the public.¹⁶

The Notice of Availability for the DEIR states that "the documents referenced in the DEIR are available for public review during office hours, Monday-Friday, 9:00am-4:00pm by appointment only."¹⁷ In compliance with those instructions, on August 20, 2021, we requested that the City provide immediate access to any and all documents referenced or relied upon in the DEIR prepared for the Project.¹⁸ On August 30, 2021, the City informed us that the documents referenced in the Draft EIR are contained on a CD in a physical case file in the City's planning department office. A representative from CREED LA thereafter copied the contents of the CD at the City.

After reviewing the contents of this CD, we learned that it did not contain critical DEIR reference documents. Specifically, the City failed to provide access to files from the DEIR's AERMOD dispersion model analysis. The City only provided the first two pages of each dispersion model analysis, which is not a sufficient method for validating the model results.¹⁹ Access to the complete, unlocked AERMOD files in their native format is necessary for the public to validate the findings in the DEIR's Health Risk Assessment.²⁰ As soon as we became aware these files were missing from the City's production of documents, we emailed the

¹⁴ PRC § 21092(b)(1) (emphasis added); 14 CCR § 15087(c)(5).

¹⁵ See *Ultramar v. South Coast Air Quality Man. Dist.* (1993) 17 Cal.App.4th 689, 699.

¹⁶ *Santiago County Water Dist. V. County of Orange* (1981) 118 Cal.App.3d 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.").

¹⁷ See Notice of Completion and Availability of DEIR, 5420 Sunset Project (August 19, 2021).

¹⁸ **Exhibit B:** Letter from Adams, Broadwell, Joseph & Cardozo ("ABJC") to the City of Los Angeles re: Request for Immediate Access to All Documents Referenced in the Draft Environmental Impact Report for 5420 Sunset Project (Case No. ENV-2017-1084-EIR) (August 20, 2021).

¹⁹ James Clark Comments ("Clark"), pg. 8.

²⁰ *Id.*

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City again requesting immediate access to the files.²¹ We specifically requested the “unlocked, underlying files from the DEIR’s AERMOD dispersion model analysis in their native format.”²²

Having received no response from the City regarding this request, we submitted an additional letter requesting the extension of the comment period in light of these missing files.²³ On October 4, 2021, the last day of the comment period, we received an email from the City stating that “[t]he modeling output data and the assumptions underlying the Health Risk Assessment (HRA) are all included within the HRA itself.”²⁴ This statement is incorrect, as the HRA only included the first two pages of each dispersion model. The City did not provide the files in their native format per our request, thus hiding the City’s full dispersion modeling analysis from public view, and the City denied our request to extend the comment period.

CEQA requires that all documents referenced, incorporated by reference, and relied upon in a DEIR be readily available to the public during the entire CEQA public comment period. Despite CREED LA’s efforts to obtain “immediate access” to all materials referenced in the DEIR during the public comment period, the City failed to provide access to critical reference documents, then failed to respond to our subsequent requests for missing files, and declined to extend the public comment period. The City’s actions violate CEQA’s disclosure requirements.²⁵ By failing to make all documents referenced and incorporated by reference in the DEIR “readily accessible” to the public during the entire comment period, the City violated the clear procedural mandates of CEQA, to the prejudice of CREED LA and other members of the public.

In order to comply with CEQA, the City must immediately make the missing AERMOD files available to CREED LA, then extend the public comment period on the DEIR for and additional 30 days after those files are made available.

²¹ **Exhibit C:** Email from Sheila M. Sannadan, ABJC, to Polonia Majas, City of Los Angeles, re: 5420 Sunset Project - AERMOD files (native format) (September 28, 2021).

²² *Id.*

²³ **Exhibit D:** Letter from ABJC to the City of Los Angeles re: Request to Extend the Public Review and Comment Period for the Draft Environmental Impact Report for 5420 Sunset Project (Case No. ENV-2017-1084-EIR) (September 30, 2021).

²⁴ **Exhibit E:** Email from William Lamborn, City of Los Angeles, to Alicia C. Pember, ABJC, re: Request to extend the public review and comment period ENV-2017-1084-EIR (October 4, 2021).

²⁵ *Id.*; Gov. Code § 6253(a) (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.”).

IV. THE DEIR FAILS TO ADEQUATELY ANALYZE, QUANTIFY, AND MITIGATE THE PROJECT'S POTENTIALLY SIGNIFICANT IMPACTS

An EIR must fully disclose all potentially significant impacts of a project, and implement all feasible mitigation to reduce those impacts to less than significant levels. The lead agency's significance determination with regard to each impact must be supported by accurate scientific and factual data.²⁶ An agency cannot conclude that an impact is less than significant unless it produces rigorous analysis and concrete substantial evidence justifying the finding.²⁷

Moreover, the failure to provide information required by CEQA is a failure to proceed in the manner required by law.²⁸ Challenges to an agency's failure to proceed in the manner required by CEQA, such as the failure to address a subject required to be covered in an EIR or to disclose information about a project's environmental effects or alternatives, are subject to a less deferential standard than challenges to an agency's factual conclusions.²⁹ In reviewing challenges to an agency's approval of an EIR based on a lack of substantial evidence, the court will "determine de novo whether the agency has employed the correct procedures, scrupulously enforcing all legislatively mandated CEQA requirements."³⁰

Even when the substantial evidence standard is applicable to agency decisions to certify an EIR and approve a project, reviewing courts will not 'uncritically rely on every study or analysis presented by a project proponent in support of its position. A clearly inadequate or unsupported study is entitled to no judicial deference.'³¹

A. The DEIR Fails to Disclose and Mitigate Significant Health Risks from Construction and Operational Emissions

²⁶ 14 CCR § 15064(b).

²⁷ *Kings Cty. Farm Bur. v. Hanford* (1990) 221 Cal.App.3d 692, 732.

²⁸ *Sierra Club v. State Bd. Of Forestry* (1994) 7 Cal.4th 1215, 1236.

²⁹ *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 435.

³⁰ *Id.*; *Madera Oversight Coal., Inc. v. County of Madera* (2011) 199 Cal. App. 4th 48, 102.

³¹ *Berkeley Jets*, 91 Cal.App.4th at 1355.

An agency must support its findings of a project's potential environmental impacts with concrete evidence, with "sufficient information to foster informed public participation and to enable the decision makers to consider the environmental factors necessary to make a reasoned decision."³² A project's health risks "must be 'clearly identified' and the discussion must include 'relevant specifics' about the environmental changes attributable to the Project and their associated health outcomes."³³

Courts have held that an environmental review document must disclose a project's potential health risks to a degree of specificity that would allow the public to make the correlation between the project's impacts and adverse effects to human health.³⁴ In *Bakersfield Citizens for Local Control v. City of Bakersfield*, the court found that the EIRs' description of health risks were insufficient and that after reading them, "the public would have no idea of the health consequences that result when more pollutants are added to a nonattainment basin."³⁵ Likewise, in *Sierra Club*, the California Supreme Court held that the EIR's discussion of health impacts associated with exposure to the named pollutants was too general and the failure of the EIR to indicate the concentrations at which each pollutant would trigger the identified symptoms rendered the report inadequate.³⁶ Some connection between air quality impacts and their direct, adverse effects on human health must be made. As the Court explained, "a sufficient discussion of significant impacts requires not merely a determination of whether an impact is significant, but some effort to explain the nature and magnitude of the impact."³⁷ CEQA mandates discussion, supported by substantial evidence, of the nature and magnitude of impacts of air pollution on public health.³⁸

The failure to provide information required by CEQA makes meaningful assessment of potentially significant impacts impossible and is presumed to be prejudicial.³⁹ Challenges to an agency's failure to proceed in the manner required by

³² *Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502, 516.

³³ *Id.* at 518.

³⁴ *Id.* at 518–520; *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184.

³⁵ *Id.* at 1220.

³⁶ *Sierra Club*, at 521.

³⁷ *Id.* at 519, citing *Cleveland National Forest Foundation v. San Diego Assn. of Governments* (2017) 3 Cal.5th 497, 514–515.

³⁸ *Sierra Club*, 6 Cal.5th at 518–522.

³⁹ *Sierra Club v. State Bd. Of Forestry* (1994) 7 Cal.4th 1215, 1236–1237.

CEQA, such as the failure to address a subject required to be covered in an EIR or to disclose information about a project's environmental effects or alternatives, are subject to a less deferential standard than challenges to an agency's factual conclusions.⁴⁰ Courts reviewing challenges to an agency's approval of a CEQA document based on a lack of substantial evidence will "determine de novo whether the agency has employed the correct procedures, scrupulously enforcing all legislatively mandated CEQA requirements."⁴¹

i. The DEIR Fails to Disclose the Project's Diesel Particulate Matter Emissions.

The DEIR acknowledges that the Project's construction activities would create Toxic Air Contaminant ("TAC") emissions.⁴² Specifically, operation of heavy equipment would generate Diesel Particulate Matter ("DPM"), a type of TAC. The DEIR further acknowledges that DPM is carcinogenic.⁴³ However, the DEIR fails to plainly disclose the Project's DPM emissions.⁴⁴

The DEIR does indeed disclose the Project's emission of criteria pollutants, but it is important to note that DPM is not a criteria pollutant.⁴⁵ Criteria pollutants are defined as "very small solid or liquid particles that can be suspended in the atmosphere," and do not themselves contain toxic chemicals.⁴⁶ TACs, by contrast, are defined as "air pollutant[s] which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health. Unlike regular particulate matter, DPM contains toxic chemicals which are not evaluated in a criteria pollutant analysis.

CEQA requires that a project's health risks "must be 'clearly identified' and the discussion must include 'relevant specifics' about the environmental changes

⁴⁰ *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 435.

⁴¹ *Id.* (internal quotations omitted).

⁴² DEIR, pg. IV.A-61.

⁴³ DEIR, pg. IV.A-61.

⁴⁴ DEIR, pg. IV.A-61.

⁴⁵ DEIR, pg. IV.A-59.

⁴⁶ *CURE v. Mojave Desert Air Qual. Mgm't Dist.* (2009) 178 Cal. App. 4th 1225, 1231-32; see 40 C.F.R. § 50.6(c).

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attributable to the Project and their associated health outcomes.”⁴⁷ Therefore, the DEIR must be revised to clearly quantify the extent of the Project’s DPM emissions.

ii. The DEIR Fails to Adequately Disclose and Mitigate the Project’s Significant Health Risks from Construction Emissions.

The DEIR claims that adverse health impacts caused by exposure to TACs from the Project’s construction emissions will be less than significant. However, the DEIR failed to conduct a quantified health risk analysis (“HRA”) to measure the Project’s TAC emissions and disclose the resultant health impacts to sensitive receptors. The DEIR relies on flawed reasoning to justify this omission, arguing that the City does not need to analyze health impacts from the Project’s construction TAC emissions because construction will only last for four years.⁴⁸ The City reasons that health effects from TACs are measured in terms of individual cancer risk. Individual cancer risk is measured in terms of exposure to TACs over a 70-year life. Because construction will only last four years, “the Project would not result in a long-term (i.e. 70-year) source of TAC emissions.”⁴⁹ The City concludes that analysis of health impacts from construction emissions is unnecessary.

This reasoning is flawed. Individual cancer risk is not just affected by the duration of exposure to TACs, but also the concentration of the individual’s unique exposure scenario and the toxicity of the chemical. Accordingly, OEHHA⁵⁰ guidance sets a recommended threshold for preparing an HRA of a construction period of two months or more.⁵¹ Because the DEIR contains no quantitative analysis of TAC emissions, the City lacks substantial evidence to support the DEIR’s untenable conclusion that exposing sensitive receptors to TACs over the Project’s 4-year construction period would not result in health impacts or increase the cancer risk to

⁴⁷ *Id.* at 518.

⁴⁸ DEIR, pg. IV.A-61.

⁴⁹ *Id.*

⁵⁰ OEHHA is the organization responsible for providing recommendations and guidance on how to conduct health risk assessments in California. See OEHHA organization description, available at <http://oehha.ca.gov/about/program.html>.

⁵¹ See “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 (“OEHHA Guidance”), p. 8-18.

those receptors. As construction of the instant Project will last at least four years,⁵² an HRA must be prepared.

The DEIR's failure to prepare a construction HRA violates CEQA. In *Sierra Club*, the Supreme Court of California disapproved of an EIR that failed to compare the health effects from exposure to ozone emissions against applicable thresholds.⁵³ The Court held that it is insufficient to merely state that "exposure to ambient levels of ozone ranging from 0.10 to 0.40 [parts per million of ozone] has been found to significantly alter lung functions" – the EIR must also compare the Project's impacts against this threshold.⁵⁴ Here, the City appropriately discloses that health impacts are significant when the Project exposes sensitive receptors to air contaminants that exceed the maximum incremental cancer risk of 10 in one million.⁵⁵ However, since the City did not perform a construction HRA, it does not compare the Project's impacts against the applicable threshold.

In summary, the DEIR fails to disclose the potentially significant risk posed to nearby residents from TACs, and fails to mitigate it. Because the DEIR fails to support its conclusion that the Project will not have significant health impacts from TAC emissions with the necessary analysis, this finding is not supported by substantial evidence. The DEIR must be revised to include a construction HRA.

iii. The DEIR Fails to Adequately Disclose and Mitigate the Project's Significant Health Risks from Operational Emissions.

The DEIR also claims that adverse health impacts caused by exposure to TACs from the Project's *operational* emissions will be less than significant. The DEIR justifies its failure to conduct a quantified HRA by claiming that the Project would not contain substantial TAC sources.⁵⁶ The DEIR observes that SCAQMD recommends conducting an HRA for Projects with substantial sources of DPM (e.g. facilities that generate more than 100 trucks per day).⁵⁷ The DEIR claims that since the Project would not generate over 100 trucks per day, there is no need for an HRA. But the DEIR's conclusion is false, as elsewhere the DEIR provides that the

⁵² DEIR, pg. IV.A-61.

⁵³ *Sierra Club v. State Bd. Of Forestry* (1994) 7 Cal.4th 1215, 1219-20.

⁵⁴ *Id.*

⁵⁵ DEIR, pg. IV.A-33.

⁵⁶ DEIR, pg. IV.A-65.

⁵⁷ DEIR, pg. IV.A-64.

Project would generate 287 truck trips per day.⁵⁸ Therefore, according to SCAQMD guidance, the City must conduct an HRA to disclose the health risks from the Project's operational emissions. Since the City failed to conduct this HRA, it fails to support its conclusion that operational health impacts are less than significant with substantial evidence. Further, as will be discussed below, Dr. Clark conducted an HRA that shows that the Project's operations would, in fact, have significant health impacts.

B. The DEIR Fails to Disclose Significant Impacts in its Air Quality Analysis and HRA.

i. The Operational HRA's Air Dispersion Model Relies on Inaccurate Traffic Counts, and Does Not Include All of the Sources of Criteria Air Pollutants and Toxic Air Contaminants from the Project.

The City prepared an HRA to analyze the potential effects of pollutants on individuals who will reside at the proposed Project site during Project operation.⁵⁹ The HRA included air quality modeling using the AMS/EPA Regulatory Model AERMOD to assess the downwind extent of mobile source emissions within 1,000 feet of the Project site.⁶⁰ Dr. James Clark, in the attached comments, explains that the HRA's modeling contains flaws that result in inaccurate estimates of health impacts.

Vehicles and back-up generator are sources of TACs, which cause health impacts analyzed in an HRA. Dr. Clark found that the City's model does not include an analysis of the emissions from vehicles coming to and from the Project site as well as the emissions from the back-up generator(s) that will be utilized on-site.⁶¹ As a result, the DEIR underestimates the Project's operational TAC emissions, and

⁵⁸ Clark, pg. 9. Dr. Clark explains, according to the CalEEMOD analysis presented in Appendix B of the DEIR, an estimated 8,655 vehicle trips will occur every weekday and an estimated 12,465.96 vehicle trips will occur each weekend day. Those trips will be solely associated with the commercial development installed on the Project site. The CalEEMOD analysis further details that 3.3% of the traffic is expected to be heavy duty trucks (which emit the most DPM), or approximately 287 trucks will be entering and leaving the Project site daily.

⁵⁹ DEIR, Appendix G, pg. 1.

⁶⁰ *Id.*, pg. 5.

⁶¹ Clark, pg. 3.

underestimates the health impacts of the project on the residents of the Project.⁶² This underestimation of mobile-source TAC emissions is substantial, as the DEIR's Traffic Study concluded that there would be a net increase of 2,369 extra trips per day over the existing project, representing a 45% increase in traffic in the Project area of influence.⁶³

Mobile source emissions from State Route 101 are a major potential cause of health impacts on the Project's future residents. The volume of traffic on State Route 101 is directly related to the severity of health impacts at the Project site. Dr. Clark found that the HRA relies on incorrect average freeway traffic volumes.⁶⁴ The HRA states that its data was based on the California Department of Transportation's ("CalTrans") Performance Measurement System ("PeMS"). But when Dr. Clark reviewed the database, he found that PeMS reported a higher volume of traffic than the DEIR reported. Specifically, the values used in the HRA for northbound and southbound traffic are 2.2 to 2.5 times lower than the values reported by CalTrans.⁶⁵ Because the DEIR underestimates State Route 101's health impact at the Project site, the City must re-evaluate the air quality impacts using correct traffic counts in a revised EIR.

Because of these flaws, the conclusions in the DEIR's HRA lack substantial evidence. The DEIR must be revised and recirculated.

ii. A Re-Calculated HRA Shows that the Project has Significant Health Impacts.

Dr. Clark reconducted the City's HRA to find that the health impacts on the Project's future tenants will be significant. His HRA also shows that the Project has cumulatively significant health impacts on the community.

As explained above, the City's HRA is deficient because it fails to consider the impacts of emissions associated with the Project. Dr. Clark's analysis corrects this error by considering TAC emissions from trips generated by the Project. Specifically, he considers DPM emissions from the 287 trucks trips the DEIR assumes the Project generates daily:

⁶² *Id.*

⁶³ *Id.*, pg. 7.

⁶⁴ *Id.*, pg. 5.

⁶⁵ *Id.*, pg. 5.

According to the CalEEMOD analysis presented in Appendix B of the DEIR , an estimated 8,655 vehicle trips will occur every weekday and an estimated 12,465.96 vehicle trips will occur each weekend day. Those trips will be solely associated with the commercial development installed on the Project site. The CalEEMOD analysis further details that 3.3% of the traffic is expected to be heavy duty trucks (which emit the most DPM), or approximately 287 trucks will be entering and leaving the Project site daily. On the weekends there could be more (approximately 414).⁶⁶

The City's HRA is also deficient because it only considers impacts on the Project site itself. Dr. Clark's HRA considers sensitive receptors in the surrounding community, as well as three schools, including Grant Elementary school (located approximately 0.2 miles northwest of the Project site), Joseph Le Conte Middle School (located approximately 0.5 miles south-southwest of the Project site), and Bernstein High School (located 0.3 miles west of the Project site).⁶⁷

The findings of Dr. Clark's corrected dispersion modeling are contained in Table 1, below.

Table 1.⁶⁸

Receptor	DPM Concentration From Freeway	DPM Concentration From Mobile Sources Project	DPM Cumulative Concentration
	ug/m ³	ug/m ³	ug/m ³
Maximum On Site	5.11 E-03	5.40E-02	5.96E-02
Residents North of Sunset	1.47E-03	3.675E-2	3.82E-02
Grant Elementary School	1.11E-03	3.74E-03	8.02E-03
Joseph Le Conte Middle School	1.39E-03	2.01E-03	5.66E-03
Bernstein High School	2.09E-03	6.15E-03	1.08E-02

Dr. Clark next calculated the residential risk from exposure to DPM using CARB's HARP2 Risk Assessment Standalone Tool. The results of this analysis are contained in Table 2, below.

⁶⁶ Clark, pg. 9.

⁶⁷ *Id.*, pg. 11.

⁶⁸ Clark, pg. 11.

Table 2.

Receptor	DPM Cumulative Concentration ug/m ³	Cumulative Risk
		Per million
Maximum On Site	5.96E-02	52.7
Residents North of Sunset	3.82E-02	33.8
Grant Elementary School	8.02E-03	2.1
Joseph Le Conte Middle School	5.66E-03	0.4
Bernstein High School	1.08E-02	1.5

The above health risks are significant impacts. SCAQMD's CEQA Air Quality Handbook provides that health impacts are significant when the Project exposes sensitive receptors to air contaminants that exceed the maximum incremental cancer risk of 10 in one million.⁶⁹ Here, the cancer risk exceeds 10 in one million for sensitive receptors at the Project site, and residents North of Sunset. Therefore, the Project has significant cumulative health impacts. These significant impacts are not disclosed or mitigated by the Project. The Project must reconduct its HRA, update its significance findings, and adopt binding mitigation to address the Project's impacts.

iii. The City's Air Quality Analysis Underestimates Back-Up Generator Emissions, thus Underestimating Air Quality, GHG, and Health Impacts.

The Project includes a diesel-powered back-up generator.⁷⁰ Such generators can significantly impact air quality, GHG emissions, and public health through

⁶⁹ DEIR, pg. IV.A-33.

⁷⁰ DEIR, Appendix B-14.
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DPM emissions.⁷¹ In the City's air quality analysis, it assumed that the back-up generator will be maintained and tested for no more than 12 hours per year.⁷²

The City's conclusion is unsupported. According to SCAQMD Rules 1110.2⁷³ and 1470,⁷⁴ back-up generators are allowed to operate for up to 200 hours per year, and operate for maintenance up to 50 hours per year. Thus, it is reasonably foreseeable that the Project may use its back-up generator for more than 12 hours, and is legally allowed to operate it for up to 200 hours per year. In order to accurately quantify the extent of the Project's potential generator emissions, the City should have analyzed emissions at the maximum usage authorized under existing regulations.

Further, the DEIR's analysis does not account for back-up generator operation during unscheduled events like Public Safety Power Shutoff ("PSPS") events and extreme heat events ("EHEs"). Courts have explained that an EIR must "address not only the immediate environmental consequences of going forward with the project, but also all "*reasonably foreseeable* consequence[s] of the initial project."⁷⁵ Dr. Clark's comments show that although such events are unscheduled, they occur frequently enough in California that they are reasonably foreseeable.⁷⁶

⁷¹ California Air Resources Board, Emission Impact: Additional Generator Usage Associated with Power Outage (January 30, 2020), available at <https://ww2.arb.ca.gov/resources/documents/emissions-impact-generator-usage-during-psps> (showing that generators commonly rely on gasoline or diesel, and that use of generators during power outages results in excess emissions); California Air Resources Board, Use of Back-up Engines for Electricity Generation During Public Safety Power Shutoff Events (October 25, 2019), available at <https://ww2.arb.ca.gov/resources/documents/use-back-engines-electricity-generation-during-public-safety-power-shutoff> ("When electric utilities de-energize their electric lines, the demand for back-up power increases. This demand for reliable back-up power has health impacts of its own. Of particular concern are health effects related to emissions from diesel back-up engines. Diesel particulate matter (DPM) has been identified as a toxic air contaminant, composed of carbon particles and numerous organic compounds, including over forty known cancer-causing organic substances. The majority of DPM is small enough to be inhaled deep into the lungs and make them more susceptible to injury. Much of the back-up power produced during PSPS events is expected to come from engines regulated by CARB and California's 35 air pollution control and air quality management districts (air districts)").

⁷² DEIR, Appendix B-87.

⁷³ Available at <http://www.aqmd.gov/docs/default-source/rule-book/reg-xi/rule-1110-2.pdf>.

⁷⁴ Available at <https://www.aqmd.gov/docs/default-source/rule-book/reg-xiv/rule-1470.pdf?sfvrsn=4>.

⁷⁵ *Laurel Heights I, supra*, 47 Cal. 3d 376, 398 (emphasis added); *see also Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal. 4th 412, 449-50.

⁷⁶ Clark, pg. 16-17.

For example, the total duration of PSPS events in California lasted between 141 hours to 154 hours in 2019.⁷⁷ In 2021, two EHEs have been declared so far, which lasted 120 hours combined.⁷⁸ Dr. Clark explains that these two EHEs would have tripled the calculated yearly DPM emissions from the Project.⁷⁹ These conditions are expected to increase in severity.⁸⁰ Therefore, the DEIR's failure to consider this source of emissions drastically underestimates the Project's air quality, GHG, and public health impacts.

iv. The DEIR Underestimates Construction Emissions, thus Underestimating Resultant Air Quality, GHG, and Health Impacts.

To calculate the Project's emissions of NO_x during construction, it is important to accurately account for emissions from heavy-duty trucks. However, the DEIR underestimates running emissions and idle emissions for heavy-duty trucks. The values the DEIR provides for running and idle emissions are 25% and 54% lower, respectively, than values reported in the Emission FACTor ("EMFAC") database. EMFAC is CARB's model that estimates the official emissions inventories of onroad and offroad mobile sources in California.

Dr. Clark's comments show that, for running emissions, the DEIR's value of 3.071 grams per mile is significantly lower than the average value for trucks produced in 2007 through 2022 (4.088 grams per mile).⁸¹ Thus, instead of producing an estimated NO_x emission rate of 60.93 lbs per day for trucks hauling materials away from the construction site, the average value for emissions should be reported as 81.11 lbs per day. For idling emissions, the DEIR's value of 32.49 grams of NO_x per hour of idling is significantly lower than the average value for trucks produced in 2007 through 2022 (70.59 grams of NO_x per hour of idling). Thus, instead of producing an estimated NO_x emission rate of 3.22 lbs per day for idling trucks, the average value for emissions should be reported as 7.00 lbs per day. When these

⁷⁷ *Id.*, pg. 16.

⁷⁸ *Id.*, pg. 17.

⁷⁹ *Id.*, pg. 17.

⁸⁰ OEHA, Extreme Heat Events, February 11, 2019, <https://oehha.ca.gov/epic/changes-climate/extreme-heat-events> (showing that frequency of extreme heat events is increasing); NASA Earth Observatory, California Heatwave Fits a Trend, September 6, 2020, <https://earthobservatory.nasa.gov/images/147256/california-heatwave-fits-a-trend> (showing trends toward longer and more intense heatwaves in Southern California).

⁸¹ Clark, pg. 20.
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errors are corrected, Dr. Clark calculates the averaged total emissions per day for the Project's construction phase during 2022 should be reported as 89.87 lbs per day.⁸²

Dr. Clark identified another related analytical error: it is inaccurate to merely rely on the *average* total emissions per day of the construction vehicles. Rather, the DEIR should have relied on *the 95 percent upper confidence limit (95% UCL) of the mean* of the running emissions rates and idling rates. A 95% UCL is used when the distribution of values around a mean is uncertain. Here, the emissions rate of the Project's construction vehicles is uncertain, as City cannot predict the year of production of vehicles coming to and leaving the Project site.⁸³ Applying a 95% UCL to the Project's construction emissions, Dr. Clark determined that the total NOx emissions using the 95% UCL method would produce 123.88 lbs of NOx per day, well in excess of the SCAQMD threshold of significance for NOx.⁸⁴

As a result, the DEIR fails to disclose the Project's significant construction emissions and resultant impacts on public health. The City must revise the analyses that rely on the underestimated heavy truck emissions.

C. THE DEIR FAILS TO CONSIDER AND ANALYZE CUMULATIVE IMPACTS

CEQA requires an evaluation of cumulative impacts, defined as "two or more individual effects which, when considered together, are considerable."⁸⁵ Such impacts may "result from individually minor but collectively significant projects taking place over a period of time."⁸⁶ Lead agencies must consider whether a project's potential impacts, although individually limited, are cumulatively considerable.⁸⁷ "Cumulatively considerable" under CEQA means that "the incremental effects of an individual project are significant when viewed in

⁸² Clark, pg. ; DEIR, Appendix B-22 (The DEIR's estimate is 65.91 lbs per day).

⁸³ DEIR, pg. IV.A-15, 16. The DEIR merely requires that "[d]uring the grading phase, all trucks hauling the export of soil material and demolished site improvements shall be model 2007 or newer." The DEIR acknowledges that not all trucks 2007 or newer have the same emissions rates.

⁸⁴ Clark, pg. 21.

⁸⁵ 14 C.C.R. § 15355; see also Staff Report, Attachment 10, pp. 894–896 (explaining IS/MND's failure to analyze cumulative impacts from habitat loss).

⁸⁶ 14 C.C.R. § 15355(b).

⁸⁷ PRC § 21083(b); 14 CCR §§ 15064(h)(1), 15065(a)(3).

connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.”⁸⁸

CEQA Guidelines section 15130(b)(1) provides two options for analyzing cumulative impacts: (A) list “past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency, or” (B) summarize “projection contained in an adopted local, regional or statewide plan, or related planning document that describes or evaluates conditions contributing to the cumulative effect.”⁸⁹ “When relying on a plan, regulation or program, the lead agency should explain how implementing the particular requirements in the plan, regulation or program ensure that the project's incremental contribution to the cumulative effect is not cumulatively considerable.”⁹⁰

i. The DEIR Fails to Disclose, Analyze, and Mitigate Cumulative Noise Impacts

The DEIR acknowledges that vibration impacts on a nearby multi-story office building and parking structure would be significant if the Project’s construction activities were concurrent with those of Related Project 42.⁹¹ Related Project 42 is 125 feet south of the Project site and is adjacent to the office building and parking structure.⁹² However, the DEIR claims that there would be a less than significant cumulative impact. The DEIR reasons that Related Project 42 is subject to provisions in the Los Angeles Municipal Code that require neighboring buildings to be protected from damage during construction. Further, Related Project 42 would undergo CEQA review, and be required to adopt mitigation.

The DEIR’s reasoning is flawed:

First, the DEIR already acknowledges that the Project’s on-site vibration impacts are significant before mitigation. The DEIR uses the thresholds in the Federal Transit Administration’s (“FTA’s”) Transit Noise and Vibration Assessment

⁸⁸ CEQA Guidelines §15064(h)(1).

⁸⁹ 14 C.C.R. § 15130(b)(1).

⁹⁰ *Id.*; *see id.* § 15130(a) (stating that the lead agency shall describe its basis for concluding that an incremental effect is not cumulatively considerable).

⁹¹ DEIR, pg. IV.F-46, 56-59.

⁹² DEIR, pg. IV.F-59.

to assess the significance of the Project's noise and vibration impacts.⁹³ The FTA sets a 0.5 peak particle velocity ("PPV") threshold for vibration impacts on concrete, steel, or timber buildings. The DEIR acknowledges the Project has 0.523 PPV vibration impacts on the office building and parking structure, in excess of the threshold.⁹⁴ Since cumulative vibration impacts are measured against the same threshold,⁹⁵ it is illogical for the City to claim that the cumulative are less than significant. The City lacks substantial evidence to support the DEIR's conclusion that cumulative noise impacts are less than significant.

Second, CEQA prohibits abdicating responsibility for mitigating an impact to another Project. CEQA's requirements that mitigation be enforceable, be effective, and not be improperly deferred militate against the DEIR's approach.⁹⁶

Third, the DEIR provides no evidence that Related Project 42 is subject to CEQA review.

Fourth, the City lacks any evidence to suggest that it is feasible for Related Project 42 to mitigate its vibration impacts.

Fifth, even if the City could rely on another project to mitigate the Project's cumulative impacts, the DEIR compresses analysis of the Project's unmitigated impacts and mitigation to avoid making the finding that the Project has cumulatively significant vibration impacts. The City acknowledges that vibration impacts on a nearby multi-story office building and parking structure would be significant if the Project's construction activities were concurrent with those of Related Project 42, so it must formally find that the Project's cumulative vibration impacts are significant.⁹⁷ Only after the City makes that finding can it argue that these impacts are mitigated by Related Project 42's speculative mitigation.

The City must find that the Project has cumulatively significant vibration impacts, and adopt legally-binding mitigation.

D. The DEIR's Proposed Mitigation Measures are Inadequate

⁹³ DEIR, pg. IV.F-21.

⁹⁴ DEIR, pg. IV.F-46.

⁹⁵ DEIR, pg. IV.F-51.

⁹⁶ 14 Cal. Code Regs. § 15126.4

⁹⁷ DEIR, pg. IV.F-46, 56-59.

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CEQA prohibits agencies from approving projects with significant environmental impacts when feasible mitigation measures can substantially lessen or avoid such impacts.⁹⁸ An agency may not approve a project unless it has “[e]liminated or substantially lessened all significant effects on the environment where feasible.”⁹⁹ The mitigation measures that are adopted by the agency must be enforceable through conditions of approval, contracts, or other means that are *legally* binding.¹⁰⁰ Incorporating mitigation measures into conditions of approval ensures that the measures will be implemented, not merely adopted and ignored.¹⁰¹ Therefore, a project proponent’s agreement to a mitigation measure, by itself, is insufficient under CEQA. The mitigation measure must be adopted in a way that makes it an enforceable agreement that actually mitigates the significant environmental impact.¹⁰²

i. The DEIR Fails to Demonstrate the Feasibility of Proposed Mitigation Measures for Significant Air Quality Impacts from Construction Emissions

The DEIR acknowledges that the Project has significant construction emissions impacts. The DEIR purports to mitigate these impacts through mitigation measures AIR-MM-1, AIR-MM-2, and AIR-MM-6.

AIR-MM-1 requires that all off-road diesel-powered equipment over 50 hp used during project grading/excavation activities meet USEPA Tier 4 Final emissions standards.¹⁰³ Requiring construction equipment to meet USEPA Tier 4 Final emissions standards would result in substantial decreases in emissions. However, the DEIR fails to include an analysis of the feasibility of obtaining exclusively Tier 4 Final construction equipment for the Project’s projected 4-year construction period.

The DEIR fails to explain that Tier 4 Final equipment is of limited availability. As a result, the Project Applicant may not be able to gain access to this equipment in a timely manner in the quantity required for Project construction. Dr. Clark explains that the type of Tier 4 Final certified equipment necessary for

⁹⁸ Pub. Resources Code § 21002.

⁹⁹ CEQA Guidelines § 15092(b)(2).

¹⁰⁰ Pub. Resources Code § 21081.6(b).

¹⁰¹ *Federation of Hillside & Canyon Ass’ns v. City of Los Angeles* (2000) 83 CA 4th 1252, 1261.

¹⁰² *Woodward Park Homeowners Ass’n v. City of Fresno* (2007) 150 CA 4th 683, 730.

¹⁰³ DEIR, pg. I-25.

demolition (rubber tired dozers and tractors/loaders/backhoes), site preparation (graders, scrapers, rubber tired dozers, and tractors/loaders/backhoes), grading (graders, scrapers, rubber tired dozers, off-highway trucks, and tractors/loaders/backhoes), and paving operations (pavers, rollers, and tractors/loaders/backhoes), is still in short supply in California.¹⁰⁴

CEQA requires mitigation measures to be feasible and enforceable.¹⁰⁵ A public agency may not rely on mitigation measures of uncertain efficacy or feasibility.¹⁰⁶ The City must provide documentation in a revised DEIR showing that the Project Applicant can actually obtain Tier 4 Final equipment. Otherwise, there is no evidence AIR-MM-1 will actually mitigate the Project's significant construction emission impacts.

AIR-MM-2 provides that “[d]uring the grading phase, all trucks hauling the export of soil material and demolished site improvements shall be model 2007 or newer.”¹⁰⁷ The DEIR states that this mitigation measure would significantly reduce construction NOx emissions from 107 to 71 pounds per day in 2022, below the SCAQMD significance threshold of 100 pounds per day.¹⁰⁸ Absent an analysis of the feasibility of obtaining Tier 4 Final construction equipment, this reduction in emissions not guaranteed by AIR-MM-2. The DEIR acknowledges that, although diesel particulate filters and emission control features began to be required by the California Air Resources Board (“CARB”) in 2007, implementation of NOx emission controls was staggered – the largest fleets were not in compliance until 2014.¹⁰⁹ Therefore, the DEIR may overestimate the reduction in emissions from AIR-MM-2. The DEIR must either recalculate AIR-MM-2's emissions reductions to address actual quantifiable emissions reductions that would be achieved by AIR-MM-2, as currently drafted, or rework the mitigation measure to add more stringent requirements.

AIR-MM-6 requires the use of solar-powered generators, to the extent commercially available, should generators be required during construction.¹¹⁰ An EIR must implement all feasible mitigation to reduce significant impacts to less

¹⁰⁴ Clark, pg. 23.

¹⁰⁵ 14 CCR §§ 15126.4(a)(2), 15364.

¹⁰⁶ *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 727–728.

¹⁰⁷ *Id.*

¹⁰⁸ DEIR, pg. IV.A-58.

¹⁰⁹ DEIR, pg. IV.A-15, 16.

¹¹⁰ DEIR, pg. I-26.

than significant levels. AIR-MM-6 should be revised to require that generators be powered by solar *or electricity*, not just solar. Project Design Feature AQ-PDF-1 already requires generators used during construction to be powered by solar or electricity where possible,¹¹¹ so the City should include use of electric-powered generators in its enforceable monitoring program.

E. The DEIR Conceals Potentially Significant Environmental Impacts by Disguising Mitigation Measures as Project Design Features

Under CEQA, it is improper to attempt to disguise mitigation measures as part of the project's design if this obfuscates the potential significance of environmental impacts.¹¹² In *Lotus v. Department of Transportation*, an EIR prepared by the California Department of Transportation ("CalTrans") contained measures to help minimize potential stress on redwood trees during highway construction, such as restorative planting, invasive plant removal, watering, and use of an arborist and specialized excavation equipment.¹¹³ The Court of Appeal held that because the EIR relied on these measures to reduce adverse impacts, they were actually mitigation measures.¹¹⁴ The Court of Appeal held that the EIR improperly compressed the analysis of impacts and mitigation measures into a single issue because the EIR did not designate the measures as mitigation and concluded that because of the measures, no significant impacts were anticipated.¹¹⁵ The Court explained that a significance determination must be made independent of mitigation first, then mitigation can be incorporated, and the effectiveness of those measures can be evaluated.¹¹⁶ "Absent a determination regarding the significance of the impacts to the root systems of the old growth redwood trees, it is impossible to determine whether mitigation measures are required or to evaluate whether other more effective measures than those proposed should be considered."¹¹⁷ To ensure that mitigation measures are binding, they must be identified as mitigation measures in an enforceable monitoring program.

¹¹¹ DEIR, pg. I-20.

¹¹² *Lotus v. Department of Transportation* (2014) 223 Cal.App.4th 645, 658 (compression of mitigation measures into project design without acknowledging potentially significant impact if effects were not mitigated violates CEQA)

¹¹³ *Id.* at 650.

¹¹⁴ *Id.* *Lotus v. Dep't of Transp.* (2014) 223 Cal. App. 4th 645, 651-52.

¹¹⁵ *Id.* at 656.

¹¹⁶ *Id.* at 654–656.

¹¹⁷ *Id.* at 656.

i. NOI-PDF-1 through NOI-PDF-5

The DEIR concludes that the Project's on-site construction noise and vibration impacts are significant and unavoidable with all feasible mitigation incorporated.¹¹⁸ The City therefore has a corresponding duty to require all feasible mitigation to reduce the Project's construction noise impacts to the greatest extent feasible before declaring the impact significant and unavoidable.¹¹⁹ The City fails to require all feasible mitigation because it fails to include Project Design Features NOI-PDF-1 through NOI-PDF-5 in an enforceable monitoring program.

Additionally, the DEIR underestimates the severity of the Project's unmitigated noise impacts by incorporating Project Design Features NOI-PDF-1 through NOI-PDF-5 into the DEIR's analysis of the Project's unmitigated impacts. This approach violates CEQA because it improperly compresses the analysis of impacts and mitigation measures into a single issue. Here, Project Design Features NOI-PDF-1 through NOI-PDF-5 are all noise-reducing mitigation measures.¹²⁰ NOI-PDF-1 requires construction equipment to be equipped with noise-muffling devices.¹²¹ NOI-PDF-2 requires screening-off mechanical equipment from noise-sensitive receptors. NOI-PDF-3 imposes maximum noise levels on outdoor amplified sound systems. NOI-PDF-4 screens-off loading docks from sensitive receptors. NOI-PDF-5 provides that Project construction will not utilize drive pile systems. Like the tree-sensitive construction techniques in *Lotus*, use of these noise-muffling techniques are not ordinarily required to construct a mixed-use development – these techniques are only included in the DEIR to mitigate impacts. Further, as in *Lotus*, these noise-muffling techniques are not specifically mandated by law – the Los Angeles Municipal Code only imposes noise thresholds the Project must meet. Instead, the purpose of NOI-PDF-1 through NOI-PDF-5 is to reduce the Project's admittedly significant noise impacts. These PDFs are thus actually mitigation measures. The DEIR must reconduct its noise analyses to disclose the true noise impact of the Project, and must include Project Design Features NOI-PDF-1 through NOI-PDF-5 in an enforceable mitigation monitoring program.

¹¹⁸ See e.g. DEIR, pg. I-16 to 17.

¹¹⁹ Pub. Res. Code § 21081; 14 CCR §§ 15090, 15091; *Covington v GBUAPCD* (2019) 43 Cal.App.5th 867, 879-883 (before impact can be declared significant and unavoidable, lead agency must first adopt all feasible mitigation to reduce impact to greatest extent feasible).

¹²⁰ DEIR, I-21.

¹²¹ *Id.*

F. The City Cannot Approve the Project's Main Conditional Use Permit

The Project seeks approval of a Main Conditional Use Permit ("MCUP") pursuant to LAMC Section 12.24(W)(1) for the sales and/or dispensing of alcoholic beverages within the commercial uses of the Project.¹²² LAMC Section 12.24(E) provides that a decision-maker shall not grant a conditional use permit – including for sale of alcoholic beverages – without finding “that the project's location, size, height, operations and other significant features will be compatible with and will not adversely affect or further degrade adjacent properties, the surrounding neighborhood, or the public health, welfare, and safety.”

The DEIR acknowledges that the Project has significant and unavoidable impacts on the environment and health of the community.¹²³ The DEIR also fails to accurately disclose and mitigate other significant impacts, as discussed herein. Therefore, the Project currently fails to meet the LAMC requirements to obtain a MCUP.

Additionally, Section 12.24(W)(1)(a)(3) requires the below finding be made to approve the MCUP:

“the proposed use will not detrimentally affect nearby residentially zoned communities in the area of the City involved, after giving consideration to the distance of the proposed use from residential buildings, churches, schools, hospitals, public playgrounds and other similar uses, and other establishments dispensing, for sale or other consideration, alcoholic beverages, including beer and wine.”

The Project is located directly across Serrano Avenue from residential buildings. Given this close proximity to residential uses, the City must provide evidence demonstrating that issuance of the MCUP to allow alcohol sales will not detrimentally affect these residences.

¹²² DEIR, pg. II-29.

¹²³ DEIR, pg. I-18-19 (On-site noise, cumulative off-site noise, and on-site vibration (human annoyance) are all significant and unavoidable impacts).
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G. The Statement of Overriding Consideration Must Consider Whether the Project Provides Employment Opportunities for Highly Trained Workers

As previously stated, the City concluded in the DEIR that the Project will have significant and unavoidable environmental impacts related to on-site noise and vibration during construction.¹²⁴ Therefore, in order to approve the Project, CEQA requires the City to adopt a statement of overriding considerations, providing that the Project's overriding benefits outweigh its environmental harm.¹²⁵ An agency's determination that a project's benefits outweigh its significant, unavoidable impacts "lies at the core of the lead agency's discretionary responsibility under CEQA."¹²⁶

The City must set forth the reasons for its action, pointing to supporting substantial evidence in the administrative record.¹²⁷ This requirement reflects the policy that public agencies must weigh a project's benefits against its unavoidable environmental impacts, and may find the adverse impacts acceptable only if the benefits outweigh the impacts.¹²⁸ Importantly, a statement of overriding considerations is legally inadequate if it fails to accurately characterize the relative harms and benefits of a project.¹²⁹

In this case, the City must find that the Project's significant, unavoidable impacts are outweighed by the Project's benefits to the community. CEQA specifically references employment opportunities for highly trained workers as a factor to be considered in making the determination of overriding benefits.¹³⁰ Currently, there is not substantial evidence in the record showing that the Project's significant, unavoidable impacts are outweighed by benefits to the community. For example, there is no evidence in the record that the Applicant has made any commitments to employ graduates of state approved apprenticeship programs or taken other steps to ensure employment of highly trained and skilled

¹²⁴ DEIR, pg. VI-1

¹²⁵ CEQA Guidelines, § 15043.

¹²⁶ *Laurel Heights Improvement Assn. v. Regents of University of California* (1988) 47 Cal.3d 376, 392.

¹²⁷ Pub. Resources Code, § 21081, subd. (b); CEQA Guidelines, § 15093, subds. (a) and (b); *Cherry Valley Pass Acres & Neighbors v. City of Beaumont* (2010) 190 Cal.App.4th 316, 357.

¹²⁸ Pub. Resources Code, § 21081(b); CEQA Guidelines, § 15093, subds. (a) and (b)

¹²⁹ *Woodward Park Homeowners Association v. City of Fresno* (2007) 150 Cal.App.4th 683, 717.

¹³⁰ Pub. Resources Code, § 21081, subds. (a)(3) and (b).

craft workers on Project construction, an action contemplated by CEQA Section 21081. Absent substantial evidence in the record demonstrating that the Project's benefits outweigh its environmental costs, the City would not fulfill its obligations under CEQA if it adopted a statement of overriding considerations and approved the Project.

We urge the City to prepare and circulate a revised DEIR which identifies the Project's potentially significant impacts, requires all feasible mitigation measures and analyzes all feasible alternatives to reduce impacts to a less than significant level. If a Statement of Overriding Considerations is adopted for the Project, we urge the City to consider whether the Project will result in employment opportunities for highly trained workers.

V. CONCLUSION

The DEIR is inadequate and must be withdrawn. We urge the City to prepare and circulate a revised DEIR which accurately discloses all of the Project's potentially significant impacts, and requires all feasible mitigation measures to reduce the Project's significant environmental and public health impacts. We thank you for the opportunity to provide these comments on the DEIR.

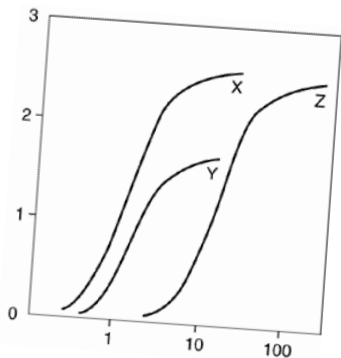
Sincerely,

A handwritten signature in blue ink, appearing to read 'Aidan P. Marshall', with a stylized, cursive-like structure.

Aidan P. Marshall

APM:lj1

EXHIBIT A



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October 4, 2021

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

Attn: Mr. Aidan P. Marshall

**Subject: Comments On 5420 Sunset Blvd Project, Case Number
ENV-2017-1084-EIR, State Clearinghouse Number
2017061075**

Dear Mr. Marshall:

At the request of Adams Broadwell Joseph & Cardozo (ABJC), Clark and Associates (Clark) has reviewed materials related to the 2021 City of Los Angeles Draft Environmental Impact Report (DEIR) of the above referenced project.

Clark's review of the materials in no way constitutes a validation of the conclusions or materials contained within the plan. If we do not comment on a specific item this does not constitute acceptance of the item.

Project Description:

The Project proposes the development of a new mixed-use project (the Project) on a 6.75-acre site located at 5420 Sunset Boulevard (the Project Site) within the Hollywood Community Plan and Vermont/Western Station Neighborhood Area Specific Plan (Specific Plan) areas of the City of Los Angeles (City). The Project would replace an existing grocery store, vacant commercial space, fast-food restaurant, and associated parking areas within the Project Site with a new mixed-use development consisting of 735 multi-family residential units and up to 95,000 square feet of neighborhood-serving commercial uses, including market/retail and restaurant uses. The proposed uses would be provided within four buildings that would be up to six stories with a maximum height of 75 feet.

The proposed uses would be supported by approximately 1,419 vehicle parking spaces that would be distributed throughout the Project Site in two subterranean parking levels and in one at grade parking level. A total of approximately 548 bicycle parking spaces would be provided within the Project Site and on adjacent sidewalks. The Project would include residential lobbies and leasing offices, pools, spas, and other recreational facilities. The Project would provide approximately 96,800 square feet of open space, including landscaped courtyards, a public plaza fronting Sunset Boulevard, and landscaped paseos at the ground level that would be publicly accessible from Sunset Boulevard. Overall, the Project would remove approximately 100,796 square feet of existing floor area and construct up to 882,250 square feet of new floor area, resulting in an increase of 781,454 square feet of net new floor area within the Project Site. The Floor Area Ratio (FAR) on the Project Site would be a maximum of 3 to 1. To provide for the Project, the existing grocery store, vacant commercial space, fast-food restaurant, and associated surface parking areas would be demolished.

General Comments:

According to the City's DEIR, the Project would result in significant and unavoidable impacts related to on-site noise during construction and on-site vibration during construction (pursuant to the threshold for human annoyance). Cumulative impacts with respect to off-site construction noise would also be significant and unavoidable. All other potential impacts would be less than significant or mitigated to less-than-significant levels. The assessment from the City provided in the DEIR misses the significant impacts associated with air quality that have been ignored by the City. The conclusion from the City that all other potential impacts would be less than significant is, in fact, without merit. There are substantial impacts that are not addressed in the City's analysis that must be addressed in a revised environmental impact report (REIR).

Specific Comments:

- 1. The Air Dispersion Model Utilized In The Health Risk Analysis Was Deficient, Used Inaccurate Traffic Counts, and Did Not Include All Of The Sources Of Criteria Air Pollutants and Toxic Air Contaminants From The Project.**

In Appendix G of the DEIR,¹ the description provided to the City states that a health risk assessment (HRA) was prepared to assess the potential effects of pollutants (sic, specifically from roadway emissions associated with State Route 101) on individuals who utilize/reside at the proposed project site. The model fails to accurately assess the concentrations of toxic air contaminants (TACs) released from activities associated with the operation of the Project and underestimates the health impacts of the project on the residents of the Project and the surrounding community since it does not include an analysis of the emissions from vehicles coming to and from the Project site as well as the emissions from the back-up generator(s) that will be utilized on-site.

According to Appendix G of the DEIR², “The (air) modeling analysis also considered the spatial distribution of mobile source activity in relation to the proposed site. To accommodate a Cartesian grid format, direction dependent calculations were obtained by identifying the uniformly placed to provide coverage across the identified transverse mercator (UTM) coordinates for each volume source location. On-site receptors were uniformly placed to provide coverage across the identified project boundary commensurate with residential uses and areas of common access. Terrain height adjustments were incorporated into the modeling exercise to account for the discrepancy in source elevations and the average grade plane of the proposed project.”

Based upon the source description in the HRA, it is clear that the model includes Dispersion Model Input Table, included Appendix C to the HRA, identifies 64 discrete sources. Thirteen (13) sources are identified for north bound traffic on State Route 101, thirteen (13) sources are identified for south bound traffic on State Route 101, ten (10) sources are identified for the southbound offramp leading to Western Avenue, and twenty-eight (28) sources are identified for the northbound onramp for Western Avenue. No source is directly attributed to the emissions from vehicles entering and leaving the Project site.

¹ Appendix G of DEIR. 2021. Sunset/Western Mixed-Use Project Health Risk Assessment. Prepared for Eyestone Environmental by Air Quality Dynamics. Dated May, 2018. Section 1.0 Introduction. Page 4 of 142.

² Appendix G of DEIR. 2021. Sunset/Western Mixed-Use Project Health Risk Assessment. Prepared for Eyestone Environmental by Air Quality Dynamics. Dated May, 2018. Section 5.0 Exposure Quantification. Page 9 of 142.

Figure 2
Source-Receptor Grid Network

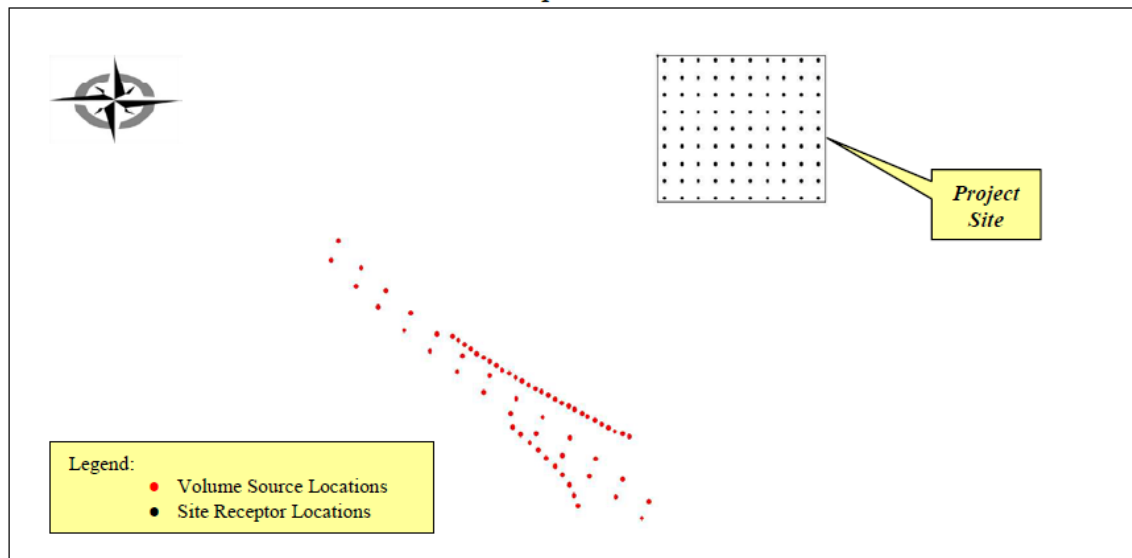


Figure 1: Model Domain From City's Analysis

In the Source Identification section of the HRA³, the report states that based upon the arithmetic average of traffic flow identified in the Performance Measurement System (PeMS) operated by the California Department of Transportation (CalTrans), hourly traffic volumes for the north and southbound freeway segments were identified. Ramp volumes were assumed by the report to have a uniform distribution and were averaged to produce an hourly traffic profile.⁴ The PeMS data utilized in the analysis was for the 2017 calendar year.

³ Appendix G of DEIR. 2021. Sunset/Western Mixed-Use Project Health Risk Assessment. Prepared for Eyestone Environmental by Air Quality Dynamics. Dated May, 2018. Section 3.0 Source Identification. Page 6 of 142.

⁴ Appendix G of DEIR. 2021. Sunset/Western Mixed-Use Project Health Risk Assessment. Prepared for Eyestone Environmental by Air Quality Dynamics. Dated May, 2018. Section 3.0 Source Identification. Page 6 of 142.

Table 1
Hourly Freeway Traffic Volumes

Roadway Segment	Speed Scenario	Traffic Volumes		
		All	Gas	Diesel
U.S. Route 101 Northbound	Average	4904	4699	205
U.S. Route 101 Southbound	Average	3670	3517	153
U.S. Route 101 Northbound	Minimum	1416	1357	59
U.S. Route 101 Southbound	Minimum	2928	2806	122
Southbound Off/Western Avenue	Average Minimum	408	391	17
Northbound On/Western Avenue	Average Minimum	518	496	22

A review of the PeMS database for the year 2017 shows a very different picture of the northbound and southbound average traffic rates. The southbound traffic the hourly average traffic flow is between 8,167 vehicles per hour to 9,042 vehicles per hour in the segment between Western Avenue and Sunset Boulevard. The value used in the HRA for the southbound traffic is 2.2 to 2.5 times lower than the values reported by CalTrans.

DESCRIPTION	Southbound Peak Hour	Southbound Peak MADT	Southbound AADT	Southbound Hourly Ave
LOS ANGELES, WESTERN AVENUE	11600	201000	196000	8167
LOS ANGELES, SUNSET/HOLLYWOOD BOULEVARD	13000	222000	217000	9042

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DESCRIPTION	Northbound Peak Hour	Northbound Peak MADT	Northbound AADT	Northbound Hourly Ave
LOS ANGELES, WESTERN AVENUE	13000	222000	217000	9042
LOS ANGELES, SUNSET/HOLLYWOOD BOULEVARD	11900	200000	196000	8167

Assuming the same ratios as the table supplied in the DEIR would produce the following traffic estimates for freeway traffic.

Roadway Segment	Speed Scenario	Traffic Volumes		
		All	Gas	Diesel
Route 101 Northbound	Average	9042	8665	377
Route 101 Southbound	Average	8167	7827	340
Route 101 Northbound	Minimum	2611	2502	109
Route 101 Southbound	Minimum	6516	6244	272
Southbound Off/Western Ave	Average	908	870	38
	Minimum			
Northbound On/Western Avenue	Average	955	915	41
	Minimum			

It is evident that the DEIR's analysis of air quality impacts are based upon emission values that are significantly lower than the numbers reported by CalTrans. The DEIR's analysis therefore underestimates actual emissions and is not supported by substantial evidence. The City must re-evaluate the air quality impacts using correct traffic counts in a revised EIR.

As for other mobile sources in the area that will impact the Project, it is clear that the model created for the air quality impact analysis is missing a significant number of sources within 1,000 feet of the proposed project site. In the figure below the red circle indicates an approximate 1,000 foot radius from the edge of the proposed project site. In the figure it is evident that the Sunset Boulevard exit lies just outside the 1,000 foot radius (approximately 1,600 feet to the start of the north bound Sunset Boulevard offramp). Vehicles exiting towards west bound Sunset Boulevard via a dedicated offramp while vehicles exiting towards east bound Sunset Boulevard proceed down Wilton Place to Sunset Boulevard.

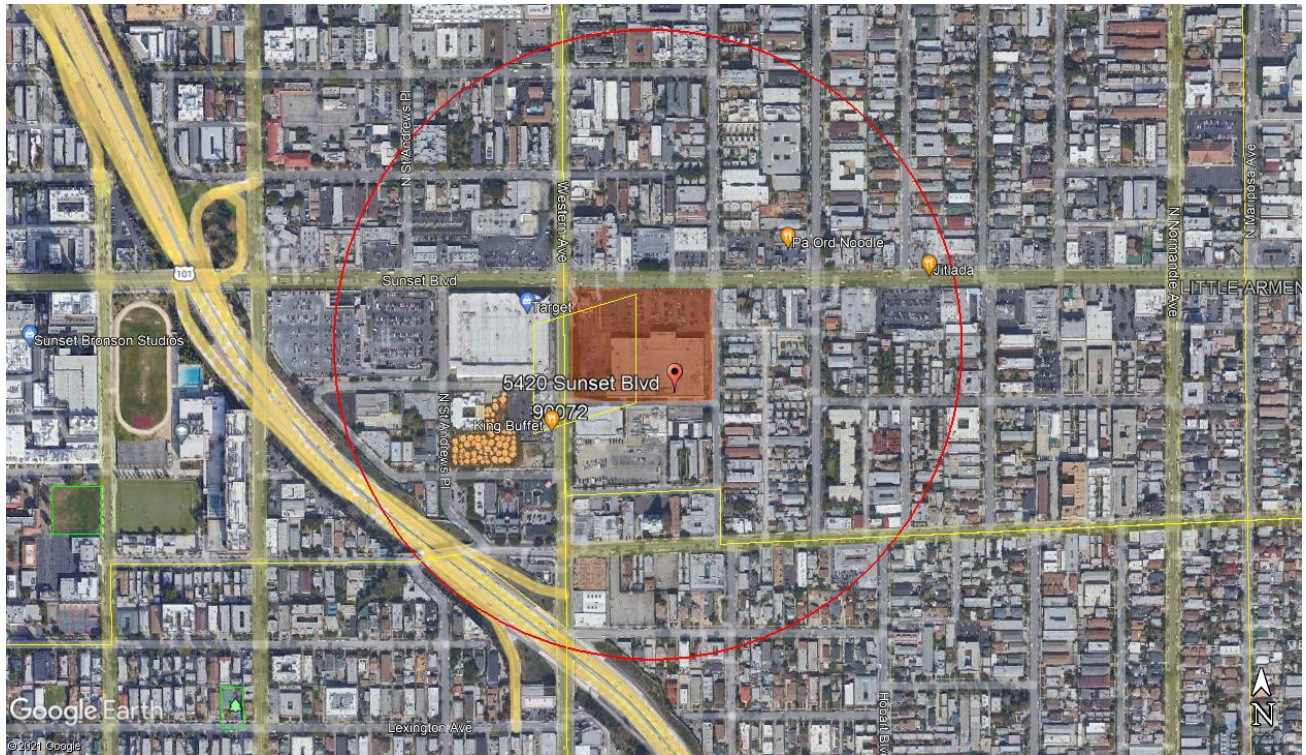


Figure 2: 1,000 Foot Boundary From Project Site

In the Transportation Study, Appendix P of the DEIR⁵, the following descriptions of the area around the project are provided:

- **Sunset Boulevard** – Sunset Boulevard is a designated Avenue I in the Mobility Plan and a designated Major Highway Class II in the General Plan and travels in the east-west direction. It forms the northern boundary of the Project Site and provides six 10- to 15-foot travel lanes, three lanes in each direction, and left-turn lanes at intersections.
- **Western Avenue** – Western Avenue is a designated Avenue I in the Mobility Plan and a designated Major Highway Class II in the General Plan and travels in the north-south direction. It forms the western boundary of the Project Site and provides four 10- to 18-foot travel lanes, three lanes in each direction, and left-turn lanes at intersections.

For the trip generation associated with the project, the Proponent used the rates published in the Trip Generation, 9th Edition (out of date). The study concluded that there would be *a net increase of 2,369 extra trips per day* over the existing project (a total of 7,620 daily trips). The increase

⁵ Appendix P of DEIR. 2021. Transportation Impact Study For The Sunset/Western Mixed-Use Project, Hollywood, California. Prepared for 5420 Sunset Boulevard LP, LLC, prepared by Gibson Transportation Consulting, Inc. Dated May, 2018. Page 24 of 531.

represents a 45% increase in traffic in the project area of influence. The study also concluded that four of the study intersections (Van Ness Avenue and Sunset Boulevard; Wilton Place and Hollywood Boulevard; Western Avenue and Hollywood Boulevard; and, Western Avenue and Sunset Boulevard) were determined to be significant under Existing with Project Conditions during either the morning or afternoon peak hour. Mitigation was required to offset these impacts.

Given the significant net increase of traffic found within the Traffic Study (an extra 2,369 trips per day), the City must add these sources in a revised dispersion model of the project impacts. After accounting for the increased number of vehicles, the model must account for the TACs released from the vehicles, including diesel particulate matter (DPM) and volatile organic compounds (VOCs) from diesel and gasoline powered vehicles. The City must re-evaluate the air quality impacts using the correct number of vehicles associated with the project and re-run the dispersion model (and health risk analysis) in a revised EIR.

2. The Results Of The Health Risk Analysis Cannot Be Verified Since The City Has Not Included The Underlying Files From The AERMOD Dispersion Model Analysis Which Would Have Been Used To Calculate The Ground-Level Concentration Of Toxic Air Contaminants On and Off Site.

While the City claims that a Health Risk Assessment (HRA) in Appendix G of the DEIR⁶ was prepared to assess the potential effects of pollutants (sic, specifically from roadway emissions associated with State Route 101) on individuals who utilize/reside at the proposed Project site or the other residents nearby to the Project site, the results of the HRA cannot be verified without the underlying input and output files from the AERMOD dispersion model of the project. Simply providing the first 2 pages of the output from the model runs is not a sufficient method for validating the model results. The City must disclose the underlying files so that the health impacts from the operational emissions can be validated. The files must be included in a revised DEIR for the project.

⁶ Appendix G of DEIR. 2021. Sunset/Western Mixed-Use Project Health Risk Assessment. Prepared for Eyestone Environmental by Air Quality Dynamics. Dated May, 2018. Section 1.0 Introduction. Page 4 of 142.

3. A Site Specific Health Risk Analysis Of Emissions From The Project Shows That The Emissions Of Diesel Particulate Matter From Heavy Duty Trucks Using The Project Site During The Operational Phase Will Have A Significant Impact On The Community And Residents Of The Project Site.

As is documented above in Comment 1, the health risk analysis (HRA) presented in the DEIR is deficient since it fails to assess the impacts of emissions associated with the Project on the residents of the Project and the surrounding community. According to the CalEEMOD analysis presented in Appendix B of the DEIR⁷, an estimated 8,655 vehicle trips will occur every weekday and an estimated 12,465.96 vehicle trips will occur each weekend day. Those trips will be solely associated with the commercial development installed on the Project site. The CalEEMOD analysis further details that 3.3% of the traffic is expected to be heavy duty trucks (which emit the most DPM), or approximately 287 trucks will be entering and leaving the Project site daily. On the weekends there could be more (approximately 414). None of the emissions from those vehicles, whether while moving along the surface streets adjacent to the Project or idling on site are accounted for in the City's analysis.

Using the results of the traffic analysis (Appendix P to the DEIR), the City has estimated that approximately 5% of the traffic will be headed north on surface street (14 total), 10% will head south (43 total), 25% will head east (72 total), 35% to the west (100 total), 10% to the northwest to US 101 (29 total), 10% to the southwest to US 101 (29 total). The routes are demonstrated below in the attached figure.

⁷ Appendix B of DEIR. 2021. Air Quality and Greenhouse Gas Emissions. Prepared by Eyestone Environmental. Dated July, 2021. Page B-134.

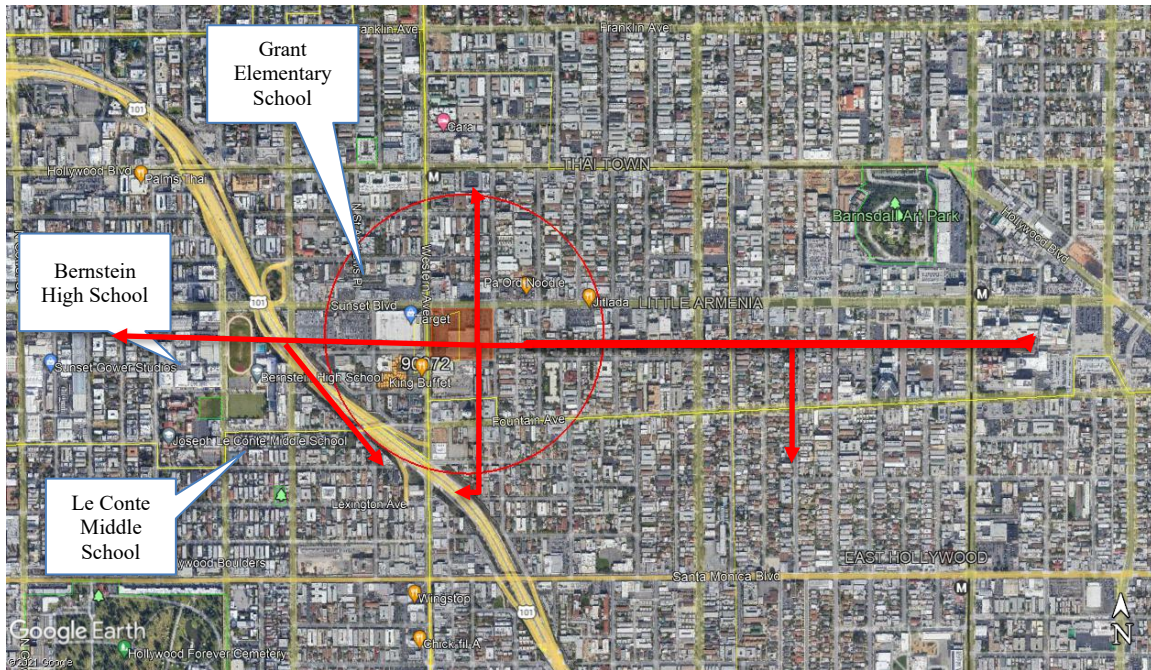


Figure 3: Sensitive Receptor Sites And Truck Routes

Using the same emission rates as cited by the City in Appendix B (emission rate of diesel particulate matter (DPM) while vehicles are moving and while idling), the total DPM emissions for heavy duty trucks using the Project site are presented in the table below.

Direction	Trips per day	miles per trip	grams DPM/mile	lbs/day
Northbound	14	0.33	0.024	2.44E-04
Southbound	43	0.65	0.024	1.48E-03
Eastbound	72	0.65	0.024	2.48E-03
Westbound	100	0.65	0.024	3.44E-03
NW on 101	29	0.5	0.024	7.67E-04
SW on 101	29	0.65	0.024	9.97E-04

For idling vehicles, it was assumed that trucks would not be allowed to idle for more than 5 minutes. The emissions per day for 287 trucks was calculated to be 0.001 lbs per day.

Source	Trucks per day	Total Idling Time (hrs)	grams DPM/hr	lbs/day
Idling	287	23.92	0.02	1.05E-03

For the idling and the mobile source emissions were restricted to a 12-hour period from approximately 7:00 am to 7:00 pm.

In addition to the receptor grid placed over the Project site, three sensitive receptor sites were identified for inclusion in the model. Those sensitive receptor sites included Grant Elementary school, located approximately 0.2 miles northwest of the Project site; Joseph Le Conte Middle School, located approximately 0.5 miles south-southwest of the Project site; and, Bernstein High School, located 0.3 miles west of the Project site were included in the dispersion model domain.

Using the same meteorological data and digital elevation models that were used in the City's analysis, the impacts of the freeway emissions and the operational emissions of DPM from the Project site have been calculated on an annual basis. The results of the dispersion modeling exercise are presented below in the attached table and figures, as well as in Attachment B to this letter.

Receptor	DPM Concentration From Freeway	DPM Concentration From Mobile Sources Project	DPM Cumulative Concentration
	ug/m ³	ug/m ³	ug/m ³
Maximum On Site	5.11 E-03	5.40E-02	5.96E-02
Residents North of Sunset	1.47E-03	3.675E-2	3.82E-02
Grant Elementary School	1.11E-03	3.74E-03	8.02E-03
Joseph Le Conte Middle School	1.39E-03	2.01E-03	5.66E-03
Bernstein High School	2.09E-03	6.15E-03	1.08E-02



Figure 4: DPM Emissions From Freeway Sources

Figure 4 shows the impacts of emissions from freeway sources on the Project site and the surrounding community based on the City's assumptions. For the figure above the yellow contour indicates a concentration of DPM of approximately 0.00147 ug/m^3 .

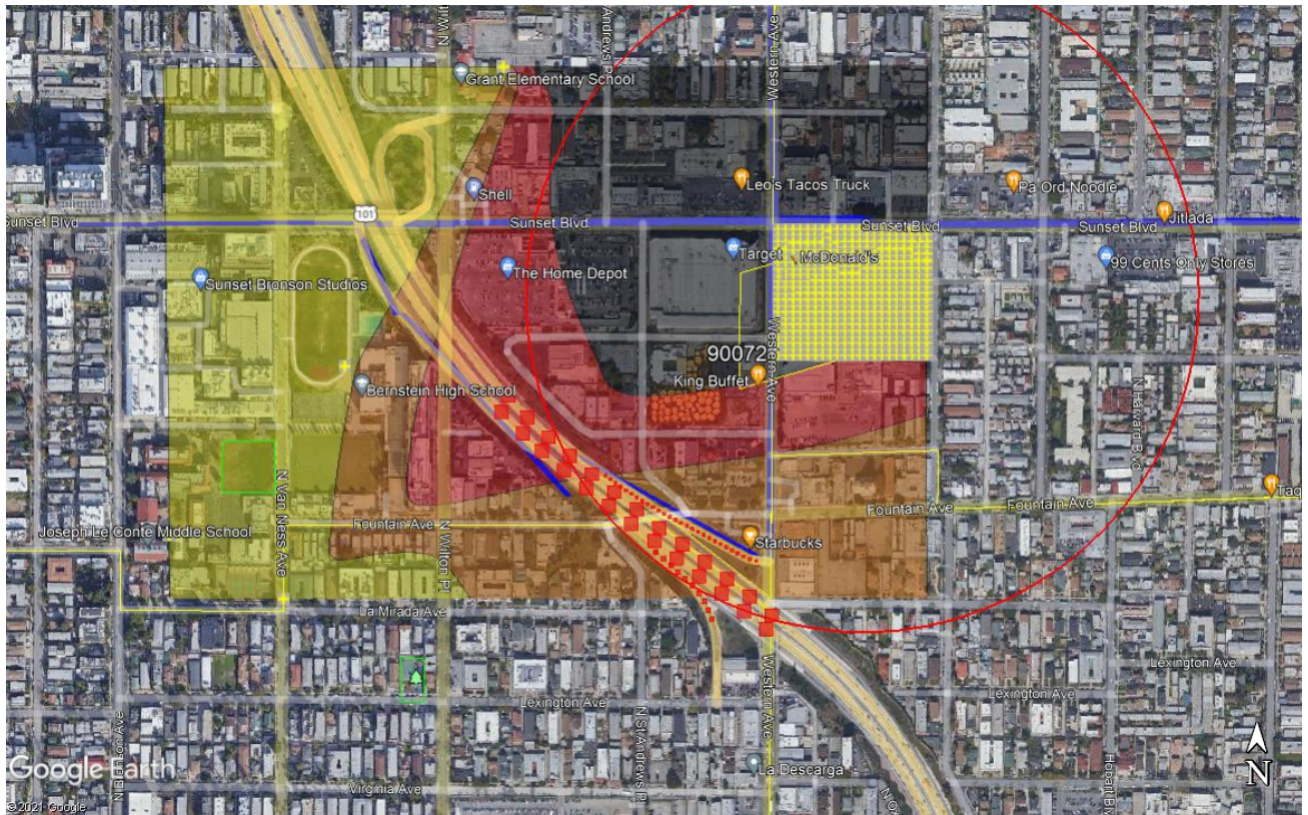


Figure 5: Impact Of Project Site Mobile Sources

Figure 5 shows the impacts of emissions from mobile sources associated with the Project. For the figure above the yellow contour indicates a concentration of DPM of approximately 0.00147 ug/m^3 . The orange contour indicates a concentration of DPM of approximately 0.00735 ug/m^3 . The red contour indicates a concentration of DPM of approximately 0.0147 ug/m^3 . The black contour indicates a concentration of DPM of approximately 0.03675 ug/m^3 .

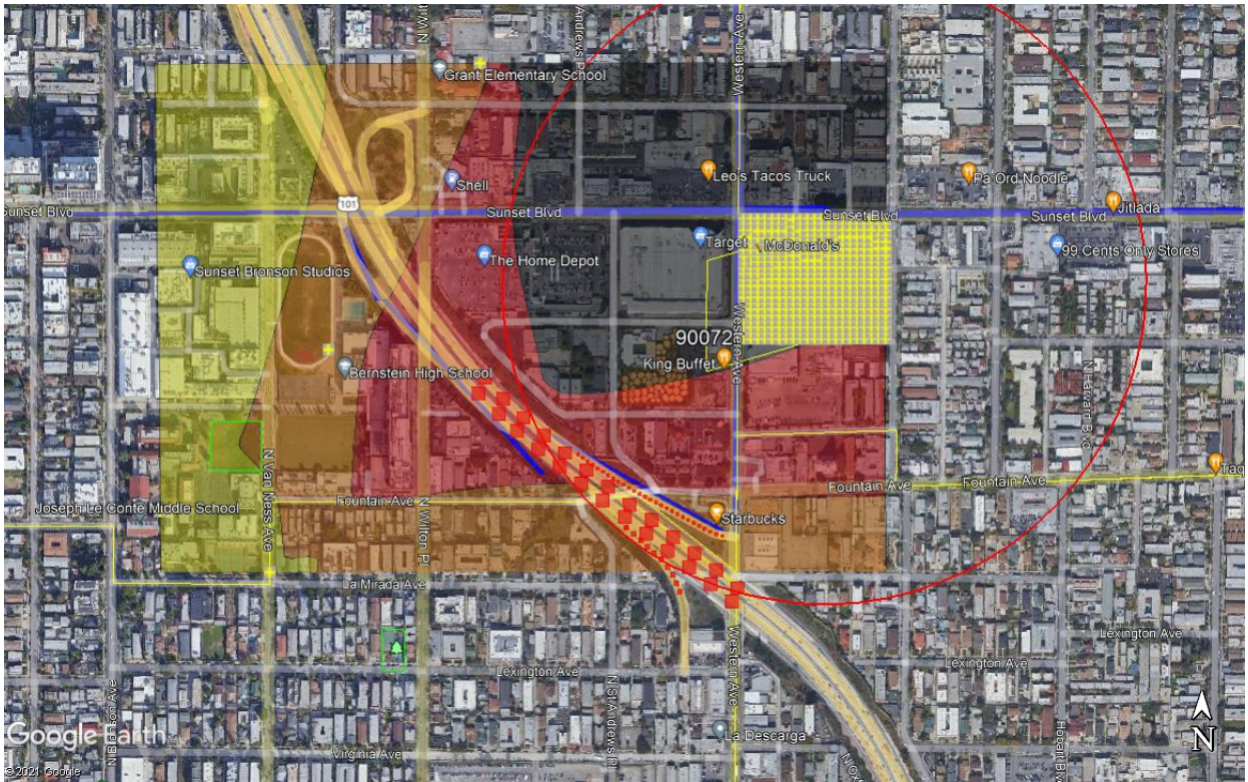


Figure 6: Cumulative Impacts Of All Sources

Figure 6 shows the impacts of all emissions sources associated with the Project and the freeway on the community. For the figure above the yellow contour indicates a concentration of DPM of approximately 0.00147 ug/m^3 . The orange contour indicates a concentration of DPM of approximately 0.00735 ug/m^3 . The red contour indicates a concentration of DPM of approximately 0.0147 ug/m^3 . The black contour indicates a concentration of DPM of approximately 0.03675 ug/m^3 .

The results of the model and the input/output files are included as an attachment to this comment letters. In order to calculate the residential risk from exposure to DPM on and off-site, the CARB's HARP2 Risk Assessment Standalone Tool (date 15065) was used to calculate the health risk to the community by modeling the cancer risk for an individual resident over 30-years using the OEHHA derived method (default assumptions) for community members and site-specific parameters for students (most sensitive receptor) at the schools. The results are presented in Attachment C to this letter.

Receptor	DPM Cumulative Concentration ug/m^3	Cumulative Risk
		Per million
Maximum On Site	5.96E-02	52.7

Receptor	DPM Cumulative Concentration ug/m ³	Cumulative Risk
		Per million
Residents North of Sunset	3.82E-02	33.8
Grant Elementary School	8.02E-03	2.1
Joseph Le Conte Middle School	5.66E-03	0.4
Bernstein High School	1.08E-02	1.5

The model with the mobile sources from the Project site shows that the risk to the residents of the Project site will exceed 10 in 1,000,000 as well as residents nearby the site. Risks to sensitive receptor sites would exceed 1 in 1,000,000 on average. The City must perform its own analysis of the impacts of traffic associated with the Project in a new air dispersion model and health risk analysis as well as derive mitigation measures specific for the project that will reduce the number of diesel powered vehicles entering and exiting the site, reduce idling times for vehicles, and modify pathways to and from the site to prevent exposure of residents on and off site.. The results must be presented in a revised EIR.

4. DEIR Falsely Asserts That The Project Would Not Exposure Sensitive Receptors To Substantial Pollutant Concentrations From Toxic Air Contaminants Emitted During The Construction Phase Of The Project.

In the DEIR analysis of construction emissions, the City asserts that the project would not expose sensitive receptors to substantial pollutants concentrations from TACs emitted during the construction phase of the project but does not substantiate the claim quantitatively. On page IV.A-61 of the DEIR the City states first that the short-term construction schedule of four years would not result in a long-term source of TAC emissions. This assertion completely misses the point of the type of chemicals being emitted. The risk of developing cancer from exposure to TACs is a function of the duration of exposure, the concentration of the individual's unique exposure scenario, and the toxicity of the chemical. In the case of diesel exhaust there is a clear link to a range of serious health problems

including an increase in respiratory disease, lung damage, cancer, and premature death.^{8,9,10} Fine DPM is deposited deep in the lungs in the smallest airways and can result in increased respiratory symptoms and disease; decreased lung function, particularly in children and individuals with asthma; alterations in lung tissue and respiratory tract defense mechanisms; and premature death.¹¹ Exposure to DPM increases the risk of lung cancer. It also causes non-cancer effects including chronic bronchitis, inflammation of lung tissue, thickening of the alveolar walls, immunological allergic reactions, and airway constriction.¹² DPM is a TAC that is recognized by state and federal agencies as causing severe health risk because it contains toxic materials, unlike PM_{2.5} and PM₁₀.¹³ Without quantifying the concentration of the DPM for the sensitive receptors during the construction phase of the Project, the City has failed to meet its responsibility to assess all of the potential impacts. The City must correct this error in a revised environmental impact report.

5. The City's Analysis Of Emissions From The Back Up Generator (BUG) On-Site Ignores The Substantial Emissions That Will Occur From Non-Testing Periods Of The BUG

In the City's air quality analysis, it assumed that the BUG will be maintained and tested for no more than 12 hours per year. Based on the City's CalEEMOD analysis of the 350 hp diesel generator that will be operated on site, the City calculates an emission rate of 0.000942 lbs of DPM per hour.

⁸ California Air Resources Board, Initial Statement of Reasons for Rulemaking, Proposed Identification of Diesel Exhaust as a Toxic Air Contaminant, Staff Report, June 1998; see also California Air Resources Board, Overview: Diesel Exhaust & Health, <https://ww2.arb.ca.gov/resources/overview-diesel-exhaust-and-health#:~:text=Diesel%20Particulate%20Matter%20and%20Health&text=In%201998%2C%20CARB%20identified%20DPM,and%20other%20adverse%20health%20effects>.

⁹ U.S. EPA, Health Assessment Document for Diesel Engine Exhaust, Report EPA/600/8-90/057F, May 2002.

¹⁰ Environmental Defense Fund, Cleaner Diesel Handbook, Bring Cleaner Fuel and Diesel Retrofits into Your Neighborhood, April 2005; http://www.edf.org/documents/4941_cleanerdieselhandbook.pdf, accessed July 5, 2020.

¹¹ California Air Resources Board, Initial Statement of Reasons for Rulemaking, Proposed Identification of Diesel Exhaust as a Toxic Air Contaminant, Staff Report, June 1998.

¹² Findings of the Scientific Review Panel on The Report on Diesel Exhaust as adopted at the Panel's April 22, 1998 Meeting.

¹³ Health & Safety Code § 39655(a) (defining "toxic air contaminant" as air pollutants "which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health. A substance that is listed as a hazardous air pollutant pursuant to subsection (b) of Section 112 of the federal act (42 U.S.C. Sec. 7412 (b)) is a toxic air contaminant.")

According to SCAQMD Rules 1110.2, 1470, BUGs are allowed to operate for up to 200 hours per year and maintenance cannot exceed more than 50 hours per year. Instead of emitting the 0.0113 lbs for 12 hours of operation, the City should be calculating the impact for operation of up to 200 hours per year or 0.18833 lbs of DPM per year. The City's assumption that the BUG would operate at a substantially reduced rate ignores the legally acceptable threshold outlined in SCAQMD Rule 1470. The City has therefore failed to properly measure the potential impact of DPM emissions from the BUG on the receptors nearby.

In addition, the DEIR ignores the substantial increase in operational emissions from BUGs in the Air Basin due to unscheduled events, including but not limited to Public Safety Power Shutoff (PSPS) events and extreme heat events. Extreme heat events are defined as periods where in the temperatures throughout California exceed 100 degrees Fahrenheit.¹⁴ From January, 2019 through December, 2019, Southern California Edison reported 158 of their circuits underwent a PSP event¹⁵. In Los Angeles County, two circuits had 4 PSPS events during that period, lasting an average of 35 to 38 hours. The total duration of the PSPS events lasted between 141 hours to 154 hours in 2019. This would equate to an additional 0.13 to 0.14 lbs of DPM that are not accounted for in the City's model. In 2021, the Governor Of California declared that during extreme heat events the use of stationary generators shall be deemed an emergency use under California Code of Regulations (CCR), title 17, section 93115.4 sub. (a) (30) (A)(2). The number of Extreme Heat Events is likely to increase in California with the continuing change in climate the State is currently undergoing.

Power produced during PSPS or extreme heat events is expected to come from engines regulated by CARB and California's 35 air pollution control and air quality management districts (air districts).¹⁶ Of particular concern are health effects related to emissions from diesel back-up engines. Diesel particulate matter (DPM) has been identified as a toxic air contaminant, composed of carbon particles and numerous organic compounds, including over forty known cancer-causing organic

¹⁴ Governor of California. 2021. Proclamation of a state of emergency. June 17, 2021.

¹⁵ SCAQMD. 2020. Proposed Amendment To Rules (PARS) 1110.2, 1470, and 1472. Dated December 10, 2020. http://www.aqmd.gov/docs/default-source/rule-book/Proposed-Rules/1110.2/1110-2_1470_1472/par1110-2_1470_wgm_121020.pdf?sfvrsn=6.

¹⁶ CARB. 2019. Use of Back-up Engines For Electricity Generation During Public Safety Power Shutoff Events. October 25, 2019.

substances. The majority of DPM is small enough to be inhaled deep into the lungs and make them more susceptible to injury.

According to the California Public Utilities Commission (CPUC) de-energization report¹⁷ in October 2019, there were almost **806 PSPS events** (emphasis added) that impacted almost 973,000 customers (~7.5% of households in California) of which ~854,000 of them were residential customers, and the rest were commercial/industrial/medical baseline/other customers. CARB's data also indicated that on average each of these customers had about 43 hours of power outage in October 2019.¹⁸ Using the actual emission factors for each diesel BUG engines in the air district's stationary BUGs database, CARB staff calculated that the 1,810 additional stationary running during a PSPS in October 2019 generated 126 tons of NOx, 8.3 tons of particulate matter, and 8.3 tons of DPM.

For every PSPS or Extreme Heat Event (EHE) triggered during the operational phase of the project, significant concentrations of DPM will be released that are not accounted for in the City's analysis. In 2021, two EHEs have been declared so far. For the June 17, 2021 Extreme Heat Event, the period for which stationary generator owners were allowed to use their BUGs lasted 48 hours. For the July 9, 2021 EHE, the period for which stationary generator owners were allowed to use their BUGs lasted 72 hours. These two events would have tripled the calculated DPM emissions from the Project for the year if the project had been completed.

The DEIR must be revised to include an analysis of the additional operation of the BUG that will occur at the project site that is not accounted for in the current air quality analysis.

6. The Air Quality Analysis And Project Description In The DEIR Are In Conflict With The Air Quality Analysis And Project Description In Appendix B To The DEIR

In Table IV.A.6 of the Impact Analysis For Air Quality of DEIR, the unmitigated emissions of the nitrogen oxides (NOx) emissions would exceed the SCAQMD threshold for significance. After mitigation (Mitigation Measure AIR-MM-1), which involves the requirement that all off-road diesel-powered equipment over 50 hp used during project grading/excavation activities meet USEPA Tier

¹⁷ <https://www.cpuc.ca.gov/deenergization/> as cited in CARB, 2020. Potential Emission Impact of Public Safety Power Shutoff (PSPS), Emission Impact: Additional Generator Usage associated With Power Outage..

¹⁸ CARB, 2020. Potential Emission Impact of Public Safety Power Shutoff (PSPS), Emission Impact: Additional Generator Usage associated With Power Outage..

4 Final emissions standards, the DEIR claims that construction emission would be reduced from 134 lbs per day to 107 pounds per day in Year 2022. Incorporating Mitigation Measure AIR-MM-2, which requires the use of 2007 or newer haul trucks would reduce peak daily construction emissions from 107 to 71 pounds per day of NO_x in Year 2022.¹⁹ The DEIR goes on to state that the peak daily NO_x emission over the duration of construction would be 97 pounds per day of NO_x during Year 2022. This is not reflected in Table IV.A-8 of the DEIR.

Table IV.A-8
Estimate of Maximum Regional Project Daily Construction Emissions—Mitigated
(pounds per day)

Construction Year	VOC ^b	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Regional Construction Emissions						
Year 2022	3	71	49	<1	4	2
Year 2023	5	97	55	<1	46	13
Year 2024	8	43	78	<1	15	5
Year 2025	31	41	76	<1	14	5
Year 2026	28	21	49	<1	12	4
Maximum Unmitigated Construction Emissions^c	31	97	78	<1	46	13
SCAQMD Daily Significance Thresholds	75	100	550	150	150	55
Over/(Under)	(44)	(3)	(472)	(150)	(104)	(42)
Maximum Unmitigated Construction Emissions Exceed Threshold?	No	No	No	No	No	No
<p><i>Numbers may not add up exactly due to rounding.</i></p> <p>^a <i>The CalEEMod model printout sheets and/or calculation worksheets are presented in Appendix B (CalEEMod Output) of this document.</i></p> <p>^b <i>Please note that the SCAQMD significance threshold is in terms of VOC while CalEEMod calculates reactive organic compounds (ROG) emissions. For purposes of this analysis, VOC and ROG are used interchangeably since ROG represents approximately 99.9 percent of VOC emissions.</i></p> <p>^c <i>Mitigated scenario assumes compliance with SCAQMD Rule 403 requirements for fugitive dust and AIR-MM-1 and AIR-MM-2.</i></p> <p><i>Source: Eyestone Environmental, 2021.</i></p>						

In the Air Quality Analysis, the Construction analysis for NO_x assumed values for NO_x running emissions and idling emissions (page B-22 of Appendix B) that do not match the data presented in the EMFAC database. According to the California Air Resources Board²⁰ (CARB), EMFAC is the official database of emission inventories of onroad and offroad mobile sources. The

¹⁹ DEIR. 2021. Environmental Impact Analysis – Air Quality. Page 59 of 69.

²⁰ CARB. 2021. EMFAC Website. <https://arb.ca.gov/emfac/>

values for running emissions and idle emissions for heavy duty trucks listed below were used in the DEIR, are 25% and 54%, respectively, lower than the values reported in the EMFAC database. The source of the data is not listed in the DEIR.

Sunset Western

Heavy Duty Diesel Truck Emissions Calculations

Construction Year 2022
Truck Model Year 2007

Run Emissions

Trips per Day 360
Trip Length (mi.) 25
Daily VMT 9000

	TOG_RUNEX	CO_RUNEX	NOx_RUNEX	PM10_RUNEX	PM2_5_RUNEX	SOx_RUNEX
Run Emission Factors (g/mi) ¹	0.068	0.289	3.071	0.024	0.023	0.013
Run Emissions (lbs/day)	1.36	5.73	60.93	0.48	0.46	0.26
On-site Emissions (lbs/day)	0.01	0.06	0.61	0.00	0.00	0.00

Idle Emissions

Loads per Day 180
Idle Time Per Truck (min.) 15
Daily Idle Time (hrs) 45.00

	TOG	CO	NOx	PM10	PM2_5	SOx
Idle Emission Factors (g/hr) ²	2.70	32.10	32.49	0.02	0.02	0.06
Idle Emissions (lbs/day)	0.27	3.18	3.22	0.00	0.00	0.01

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	NOx_RUNEX	NOx_IDLEX
South Coast AQMD	2022	HHDT	2007	Aggregate	Diesel	10.49	64.77
South Coast AQMD	2022	HHDT	2008	Aggregate	Diesel	8.97	124.71
South Coast AQMD	2022	HHDT	2009	Aggregate	Diesel	8.90	72.30
South Coast AQMD	2022	HHDT	2010	Aggregate	Diesel	8.22	70.38
South Coast AQMD	2022	HHDT	2011	Aggregate	Diesel	5.02	52.05
South Coast AQMD	2022	HHDT	2012	Aggregate	Diesel	3.93	38.13
South Coast AQMD	2022	HHDT	2013	Aggregate	Diesel	3.73	50.56
South Coast AQMD	2022	HHDT	2014	Aggregate	Diesel	2.50	56.19
South Coast AQMD	2022	HHDT	2015	Aggregate	Diesel	2.14	61.55

South Coast AQMD	2022	HHDT	2016	Aggregate	Diesel	2.06	82.82
South Coast AQMD	2022	HHDT	2017	Aggregate	Diesel	1.92	69.29
South Coast AQMD	2022	HHDT	2018	Aggregate	Diesel	1.80	75.37
Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	NOx_RUNEX	NOx_IDLEX
South Coast AQMD	2022	HHDT	2019	Aggregate	Diesel	1.65	76.59
South Coast AQMD	2022	HHDT	2020	Aggregate	Diesel	1.51	78.76
South Coast AQMD	2022	HHDT	2021	Aggregate	Diesel	1.36	80.72
South Coast AQMD	2022	HHDT	2022	Aggregate	Diesel	1.20	75.24
						Average	4.088
						95% UCL	5.753
							70.59
							80.44

For the running emissions, the value of 3.071 grams per mile is significantly lower than the average value for trucks produced in 2007 through 2022 (4.088 grams per mile). Instead of producing an estimated NOx emission rate of 60.93 lbs per day for trucks hauling materials away from the construction site, the average value for emissions should be reported as 81.11 lbs per day.

For the idling emissions, the value of 32.49 grams of NOx per hour of idling is significantly lower than the average value for trucks produced in 2007 through 2022 (70.59 grams of NOx per hour of idling). Instead of producing an estimated NOx emission rate of 3.22 lbs per day for idling trucks, the average value for emissions should be reported as 7.00 lbs per day.

Assuming the starting emission values are correct in the DEIR, the averaged cumulative emissions per day for the project construction phase during 2022 should be reported as 89.87 lbs per day, not 65.91 lbs per day. Given that the number of trucks for any specific year of vehicle production cannot be ascertained at this time a better method for determining the most likely emission rates would be to use a confidence interval around the average value. In this approach, the emission rates could reasonably be anticipated to not exceed the value calculated. This approach is used commonly in air quality analyses and health risk analyses presented to regulatory agencies, including the U.S. EPA and the California Environmental Protection Agency. The 95 percent upper confidence limit (95% UCL) of the mean of the running emissions rates and idling rates are 5.753 grams of NOx per mile and 80.44 grams of NOx per hour, respectively. Using the 95% UCL values produces running emission rates of 114.15 lbs per day and idling emission rates of 7.98 lbs per day of NOx. The total NOx emissions

using the 95% UCL method would produce 123.88 lbs of NOx per day, well in excess of the SCAQMD threshold of significance for NOx. The City must address the significance level change of construction NOx emissions for the project in a revised DEIR.

7. The DEIR Fails to Demonstrate the Feasibility of Obtaining Exclusively Tier 4 Final Construction Equipment in Light of The Limited Availability Of Tier 4 Equipment In The State Of California And The Potential Impacts That a Shortage Would Have On The Duration Of The Construction Phase Of The Project.

Mitigation (Mitigation Measure AIR-MM-1) involves the requirement that all off-road diesel-powered equipment over 50 hp used during project grading/excavation activities meet USEPA Tier 4 Final emissions standards. The DEIR relies on AIR-MM-1 to conclude that construction air quality impacts would be mitigated below levels of significance. However, the DEIR fails to consider the limited availability of Tier 4 Final equipment, and fails to include evidence demonstrating that Tier 4 Final equipment can be reasonably procured for this Project during its projected construction period.

Although off-road Tier 4 Final equipment is available for purchase, it is still new technology that may not yet be readily available at all construction equipment vendors, and may require special procurement by the Proponent. Based upon a review of public records of the California Air Resources Board's (CARB) Diesel Off-Road Online Reporting System (DOORS), it is evident that the availability of Tiered construction equipment is highly dependent on the type of equipment. Using the CALEEMOD analysis supplied in Appendix to the IS/MND, the availability of the specific pieces of construction equipment required for the Project (highlighted in yellow) across the state are identified in Table 1 below.

Table 1: Percent of Equipment in California DOORS Database by Emission Tier Level

Equipment Type (> 50 hp)	U.S. EPA Emission Tier Level						Percent Total Meeting Requirement MM AQ-1
	T0	T1	T2	T3	T4F	T4I	
Aerial Lifts	1.63%	4.67%	14.86%	4.08%	48.64%	26.12%	74.76%
Boom	0.15%	0.77%	5.22%	1.59%	76.20%	16.06%	92.26%
Bore/Drill Rigs	11.53%	15.42%	16.86%	21.76%	17.72%	14.34%	32.06%
Bucket	8.33%	18.33%	10.00%	6.67%	33.33%	23.33%	56.67%
Concrete Mixer	0.00%	0.00%	0.00%	14.29%	85.71%	0.00%	85.71%
Concrete Pump	1.30%	7.79%	40.26%	1.30%	32.47%	16.88%	49.35%

Equipment Type (> 50 hp)	U.S. EPA Emission Tier Level						Percent Total Meeting Requirement MM AQ-1
	T0	T1	T2	T3	T4F	T4I	
Crane 35ton or more	5.57%	4.41%	5.37%	18.81%	37.62%	27.45%	65.07%
Crane less than 35ton	20.37%	2.47%	6.79%	12.35%	38.27%	19.75%	58.02%
Cranes	27.84%	11.49%	9.13%	26.60%	10.82%	11.80%	22.62%
Crawler Tractors	26.56%	13.31%	13.11%	13.70%	22.39%	10.93%	33.32%
Crushing/Processing Equipment	0.00%	0.78%	2.34%	14.06%	74.22%	8.59%	82.81%
Drill Rig	7.09%	4.14%	8.86%	12.56%	45.79%	17.87%	63.66%
Drill Rig (Mobile)	11.51%	8.71%	11.51%	17.26%	30.95%	14.77%	45.72%
Excavators	5.24%	8.34%	13.95%	7.29%	48.67%	16.50%	65.17%
Forklifts	9.57%	10.57%	13.82%	7.99%	40.45%	17.46%	57.91%
Garbage Refuse	0.00%	0.00%	8.70%	8.70%	43.48%	39.13%	82.61%
Garbage Transfer	0.00%	0.00%	0.00%	33.33%	66.67%	0.00%	66.67%
Graders	29.78%	14.12%	12.89%	15.27%	17.40%	10.52%	27.92%
Hopper Tractor Trailer	0.00%	0.00%	0.00%	0.00%	50.00%	50.00%	100.00%
Mower	2.44%	7.27%	13.58%	1.10%	54.40%	21.22%	75.62%
Nurse Rig Aircraft Supply	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	100.00%
Nurse Rig Other	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%
Off Highway Tractors	3.55%	6.28%	6.01%	8.74%	65.30%	10.11%	75.41%
Off Highway Trucks	1.69%	3.87%	11.14%	5.81%	62.23%	15.25%	77.48%
Off-Highway Tractors	18.25%	17.06%	20.98%	10.02%	17.18%	16.31%	33.49%
Off-Highway Trucks	16.96%	12.96%	17.54%	20.81%	16.13%	13.99%	30.12%
Other Construction Equipment	16.35%	14.20%	17.11%	10.53%	24.03%	17.19%	41.22%
Other General Industrial Equipment	13.18%	16.56%	27.57%	8.61%	13.80%	19.84%	33.65%
Other Material Handling Equipment	10.84%	11.39%	19.25%	15.55%	26.63%	16.26%	42.89%
Other Truck	15.64%	10.34%	5.31%	13.41%	36.87%	11.45%	48.32%
Pavers	12.11%	21.18%	16.99%	14.97%	23.34%	11.41%	34.75%
Paving Equipment	6.49%	12.80%	12.74%	12.44%	38.17%	17.05%	55.22%
Railcars or Track Cars	16.33%	8.16%	0.00%	14.29%	51.02%	10.20%	61.22%
Rollers	14.09%	15.93%	18.30%	6.46%	30.61%	14.59%	45.20%
Rough Terrain Forklifts	3.95%	9.32%	15.89%	8.11%	41.94%	20.80%	62.74%
Rubber Tired Dozers	41.04%	10.02%	9.44%	19.65%	15.22%	4.62%	19.85%
Rubber Tired Loaders	16.74%	12.71%	13.56%	14.94%	29.29%	12.76%	42.05%
Scrapers	28.91%	10.98%	15.47%	30.41%	10.15%	4.04%	14.19%
Skid Steer Loaders	3.70%	10.02%	15.81%	3.20%	54.69%	12.58%	67.27%
Spray Truck	5.56%	4.17%	19.44%	2.78%	34.72%	26.39%	61.11%
Spreader Tractor Trailer	0.00%	14.29%	28.57%	0.00%	42.86%	14.29%	57.14%
Spreader Truck	4.17%	0.00%	4.17%	37.50%	16.67%	25.00%	41.67%

Equipment Type (> 50 hp)	U.S. EPA Emission Tier Level						Percent Total Meeting Requirement MM AQ-1
	T0	T1	T2	T3	T4F	T4I	
Surfacing Equipment	15.38%	14.25%	10.18%	23.08%	19.23%	17.65%	36.88%
Sweepers/Scrubbers	11.02%	20.84%	16.57%	6.61%	25.75%	19.06%	44.81%
Tank Truck	4.05%	6.76%	8.11%	27.03%	37.84%	16.22%	54.05%
Tanker Truck Trailer	0.00%	18.18%	0.00%	0.00%	63.64%	18.18%	81.82%
Telescopic Handler	1.33%	0.00%	2.67%	0.00%	80.00%	16.00%	96.00%
Tow Tractor	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Tractors/Loaders/Backhoes	13.53%	16.50%	18.73%	8.96%	29.23%	13.05%	42.28%
Trenchers	21.86%	19.57%	20.87%	3.28%	21.86%	12.57%	34.43%
Vacuum Truck	2.21%	18.38%	15.44%	25.00%	13.24%	14.71%	27.94%
Water Truck	21.79%	8.21%	16.43%	16.07%	23.57%	13.57%	37.14%
Workover Rig (Mobile)	5.99%	15.14%	9.78%	17.35%	7.10%	13.56%	20.66%
Yard Goat	4.40%	4.58%	9.41%	18.31%	41.71%	21.33%	63.04%

It is clear from the CARB data that access to Tier 4 final certified equipment necessary for demolition (rubber tired dozers and tractors/loaders/backhoes), site preparation (graders, scrapers, rubber tired dozers, and tractors/loaders/backhoes), grading (graders, scrapers, rubber tired dozers, off-highway trucks, and tractors/loaders/backhoes), and paving operations (pavers, rollers, and tractors/loaders/backhoes), are in limited supply in the State. In particular, Tier 4 final dozers, scrapers, graders, and pavers make up a small portion of the registered fleet in California. If the Proponent cannot acquire the necessary equipment during construction or delay the construction until the equipment is available, project construction could be substantially delayed while the Proponent searches for Tier equipment to comply with MM AQ-1. Absent evidence demonstrating that the Proponent can feasibly obtain Tier 4 Final equipment for all off-road diesel equipment required for Project construction, it is unreasonable to presume that the Proponent will fully comply with MM AQ-1, or that the proposed construction schedule is feasible. The DEIR should be revised to provide this evidence and analysis.

8. The DEIR Fails To Perform An Accurate Cumulative Impact Analysis On Air Quality.

A proper cumulative impact analysis is vital for an environmental analysis “because the full environmental impact of a proposed project cannot be gauged in a vacuum. One of the most important

environmental lessons that has been learned is that the environmental damage often occurs incrementally from a variety of small sources with which they interact.”²¹ The DEIR’s conclusion is flawed for the following reasons.

First, the discussion in the comments above indicates that the Project would contribute to an existing significant impact, i.e. degraded air quality in the South Coast air basin as evidenced by frequent violations of PM₁₀, PM_{2.5} and ozone ambient air quality standards. The Project would increase the emissions of PM₁₀, PM_{2.5}, and ozone precursors and thus would contribute to these existing exceedances of ambient air quality standards. Thus, the Project’s contribution is *per se* cumulatively significant.

Second, a cumulative impacts analysis must consider past projects, the effects of other current projects, and the effects of probable future projects.”²² The DEIR did not identify any other closely related, past, present, or reasonably foreseeable probable future projects let alone attempt to quantify their emissions and, thus, to evaluate them cumulatively with the Project.

Third, the method utilized by the City fails to meet the basic requirements for a cumulative air quality analysis as outlined by the SCAQMD’s L.A. CEQA Threshold Guide (2006). A cumulative impact analysis would include a review of the list of related projects and identify those that would have pollutant or odor emissions. Such an analysis would determine the potential impacts of all such projects, together with the proposed project, using the methodology to evaluate the Proposed Project’s pollutant impacts. This significance methodology includes:

- The type, number of pieces, and usage of equipment;
- Rate, quantity, and type of fuel consumption;
- Emission factors, assuming implementation of applicable rules and regulations;
- Type(s) and size(s) of land uses, including location of vehicle driveways and parking facilities;
and
- The location and usage of equipment or processes that may emit odors.

²¹ *Bakersfield Citizens* (2004) 124 Cal. App. 4th at 1214 (quoting *Communities for a Better Environment v. California Resources Agency* 103 Cal.App.4th at 116).

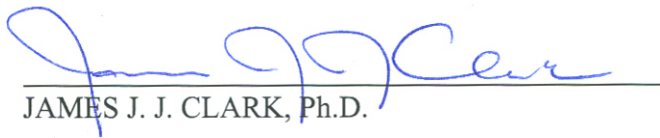
²² CEQA Guidelines §15355(b)

The City's air quality cumulative analysis is clearly deficient and must be supported by the preparation of a revised EIR.

Conclusion

The facts identified and referenced in this comment letter lead me to reasonably conclude that the Project could result in significant unmitigated impacts if the DEIR is approved. The City must re-evaluate the significant impacts identified in this letter by requiring the preparation of a revised draft environmental impact report.

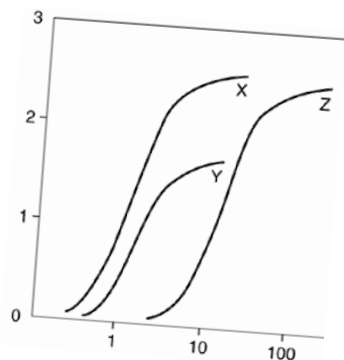
Sincerely,



A handwritten signature in blue ink, appearing to read "James J. Clark", is written over a horizontal line. Below the line, the text "JAMES J. J. CLARK, Ph.D." is printed in a serif font.

JAMES J. J. CLARK, Ph.D.

Attachment A: CV



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James J. J. Clark, Ph.D.

Principal Toxicologist

Toxicology/Exposure Assessment Modeling

Risk Assessment/Analysis/Dispersion Modeling

Education:

Ph.D., Environmental Health Science, University of California, 1995

M.S., Environmental Health Science, University of California, 1993

B.S., Biophysical and Biochemical Sciences, University of Houston, 1987

Professional Experience:

Dr. Clark is a well-recognized toxicologist, air modeler, and health scientist. He has 30 years of experience in researching the effects of environmental contaminants on human health including environmental fate and transport modeling (SCREEN3, AEROMOD, ISCST3, Johnson-Ettinger Vapor Intrusion Modeling, RESRAD, GENII); exposure assessment modeling (partitioning of contaminants in the environment as well as PBPK modeling); conducting and managing human health risk assessments for regulatory compliance and risk-based clean-up levels; and toxicological and medical literature research.

Significant projects performed by Dr. Clark include the following:

LITIGATION SUPPORT

Case: Louise Kowall, Donna Kopecek, and Evelyn Vehouc, et al., V. United States Steel Donora Zinc Works, et al. Court of Common Pleas of Washington County, Pennsylvania, Case No. 2017-3355.

Clients: Bonnett, Fairbourn, Friedman & Balint, P.C., Phoenix, Arizona; Jacks Legal Group, P.L.L.C., Morgantown, West Virginia; The Calwell Law Practice, L.C., Charleston, West Virginia

Dr. Clark assessed the exposure to residual toxic metals released by the Donora Zinc Works (DZW) located within the United States Steel Industrial Area (USSIA) on residents in surrounding communities and to define class members and remediation strategies in this matter based upon their exposure to toxic metals emitted from the DZW. The analysis

focused on emissions from the DZW that impacted soils and the interiors of structures to a point where remediation will be required to reduce potential health effects. For structures and properties closest to the former USSIA, he opined that remediation would be required for soils outside the structures as well as the interiors of the structures to prevent future harm to residents. For structures further away from the USSIA, it was determined that remediation of interiors was likely required.

Case Result: Trial Pending

Case: Marc and Jill Czapla, Plaintiffs vs. Republic Services, Inc., Bridgeton Landfill, LLC, vs. Cotter Corporation, N.S.L., Case No.: 18SL-CC00803-01 Circuit Court of St. Louis County, State of Missouri, Division 4

Client: Humphrey, Farrington & McClain, P.C., Independence, Missouri

Dr. Clark performed a historical dose reconstruction for Marc Czapla from radiologically impacted material (RIM) placed in the West Lake Landfill. The analysis was performed in general accordance with the methods outlined by the Agency for Toxic Substances Control (ATSDR) for assessing radiation doses from historical source areas in North St. Louis County, Missouri.

Case Result: Trial Pending

Case: Pamela Butler Vs. Mallinckrodt, Inc. & Cotter Corporation. Case No.: 4:2018cv01701 United States District Court Eastern District of Missouri Eastern Division

Case: Kenneth Edward Koterba Vs. Mallinckrodt, Inc. & Cotter Corporation. Case No.: 4:2018cv01702 United States District Court Eastern District of Missouri Eastern Division

Case: Anthony Hines Vs. Mallinckrodt, Inc. & Cotter Corporation. Case No.: 4:2018cv01703 United States District Court Eastern District of Missouri Eastern Division

Case: Emery David Walick, III Vs. Mallinckrodt, Inc. & Cotter Corporation. Case No.: 4:2018cv01704 United States District Court Eastern District of Missouri Eastern Division

Client: Humphrey, Farrington & McClain, P.C., Independence, Missouri

Dr. Clark performed a historical dose reconstruction for community members exposed to radioactive waste released into the environment from the St. Louis Air Port Site (SLAPS) and the Hazelwood Interim Storage Site (HISS). The releases resulted in impacts to soils, sediments, surface waters, and groundwater in the vicinity of the SLAPS and HISS sites. The analysis was performed in general accordance with the methods outlined by the Agency for Toxic Substances Control (ATSDR) for assessing radiation doses from historical source areas in North St. Louis County, Missouri.

Case Result: Trial Pending

Case: Don Strong, et al. vs. Republic Services, Inc., Bridgeton Landfill, LLC, vs. Cotter Corporation, N.S.L., Case No.: 17SL-CC01632-01 Circuit Court of St. Louis County, State of Missouri, Division 17

Client: Humphrey, Farrington & McClain, P.C., Independence, Missouri

Dr. Clark performed a historical dose reconstruction for community members from radiologically impacted material (RIM) releases from the adjacent West Lake Landfill. The analysis was performed in general accordance with the methods outlined by the Agency for Toxic Substances Control (ATSDR) for assessing radiation doses from historical source areas in North St. Louis County, Missouri.

Case Result: Settlement in favor of plaintiff.

Case: Arnold Goldstein, John Covas, Gisela Janette La Bella, et al.. vs. Exxon Mobil Corporation, PBF Energy Inc., Torrance Refining Company LLC, et al., Case No.: 2:17-cv-02477DSF United States District Court for the Central District of California

Client: Sher Edling, LLP, San Francisco, California and Matern Law Group , PC., El Segundo, California

Dr. Clark performed a historical dose reconstruction for community members from an active 700 acre petroleum refinery in Los Angeles. The analysis included a multi-year dispersion model was performed in general accordance with the methods outlined by the U.S. EPA and the SCAQMD for assessing the health impacts in Torrance, California. The results of the analysis are being used as the basis for injunctive relief for the communities surrounding the refinery.

Case Result: Trial Pending

Case: Scott D. McClurg, et al. v. Mallinckrodt Inc. and Cotter Corporation.
Lead Case No.: 4:12CV00361 AGF United States District Court Eastern District of Missouri Eastern Division

Client: Environmental Law Group, Birmingham, AL.

Dr. Clark performed a historical dose reconstruction for community members and workers exposed to radioactive waste released into the environment from the St. Louis Air Port Site (SLAPS) and the Hazelwood Interim Storage Site (HISS). The releases resulted in impacts to soils, sediments, surface waters, and groundwater in the vicinity of the SLAPS and HISS sites. The analysis included the incorporation of air dispersion modeling across the community to determine ground-level air concentrations and deposition of thorium and uranium isotopes and their respective daughter products. The dose reconstruction considered all relevant pathways to determine total doses of radiation received across the community from 1946 through 2017.

Case Result: Settlement in favor of plaintiff.

SELECTED AIR MODELING RESEARCH/PROJECTS

Client(s) – Multiple

Indoor Air Evaluations, California: Performed multiple indoor air screening evaluations and risk characterizations consistent with California Environmental Protection Agency's (Cal/EPA) Department of Toxic Substances Control (DTSC) and Regional Water Quality Control Board (RWQCB) methodologies. Characterizations included the use of DTSC's modified Johnson & Ettinger Model and USEPA models, as well as the attenuation factor model currently advocated by Cal/EPA's Office of Environmental Health and Hazard Assessment (OEHHA).

Client – Confidential

Dr. Clark performed a comprehensive evaluation of criteria pollutants, air toxins, and particulate matter emissions from a carbon black production facility to determine the impacts on the surrounding communities. The results of the dispersion model were used to estimate acute and chronic exposure concentrations to multiple contaminants and were incorporated into a comprehensive risk evaluation.

Client – Confidential

Dr. Clark performed a comprehensive evaluation of air toxins and particulate matter emissions from a railroad tie manufacturing facility to determine the impacts on the surrounding communities. The results of the dispersion model have been used to estimate acute and chronic exposure concentrations to multiple contaminants and have been incorporated into a comprehensive risk evaluation.

EMERGING/PERSISTENT CONTAMINANT RESEARCH/PROJECTS**Client: City of Santa Clarita, Santa Clarita, California**

Dr. Clark managed the oversight of the characterization, remediation and development activities of a former 1,000 acre munitions manufacturing facility for the City of Santa Clarita. The site is impacted with a number of contaminants including perchlorate, unexploded ordinance, and volatile organic compounds (VOCs). The site is currently under a number of regulatory consent orders, including an Imminent and Substantial Endangerment Order. Dr. Clark assisted the impacted municipality with the development of remediation strategies, interaction with the responsible parties and stakeholders, as well as interfacing with the regulatory agency responsible for oversight of the site cleanup.

Client – Confidential, Los Angeles, California

Dr. Clark is performing a comprehensive review of the potential for pharmaceuticals and their by-products to impact groundwater and surface water supplies. This evaluation will include a review if available data on the history of pharmaceutical production in the United States; the chemical characteristics of various pharmaceuticals; environmental fate and transport; uptake by xenobiotics; the potential effects of pharmaceuticals on water treatment systems; and the potential threat to public health. The results of the evaluation may be used as a briefing tool for non-public health professionals.

PUBLIC HEALTH/TOXICOLOGY**Client: Brayton Purcell, Novato, California**

Dr. Clark performed a toxicological assessment of residents exposed to methyl-tertiary butyl ether (MTBE) from leaking underground storage tanks (LUSTs) adjacent to the subject property. The symptomology of residents and guests of the subject property were evaluated against the known outcomes in published literature to exposure to MTBE. The

study found that residents had been exposed to MTBE in their drinking water; that concentrations of MTBE detected at the site were above regulatory guidelines; and, that the symptoms and outcomes expressed by residents and guests were consistent with symptoms and outcomes documented in published literature.

Client: Covanta Energy, Westwood, California

Evaluated health risk from metals in biosolids applied as soil amendment on agricultural lands. The biosolids were created at a forest waste cogeneration facility using 96% whole tree wood chips and 4 percent green waste. Mass loading calculations were used to estimate Cr(VI) concentrations in agricultural soils based on a maximum loading rate of 40 tons of biomass per acre of agricultural soil. The results of the study were used by the Regulatory agency to determine that the application of biosolids did not constitute a health risk to workers applying the biosolids or to residences near the agricultural lands.

Client: Kaiser Venture Incorporated, Fontana, California

Prepared PBPK assessment of lead risk of receptors at a 1,100-acre former steel mill. This evaluation was used as the basis for granting closure of the site by lead regulatory agency.

RISK ASSESSMENTS/REMEDIAL INVESTIGATIONS

Kaiser Ventures Incorporated, Fontana, California

Prepared health risk assessment of semi-volatile organic chemicals and metals for a fifty-year old wastewater treatment facility used at a 1,100-acre former steel mill. This evaluation was used as the basis for granting closure of the site by lead regulatory agency.

ANR Freight - Los Angeles, California

Prepared a comprehensive Preliminary Endangerment Assessment (PEA) of petroleum hydrocarbon and metal contamination of a former freight depot. This evaluation was as the basis for reaching closure of the site with lead regulatory agency.

Kaiser Ventures Incorporated, Fontana, California

Prepared comprehensive health risk assessment of semi-volatile organic chemicals and metals for 23-acre parcel of a 1,100-acre former steel mill. The health risk assessment was used to determine clean up goals and as the basis for granting closure of the site by lead regulatory agency. Air dispersion modeling using ISCST3 was performed to determine downwind exposure point concentrations at sensitive receptors within a 1 kilometer radius of the site. The results of the health risk assessment were presented at a public meeting

sponsored by the Department of Toxic Substances Control (DTSC) in the community potentially affected by the site.

Unocal Corporation - Los Angeles, California

Prepared comprehensive assessment of petroleum hydrocarbons and metals for a former petroleum service station located next to sensitive population center (elementary school). The assessment used a probabilistic approach to estimate risks to the community and was used as the basis for granting closure of the site by lead regulatory agency.

Client: Confidential, Los Angeles, California

Managed oversight of remedial investigation most contaminated heavy metal site in California. Lead concentrations in soil excess of 68,000,000 parts per billion (ppb) have been measured at the site. This State Superfund Site was a former hard chrome plating operation that operated for approximately 40-years.

Client: Confidential, San Francisco, California

Coordinator of regional monitoring program to determine background concentrations of metals in air. Acted as liaison with SCAQMD and CARB to perform co-location sampling and comparison of accepted regulatory method with ASTM methodology.

Client: Confidential, San Francisco, California

Analyzed historical air monitoring data for South Coast Air Basin in Southern California and potential health risks related to ambient concentrations of carcinogenic metals and volatile organic compounds. Identified and reviewed the available literature and calculated risks from toxins in South Coast Air Basin.

IT Corporation, North Carolina

Prepared comprehensive evaluation of potential exposure of workers to air-borne VOCs at hazardous waste storage facility under SUPERFUND cleanup decree. Assessment used in developing health based clean-up levels.

Professional Associations

American Public Health Association (APHA)

Association for Environmental Health and Sciences (AEHS)

American Chemical Society (ACS)

International Society of Environmental Forensics (ISEF)

Society of Environmental Toxicology and Chemistry (SETAC)

Publications and Presentations:

Books and Book Chapters

- Sullivan, P., **J.J. J. Clark**, F.J. Agardy, and P.E. Rosenfeld. (2007). *Synthetic Toxins In The Food, Water and Air of American Cities*. Elsevier, Inc. Burlington, MA.
- Sullivan, P. and **J.J. J. Clark**. 2006. *Choosing Safer Foods, A Guide To Minimizing Synthetic Chemicals In Your Diet*. Elsevier, Inc. Burlington, MA.
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Attachment B: Dispersion Model Input/Output Files

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** Trinity Consultants
** VERSION 10.0

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CO TITLETWO Update to Include Source Terms (Heavy Duty Trucks) From Project

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09/30/21

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** Trinity Consultants

** VERSION 10.0

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CO TITLETWO Update to Include Source Terms (Heavy Duty Trucks) From Project

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```

** SRCDESCR West Bound on Sunset
SO LOCATION 25PQT031 POINT 379352.3 3773813.5
** SRCDESCR NW on US101
SO LOCATION 25PQT032 POINT 379228.1 3773809.2
** SRCDESCR NW on US101
SO LOCATION 25PQT033 POINT 379228.1 3773391.6
** SRCDESCR NW On US101
SO LOCATION 25PQT034 POINT 379339.4 3773809.2
** SRCDESCR SW on US 101
SO LOCATION 25PQT035 POINT 378716.2 3773807.1
** SRCDESCR SW On US101
SO LOCATION 25PQT036 POINT 378771.9 3773700
** SRCDESCR SW On US 101
SO LOCATION 25PQT037 POINT 379843.4 3773810.5
** SRCDESCR Southbound on Normandie
SO LOCATION 25PQT038 POINT 379843.4 3773806.7
** SRCDESCR Eastbound on Sunset
SO LOCATION 25PQT039 POINT 378842.9 3773811.8
** SRCDESCR West Bound On Sunset
SO LOCATION 25PQT03A POINT 378839 3773807.3
** SRCDESCR SW On US 101
SO FINISHED

RE STARTING
RE ELEVUNIT METERS
RE GRIDCART 25PQT02I STA
** GRDDESCR Grid Over Project Site
RE GRIDCART 25PQT02I XYINC 379236.9 21 9.1 3773799.8 21 -7.6
RE GRIDCART 25PQT02I END
RE DISCCART 378701.5 3773634.9 105.91
** SENSITIV
** RCPDESCR Bernstein High School
RE DISCCART 378482.5 3773427.5 102
** SENSITIV
** RCPDESCR Joseph LeConte Middle School
RE DISCCART 378622.8 3773348.8 101
RE DISCCART 378899.1 3773999 113.4
** SENSITIV
** RCPDESCR Grant Elementary School
RE FINISHED

OU STARTING
OU RECEPTOR AERMAP.APR
OU SOURCLOC AERMAP.APS
OU FINISHED

Exiting DEMCHK

Finished Reading Input DEM Data

Default Data Grids
NADGRIDS Pathname:
AREA NAME

=====

NADCON EXTRACTED REGION

NADGRD

273 121

DX,DY,NR,NC 0.250000000 0.250000000 121 273

MIN Longitude = 63.0000 MAX Longitude = 131.0000

MIN Latitude = 20.0000 MAX Latitude = 50.0000

1 Conus

NADCON EXTRACTED REGION

NADGRD

281 201

DX,DY,NR,NC 2.50000004E-02 2.50000004E-02 201 281

MIN Longitude = 154.0000 MAX Longitude = 161.0000

MIN Latitude = 18.0000 MAX Latitude = 23.0000

2 Hawaii

NADCON EXTRACTED REGION

NADGRD

81 41

DX,DY,NR,NC 5.00000007E-02 5.00000007E-02 41 81

MIN Longitude = 64.0000 MAX Longitude = 68.0000

MIN Latitude = 17.0000 MAX Latitude = 19.0000

3 P.R. and V.I.

NADCON EXTRACTED REGION

NADGRD

81 41

DX,DY,NR,NC 5.00000007E-02 5.00000007E-02 41 81

MIN Longitude = 168.0000 MAX Longitude = 172.0000

MIN Latitude = 62.0000 MAX Latitude = 64.0000

4 St. Laurence I.

NADCON EXTRACTED REGION

NADGRD

121 61

DX,DY,NR,NC 1.66699998E-02 1.66699998E-02 61 121

MIN Longitude = 168.9996 MAX Longitude = 171.0000

MIN Latitude = 56.0000 MAX Latitude = 57.0002

5 St. George I.

NADCON EXTRACTED REGION

NADGRD

41 21

DX,DY,NR,NC 5.00000007E-02 5.00000007E-02 21 41

MIN Longitude = 169.0000 MAX Longitude = 171.0000

MIN Latitude = 57.0000 MAX Latitude = 58.0000

6 St. Paul I.

NADCON EXTRACTED REGION

NADGRD

529 249

DX,DY,NR,NC 0.125000000 0.125000000 249 529

MIN Longitude = 128.0000 MAX Longitude = 194.0000

MIN Latitude = 46.0000 MAX Latitude = 77.0000

7 Alaska

Exiting CHKADJ

Exiting RECCNV

Exiting SRCCNV

Exiting DEMREC

Exiting DEMSRC

*** AERMAP - VERSION 18081 *** *** 5420 Sunset Boulevard Project - ***
09/30/21
*** Update to Include Source Terms (Heavy Duty Trucks) From Project *** 14:35:56

*** Message Summary For AERMAP Setup ***

----- Summary of Total Messages -----

A Total of 0 Fatal Error Message(s)
A Total of 4 Warning Message(s)
A Total of 0 Informational Message(s)

***** FATAL ERROR MESSAGES *****

*** NONE ***

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

RE W229	188 DISCAR:Too Many Parameters - Inputs Ignored on Keyword	DISCCART
RE W229	191 DISCAR:Too Many Parameters - Inputs Ignored on Keyword	DISCCART
RE W229	194 DISCAR:Too Many Parameters - Inputs Ignored on Keyword	DISCCART
RE W229	195 DISCAR:Too Many Parameters - Inputs Ignored on Keyword	DISCCART

*** SETUP Finishes Successfully ***

*** AERMAP - VERSION 18081 *** *** 5420 Sunset Boulevard Project - ***
09/30/21
*** Update to Include Source Terms (Heavy Duty Trucks) From Project *** 14:35:56

*** AERMAP SETUP OPTIONS SUMMARY ***

**This Run Includes: 1 DEM File(s)

**This Run Includes: 445 Receptor(s); and 81 Source(s)

**The Input Receptors and Sources Were Assigned a NADA Value of 3: World Geodetic System of 1984

**The Input Receptors and Sources Are Offset: 0.00 meters East; 0.00 meters North
from the User-specified Anchor Point at: 0.00 meters East; 0.00 meters North; Zone 11

**Terrain heights were EXTRACTed from DEM data

**The Following Debug Output Files Have Been Automatically Generated:

DOMDETAIL.OUT - Details of User-specified Domain and Relation to DEM Files

MAPDETAIL.OUT - Details Regarding Input DEM Files

MAPPARAMS.OUT - Summary of DEM File Parameters and DEM File Adjacency

*** AERMAP - VERSION 18081 *** *** 5420 Sunset Boulevard Project -

09/30/21

*** Update to Include Source Terms (Heavy Duty Trucks) From Project *** 14:35:56

*** Message Summary For AERMAP Execution ***

----- Summary of Total Messages -----

A Total of 0 Fatal Error Message(s)

A Total of 4 Warning Message(s)

A Total of 0 Informational Message(s)

***** FATAL ERROR MESSAGES *****

*** NONE ***

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

RE W229 188 DISCAR:Too Many Parameters - Inputs Ignored on Keyword DISCCART

RE W229 191 DISCAR:Too Many Parameters - Inputs Ignored on Keyword DISCCART

RE W229 194 DISCAR:Too Many Parameters - Inputs Ignored on Keyword DISCCART

RE W229 195 DISCAR:Too Many Parameters - Inputs Ignored on Keyword DISCCART

*** AERMAP Finishes Successfully ***

** BREEZE AERMOD
** Trinity Consultants
** VERSION 10.0

CO STARTING

CO TITLEONE 5420 Sunset Boulevard Project -
CO TITLETWO Update to Include Source Terms (Heavy Duty Trucks) From Project
CO MODELOPT DFAULT CONC NODRYDPLT NOWETDPLT
CO RUNORNOT RUN
CO AVERTIME ANNUAL
CO POLLUTID OTHER
CO FINISHED

SO STARTING

SO ELEVUNIT METERS
SO LOCATION 25PQT000 VOLUME 379228.5 3773327.2 99.68
** SRCDESCR N_M_1
SO LOCATION 25PQT001 VOLUME 379201.2 3773350.2 99.32
** SRCDESCR N_M_2
SO LOCATION 25PQT002 VOLUME 379172.8 3773371.7 96.62
** SRCDESCR N_M_3
SO LOCATION 25PQT003 VOLUME 379145.4 3773393.0 96.80
** SRCDESCR N_M_4
SO LOCATION 25PQT004 VOLUME 379117.3 3773415 95.76
** SRCDESCR N_M_5
SO LOCATION 25PQT005 VOLUME 379089.4 3773434.8 92.03
** SRCDESCR N_M_6
SO LOCATION 25PQT006 VOLUME 379061.6 3773458.4 93.12
** SRCDESCR N_M_7
SO LOCATION 25PQT007 VOLUME 379033.3 3773479.5 92.93
** SRCDESCR N_M_8
SO LOCATION 25PQT008 VOLUME 379005.7 3773501.6 94.01
** SRCDESCR N_M_9
SO LOCATION 25PQT009 VOLUME 378978.2 3773524.0 96.49
** SRCDESCR N_M_10
SO LOCATION 25PQT00A VOLUME 378951.9 3773547.3 96.55
** SRCDESCR N_M_11
SO LOCATION 25PQT00B VOLUME 378926.2 3773571.6 96.00
** SRCDESCR N_M_12
SO LOCATION 25PQT00C VOLUME 378902.1 3773599.0 95.99
** SRCDESCR N_M_13
SO LOCATION 25PQT00D VOLUME 378894.1 3773578.6 97.10
** SRCDESCR S_M_1
SO LOCATION 25PQT00E VOLUME 378920.3 3773552.1 97.64
** SRCDESCR S_M_2
SO LOCATION 25PQT00F VOLUME 378944.1 3773530.2 96.71
** SRCDESCR S_M_3
SO LOCATION 25PQT00G VOLUME 378971.1 3773506.0 95.95
** SRCDESCR S_M_4
SO LOCATION 25PQT00H VOLUME 378998.8 3773483.9 95.85
** SRCDESCR S_M_5
SO LOCATION 25PQT00I VOLUME 379026.8 3773462.3 93.48
** SRCDESCR S_M_6

SO LOCATION	25PQT00J	VOLUME	379054.6	3773440.8	93.81
** SRCDESCR	S_M_7				
SO LOCATION	25PQT00K	VOLUME	379082.8	3773418.9	93.31
** SRCDESCR	S_M_8				
SO LOCATION	25PQT00L	VOLUME	379110.5	3773397.3	95.69
** SRCDESCR	S_M_9				
SO LOCATION	25PQT00M	VOLUME	379138.1	3773375.2	96.71
** SRCDESCR	S_M_10				
SO LOCATION	25PQT00N	VOLUME	379166.2	3773353.7	97.63
** SRCDESCR	S_M_11				
SO LOCATION	25PQT00O	VOLUME	379194.3	3773331.9	98.60
** SRCDESCR	S_M_12				
SO LOCATION	25PQT00P	VOLUME	379221.5	3773309.5	98.59
** SRCDESCR	S_M_13				
SO LOCATION	25PQT00Q	VOLUME	379085.0	3773405	95.58
** SRCDESCR	S_OFF_W_1				
SO LOCATION	25PQT00R	VOLUME	379094.2	3773396.7	96.48
** SRCDESCR	S_OFF_W_2				
SO LOCATION	25PQT00S	VOLUME	379103.4	3773388.7	96.88
** SRCDESCR	S_OFF_W_3				
SO LOCATION	25PQT00T	VOLUME	379112.1	3773380.6	96.58
** SRCDESCR	S_OFF_W_4				
SO LOCATION	25PQT00U	VOLUME	379121.1	3773372.1	96.53
** SRCDESCR	S_OFF_W_5				
SO LOCATION	25PQT00V	VOLUME	379129.8	3773363.8	97.20
** SRCDESCR	S_OFF_W_6				
SO LOCATION	25PQT00W	VOLUME	379138.1	3773354.4	97.47
** SRCDESCR	S_OFF_W_7				
SO LOCATION	25PQT00X	VOLUME	379144.8	3773344.5	97.61
** SRCDESCR	S_OFF_W_8				
SO LOCATION	25PQT00Y	VOLUME	379150.1	3773333.4	97.79
** SRCDESCR	S_OFF_W_9				
SO LOCATION	25PQT00Z	VOLUME	379154.2	3773322.3	98.13
** SRCDESCR	S_OFF_W_10				
SO LOCATION	25PQT010	VOLUME	379208.6	3773395.0	103.95
** SRCDESCR	N_ON_W_1				
SO LOCATION	25PQT011	VOLUME	379200.8	3773397.3	102.42
** SRCDESCR	N_ON_W_2				
SO LOCATION	25PQT012	VOLUME	379193.1	3773400.4	101.40
** SRCDESCR	N_ON_W_3				
SO LOCATION	25PQT013	VOLUME	379185.9	3773403.9	101.00
** SRCDESCR	N_ON_W_4				
SO LOCATION	25PQT014	VOLUME	379179.0	3773407.8	101.27
** SRCDESCR	N_ON_W_5				
SO LOCATION	25PQT015	VOLUME	379172.0	3773411.5	101.14
** SRCDESCR	N_ON_W_6				
SO LOCATION	25PQT016	VOLUME	379164.7	3773415.5	100.47
** SRCDESCR	N_ON_W_7				
SO LOCATION	25PQT017	VOLUME	379158.0	3773419.1	99.49
** SRCDESCR	N_ON_W_8				
SO LOCATION	25PQT018	VOLUME	379151.0	3773422.8	98.77
** SRCDESCR	N_ON_W_9				
SO LOCATION	25PQT019	VOLUME	379144.0	3773426.6	98.52
** SRCDESCR	N_ON_W_10				

SO LOCATION	25PQT01A	VOLUME	379137.2	3773430.2	97.82
** SRCDESCR	N_ON_W_11				
SO LOCATION	25PQT01B	VOLUME	379130.0	3773434.1	96.43
** SRCDESCR	N_ON_W_12				
SO LOCATION	25PQT01C	VOLUME	379123.2	3773437.8	94.49
** SRCDESCR	N_ON_W_13				
SO LOCATION	25PQT01D	VOLUME	379115.9	3773441.5	92.66
** SRCDESCR	N_ON_W_14				
SO LOCATION	25PQT01E	VOLUME	379109.3	3773445.1	92.17
** SRCDESCR	N_ON_W_15				
SO LOCATION	25PQT01F	VOLUME	379102.1	3773448.9	92.77
** SRCDESCR	N_ON_W_16				
SO LOCATION	25PQT01G	VOLUME	379095.1	3773452.8	94.33
** SRCDESCR	N_ON_W_17				
SO LOCATION	25PQT01H	VOLUME	379088.5	3773456.6	95.82
** SRCDESCR	N_ON_W_18				
SO LOCATION	25PQT01I	VOLUME	379081.7	3773460.7	96.41
** SRCDESCR	N_ON_W_19				
SO LOCATION	25PQT01J	VOLUME	379074.5	3773464.7	96.27
** SRCDESCR	N_ON_W_20				
SO LOCATION	25PQT01K	VOLUME	379067.9	3773468.9	95.68
** SRCDESCR	N_ON_W_21				
SO LOCATION	25PQT01L	VOLUME	379061.2	3773472.9	94.42
** SRCDESCR	N_ON_W_22				
SO LOCATION	25PQT01M	VOLUME	379054.6	3773477.5	93.89
** SRCDESCR	N_ON_W_23				
SO LOCATION	25PQT01N	VOLUME	379047.8	3773481.6	94.64
** SRCDESCR	N_ON_W_24				
SO LOCATION	25PQT01O	VOLUME	379041.3	3773486.1	95.34
** SRCDESCR	N_ON_W_25				
SO LOCATION	25PQT01P	VOLUME	379034.8	3773490.8	95.90
** SRCDESCR	N_ON_W_26				
SO LOCATION	25PQT01Q	VOLUME	379028.6	3773495.3	96.26
** SRCDESCR	N_ON_W_27				
SO LOCATION	25PQT01R	VOLUME	379022.3	3773499.7	96.41
** SRCDESCR	N_ON_W_28				
SO LOCATION	25PQT02Q	VOLUME	379085.0	3773405.0	95.58
** SRCDESCR	S_OFF_W_1				
SO LOCATION	25PQT02U	AREALINE	379342.8	3773815.3	109.28
** SRCDESCR	North Bound Trucks on Sunset				
SO LOCATION	25PQT02V	AREALINE	379233	3773812	109.17
** SRCDESCR	North Bound Trucks On Western				
SO LOCATION	25PQT02X	AREALINE	379341.6	3773802.8	109.00
** SRCDESCR	Southbound on Normandie - 1				
SO LOCATION	25PQT02Y	AREALINE	380031.2	3773802.8	112.86
** SRCDESCR	Southbound on Normandie				
SO LOCATION	25PQT02Z	AREALINE	379341.6	3773807.1	109.00
** SRCDESCR	Eastbound on Sunset				
SO LOCATION	25PQT030	AREALINE	379341.6	3773815.7	109.29
** SRCDESCR	West Bound on Sunset				
SO LOCATION	25PQT031	AREALINE	379352.3	3773813.5	109.22
** SRCDESCR	NW on US101				
SO LOCATION	25PQT032	AREALINE	379228.1	3773809.2	109.07
** SRCDESCR	NW on US101				

SO LOCATION 25PQT033 AREALINE 379228.1 3773391.6 104.00
** SRCDESCR NW On US101
SO LOCATION 25PQT034 AREALINE 379339.4 3773809.2 109.07
** SRCDESCR SW on US 101
SO LOCATION 25PQT035 AREALINE 378716.2 3773807.1 105.94
** SRCDESCR SW On US101
SO LOCATION 25PQT036 AREALINE 378771.9 3773700 101.57
** SRCDESCR SW On US 101
SO LOCATION 25PQT037 AREALINE 379843.4 3773810.5 113.12
** SRCDESCR Southbound on Normandie
SO LOCATION 25PQT038 AREALINE 379843.4 3773806.7 113.00
** SRCDESCR Eastbound on Sunset
SO LOCATION 25PQT039 AREALINE 378842.9 3773811.8 108.16
** SRCDESCR West Bound On Sunset
SO LOCATION 25PQT03A AREALINE 378839 3773807.3 107.70
** SRCDESCR SW On US 101
SO LOCATION 25PQT03C VOLUME 379318.7 3773664.5 0
** SRCDESCR idling trucks
SO SRCPARAM 25PQT000 1.88E-05 0 16.47 2.55
SO SRCPARAM 25PQT001 1.88E-05 0 16.47 2.55
SO SRCPARAM 25PQT002 1.88E-05 0 16.47 2.55
SO SRCPARAM 25PQT003 1.88E-05 0 16.47 2.55
SO SRCPARAM 25PQT004 1.88E-05 0 16.47 2.55
SO SRCPARAM 25PQT005 1.88E-05 0 16.47 2.55
SO SRCPARAM 25PQT006 1.88E-05 0 16.47 2.55
SO SRCPARAM 25PQT007 1.88E-05 0 16.47 2.55
SO SRCPARAM 25PQT008 1.88E-05 0 16.47 2.55
SO SRCPARAM 25PQT009 1.88E-05 0 16.47 2.55
SO SRCPARAM 25PQT00A 1.88E-05 0 16.47 2.55
SO SRCPARAM 25PQT00B 1.88E-05 0 16.47 2.55
SO SRCPARAM 25PQT00C 1.88E-05 0 16.47 2.55
SO SRCPARAM 25PQT00D 1.21E-05 0 16.47 2.55
SO SRCPARAM 25PQT00E 1.21E-05 0 16.47 2.55
SO SRCPARAM 25PQT00F 1.21E-05 0 16.47 2.55
SO SRCPARAM 25PQT00G 1.21E-05 0 16.47 2.55
SO SRCPARAM 25PQT00H 1.21E-05 0 16.47 2.55
SO SRCPARAM 25PQT00I 1.21E-05 0 16.47 2.55
SO SRCPARAM 25PQT00J 1.21E-05 0 16.47 2.55
SO SRCPARAM 25PQT00K 1.21E-05 0 16.47 2.55
SO SRCPARAM 25PQT00L 1.21E-05 0 16.47 2.55
SO SRCPARAM 25PQT00M 1.21E-05 0 16.47 2.55
SO SRCPARAM 25PQT00N 1.21E-05 0 16.47 2.55
SO SRCPARAM 25PQT00O 1.21E-05 0 16.47 2.55
SO SRCPARAM 25PQT00P 1.21E-05 0 16.47 2.55
SO SRCPARAM 25PQT00Q 1.36E-06 0 5.67 2.23
SO SRCPARAM 25PQT00R 1.36E-06 0 5.67 2.23
SO SRCPARAM 25PQT00S 1.36E-06 0 5.67 2.23
SO SRCPARAM 25PQT00T 1.36E-06 0 5.67 2.23
SO SRCPARAM 25PQT00U 1.36E-06 0 5.67 2.23
SO SRCPARAM 25PQT00V 1.36E-06 0 5.67 2.23
SO SRCPARAM 25PQT00W 1.36E-06 0 5.67 2.23
SO SRCPARAM 25PQT00X 1.36E-06 0 5.67 2.23
SO SRCPARAM 25PQT00Y 1.36E-06 0 5.67 2.23
SO SRCPARAM 25PQT00Z 1.36E-06 0 5.67 2.23

[illegible]

SO EMISFACT 25PQT033 HROFDY 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0
SO EMISFACT 25PQT034 HROFDY 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0
SO EMISFACT 25PQT035 HROFDY 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0
SO EMISFACT 25PQT036 HROFDY 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0
SO EMISFACT 25PQT037 HROFDY 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0
SO EMISFACT 25PQT038 HROFDY 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0
SO EMISFACT 25PQT039 HROFDY 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0
SO EMISFACT 25PQT03A HROFDY 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0
SO EMISFACT 25PQT03C HROFDY 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 00
SO SRCGROUP ALL
SO SRCGROUP HDTS 25PQT02U 25PQT02V 25PQT02X 25PQT02Y 25PQT02Z 25PQT030 25PQT031
25PQT032 25PQT033
SO SRCGROUP HDTS 25PQT034 25PQT035 25PQT036 25PQT03A 25PQT03C
SO SRCGROUP FREEWAY 25PQT000 25PQT001 25PQT002 25PQT003 25PQT004 25PQT005 25PQT006
25PQT007
SO SRCGROUP FREEWAY 25PQT008 25PQT009 25PQT00A 25PQT00B 25PQT00C 25PQT00D 25PQT00E
25PQT00F
SO SRCGROUP FREEWAY 25PQT00G 25PQT00H 25PQT00I 25PQT00J 25PQT00K 25PQT00L 25PQT00M
25PQT00N
SO SRCGROUP FREEWAY 25PQT00O 25PQT00P 25PQT00Q 25PQT00R 25PQT00S 25PQT00T 25PQT00U
25PQT00V
SO SRCGROUP FREEWAY 25PQT00W 25PQT00X 25PQT00Y 25PQT00Z 25PQT010 25PQT011 25PQT012
25PQT013
SO SRCGROUP FREEWAY 25PQT014 25PQT015 25PQT016 25PQT017 25PQT018 25PQT019 25PQT01A
25PQT01B
SO SRCGROUP FREEWAY 25PQT01C 25PQT01D 25PQT01E 25PQT01F 25PQT01G 25PQT01H 25PQT01I
25PQT01J
SO SRCGROUP FREEWAY 25PQT01K 25PQT01L 25PQT01M 25PQT01N 25PQT01O 25PQT01P 25PQT01Q
25PQT01R
SO SRCGROUP FREEWAY 25PQT02Q
SO FINISHED

RE STARTING

RE ELEVUNIT METERS

RE GRIDCART 25PQT02I STA

** GRDDESCR Grid Over Project Site

RE GRIDCART 25PQT02I XYINC 379236.9 21 9.1 3773799.8 21 -7.6

RE GRIDCART 25PQT02I ELEV	1	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0
RE GRIDCART 25PQT02I ELEV	1	109.0	109.0	109.0	109.2	109.5	109.8	110.0	110.0	110.0	110.0	
RE GRIDCART 25PQT02I ELEV	2	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0
RE GRIDCART 25PQT02I ELEV	2	109.0	109.0	109.0	109.2	109.5	109.8	110.0	110.0	110.0	110.0	
RE GRIDCART 25PQT02I ELEV	3	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0
RE GRIDCART 25PQT02I ELEV	3	109.0	109.0	109.0	109.2	109.5	109.8	110.0	110.0	110.0	110.0	
RE GRIDCART 25PQT02I ELEV	4	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0
RE GRIDCART 25PQT02I ELEV	4	109.0	109.0	109.0	109.2	109.5	109.8	110.0	110.0	110.0	110.0	
RE GRIDCART 25PQT02I ELEV	5	108.7	108.7	108.7	108.7	108.8	108.9	108.9	109.0	109.0	109.0	109.0
RE GRIDCART 25PQT02I ELEV	5	109.0	109.0	109.0	109.1	109.4	109.6	109.8	109.8	109.9	110.0	
RE GRIDCART 25PQT02I ELEV	6	108.5	108.5	108.5	108.5	108.6	108.7	108.9	109.0	109.0	109.0	109.0
RE GRIDCART 25PQT02I ELEV	6	109.0	109.0	109.0	109.1	109.2	109.4	109.5	109.7	109.8	110.0	
RE GRIDCART 25PQT02I ELEV	7	108.2	108.2	108.2	108.2	108.4	108.6	108.8	109.0	109.0	109.0	109.0
RE GRIDCART 25PQT02I ELEV	7	109.0	109.0	109.0	109.0	109.1	109.2	109.3	109.5	109.8	110.0	
RE GRIDCART 25PQT02I ELEV	8	108.0	108.0	108.0	108.0	108.1	108.4	108.7	109.0	109.0	109.0	109.0
RE GRIDCART 25PQT02I ELEV	8	109.0	109.0	109.0	109.0	109.0	109.0	109.1	109.4	109.7	110.0	
RE GRIDCART 25PQT02I ELEV	9	108.0	108.0	108.0	108.0	108.1	108.3	108.6	108.7	108.7	108.7	108.7

RE GRIDCART 25PQT02I ELEV	9	108.8	108.9	109.0	109.0	109.0	109.0	109.1	109.3	109.5	109.7		
RE GRIDCART 25PQT02I ELEV	10	108.0	108.0	108.0	108.0	108.1	108.2	108.4	108.5	108.5	108.5	108.5	108.5
RE GRIDCART 25PQT02I ELEV	10	108.6	108.8	108.9	109.0	109.0	109.0	109.0	109.2	109.3	109.5		
RE GRIDCART 25PQT02I ELEV	11	108.0	108.0	108.0	108.0	108.0	108.1	108.2	108.2	108.2	108.2	108.2	108.2
RE GRIDCART 25PQT02I ELEV	11	108.4	108.7	108.9	109.0	109.0	109.0	109.0	109.1	109.2	109.2		
RE GRIDCART 25PQT02I ELEV	12	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0
RE GRIDCART 25PQT02I ELEV	12	108.3	108.6	108.9	109.0	109.0	109.0	109.0	109.0	109.0	109.0		
RE GRIDCART 25PQT02I ELEV	13	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0
RE GRIDCART 25PQT02I ELEV	13	108.2	108.4	108.6	108.8	108.9	108.9	109.0	109.0	109.0	109.0		
RE GRIDCART 25PQT02I ELEV	14	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0
RE GRIDCART 25PQT02I ELEV	14	108.1	108.3	108.4	108.6	108.7	108.9	109.0	109.0	109.0	109.0		
RE GRIDCART 25PQT02I ELEV	15	107.9	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0
RE GRIDCART 25PQT02I ELEV	15	108.1	108.1	108.2	108.4	108.6	108.8	109.0	109.0	109.0	109.0		
RE GRIDCART 25PQT02I ELEV	16	107.9	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0
RE GRIDCART 25PQT02I ELEV	16	108.0	108.0	108.0	108.2	108.5	108.8	109.0	109.0	109.0	109.0		
RE GRIDCART 25PQT02I ELEV	17	107.7	107.7	107.7	107.7	107.8	107.8	107.9	108.0	108.0	108.0	108.0	108.0
RE GRIDCART 25PQT02I ELEV	17	108.0	108.0	108.0	108.1	108.3	108.6	108.7	108.8	108.9	109.0		
RE GRIDCART 25PQT02I ELEV	18	107.4	107.5	107.5	107.5	107.5	107.7	107.9	108.0	108.0	108.0	108.0	108.0
RE GRIDCART 25PQT02I ELEV	18	108.0	108.0	108.0	108.1	108.2	108.4	108.5	108.7	108.8	109.0		
RE GRIDCART 25PQT02I ELEV	19	107.2	107.2	107.2	107.2	107.3	107.6	107.8	108.0	108.0	108.0	108.0	108.0
RE GRIDCART 25PQT02I ELEV	19	108.0	108.0	108.0	108.0	108.1	108.2	108.3	108.5	108.8	109.0		
RE GRIDCART 25PQT02I ELEV	20	107.0	107.0	107.0	107.0	107.1	107.4	107.7	108.0	108.0	108.0	108.0	108.0
RE GRIDCART 25PQT02I ELEV	20	108.0	108.0	108.0	108.0	108.0	108.0	108.1	108.4	108.7	109.0		
RE GRIDCART 25PQT02I ELEV	21	107.0	107.0	107.0	107.0	107.1	107.3	107.5	107.7	107.8	107.9	108.0	
RE GRIDCART 25PQT02I ELEV	21	108.0	108.0	108.0	108.0	108.0	108.0	108.1	108.4	108.7	109.0		
RE GRIDCART 25PQT02I HILL	1	109.0	347.0	347.0	347.0	347.0	347.0	347.0	347.0	347.0	347.0	347.0	347.0
RE GRIDCART 25PQT02I HILL	1	347.0	347.0	347.0	347.0	347.0	347.0	347.0	347.0	347.0	347.0		
RE GRIDCART 25PQT02I HILL	2	109.0	109.0	109.0	347.0	347.0	347.0	347.0	347.0	347.0	347.0	347.0	347.0
RE GRIDCART 25PQT02I HILL	2	347.0	347.0	347.0	347.0	347							

RE GRIDCART 25PQT02I HILL 15 108.1 108.1 108.2 108.4 108.6 108.8 109.0 109.0 109.0 109.0
RE GRIDCART 25PQT02I HILL 16 107.9 108.0 108.0 108.0 108.0 108.0 108.0 108.0 108.0 108.0 108.0
RE GRIDCART 25PQT02I HILL 16 108.0 108.0 108.0 108.2 108.5 108.8 109.0 109.0 109.0 109.0
RE GRIDCART 25PQT02I HILL 17 107.7 107.7 107.7 107.7 107.8 107.8 107.9 108.0 108.0 108.0 108.0
RE GRIDCART 25PQT02I HILL 17 108.0 108.0 108.0 108.1 108.3 108.6 108.7 108.8 108.9 109.0
RE GRIDCART 25PQT02I HILL 18 107.4 107.5 107.5 107.5 107.5 107.7 107.9 108.0 108.0 108.0 108.0
RE GRIDCART 25PQT02I HILL 18 108.0 108.0 108.0 108.1 108.2 108.4 108.5 108.7 108.8 109.0
RE GRIDCART 25PQT02I HILL 19 107.2 107.2 107.2 107.2 107.3 107.6 107.8 108.0 108.0 108.0 108.0
RE GRIDCART 25PQT02I HILL 19 108.0 108.0 108.0 108.0 108.1 108.2 108.3 108.5 108.8 109.0
RE GRIDCART 25PQT02I HILL 20 107.0 107.0 107.0 107.0 107.1 107.4 107.7 108.0 108.0 108.0 108.0
RE GRIDCART 25PQT02I HILL 20 108.0 108.0 108.0 108.0 108.0 108.0 108.1 108.4 108.7 109.0
RE GRIDCART 25PQT02I HILL 21 107.0 107.0 107.0 107.0 107.1 107.3 107.5 107.7 107.8 107.9 108.0
RE GRIDCART 25PQT02I HILL 21 108.0 108.0 108.0 108.0 108.0 108.0 108.1 108.4 108.7 109.0

RE GRIDCART 25PQT02I END

RE DISCCART 378701.5 3773634.9 105.91 105.91

** SENSITIV

** RCPDESCR Bernstein High School

RE DISCCART 378482.5 3773427.5 102 102

** SENSITIV

** RCPDESCR Joseph LeConte Middle School

RE DISCCART 378622.8 3773348.8 101 101

RE DISCCART 378899.1 3773999 113.4 238

** SENSITIV

** RCPDESCR Grant Elementary School

RE FINISHED

ME STARTING

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ME SURFDATA 93134 2010

ME UAIRDATA 3190 2010

ME SITEDATA 00099999 2010

ME PROFBASE 87 METERS

ME FINISHED

OU STARTING

OU FILEFORM FIX

OU PLOTFILE ANNUAL ALL ALL`ANNUAL.plt 10000

OU PLOTFILE ANNUAL HDTS HDTS`ANNUAL.plt 10001

OU PLOTFILE ANNUAL FREEWAY FREEWAY`ANNUAL.plt 10002

OU FINISHED

** *****

** It is recommended that the user not edit any data below this line

** *****

** TERRFILE C:\Users\James\Desktop\CLARKA~1\PRC107~1\HOLLYWOOD_30M.DEM 0 2 WGS84 11 30

372947.0 3763009.6 373133.4 3776870.6 384661.3 3776722.5 384491.9 3762861.7

** AMPTYPE DEM
** AMPDATUM 2
** AMPZONE 11
** AMPHEMISPHERE N

** PROJECTIONWKT

PROJCS["UTM_6326_Zone11",GEOGCS["WGS_84",DATUM["World_Geodetic_System_1984",SPHEROID["WGS_1984",6378137,298.257223563],TOWGS84[0,0,0,0,0,0]],PRIMEM["Greenwich",0],UNIT["Degree",0.0174532925199433]],PROJECTION["Universal_Transverse_Mercator"],PARAMETER["Zone",11],UNIT["Meter",1,AUTHORITY["EPSG","9001"]]]]

** PROJECTION UTM

** DATUM WGE

** UNITS METER

** ZONE 11

** HEMISPHERE N

** ORIGINLON 0

** ORIGINLAT 0

** PARALLEL1 0

** PARALLEL2 0

** AZIMUTH 0

** SCALEFACT 0

** FALSEEAST 0

** FALSENORTH 0

** POSTFMT UNFORM

** TEMPLATE UserDefined

** AERMODEXE AERMOD_BREEZE_21112_64.EXE

** AERMAPEXE AERMAP_EPA_18081_64.EXE

AERMODPrMSPx VERSION
(C) COPYRIGHT 1998-2021, Trinity Consultants

* CAUTION: There is a known bug in U.S. EPA AERMOD version 21112 that occurs when RLINE Roadway and *
* RLINEXT Roadway sources are included in a model run and the order of the receptors is changed. Due *
* to this bug, running the BREEZE-Enhanced version of AERMOD 21112 can result in differences in *
* results when compared with U.S. EPA AERMOD 21112 if RLINE and/or RLINEXT Roadway sources are *
* included. A new BREEZE-Enhanced version will be released as soon as U.S. EPA fixes the bug. *
* Note: if RLINE and/or RLINEXT Roadway sources are not included in the model run, then the *
* BREEZE-Enhanced version of AERMOD 21112 can be used without this caution. *

Run Began on 10/02/2021 at 13:15:52

** BREEZE AERMOD
** Trinity Consultants
** VERSION 10.0

CO STARTING
CO TITLEONE 5420 Sunset Boulevard Project -
CO TITLETWO Update to Include Source Terms (Heavy Duty Trucks) From Project
CO MODELOPT DFAULT CONC NODRYDPLT NOWETDPLT
CO RUNORNOT RUN
CO AVERTIME ANNUAL
CO POLLUTID OTHER
CO FINISHED

SO STARTING
SO ELEVUNIT METERS
SO LOCATION 25PQT000 VOLUME 379228.5 3773327.2 99.68
** SRCDESCR N_M_1
SO LOCATION 25PQT001 VOLUME 379201.2 3773350.2 99.32
** SRCDESCR N_M_2
SO LOCATION 25PQT002 VOLUME 379172.8 3773371.7 96.62
** SRCDESCR N_M_3
SO LOCATION 25PQT003 VOLUME 379145.4 3773393.0 96.80
** SRCDESCR N_M_4
SO LOCATION 25PQT004 VOLUME 379117.3 3773415 95.76
** SRCDESCR N_M_5
SO LOCATION 25PQT005 VOLUME 379089.4 3773434.8 92.03
** SRCDESCR N_M_6
SO LOCATION 25PQT006 VOLUME 379061.6 3773458.4 93.12
** SRCDESCR N_M_7
SO LOCATION 25PQT007 VOLUME 379033.3 3773479.5 92.93
** SRCDESCR N_M_8
SO LOCATION 25PQT008 VOLUME 379005.7 3773501.6 94.01
** SRCDESCR N_M_9
SO LOCATION 25PQT009 VOLUME 378978.2 3773524.0 96.49

** SRCDESCR N_M_10			
SO LOCATION 25PQT00A	VOLUME	378951.9	3773547.3 96.55
** SRCDESCR N_M_11			
SO LOCATION 25PQT00B	VOLUME	378926.2	3773571.6 96.00
** SRCDESCR N_M_12			
SO LOCATION 25PQT00C	VOLUME	378902.1	3773599.0 95.99
** SRCDESCR N_M_13			
SO LOCATION 25PQT00D	VOLUME	378894.1	3773578.6 97.10
** SRCDESCR S_M_1			
SO LOCATION 25PQT00E	VOLUME	378920.3	3773552.1 97.64
** SRCDESCR S_M_2			
SO LOCATION 25PQT00F	VOLUME	378944.1	3773530.2 96.71
** SRCDESCR S_M_3			
SO LOCATION 25PQT00G	VOLUME	378971.1	3773506.0 95.95
** SRCDESCR S_M_4			
SO LOCATION 25PQT00H	VOLUME	378998.8	3773483.9 95.85
** SRCDESCR S_M_5			
SO LOCATION 25PQT00I	VOLUME	379026.8	3773462.3 93.48
** SRCDESCR S_M_6			
SO LOCATION 25PQT00J	VOLUME	379054.6	3773440.8 93.81
** SRCDESCR S_M_7			
SO LOCATION 25PQT00K	VOLUME	379082.8	3773418.9 93.31
** SRCDESCR S_M_8			
SO LOCATION 25PQT00L	VOLUME	379110.5	3773397.3 95.69
** SRCDESCR S_M_9			
SO LOCATION 25PQT00M	VOLUME	379138.1	3773375.2 96.71
** SRCDESCR S_M_10			
SO LOCATION 25PQT00N	VOLUME	379166.2	3773353.7 97.63
** SRCDESCR S_M_11			
SO LOCATION 25PQT00O	VOLUME	379194.3	3773331.9 98.60
** SRCDESCR S_M_12			
SO LOCATION 25PQT00P	VOLUME	379221.5	3773309.5 98.59
** SRCDESCR S_M_13			
SO LOCATION 25PQT00Q	VOLUME	379085.0	3773405 95.58
** SRCDESCR S_OFF_W_1			
SO LOCATION 25PQT00R	VOLUME	379094.2	3773396.7 96.48
** SRCDESCR S_OFF_W_2			
SO LOCATION 25PQT00S	VOLUME	379103.4	3773388.7 96.88
** SRCDESCR S_OFF_W_3			
SO LOCATION 25PQT00T	VOLUME	379112.1	3773380.6 96.58
** SRCDESCR S_OFF_W_4			
SO LOCATION 25PQT00U	VOLUME	379121.1	3773372.1 96.53
** SRCDESCR S_OFF_W_5			
SO LOCATION 25PQT00V	VOLUME	379129.8	3773363.8 97.20
** SRCDESCR S_OFF_W_6			
SO LOCATION 25PQT00W	VOLUME	379138.1	3773354.4 97.47
** SRCDESCR S_OFF_W_7			
SO LOCATION 25PQT00X	VOLUME	379144.8	3773344.5 97.61
** SRCDESCR S_OFF_W_8			
SO LOCATION 25PQT00Y	VOLUME	379150.1	3773333.4 97.79
** SRCDESCR S_OFF_W_9			
SO LOCATION 25PQT00Z	VOLUME	379154.2	3773322.3 98.13
** SRCDESCR S_OFF_W_10			
SO LOCATION 25PQT010	VOLUME	379208.6	3773395.0 103.95

** SRCDESCR N_ON_W_1					
SO LOCATION 25PQT011	VOLUME	379200.8	3773397.3	102.42	
** SRCDESCR N_ON_W_2					
SO LOCATION 25PQT012	VOLUME	379193.1	3773400.4	101.40	
** SRCDESCR N_ON_W_3					
SO LOCATION 25PQT013	VOLUME	379185.9	3773403.9	101.00	
** SRCDESCR N_ON_W_4					
SO LOCATION 25PQT014	VOLUME	379179.0	3773407.8	101.27	
** SRCDESCR N_ON_W_5					
SO LOCATION 25PQT015	VOLUME	379172.0	3773411.5	101.14	
** SRCDESCR N_ON_W_6					
SO LOCATION 25PQT016	VOLUME	379164.7	3773415.5	100.47	
** SRCDESCR N_ON_W_7					
SO LOCATION 25PQT017	VOLUME	379158.0	3773419.1	99.49	
** SRCDESCR N_ON_W_8					
SO LOCATION 25PQT018	VOLUME	379151.0	3773422.8	98.77	
** SRCDESCR N_ON_W_9					
SO LOCATION 25PQT019	VOLUME	379144.0	3773426.6	98.52	
** SRCDESCR N_ON_W_10					
SO LOCATION 25PQT01A	VOLUME	379137.2	3773430.2	97.82	
** SRCDESCR N_ON_W_11					
SO LOCATION 25PQT01B	VOLUME	379130.0	3773434.1	96.43	
** SRCDESCR N_ON_W_12					
SO LOCATION 25PQT01C	VOLUME	379123.2	3773437.8	94.49	
** SRCDESCR N_ON_W_13					
SO LOCATION 25PQT01D	VOLUME	379115.9	3773441.5	92.66	
** SRCDESCR N_ON_W_14					
SO LOCATION 25PQT01E	VOLUME	379109.3	3773445.1	92.17	
** SRCDESCR N_ON_W_15					
SO LOCATION 25PQT01F	VOLUME	379102.1	3773448.9	92.77	
** SRCDESCR N_ON_W_16					
SO LOCATION 25PQT01G	VOLUME	379095.1	3773452.8	94.33	
** SRCDESCR N_ON_W_17					
SO LOCATION 25PQT01H	VOLUME	379088.5	3773456.6	95.82	
** SRCDESCR N_ON_W_18					
SO LOCATION 25PQT01I	VOLUME	379081.7	3773460.7	96.41	
** SRCDESCR N_ON_W_19					
SO LOCATION 25PQT01J	VOLUME	379074.5	3773464.7	96.27	
** SRCDESCR N_ON_W_20					
SO LOCATION 25PQT01K	VOLUME	379067.9	3773468.9	95.68	
** SRCDESCR N_ON_W_21					
SO LOCATION 25PQT01L	VOLUME	379061.2	3773472.9	94.42	
** SRCDESCR N_ON_W_22					
SO LOCATION 25PQT01M	VOLUME	379054.6	3773477.5	93.89	
** SRCDESCR N_ON_W_23					
SO LOCATION 25PQT01N	VOLUME	379047.8	3773481.6	94.64	
** SRCDESCR N_ON_W_24					
SO LOCATION 25PQT01O	VOLUME	379041.3	3773486.1	95.34	
** SRCDESCR N_ON_W_25					
SO LOCATION 25PQT01P	VOLUME	379034.8	3773490.8	95.90	
** SRCDESCR N_ON_W_26					
SO LOCATION 25PQT01Q	VOLUME	379028.6	3773495.3	96.26	
** SRCDESCR N_ON_W_27					
SO LOCATION 25PQT01R	VOLUME	379022.3	3773499.7	96.41	

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** SRCDESCR N_ON_W_28
SO LOCATION 25PQT02Q VOLUME 379085.0 3773405.0 95.58
** SRCDESCR S_OFF_W_1
SO LOCATION 25PQT02U AREALINE 379342.8 3773815.3 109.28
** SRCDESCR North Bound Trucks on Sunset
SO LOCATION 25PQT02V AREALINE 379233 3773812 109.17
** SRCDESCR North Bound Trucks On Western
SO LOCATION 25PQT02X AREALINE 379341.6 3773802.8 109.00
** SRCDESCR Southbound on Normandie - 1
SO LOCATION 25PQT02Y AREALINE 380031.2 3773802.8 112.86
** SRCDESCR Southbound on Normandie
SO LOCATION 25PQT02Z AREALINE 379341.6 3773807.1 109.00
** SRCDESCR Eastbound on Sunset
SO LOCATION 25PQT030 AREALINE 379341.6 3773815.7 109.29
** SRCDESCR West Bound on Sunset
SO LOCATION 25PQT031 AREALINE 379352.3 3773813.5 109.22
** SRCDESCR NW on US101
SO LOCATION 25PQT032 AREALINE 379228.1 3773809.2 109.07
** SRCDESCR NW on US101
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** SRCDESCR NW On US101
SO LOCATION 25PQT034 AREALINE 379339.4 3773809.2 109.07
** SRCDESCR SW on US 101
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** SRCDESCR SW On US101
SO LOCATION 25PQT036 AREALINE 378771.9 3773700 101.57
** SRCDESCR SW On US 101
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** SRCDESCR Southbound on Normandie
SO LOCATION 25PQT038 AREALINE 379843.4 3773806.7 113.00
** SRCDESCR Eastbound on Sunset
SO LOCATION 25PQT039 AREALINE 378842.9 3773811.8 108.16
** SRCDESCR West Bound On Sunset
SO LOCATION 25PQT03A AREALINE 378839 3773807.3 107.70
** SRCDESCR SW On US 101
SO LOCATION 25PQT03C VOLUME 379318.7 3773664.5 0
** SRCDESCR idling trucks
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SO SRCPARAM 25PQT001 1.88E-05 0 16.47 2.55
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SO SRCPARAM 25PQT005 1.88E-05 0 16.47 2.55
SO SRCPARAM 25PQT006 1.88E-05 0 16.47 2.55
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SO SRCPARAM 25PQT008 1.88E-05 0 16.47 2.55
SO SRCPARAM 25PQT009 1.88E-05 0 16.47 2.55
SO SRCPARAM 25PQT00A 1.88E-05 0 16.47 2.55
SO SRCPARAM 25PQT00B 1.88E-05 0 16.47 2.55
SO SRCPARAM 25PQT00C 1.88E-05 0 16.47 2.55
SO SRCPARAM 25PQT00D 1.21E-05 0 16.47 2.55
SO SRCPARAM 25PQT00E 1.21E-05 0 16.47 2.55
SO SRCPARAM 25PQT00F 1.21E-05 0 16.47 2.55
SO SRCPARAM 25PQT00G 1.21E-05 0 16.47 2.55

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SO SRCPARAM 25PQT00K 1.21E-05 0 16.47 2.55
SO SRCPARAM 25PQT00L 1.21E-05 0 16.47 2.55
SO SRCPARAM 25PQT00M 1.21E-05 0 16.47 2.55
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SO SRCPARAM 25PQT00O 1.21E-05 0 16.47 2.55
SO SRCPARAM 25PQT00P 1.21E-05 0 16.47 2.55
SO SRCPARAM 25PQT00Q 1.36E-06 0 5.67 2.23
SO SRCPARAM 25PQT00R 1.36E-06 0 5.67 2.23
SO SRCPARAM 25PQT00S 1.36E-06 0 5.67 2.23
SO SRCPARAM 25PQT00T 1.36E-06 0 5.67 2.23
SO SRCPARAM 25PQT00U 1.36E-06 0 5.67 2.23
SO SRCPARAM 25PQT00V 1.36E-06 0 5.67 2.23
SO SRCPARAM 25PQT00W 1.36E-06 0 5.67 2.23
SO SRCPARAM 25PQT00X 1.36E-06 0 5.67 2.23
SO SRCPARAM 25PQT00Y 1.36E-06 0 5.67 2.23
SO SRCPARAM 25PQT00Z 1.36E-06 0 5.67 2.23
SO SRCPARAM 25PQT010 7.23E-07 0 3.72 2.18
SO SRCPARAM 25PQT011 7.23E-07 0 3.72 2.18
SO SRCPARAM 25PQT012 7.23E-07 0 3.72 2.18
SO SRCPARAM 25PQT013 7.23E-07 0 3.72 2.18
SO SRCPARAM 25PQT014 7.23E-07 0 3.72 2.18
SO SRCPARAM 25PQT015 7.23E-07 0 3.72 2.18
SO SRCPARAM 25PQT016 7.23E-07 0 3.72 2.18
SO SRCPARAM 25PQT017 7.23E-07 0 3.72 2.18
SO SRCPARAM 25PQT018 7.23E-07 0 3.72 2.18
SO SRCPARAM 25PQT019 7.23E-07 0 3.72 2.18
SO SRCPARAM 25PQT01A 7.23E-07 0 3.72 2.18
SO SRCPARAM 25PQT01B 7.23E-07 0 3.72 2.18
SO SRCPARAM 25PQT01C 7.23E-07 0 3.72 2.18
SO SRCPARAM 25PQT01D 7.23E-07 0 3.72 2.18
SO SRCPARAM 25PQT01E 7.23E-07 0 3.72 2.18
SO SRCPARAM 25PQT01F 7.23E-07 0 3.72 2.18
SO SRCPARAM 25PQT01G 7.23E-07 0 3.72 2.18
SO SRCPARAM 25PQT01H 7.23E-07 0 3.72 2.18
SO SRCPARAM 25PQT01I 7.23E-07 0 3.72 2.18
SO SRCPARAM 25PQT01J 7.23E-07 0 3.72 2.18
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SO SRCPARAM 25PQT01M 7.23E-07 0 3.72 2.18
SO SRCPARAM 25PQT01N 7.23E-07 0 3.72 2.18
SO SRCPARAM 25PQT01O 7.23E-07 0 3.72 2.18
SO SRCPARAM 25PQT01P 7.23E-07 0 3.72 2.18
SO SRCPARAM 25PQT01Q 7.23E-07 0 3.72 2.18
SO SRCPARAM 25PQT01R 7.23E-07 0 3.72 2.18
SO SRCPARAM 25PQT02Q 1.36E-06 0 5.67 2.23
SO SRCPARAM 25PQT02U 2.52459E-07 0 110 1 180 0
SO SRCPARAM 25PQT02V 2.52459E-07 0 499 1 -91.2 0
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SO SRCPARAM 25PQT02Y 8.87302E-07 0 360.4 1 90 0
SO SRCPARAM 25PQT02Z 1.48571E-06 0 499 1 -0.3 0
SO SRCPARAM 25PQT030 2.06349E-06 0 499 1 179.5 0

SO SRCPARAM 25PQT031 5.96708E-07 0 120 1 178 0
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SO SRCPARAM 25PQT035 5.98413E-07 0 119.8 1 65.7 0
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SO SRCPARAM 25PQT037 8.87302E-07 0 189.2 1 0.8 0
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SO SRCPARAM 25PQT03C 0.000664 0 10 0
SO EMISFACT 25PQT02U HROFDY 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0 1 1 1 1
SO EMISFACT 25PQT02V HROFDY 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0
SO EMISFACT 25PQT02X HROFDY 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 1 1 1 1
SO EMISFACT 25PQT02Y HROFDY 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0
SO EMISFACT 25PQT02Z HROFDY 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0
SO EMISFACT 25PQT030 HROFDY 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0
SO EMISFACT 25PQT031 HROFDY 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0
SO EMISFACT 25PQT032 HROFDY 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0
SO EMISFACT 25PQT033 HROFDY 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0
SO EMISFACT 25PQT034 HROFDY 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0
SO EMISFACT 25PQT035 HROFDY 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0
SO EMISFACT 25PQT036 HROFDY 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0
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SO EMISFACT 25PQT039 HROFDY 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0
SO EMISFACT 25PQT03A HROFDY 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0
SO EMISFACT 25PQT03C HROFDY 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0
SO SRCGROUP ALL
SO SRCGROUP HDTS 25PQT02U 25PQT02V 25PQT02X 25PQT02Y 25PQT02Z 25PQT030 25PQT031
25PQT032 25PQT033
SO SRCGROUP HDTS 25PQT034 25PQT035 25PQT036 25PQT03A 25PQT03C
SO SRCGROUP FREEWAY 25PQT000 25PQT001 25PQT002 25PQT003 25PQT004 25PQT005 25PQT006
25PQT007
SO SRCGROUP FREEWAY 25PQT008 25PQT009 25PQT00A 25PQT00B 25PQT00C 25PQT00D 25PQT00E
25PQT00F
SO SRCGROUP FREEWAY 25PQT00G 25PQT00H 25PQT00I 25PQT00J 25PQT00K 25PQT00L 25PQT00M
25PQT00N
SO SRCGROUP FREEWAY 25PQT00O 25PQT00P 25PQT00Q 25PQT00R 25PQT00S 25PQT00T 25PQT00U
25PQT00V
SO SRCGROUP FREEWAY 25PQT00W 25PQT00X 25PQT00Y 25PQT00Z 25PQT010 25PQT011 25PQT012
25PQT013
SO SRCGROUP FREEWAY 25PQT014 25PQT015 25PQT016 25PQT017 25PQT018 25PQT019 25PQT01A
25PQT01B
SO SRCGROUP FREEWAY 25PQT01C 25PQT01D 25PQT01E 25PQT01F 25PQT01G 25PQT01H 25PQT01I
25PQT01J
SO SRCGROUP FREEWAY 25PQT01K 25PQT01L 25PQT01M 25PQT01N 25PQT01O 25PQT01P 25PQT01Q
25PQT01R
SO SRCGROUP FREEWAY 25PQT02Q
SO FINISHED

RE STARTING
RE ELEVUNIT METERS
RE GRIDCART 25PQT02I STA

RE GRIDCART 25PQT02I XYINC	379236.9	21	9.1	3773799.8	21	-7.6								
RE GRIDCART 25PQT02I ELEV	1	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0
RE GRIDCART 25PQT02I ELEV	1	109.0	109.0	109.0	109.2	109.5	109.8	110.0	110.0	110.0	110.0	110.0		
RE GRIDCART 25PQT02I ELEV	2	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0
RE GRIDCART 25PQT02I ELEV	2	109.0	109.0	109.0	109.2	109.5	109.8	110.0	110.0	110.0	110.0	110.0		
RE GRIDCART 25PQT02I ELEV	3	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0
RE GRIDCART 25PQT02I ELEV	3	109.0	109.0	109.0	109.2	109.5	109.8	110.0	110.0	110.0	110.0	110.0		
RE GRIDCART 25PQT02I ELEV	4	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0
RE GRIDCART 25PQT02I ELEV	4	109.0	109.0	109.0	109.2	109.5	109.8	110.0	110.0	110.0	110.0	110.0		
RE GRIDCART 25PQT02I ELEV	5	108.7	108.7	108.7	108.7	108.8	108.9	108.9	109.0	109.0	109.0	109.0	109.0	109.0
RE GRIDCART 25PQT02I ELEV	5	109.0	109.0	109.0	109.1	109.4	109.6	109.8	109.8	109.9	110.0			
RE GRIDCART 25PQT02I ELEV	6	108.5	108.5	108.5	108.5	108.6	108.7	108.9	109.0	109.0	109.0	109.0	109.0	109.0
RE GRIDCART 25PQT02I ELEV	6	109.0	109.0	109.0	109.1	109.2	109.4	109.5	109.7	109.8	110.0			
RE GRIDCART 25PQT02I ELEV	7	108.2	108.2	108.2	108.2	108.4	108.6	108.8	109.0	109.0	109.0	109.0	109.0	109.0
RE GRIDCART 25PQT02I ELEV	7	109.0	109.0	109.0	109.0	109.1	109.2	109.3	109.5	109.8	110.0			
RE GRIDCART 25PQT02I ELEV	8	108.0	108.0	108.0	108.0	108.1	108.4	108.7	109.0	109.0	109.0	109.0	109.0	109.0
RE GRIDCART 25PQT02I ELEV	8	109.0	109.0	109.0	109.0	109.0	109.0	109.1	109.4	109.7	110.0			
RE GRIDCART 25PQT02I ELEV	9	108.0	108.0	108.0	108.0	108.1	108.3	108.6	108.7	108.7	108.7	108.7	108.7	108.7
RE GRIDCART 25PQT02I ELEV	9	108.8	108.9	109.0	109.0	109.0	109.0	109.1	109.3	109.5	109.7			
RE GRIDCART 25PQT02I ELEV	10	108.0	108.0	108.0	108.0	108.1	108.2	108.4	108.5	108.5	108.5	108.5	108.5	108.5
RE GRIDCART 25PQT02I ELEV	10	108.6	108.8	108.9	109.0	109.0	109.0	109.0	109.2	109.3	109.5			
RE GRIDCART 25PQT02I ELEV	11	108.0	108.0	108.0	108.0	108.0	108.1	108.2	108.2	108.2	108.2	108.2	108.2	108.2
RE GRIDCART 25PQT02I ELEV	11	108.4	108.7	108.9	109.0	109.0	109.0	109.0	109.1	109.2	109.2			
RE GRIDCART 25PQT02I ELEV	12	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0
RE GRIDCART 25PQT02I ELEV	12	108.3	108.6	108.9	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0		
RE GRIDCART 25PQT02I ELEV	13	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0
RE GRIDCART 25PQT02I ELEV	13	108.2	108.4	108.6	108.8	108.9	108.9	109.0	109.0	109.0	109.0	109.0		
RE GRIDCART 25PQT02I ELEV	14	108.0												

RE GRIDCART 25PQT02I HILL 6 108.5 108.5 108.5 108.5 108.6 108.7 108.9 109.0 109.0 109.0 109.0
 RE GRIDCART 25PQT02I HILL 6 109.0 109.0 347.0 347.0 347.0 347.0 347.0 347.0 347.0 347.0
 RE GRIDCART 25PQT02I HILL 7 108.2 108.2 108.2 108.2 108.4 108.6 108.8 109.0 109.0 109.0 109.0
 RE GRIDCART 25PQT02I HILL 7 109.0 109.0 109.0 109.0 109.1 347.0 347.0 347.0 347.0 347.0
 RE GRIDCART 25PQT02I HILL 8 108.0 108.0 108.0 108.0 108.1 108.4 108.7 109.0 109.0 109.0 109.0
 RE GRIDCART 25PQT02I HILL 8 109.0 109.0 109.0 109.0 109.0 109.0 109.1 109.4 109.7 110.0
 RE GRIDCART 25PQT02I HILL 9 108.0 108.0 108.0 108.0 108.1 108.3 108.6 108.7 108.7 108.7 108.7
 RE GRIDCART 25PQT02I HILL 9 108.8 108.9 109.0 109.0 109.0 109.0 109.1 109.3 109.5 109.7
 RE GRIDCART 25PQT02I HILL 10 108.0 108.0 108.0 108.0 108.1 108.2 108.4 108.5 108.5 108.5 108.5
 RE GRIDCART 25PQT02I HILL 10 108.6 108.8 108.9 109.0 109.0 109.0 109.0 109.2 109.3 109.5
 RE GRIDCART 25PQT02I HILL 11 108.0 108.0 108.0 108.0 108.0 108.1 108.2 108.2 108.2 108.2 108.2
 RE GRIDCART 25PQT02I HILL 11 108.4 108.7 108.9 109.0 109.0 109.0 109.0 109.1 109.2 109.2
 RE GRIDCART 25PQT02I HILL 12 108.0 108.0 108.0 108.0 108.0 108.0 108.0 108.0 108.0 108.0 108.0
 RE GRIDCART 25PQT02I HILL 12 108.3 108.6 108.9 109.0 109.0 109.0 109.0 109.0 109.0 109.0
 RE GRIDCART 25PQT02I HILL 13 108.0 108.0 108.0 108.0 108.0 108.0 108.0 108.0 108.0 108.0 108.0
 RE GRIDCART 25PQT02I HILL 13 108.2 108.4 108.6 108.8 108.9 108.9 109.0 109.0 109.0 109.0
 RE GRIDCART 25PQT02I HILL 14 108.0 108.0 108.0 108.0 108.0 108.0 108.0 108.0 108.0 108.0 108.0
 RE GRIDCART 25PQT02I HILL 14 108.1 108.3 108.4 108.6 108.7 108.9 109.0 109.0 109.0 109.0
 RE GRIDCART 25PQT02I HILL 15 107.9 108.0 108.0 108.0 108.0 108.0 108.0 108.0 108.0 108.0 108.0
 RE GRIDCART 25PQT02I HILL 15 108.1 108.1 108.2 108.4 108.6 108.8 109.0 109.0 109.0 109.0
 RE GRIDCART 25PQT02I HILL 16 107.9 108.0 108.0 108.0 108.0 108.0 108.0 108.0 108.0 108.0 108.0
 RE GRIDCART 25PQT02I HILL 16 108.0 108.0 108.0 108.2 108.5 108.8 109.0 109.0 109.0 109.0
 RE GRIDCART 25PQT02I HILL 17 107.7 107.7 107.7 107.7 107.8 107.8 107.9 108.0 108.0 108.0 108.0
 RE GRIDCART 25PQT02I HILL 17 108.0 108.0 108.0 108.1 108.3 108.6 108.7 108.8 108.9 109.0
 RE GRIDCART 25PQT02I HILL 18 107.4 107.5 107.5 107.5 107.5 107.7 107.9 108.0 108.0 108.0 108.0
 RE GRIDCART 25PQT02I HILL 18 108.0 108.0 108.0 108.1 108.2 108.4 108.5 108.7 108.8 109.0
 RE GRIDCART 25PQT02I HILL 19 107.2 107.2 107.2 107.2 107.3 107.6 107.8 108.0 108.0 108.0 108.0
 RE GRIDCART 25PQT02I HILL 19 108.0 108.0 108.0 108.0 108.1 108.2 108.3 108.5 108.8 109.0
 RE GRIDCART 25PQT02I HILL 20 107.0 107.0 107.0 107.0 107.1 107.4 107.7 108.0 108.0 108.0 108.0
 RE GRIDCART 25PQT02I HILL 20 108.0 108.0 108.0 108.0 108.0 108.0 108.1 108.4 108.7 109.0
 RE GRIDCART 25PQT02I HILL 21 107.0 107.0 107.0 107.0 107.1 107.3 107.5 107.7 107.8 107.9 108.0
 RE GRIDCART 25PQT02I HILL 21 108.0 108.0 108.0 108.0 108.0 108.0 108.1 108.4 108.7 109.0
 RE GRIDCART 25PQT02I END

RE DISCCART 378701.5 3773634.9 105.91 105.91

** SENSITIV

** RCPDESCR Bernstein High School

RE DISCCART 378482.5 3773427.5 102 102

** SENSITIV

** RCPDESCR Joseph LeConte Middle School

RE DISCCART 378622.8 3773348.8 101 101

RE DISCCART 378899.1 3773999 113.4 238

** SENSITIV

** RCPDESCR Grant Elementary School

RE FINISHED

ME STARTING

ME SURFFILE "C:\Users\James\Desktop\Clark and Associates\Project 125 - ABJC - 5420 Sunset Blvd\CELA_V9_ADJU\CELA_v9.SFC"

** SURFFILE "C:\Users\James\Desktop\Clark and Associates\Project 125 - ABJC - 5420 Sunset Blvd\CELA_V9_ADJU\CELA_v9.SFC"

ME PROFFILE "C:\Users\James\Desktop\Clark and Associates\Project 125 - ABJC - 5420 Sunset Blvd\CELA_V9_ADJU\CELA_v9.PFL"

** PROFFILE "C:\Users\James\Desktop\Clark and Associates\Project 125 - ABJC - 5420 Sunset Blvd\CELA_V9_ADJU\CELA_v9.PFL"

ME SURFDATA 93134 2010
ME UAIRDATA 3190 2010
ME SITEDATA 00099999 2010
ME PROFBASE 87 METERS
ME FINISHED

OU STARTING
OU FILEFORM FIX
OU PLOTFILE ANNUAL ALL ALL`ANNUAL.plt 10000
OU PLOTFILE ANNUAL HDTS HDTS`ANNUAL.plt 10001
OU PLOTFILE ANNUAL FREEWAY FREEWAY`ANNUAL.plt 10002
OU FINISHED

** *****

** It is recommended that the user not edit any data below this line

** *****

** TERRFILE C:\Users\James\Desktop\CLARKA~1\PRC107~1\HOLLYWOOD_30M.DEM 0 2 WGS84 11 30
372947.0 3763009.6 373133.4 3776870.6 384661.3 3776722.5 384491.9 3762861.7
** AMPTYPE DEM
** AMPDATUM 2
** AMPZONE 11
** AMPHEMISPHERE N

** PROJECTIONWKT
PROJCS["UTM_6326_Zone11",GEOGCS["WGS_84",DATUM["World_Geodetic_System_1984",SPHEROID["WGS_1984",6378137,298.257223563],TOWGS84[0,0,0,0,0,0]],PRIMEM["Greenwich",0],UNIT["Degree",0.0174532925199433]],PROJECTION["Universal_Transverse_Mercator"],PARAMETER["Zone",11],UNIT["Meter",1,AUTHORITY["EPSG","9001"]]]]
** PROJECTION UTM
** DATUM WGE
** UNITS METER
** ZONE 11
** HEMISPHERE N
** ORIGINLON 0
** ORIGINLAT 0
** PARALLEL1 0
** PARALLEL2 0
** AZIMUTH 0
** SCALEFACT 0
** FALSEEAST 0
** FALSENORTH 0

** POSTFMT UNFORM
** TEMPLATE UserDefined
** AERMODEXE AERMOD_BREEZE_21112_64.EXE
** AERMAPEXE AERMAP_EPA_18081_64.EXE

*** Message Summary For AERMOD Model Setup ***

----- Summary of Total Messages -----

A Total of 0 Fatal Error Message(s)
A Total of 3 Warning Message(s)
A Total of 0 Informational Message(s)

***** FATAL ERROR MESSAGES *****

*** NONE ***

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

SO W320 268 VPARM: Input Parameter May Be Out-of-Range for Parameter SZINIT
ME W186 411 MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used 0.50
ME W187 411 MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET

*** SETUP Finishes Successfully ***

*** AERMOD - VERSION 21112 *** *** 5420 Sunset Boulevard Project - ***
10/02/21

*** AERMET - VERSION 16216 *** *** Update to Include Source Terms (Heavy Duty Trucks) From Project
*** 13:15:52

PAGE 1

*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

*** MODEL SETUP OPTIONS SUMMARY ***

**Model Is Setup For Calculation of Average CONCentration Values.

-- DEPOSITION LOGIC --

**NO GAS DEPOSITION Data Provided.

**NO PARTICLE DEPOSITION Data Provided.

**Model Uses NO DRY DEPLETION. DRYDPLT = F

**Model Uses NO WET DEPLETION. WETDPLT = F

**Model Uses RURAL Dispersion Only.

**Model Uses Regulatory DEFAULT Options:

1. Stack-tip Downwash.
2. Model Accounts for ELEVated Terrain Effects.
3. Use Calms Processing Routine.
4. Use Missing Data Processing Routine.
5. No Exponential Decay.

**Other Options Specified:

ADJ_U* - Use ADJ_U* option for SBL in AERMET

TEMP_Sub - Meteorological data includes TEMP substitutions

**Model Assumes No FLAGPOLE Receptor Heights.

**The User Specified a Pollutant Type of: OTHER

**Model Calculates ANNUAL Averages Only

**This Run Includes: 82 Source(s); 3 Source Group(s); and 445 Receptor(s)

with: 0 POINT(s), including
0 POINTCAP(s) and 0 POINTHOR(s)
and: 66 VOLUME source(s)
and: 16 AREA type source(s)
and: 0 LINE source(s)
and: 0 RLINE/RLINEXT source(s)
and: 0 OPENPIT source(s)
and: 0 BUOYANT LINE source(s) with a total of 0 line(s)

**Model Set To Continue RUNning After the Setup Testing.

**The AERMET Input Meteorological Data Version Date: 16216

**Output Options Selected:

Model Outputs Tables of ANNUAL Averages by Receptor
Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)

**NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours
m for Missing Hours
b for Both Calm and Missing Hours

**Misc. Inputs: Base Elev. for Pot. Temp. Profile (m MSL) = 87.00 ; Decay Coef. = 0.000 ; Rot. Angle = 0.0
Emission Units = GRAMS/SEC ; Emission Rate Unit Factor = 0.10000E+07
Output Units = MICROGRAMS/M**3

**Approximate Storage Requirements of Model = 3.6 MB of RAM.

**Input Runstream File: aermod.inp

**Output Print File: aermod.out

*** AERMOD - VERSION 21112 *** *** 5420 Sunset Boulevard Project - ***
10/02/21
*** AERMET - VERSION 16216 *** *** Update to Include Source Terms (Heavy Duty Trucks) From Project
*** 13:15:52

PAGE 2

*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

SOURCE ID	PART. CATS.	NUMBER EMISSION RATE (GRAMS/SEC) (METERS)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN EMISSION RATE SOURCE SCALAR VARY BY
25PQT000	0	0.18800E-04	379228.5	3773327.2	99.7	0.00	16.47	2.55	NO
25PQT001	0	0.18800E-04	379201.2	3773350.2	99.3	0.00	16.47	2.55	NO
25PQT002	0	0.18800E-04	379172.8	3773371.7	96.6	0.00	16.47	2.55	NO
25PQT003	0	0.18800E-04	379145.4	3773393.0	96.8	0.00	16.47	2.55	NO

25PQT004	0	0.18800E-04	379117.3	3773415.0	95.8	0.00	16.47	2.55	NO
25PQT005	0	0.18800E-04	379089.4	3773434.8	92.0	0.00	16.47	2.55	NO
25PQT006	0	0.18800E-04	379061.6	3773458.4	93.1	0.00	16.47	2.55	NO
25PQT007	0	0.18800E-04	379033.3	3773479.5	92.9	0.00	16.47	2.55	NO
25PQT008	0	0.18800E-04	379005.7	3773501.6	94.0	0.00	16.47	2.55	NO
25PQT009	0	0.18800E-04	378978.2	3773524.0	96.5	0.00	16.47	2.55	NO
25PQT00A	0	0.18800E-04	378951.9	3773547.3	96.5	0.00	16.47	2.55	NO
25PQT00B	0	0.18800E-04	378926.2	3773571.6	96.0	0.00	16.47	2.55	NO
25PQT00C	0	0.18800E-04	378902.1	3773599.0	96.0	0.00	16.47	2.55	NO
25PQT00D	0	0.12100E-04	378894.1	3773578.6	97.1	0.00	16.47	2.55	NO
25PQT00E	0	0.12100E-04	378920.3	3773552.1	97.6	0.00	16.47	2.55	NO
25PQT00F	0	0.12100E-04	378944.1	3773530.2	96.7	0.00	16.47	2.55	NO
25PQT00G	0	0.12100E-04	378971.1	3773506.0	96.0	0.00	16.47	2.55	NO
25PQT00H	0	0.12100E-04	378998.8	3773483.9	95.8	0.00	16.47	2.55	NO
25PQT00I	0	0.12100E-04	379026.8	3773462.3	93.5	0.00	16.47	2.55	NO
25PQT00J	0	0.12100E-04	379054.6	3773440.8	93.8	0.00	16.47	2.55	NO
25PQT00K	0	0.12100E-04	379082.8	3773418.9	93.3	0.00	16.47	2.55	NO
25PQT00L	0	0.12100E-04	379110.5	3773397.3	95.7	0.00	16.47	2.55	NO
25PQT00M	0	0.12100E-04	379138.1	3773375.2	96.7	0.00	16.47	2.55	NO
25PQT00N	0	0.12100E-04	379166.2	3773353.7	97.6	0.00	16.47	2.55	NO
25PQT00O	0	0.12100E-04	379194.3	3773331.9	98.6	0.00	16.47	2.55	NO
25PQT00P	0	0.12100E-04	379221.5	3773309.5	98.6	0.00	16.47	2.55	NO
25PQT00Q	0	0.13600E-05	379085.0	3773405.0	95.6	0.00	5.67	2.23	NO
25PQT00R	0	0.13600E-05	379094.2	3773396.7	96.5	0.00	5.67	2.23	NO
25PQT00S	0	0.13600E-05	379103.4	3773388.7	96.9	0.00	5.67	2.23	NO
25PQT00T	0	0.13600E-05	379112.1	3773380.6	96.6	0.00	5.67	2.23	NO
25PQT00U	0	0.13600E-05	379121.1	3773372.1	96.5	0.00	5.67	2.23	NO
25PQT00V	0	0.13600E-05	379129.8	3773363.8	97.2	0.00	5.67	2.23	NO
25PQT00W	0	0.13600E-05	379138.1	3773354.4	97.5	0.00	5.67	2.23	NO
25PQT00X	0	0.13600E-05	379144.8	3773344.5	97.6	0.00	5.67	2.23	NO
25PQT00Y	0	0.13600E-05	379150.1	3773333.4	97.8	0.00	5.67	2.23	NO
25PQT00Z	0	0.13600E-05	379154.2	3773322.3	98.1	0.00	5.67	2.23	NO
25PQT010	0	0.72300E-06	379208.6	3773395.0	104.0	0.00	3.72	2.18	NO
25PQT011	0	0.72300E-06	379200.8	3773397.3	102.4	0.00	3.72	2.18	NO
25PQT012	0	0.72300E-06	379193.1	3773400.4	101.4	0.00	3.72	2.18	NO
25PQT013	0	0.72300E-06	379185.9	3773403.9	101.0	0.00	3.72	2.18	NO

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*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER	EMISSION RATE	BASE	RELEASE	INIT.	INIT.	URBAN	EMISSION RATE		
SOURCE	PART. (GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SOURCE	SCALAR VARY
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)		BY
25PQT014	0	0.72300E-06	379179.0	3773407.8	101.3	0.00	3.72	2.18	NO
25PQT015	0	0.72300E-06	379172.0	3773411.5	101.1	0.00	3.72	2.18	NO
25PQT016	0	0.72300E-06	379164.7	3773415.5	100.5	0.00	3.72	2.18	NO

25PQT017	0	0.72300E-06	379158.0	3773419.1	99.5	0.00	3.72	2.18	NO
25PQT018	0	0.72300E-06	379151.0	3773422.8	98.8	0.00	3.72	2.18	NO
25PQT019	0	0.72300E-06	379144.0	3773426.6	98.5	0.00	3.72	2.18	NO
25PQT01A	0	0.72300E-06	379137.2	3773430.2	97.8	0.00	3.72	2.18	NO
25PQT01B	0	0.72300E-06	379130.0	3773434.1	96.4	0.00	3.72	2.18	NO
25PQT01C	0	0.72300E-06	379123.2	3773437.8	94.5	0.00	3.72	2.18	NO
25PQT01D	0	0.72300E-06	379115.9	3773441.5	92.7	0.00	3.72	2.18	NO
25PQT01E	0	0.72300E-06	379109.3	3773445.1	92.2	0.00	3.72	2.18	NO
25PQT01F	0	0.72300E-06	379102.1	3773448.9	92.8	0.00	3.72	2.18	NO
25PQT01G	0	0.72300E-06	379095.1	3773452.8	94.3	0.00	3.72	2.18	NO
25PQT01H	0	0.72300E-06	379088.5	3773456.6	95.8	0.00	3.72	2.18	NO
25PQT01I	0	0.72300E-06	379081.7	3773460.7	96.4	0.00	3.72	2.18	NO
25PQT01J	0	0.72300E-06	379074.5	3773464.7	96.3	0.00	3.72	2.18	NO
25PQT01K	0	0.72300E-06	379067.9	3773468.9	95.7	0.00	3.72	2.18	NO
25PQT01L	0	0.72300E-06	379061.2	3773472.9	94.4	0.00	3.72	2.18	NO
25PQT01M	0	0.72300E-06	379054.6	3773477.5	93.9	0.00	3.72	2.18	NO
25PQT01N	0	0.72300E-06	379047.8	3773481.6	94.6	0.00	3.72	2.18	NO
25PQT01O	0	0.72300E-06	379041.3	3773486.1	95.3	0.00	3.72	2.18	NO
25PQT01P	0	0.72300E-06	379034.8	3773490.8	95.9	0.00	3.72	2.18	NO
25PQT01Q	0	0.72300E-06	379028.6	3773495.3	96.3	0.00	3.72	2.18	NO
25PQT01R	0	0.72300E-06	379022.3	3773499.7	96.4	0.00	3.72	2.18	NO
25PQT02Q	0	0.13600E-05	379085.0	3773405.0	95.6	0.00	5.67	2.23	NO
25PQT03C	0	0.66400E-03	379318.7	3773664.5	0.0	0.00	10.00	0.00	NO HROFDY

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 *** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

*** AREALINE SOURCE DATA ***											
NUMBER EMISSION RATE		COORD (SW CORNER)			BASE	RELEASE	X-DIM	Y-DIM	ORIENT.		
INIT.	URBAN	EMISSION RATE									
SOURCE	PART.	(GRAMS/SEC	X	Y	ELEV.	HEIGHT	OF AREA	OF AREA	OF AREA	SZ	
SOURCE SCALAR VARY											
ID	CATS.	/METER**2)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(DEG.)	
(METERS)	BY										

25PQT02U	0	0.25246E-06	379342.8	3773815.3	109.3	0.00	110.00	1.00	180.00	0.00	NO
HROFDY											
25PQT02V	0	0.25246E-06	379233.0	3773812.0	109.2	0.00	499.00	1.00	-91.20	0.00	NO
HROFDY											
25PQT02X	0	0.88730E-06	379341.6	3773802.8	109.0	0.00	499.00	1.00	-0.40	0.00	NO
HROFDY											
25PQT02Y	0	0.88730E-06	380031.2	3773802.8	112.9	0.00	360.40	1.00	90.00	0.00	NO
HROFDY											
25PQT02Z	0	0.14857E-05	379341.6	3773807.1	109.0	0.00	499.00	1.00	-0.30	0.00	NO
HROFDY											
25PQT030	0	0.20635E-05	379341.6	3773815.7	109.3	0.00	499.00	1.00	179.50	0.00	NO
HROFDY											
25PQT031	0	0.59671E-06	379352.3	3773813.5	109.2	0.00	120.00	1.00	178.00	0.00	NO

HROFDY											
25PQT032	0	0.59671E-06	379228.1	3773809.2	109.1	0.00	417.60	1.00	90.30	0.00	NO
HROFDY											
25PQT033	0	0.59671E-06	379228.1	3773391.6	104.0	0.00	272.40	1.00	-151.00	0.00	NO
HROFDY											
25PQT034	0	0.59841E-06	379339.4	3773809.2	109.1	0.00	499.00	1.00	180.00	0.00	NO
HROFDY											
25PQT035	0	0.59841E-06	378716.2	3773807.1	105.9	0.00	119.80	1.00	65.70	0.00	NO
HROFDY											
25PQT036	0	0.59841E-06	378771.9	3773700.0	101.6	0.00	305.00	1.00	47.80	0.00	NO
HROFDY											
25PQT037	0	0.88730E-06	379843.4	3773810.5	113.1	0.00	189.20	1.00	0.80	0.00	NO
HROFDY											
25PQT038	0	0.14857E-05	379843.4	3773806.7	113.0	0.00	499.00	1.00	0.00	0.00	NO
HROFDY											
25PQT039	0	0.20635E-05	378842.9	3773811.8	108.2	0.00	499.00	1.00	179.70	0.00	NO
HROFDY											
25PQT03A	0	0.59841E-06	378839.0	3773807.3	107.7	0.00	121.00	1.00	-179.10	0.00	NO

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*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID

SOURCE IDs

ALL 25PQT000 , 25PQT001 , 25PQT002 , 25PQT003 , 25PQT004 , 25PQT005 , 25PQT006 ,
25PQT007 ,

25PQT008 , 25PQT009 , 25PQT00A , 25PQT00B , 25PQT00C , 25PQT00D , 25PQT00E ,
25PQT00F ,

25PQT00G , 25PQT00H , 25PQT00I , 25PQT00J , 25PQT00K , 25PQT00L , 25PQT00M ,
25PQT00N ,

25PQT00O , 25PQT00P , 25PQT00Q , 25PQT00R , 25PQT00S , 25PQT00T , 25PQT00U ,
25PQT00V ,

25PQT00W , 25PQT00X , 25PQT00Y , 25PQT00Z , 25PQT010 , 25PQT011 , 25PQT012 ,
25PQT013 ,

25PQT014 , 25PQT015 , 25PQT016 , 25PQT017 , 25PQT018 , 25PQT019 , 25PQT01A ,
25PQT01B ,

25PQT01C , 25PQT01D , 25PQT01E , 25PQT01F , 25PQT01G , 25PQT01H , 25PQT01I ,
25PQT01J ,

25PQT01K , 25PQT01L , 25PQT01M , 25PQT01N , 25PQT01O , 25PQT01P , 25PQT01Q ,
25PQT01R ,

25PQT02Q , 25PQT02U , 25PQT02V , 25PQT02X , 25PQT02Y , 25PQT02Z , 25PQT030 ,
25PQT031 ,

25PQT032 , 25PQT033 , 25PQT034 , 25PQT035 , 25PQT036 , 25PQT037 , 25PQT038 ,
25PQT039 ,

25PQT03A , 25PQT03C ,

HDTS 25PQT02U , 25PQT02V , 25PQT02X , 25PQT02Y , 25PQT02Z , 25PQT030 , 25PQT031 ,
25PQT032 ,

25PQT033 , 25PQT034 , 25PQT035 , 25PQT036 , 25PQT03A , 25PQT03C ,

FREEWAY 25PQT000 , 25PQT001 , 25PQT002 , 25PQT003 , 25PQT004 , 25PQT005 , 25PQT006 ,
25PQT007 ,

25PQT008 , 25PQT009 , 25PQT00A , 25PQT00B , 25PQT00C , 25PQT00D , 25PQT00E ,
25PQT00F ,

25PQT00G , 25PQT00H , 25PQT00I , 25PQT00J , 25PQT00K , 25PQT00L , 25PQT00M ,
25PQT00N ,

25PQT00O , 25PQT00P , 25PQT00Q , 25PQT00R , 25PQT00S , 25PQT00T , 25PQT00U ,
25PQT00V ,

25PQT00W , 25PQT00X , 25PQT00Y , 25PQT00Z , 25PQT010 , 25PQT011 , 25PQT012 ,
25PQT013 ,

25PQT014 , 25PQT015 , 25PQT016 , 25PQT017 , 25PQT018 , 25PQT019 , 25PQT01A ,
25PQT01B ,

25PQT01C , 25PQT01D , 25PQT01E , 25PQT01F , 25PQT01G , 25PQT01H , 25PQT01I ,
25PQT01J ,

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*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID

SOURCE IDs

25PQT01K , 25PQT01L , 25PQT01M , 25PQT01N , 25PQT01O , 25PQT01P , 25PQT01Q ,
25PQT01R ,

25PQT02Q ,

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*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
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SOURCE ID = 25PQT02U ; SOURCE TYPE = AREALINE :

1	.00000E+00	2	.00000E+00	3	.10000E+01	4	.10000E+01	5	.10000E+01	6	.10000E+01
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.00000E+00	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.10000E+01	22	.10000E+01	23	.10000E+01	24	.10000E+01

SOURCE ID = 25PQT02V ; SOURCE TYPE = AREALINE :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = 25PQT02X ; SOURCE TYPE = AREALINE :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.10000E+01	22	.10000E+01	23	.10000E+01	24	.10000E+01

SOURCE ID = 25PQT02Y ; SOURCE TYPE = AREALINE :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = 25PQT02Z ; SOURCE TYPE = AREALINE :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

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*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
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SOURCE ID = 25PQT030 ; SOURCE TYPE = AREALINE :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = 25PQT031 ; SOURCE TYPE = AREALINE :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = 25PQT032 ; SOURCE TYPE = AREALINE :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = 25PQT033 ; SOURCE TYPE = AREALINE :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = 25PQT034 ; SOURCE TYPE = AREALINE :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

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*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
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SOURCE ID = 25PQT035 ; SOURCE TYPE = AREALINE :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = 25PQT036 ; SOURCE TYPE = AREALINE :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = 25PQT037 ; SOURCE TYPE = AREALINE :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = 25PQT038 ; SOURCE TYPE = AREALINE :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = 25PQT039 ; SOURCE TYPE = AREALINE :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

*** AERMOD - VERSION 21112 *** *** 5420 Sunset Boulevard Project -
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*** AERMET - VERSION 16216 *** *** Update to Include Source Terms (Heavy Duty Trucks) From Project
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*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
------	--------	------	--------	------	--------	------	--------	------	--------

SOURCE ID = 25PQT03A ; SOURCE TYPE = AREALINE :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01

19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = 25PQT03C ; SOURCE TYPE = VOLUME :

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

*** AERMOD - VERSION 21112 *** *** 5420 Sunset Boulevard Project - ***
10/02/21

*** AERMET - VERSION 16216 *** *** Update to Include Source Terms (Heavy Duty Trucks) From Project
*** 13:15:52

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*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

*** GRIDDED RECEPTOR NETWORK SUMMARY ***

*** NETWORK ID: 25PQT02I ; NETWORK TYPE: GRIDCART ***

*** X-COORDINATES OF GRID ***
(METERS)

379236.9, 379246.0, 379255.1, 379264.2, 379273.3, 379282.4, 379291.5, 379300.6, 379309.7, 379318.8,
379327.9, 379337.0, 379346.1, 379355.2, 379364.3, 379373.4, 379382.5, 379391.6, 379400.7, 379409.8,
379418.9,

*** Y-COORDINATES OF GRID ***
(METERS)

3773799.8, 3773792.2, 3773784.6, 3773777.0, 3773769.4, 3773761.8, 3773754.2, 3773746.6, 3773739.0,
3773731.4,
3773723.8, 3773716.2, 3773708.6, 3773701.0, 3773693.4, 3773685.8, 3773678.2, 3773670.6, 3773663.0,
3773655.4,
3773647.8,

*** AERMOD - VERSION 21112 *** *** 5420 Sunset Boulevard Project - ***
10/02/21

*** AERMET - VERSION 16216 *** *** Update to Include Source Terms (Heavy Duty Trucks) From Project
*** 13:15:52

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*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

*** NETWORK ID: 25PQT02I ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD |	X-COORD (METERS)								
(METERS) |	379236.90	379246.00	379255.10	379264.20	379273.30	379282.40	379291.50	379300.60	379309.70

3773647.80 |	107.00	107.00	107.00	107.00	107.10	107.30	107.50	107.70	107.80
3773655.40 |	107.00	107.00	107.00	107.00	107.10	107.40	107.70	108.00	108.00
3773663.00 |	107.20	107.20	107.20	107.20	107.30	107.60	107.80	108.00	108.00

3773670.60 |	107.40	107.50	107.50	107.50	107.50	107.70	107.90	108.00	108.00
3773678.20 |	107.70	107.70	107.70	107.70	107.80	107.80	107.90	108.00	108.00
3773685.80 |	107.90	108.00	108.00	108.00	108.00	108.00	108.00	108.00	108.00
3773693.40 |	107.90	108.00	108.00	108.00	108.00	108.00	108.00	108.00	108.00
3773701.00 |	108.00	108.00	108.00	108.00	108.00	108.00	108.00	108.00	108.00
3773708.60 |	108.00	108.00	108.00	108.00	108.00	108.00	108.00	108.00	108.00
3773716.20 |	108.00	108.00	108.00	108.00	108.00	108.00	108.00	108.00	108.00
3773723.80 |	108.00	108.00	108.00	108.00	108.00	108.10	108.20	108.20	108.20
3773731.40 |	108.00	108.00	108.00	108.00	108.10	108.20	108.40	108.50	108.50
3773739.00 |	108.00	108.00	108.00	108.00	108.10	108.30	108.60	108.70	108.70
3773746.60 |	108.00	108.00	108.00	108.00	108.10	108.40	108.70	109.00	109.00
3773754.20 |	108.20	108.20	108.20	108.20	108.40	108.60	108.80	109.00	109.00
3773761.80 |	108.50	108.50	108.50	108.50	108.60	108.70	108.90	109.00	109.00
3773769.40 |	108.70	108.70	108.70	108.70	108.80	108.90	108.90	109.00	109.00
3773777.00 |	109.00	109.00	109.00	109.00	109.00	109.00	109.00	109.00	109.00
3773784.60 |	109.00	109.00	109.00	109.00	109.00	109.00	109.00	109.00	109.00
3773792.20 |	109.00	109.00	109.00	109.00	109.00	109.00	109.00	109.00	109.00
3773799.80 |	109.00	109.00	109.00	109.00	109.00	109.00	109.00	109.00	109.00

*** AERMOD - VERSION 21112 *** *** 5420 Sunset Boulevard Project - ***

10/02/21
*** AERMET - VERSION 16216 *** *** Update to Include Source Terms (Heavy Duty Trucks) From Project
*** 13:15:52

*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

*** NETWORK ID: 25PQT02I ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD |	X-COORD (METERS)							
(METERS) |	379318.80	379327.90	379337.00	379346.10	379355.20	379364.30	379373.40	379382.50
379391.60								

3773647.80 |	107.90	108.00	108.00	108.00	108.00	108.00	108.00	108.00	108.10
3773655.40 |	108.00	108.00	108.00	108.00	108.00	108.00	108.00	108.00	108.10
3773663.00 |	108.00	108.00	108.00	108.00	108.00	108.00	108.10	108.20	108.30
3773670.60 |	108.00	108.00	108.00	108.00	108.00	108.10	108.20	108.40	108.50
3773678.20 |	108.00	108.00	108.00	108.00	108.00	108.10	108.30	108.60	108.70
3773685.80 |	108.00	108.00	108.00	108.00	108.00	108.20	108.50	108.80	109.00
3773693.40 |	108.00	108.00	108.10	108.10	108.20	108.40	108.60	108.80	109.00
3773701.00 |	108.00	108.00	108.10	108.30	108.40	108.60	108.70	108.90	109.00
3773708.60 |	108.00	108.00	108.20	108.40	108.60	108.80	108.90	108.90	109.00
3773716.20 |	108.00	108.00	108.30	108.60	108.90	109.00	109.00	109.00	109.00
3773723.80 |	108.20	108.20	108.40	108.70	108.90	109.00	109.00	109.00	109.00
3773731.40 |	108.50	108.50	108.60	108.80	108.90	109.00	109.00	109.00	109.00
3773739.00 |	108.70	108.70	108.80	108.90	109.00	109.00	109.00	109.00	109.10
3773746.60 |	109.00	109.00	109.00	109.00	109.00	109.00	109.00	109.00	109.10
3773754.20 |	109.00	109.00	109.00	109.00	109.00	109.00	109.10	109.20	109.30
3773761.80 |	109.00	109.00	109.00	109.00	109.00	109.10	109.20	109.40	109.50
3773769.40 |	109.00	109.00	109.00	109.00	109.00	109.10	109.40	109.60	109.80
3773777.00 |	109.00	109.00	109.00	109.00	109.00	109.20	109.50	109.80	110.00
3773784.60 |	109.00	109.00	109.00	109.00	109.00	109.20	109.50	109.80	110.00
3773792.20 |	109.00	109.00	109.00	109.00	109.00	109.20	109.50	109.80	110.00

3773799.80 | 109.00 109.00 109.00 109.00 109.00 109.20 109.50 109.80 110.00
*** AERMOD - VERSION 21112 *** *** 5420 Sunset Boulevard Project - ***
10/02/21
*** AERMET - VERSION 16216 *** *** Update to Include Source Terms (Heavy Duty Trucks) From Project
*** 13:15:52

*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

*** NETWORK ID: 25PQT02I ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD |	X-COORD (METERS)		
(METERS) |	379400.70	379409.80	379418.90

3773647.80 |	108.40	108.70	109.00
3773655.40 |	108.40	108.70	109.00
3773663.00 |	108.50	108.80	109.00
3773670.60 |	108.70	108.80	109.00
3773678.20 |	108.80	108.90	109.00
3773685.80 |	109.00	109.00	109.00
3773693.40 |	109.00	109.00	109.00
3773701.00 |	109.00	109.00	109.00
3773708.60 |	109.00	109.00	109.00
3773716.20 |	109.00	109.00	109.00
3773723.80 |	109.10	109.20	109.20
3773731.40 |	109.20	109.30	109.50
3773739.00 |	109.30	109.50	109.70
3773746.60 |	109.40	109.70	110.00
3773754.20 |	109.50	109.80	110.00
3773761.80 |	109.70	109.80	110.00
3773769.40 |	109.80	109.90	110.00
3773777.00 |	110.00	110.00	110.00
3773784.60 |	110.00	110.00	110.00
3773792.20 |	110.00	110.00	110.00
3773799.80 |	110.00	110.00	110.00

*** AERMOD - VERSION 21112 *** *** 5420 Sunset Boulevard Project - ***
10/02/21
*** AERMET - VERSION 16216 *** *** Update to Include Source Terms (Heavy Duty Trucks) From Project
*** 13:15:52

*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

*** NETWORK ID: 25PQT02I ; NETWORK TYPE: GRIDCART ***

* HILL HEIGHT SCALES IN METERS *

Y-COORD |	X-COORD (METERS)							
(METERS) |	379236.90	379246.00	379255.10	379264.20	379273.30	379282.40	379291.50	379300.60
379309.70	-----							
3773647.80 |	107.00	107.00	107.00	107.00	107.10	107.30	107.50	107.70 107.80

3773784.60 |	347.00	347.00	347.00	347.00	347.00	347.00	347.00	347.00	347.00
3773792.20 |	347.00	347.00	347.00	347.00	347.00	347.00	347.00	347.00	347.00
3773799.80	347.00	347.00	347.00	347.00	347.00	347.00	347.00	347.00	347.00

*** AERMOD - VERSION 21112 *** *** 5420 Sunset Boulevard Project - ***

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*** AERMET - VERSION 16216 *** *** Update to Include Source Terms (Heavy Duty Trucks) From Project ***
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*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

*** NETWORK ID: 25PQT02I ; NETWORK TYPE: GRIDCART ***

* HILL HEIGHT SCALES IN METERS *

Y-COORD |	X-COORD (METERS)		
(METERS) |	379400.70	379409.80	379418.90

3773647.80 |	108.40	108.70	109.00
3773655.40 |	108.40	108.70	109.00
3773663.00 |	108.50	108.80	109.00
3773670.60 |	108.70	108.80	109.00
3773678.20 |	108.80	108.90	109.00
3773685.80 |	109.00	109.00	109.00
3773693.40 |	109.00	109.00	109.00
3773701.00 |	109.00	109.00	109.00
3773708.60 |	109.00	109.00	109.00
3773716.20 |	109.00	109.00	109.00
3773723.80 |	109.10	109.20	109.20
3773731.40 |	109.20	109.30	109.50
3773739.00 |	109.30	109.50	109.70
3773746.60 |	109.40	109.70	110.00
3773754.20 |	347.00	347.00	347.00
3773761.80 |	347.00	347.00	347.00
3773769.40 |	347.00	347.00	347.00
3773777.00 |	347.00	347.00	347.00
3773784.60 |	347.00	347.00	347.00
3773792.20 |	347.00	347.00	347.00
3773799.80	347.00	347.00	347.00

*** AERMOD - VERSION 21112 *** *** 5420 Sunset Boulevard Project - ***

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*** AERMET - VERSION 16216 *** *** Update to Include Source Terms (Heavy Duty Trucks) From Project ***
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*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(378622.8, 3773348.8, 101.0, 101.0, 0.0);

*** AERMOD - VERSION 21112 *** *** 5420 Sunset Boulevard Project - ***

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*** AERMET - VERSION 16216 *** *** Update to Include Source Terms (Heavy Duty Trucks) From Project

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*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

* SOURCE-RECEPTOR COMBINATIONS FOR WHICH CALCULATIONS MAY NOT BE PERFORMED *

LESS THAN 1.0 METER; WITHIN OPENPIT; OR BEYOND 80KM FOR FASTAREA/FASTALL

SOURCE	- - RECEPTOR LOCATION - -		DISTANCE
ID	XR (METERS)	YR (METERS)	(METERS)

25PQT03C	379318.8	3773685.8	-0.20
25PQT03C	379309.7	3773678.2	-5.11
25PQT03C	379318.8	3773678.2	-7.80
25PQT03C	379327.9	3773678.2	-5.00
25PQT03C	379300.6	3773670.6	-2.40
25PQT03C	379309.7	3773670.6	-10.63
25PQT03C	379318.8	3773670.6	-15.40
25PQT03C	379327.9	3773670.6	-10.46
25PQT03C	379337.0	3773670.6	-2.21
25PQT03C	379300.6	3773663.0	-3.34
25PQT03C	379309.7	3773663.0	-12.38
25PQT03C	379318.8	3773663.0	-20.00
25PQT03C	379327.9	3773663.0	-12.18
25PQT03C	379337.0	3773663.0	-3.14
25PQT03C	379300.6	3773655.4	-1.24
25PQT03C	379309.7	3773655.4	-8.70
25PQT03C	379318.8	3773655.4	-12.40
25PQT03C	379327.9	3773655.4	-8.56
25PQT03C	379337.0	3773655.4	-1.06
25PQT03C	379309.7	3773647.8	-2.53
25PQT03C	379318.8	3773647.8	-4.80
25PQT03C	379327.9	3773647.8	-2.43

*** AERMOD - VERSION 21112 *** *** 5420 Sunset Boulevard Project -

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*** AERMET - VERSION 16216 *** *** Update to Include Source Terms (Heavy Duty Trucks) From Project

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*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

[illegible]

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

*** AERMOD - VERSION 21112 *** *** 5420 Sunset Boulevard Project - ***
10/02/21

*** AERMET - VERSION 16216 *** *** Update to Include Source Terms (Heavy Duty Trucks) From Project ***
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*** MODELOPTs: RegDEFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: C:\Users\James\Desktop\Clark and Associates\Project 125 - ABJC - 5420 Sunset Blv Met Version:
16216

Profile file: C:\Users\James\Desktop\Clark and Associates\Project 125 - ABJC - 5420 Sunset Blv

Surface format: FREE

Profile format: FREE

Surface station no.: 93134

Upper air station no.: 3190

Name: UNKNOWN

Name: UNKNOWN

Year: 2010

Year: 2010

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O	LEN	Z0	BOWEN	ALBEDO	REF	WS
WD	HT	REF	TA	HT													

10	01	01	1	01	-33.0	0.331	-9.000	-9.000	-999.	456.	120.2	0.56	0.86	1.00	3.10	38.	21.3	284.9	17.7
10	01	01	1	02	-26.9	0.285	-9.000	-9.000	-999.	367.	89.6	0.56	0.86	1.00	2.70	38.	21.3	284.2	17.7
10	01	01	1	03	-38.6	0.387	-9.000	-9.000	-999.	577.	164.6	0.56	0.86	1.00	3.60	35.	21.3	284.2	17.7
10	01	01	1	04	-33.0	0.331	-9.000	-9.000	-999.	458.	120.2	0.56	0.86	1.00	3.10	34.	21.3	283.8	17.7
10	01	01	1	05	-33.1	0.331	-9.000	-9.000	-999.	456.	120.2	0.56	0.86	1.00	3.10	37.	21.3	283.1	17.7
10	01	01	1	06	-38.7	0.387	-9.000	-9.000	-999.	577.	164.5	0.56	0.86	1.00	3.60	24.	21.3	283.1	17.7
10	01	01	1	07	-38.6	0.387	-9.000	-9.000	-999.	577.	164.5	0.56	0.86	1.00	3.60	35.	21.3	283.8	17.7
10	01	01	1	08	-29.6	0.435	-9.000	-9.000	-999.	688.	251.8	0.56	0.86	0.55	4.00	35.	21.3	283.8	17.7
10	01	01	1	09	30.0	0.426	0.367	0.008	59.	666.	-232.0	0.56	0.86	0.32	3.60	38.	21.3	286.4	17.7
10	01	01	1	10	72.3	0.359	0.629	0.008	124.	519.	-57.8	0.56	0.86	0.24	2.70	34.	21.3	290.4	17.7
10	01	01	1	11	104.4	0.321	0.998	0.008	344.	437.	-28.6	0.56	0.86	0.21	2.20	43.	21.3	292.5	17.7
10	01	01	1	12	115.1	0.283	1.156	0.008	484.	363.	-17.9	0.56	0.86	0.20	1.80	62.	21.3	295.9	17.7
10	01	01	1	13	91.4	0.406	1.130	0.008	568.	622.	-66.2	0.56	0.86	0.20	3.10	263.	21.3	294.2	17.7
10	01	01	1	14	89.3	0.316	1.168	0.008	642.	432.	-31.9	0.56	0.86	0.21	2.20	259.	21.3	294.9	17.7
10	01	01	1	15	42.6	0.295	0.928	0.008	675.	384.	-54.0	0.56	0.86	0.25	2.20	267.	21.3	294.9	17.7
10	01	01	1	16	12.0	0.359	0.609	0.008	680.	516.	-347.9	0.56	0.86	0.33	3.10	264.	21.3	292.5	17.7
10	01	01	1	17	-15.7	0.231	-9.000	-9.000	-999.	276.	70.7	0.56	0.86	0.60	2.20	288.	21.3	290.9	17.7
10	01	01	1	18	-6.1	0.135	-9.000	-9.000	-999.	124.	36.7	0.56	0.86	1.00	1.30	344.	21.3	289.2	17.7
10	01	01	1	19	-11.4	0.184	-9.000	-9.000	-999.	190.	49.2	0.56	0.86	1.00	1.80	2.	21.3	288.8	17.7
10	01	01	1	20	-17.4	0.229	-9.000	-9.000	-999.	263.	62.1	0.56	0.86	1.00	2.20	22.	21.3	288.1	17.7
10	01	01	1	21	-17.4	0.229	-9.000	-9.000	-999.	263.	61.9	0.56	0.86	1.00	2.20	40.	21.3	287.0	17.7
10	01	01	1	22	-11.5	0.184	-9.000	-9.000	-999.	190.	49.1	0.56	0.86	1.00	1.80	306.	21.3	287.0	17.7
10	01	01	1	23	-11.5	0.184	-9.000	-9.000	-999.	190.	49.0	0.56	0.86	1.00	1.80	45.	21.3	286.4	17.7

3773647.80 | 0.01904	0.05962	0.04270	0.03738	0.03646	0.03905	0.04641	0.06187	0.09111
3773655.40 | 0.01941	0.06000	0.04296	0.03762	0.03670	0.03949	0.04804	0.06935	0.02019
3773663.00 | 0.01985	0.06094	0.04326	0.03771	0.03662	0.03915	0.04762	0.07168	0.02063
3773670.60 | 0.02036	0.06190	0.04352	0.03765	0.03620	0.03809	0.04514	0.06765	0.02112
3773678.20 | 0.02095	0.06323	0.04370	0.03751	0.03564	0.03667	0.04164	0.05704	0.10655
3773685.80 | 0.10788	0.06431	0.04398	0.03744	0.03513	0.03534	0.03835	0.04684	0.06712
3773693.40 | 0.06592	0.06489	0.04430	0.03753	0.03486	0.03439	0.03599	0.04063	0.05035
3773701.00 | 0.04984	0.06595	0.04481	0.03784	0.03488	0.03391	0.03457	0.03720	0.04242
3773708.60 0.04266	0.06692	0.04554	0.03842	0.03523	0.03390	0.03394	0.03540	0.03846

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*** AERMOD - VERSION 21112 ***    *** 5420 Sunset Boulevard Project - ***
10/02/21
*** AERMET - VERSION 16216 ***    *** Update to Include Source Terms (Heavy Duty Trucks) From Project ***
*** 13:15:52 ***

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*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

*** NETWORK ID: 25PQT02I ; NETWORK TYPE: GRIDCART ***

Y-COORD (METERS)	X-COORD (METERS)						
379318.80	379327.90	379337.00	379346.10	379355.20	379364.30	379373.40	379382.50
379391.60							

3773647.80 |	0.01838	0.01783	0.09125	0.05253	0.03848	0.03126	0.02694	0.02412
0.02215								
3773655.40 |	0.01877	0.01824	0.01778	0.07370	0.04877	0.03743	0.03112	0.02719

0.02453								
3773663.00 |	0.01922	0.01870	0.01826	0.09321	0.05860	0.04355	0.03539	0.03037
0.02705								
3773670.60 |	0.01975	0.01923	0.01880	0.09761	0.06365	0.04764	0.03866	0.03304
0.02928								
3773678.20 |	0.02035	0.01985	0.13847	0.08783	0.06237	0.04847	0.04009	0.03461
0.03085								
3773685.80 |	0.02105	0.12729	0.09711	0.07271	0.05668	0.04644	0.03965	0.03495
0.03157								
3773693.40 |	0.08025	0.07921	0.07010	0.05903	0.04983	0.04303	0.03807	0.03441
0.03163								
3773701.00 |	0.05628	0.05789	0.05470	0.04932	0.04403	0.03965	0.03622	0.03351
0.03137								
3773708.60 |	0.04636	0.04768	0.04625	0.04326	0.04000	0.03710	0.03471	0.03276
0.03115								
3773716.20 |	0.04148	0.04244	0.04169	0.03982	0.03762	0.03559	0.03387	0.03243
0.03123								
3773723.80 |	0.03912	0.03984	0.03943	0.03819	0.03662	0.03511	0.03381	0.03271
0.03178								
3773731.40 |	0.03838	0.03895	0.03874	0.03789	0.03674	0.03558	0.03454	0.03367
0.03293								
3773739.00 |	0.03888	0.03936	0.03929	0.03872	0.03787	0.03697	0.03613	0.03542
0.03481								
3773746.60 |	0.04049	0.04095	0.04102	0.04069	0.04008	0.03938	0.03871	0.03812
0.03762								
3773754.20 |	0.04330	0.04384	0.04409	0.04397	0.04358	0.04306	0.04252	0.04205
0.04165								
3773761.80 |	0.04755	0.04829	0.04886	0.04901	0.04883	0.04848	0.04810	0.04775
0.04747								
3773769.40 |	0.05374	0.05488	0.05607	0.05669	0.05677	0.05663	0.05644	0.05626
0.05608								
3773777.00 |	0.06287	0.06464	0.06721	0.06886	0.06937	0.06957	0.06972	0.06979
0.06973								
3773784.60 |	0.07708	0.07959	0.08556	0.09021	0.09171	0.09282	0.09368	0.09409
0.09417								
3773792.20 |	0.10228	0.10436	0.11938	0.13704	0.14245	0.14642	0.14826	0.14855
0.14827								
3773799.80 |	0.15998	0.15687	0.18678	0.35493	0.38968	0.39711	0.38992	0.37342
0.35943								

*** AERMOD - VERSION 21112 *** *** 5420 Sunset Boulevard Project - ***
10/02/21
*** AERMET - VERSION 16216 *** *** Update to Include Source Terms (Heavy Duty Trucks) From Project
*** 13:15:52

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*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*
*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5 YEARS FOR
SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): 25PQT000 , 25PQT001 , 25PQT002 , 25PQT003 ,
25PQT004 ,
25PQT005 , 25PQT006 , 25PQT007 , 25PQT008 , 25PQT009 , 25PQT00A , 25PQT00B ,
25PQT00C ,
25PQT00D , 25PQT00E , 25PQT00F , 25PQT00G , 25PQT00H , 25PQT00I , 25PQT00J ,
25PQT00K ,

25PQT00L , 25PQT00M , 25PQT00N , 25PQT00O , 25PQT00P , 25PQT00Q , 25PQT00R , ...

*** NETWORK ID: 25PQT02I ; NETWORK TYPE: GRIDCART ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

Y-COORD |	X-COORD (METERS)		
(METERS) |	379400.70	379409.80	379418.90

3773647.80 |	0.02071	0.01961	0.01875
3773655.40 |	0.02264	0.02123	0.02014
3773663.00 |	0.02470	0.02297	0.02166
3773670.60 |	0.02662	0.02467	0.02317
3773678.20 |	0.02813	0.02609	0.02453
3773685.80 |	0.02905	0.02713	0.02561
3773693.40 |	0.02949	0.02780	0.02644
3773701.00 |	0.02966	0.02826	0.02710
3773708.60 |	0.02982	0.02870	0.02776
3773716.20 |	0.03021	0.02933	0.02858
3773723.80 |	0.03098	0.03029	0.02969
3773731.40 |	0.03230	0.03175	0.03126
3773739.00 |	0.03430	0.03385	0.03344
3773746.60 |	0.03720	0.03680	0.03640
3773754.20 |	0.04132	0.04097	0.04066
3773761.80 |	0.04719	0.04697	0.04671
3773769.40 |	0.05595	0.05579	0.05563
3773777.00 |	0.06973	0.06969	0.06962
3773784.60 |	0.09426	0.09427	0.09423
3773792.20 |	0.14836	0.14833	0.14827
3773799.80 |	0.35935	0.35923	0.35909

*** AERMOD - VERSION 21112 *** ** 5420 Sunset Boulevard Project - ***
10/02/21

*** AERMET - VERSION 16216 *** ** Update to Include Source Terms (Heavy Duty Trucks) From Project
*** 13:15:52

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*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5 YEARS FOR
SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): 25PQT000 , 25PQT001 , 25PQT002 , 25PQT003 ,
25PQT004 ,
25PQT005 , 25PQT006 , 25PQT007 , 25PQT008 , 25PQT009 , 25PQT00A , 25PQT00B ,
25PQT00C ,
25PQT00D , 25PQT00E , 25PQT00F , 25PQT00G , 25PQT00H , 25PQT00I , 25PQT00J ,
25PQT00K ,
25PQT00L , 25PQT00M , 25PQT00N , 25PQT00O , 25PQT00P , 25PQT00Q , 25PQT00R , ...

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC			

378622.80	3773348.80	0.00566						
*** AERMOD - VERSION 21112 *** ** 5420 Sunset Boulevard Project - ***								
10/02/21								
*** AERMET - VERSION 16216 *** ** Update to Include Source Terms (Heavy Duty Trucks) From Project ***								
13:15:52								
PAGE 26								
*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*								
*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5 YEARS FOR SOURCE GROUP: ALL ***								
INCLUDING SOURCE(S): 25PQT000 , 25PQT001 , 25PQT002 , 25PQT003 , 25PQT004 , 25PQT005 , 25PQT006 , 25PQT007 , 25PQT008 , 25PQT009 , 25PQT00A , 25PQT00B , 25PQT00C , 25PQT00D , 25PQT00E , 25PQT00F , 25PQT00G , 25PQT00H , 25PQT00I , 25PQT00J , 25PQT00K , 25PQT00L , 25PQT00M , 25PQT00N , 25PQT00O , 25PQT00P , 25PQT00Q , 25PQT00R , . . . ,								
*** SENSITIVE DISCRETE RECEPTOR POINTS ***								
** CONC OF OTHER IN MICROGRAMS/M**3 **								
X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC			

378701.50	3773634.90	0.01081	378482.50	3773427.50	0.00467			
378899.10	3773999.00	0.00802						
*** AERMOD - VERSION 21112 *** ** 5420 Sunset Boulevard Project - ***								
10/02/21								
*** AERMET - VERSION 16216 *** ** Update to Include Source Terms (Heavy Duty Trucks) From Project ***								
13:15:52								
PAGE 27								
*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*								
*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5 YEARS FOR SOURCE GROUP: HDTS ***								
INCLUDING SOURCE(S): 25PQT02U , 25PQT02V , 25PQT02X , 25PQT02Y , 25PQT02Z , 25PQT030 , 25PQT031 , 25PQT032 , 25PQT033 , 25PQT034 , 25PQT035 , 25PQT036 , 25PQT03A , 25PQT03C ,								
*** NETWORK ID: 25PQT02I ; NETWORK TYPE: GRIDCART ***								
** CONC OF OTHER IN MICROGRAMS/M**3 **								
Y-COORD |	X-COORD (METERS)							
(METERS) |	379236.90	379246.00	379255.10	379264.20	379273.30	379282.40	379291.50	379300.60
379309.70								

3773647.80 |	0.05398	0.03724	0.03210	0.03135	0.03410	0.04164	0.05726	0.08665

0.01472								
3773655.40 |	0.05452	0.03766	0.03248	0.03173	0.03468	0.04339	0.06486	0.01586
0.01521								
3773663.00 |	0.05563	0.03811	0.03272	0.03178	0.03447	0.04310	0.06731	0.01640
0.01575								
3773670.60 |	0.05674	0.03852	0.03280	0.03151	0.03353	0.04073	0.06338	0.01699
0.01636								
3773678.20 |	0.05822	0.03884	0.03279	0.03106	0.03223	0.03734	0.05287	0.10252
0.01704								
3773685.80 |	0.05942	0.03924	0.03285	0.03067	0.03101	0.03416	0.04277	0.06317
0.10405								
3773693.40 |	0.06012	0.03967	0.03304	0.03050	0.03016	0.03188	0.03664	0.04648
0.06216								
3773701.00 |	0.06130	0.04029	0.03345	0.03061	0.02977	0.03055	0.03329	0.03862
0.04615								
3773708.60 |	0.06237	0.04112	0.03412	0.03105	0.02984	0.02999	0.03157	0.03473
0.03905								
3773716.20 |	0.06367	0.04220	0.03506	0.03182	0.03035	0.03008	0.03093	0.03289
0.03558								
3773723.80 |	0.06526	0.04359	0.03634	0.03296	0.03130	0.03074	0.03110	0.03232
0.03408								
3773731.40 |	0.06720	0.04535	0.03801	0.03453	0.03273	0.03194	0.03198	0.03270
0.03388								
3773739.00 |	0.06958	0.04758	0.04018	0.03662	0.03471	0.03376	0.03354	0.03393
0.03473								
3773746.60 |	0.07257	0.05043	0.04300	0.03939	0.03738	0.03629	0.03587	0.03600
0.03655								
3773754.20 |	0.07699	0.05419	0.04670	0.04305	0.04098	0.03976	0.03917	0.03910
0.03947								
3773761.80 |	0.08269	0.05917	0.05165	0.04799	0.04586	0.04455	0.04380	0.04354
0.04376								
3773769.40 |	0.08971	0.06590	0.05842	0.05480	0.05266	0.05129	0.05041	0.04995
0.04997								
3773777.00 |	0.09938	0.07550	0.06814	0.06461	0.06253	0.06116	0.06017	0.05948
0.05920								
3773784.60 |	0.11388	0.09030	0.08318	0.07985	0.07793	0.07663	0.07559	0.07466
0.07392								
3773792.20 |	0.13903	0.11612	0.10958	0.10672	0.10507	0.10390	0.10287	0.10174
0.10038								
3773799.80	0.19486	0.17428	0.16937	0.16718	0.16574	0.16455	0.16336	0.16196
0.15999								

*** AERMOD - VERSION 21112 *** *** 5420 Sunset Boulevard Project - ***

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*** AERMET - VERSION 16216 *** *** Update to Include Source Terms (Heavy Duty Trucks) From Project

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*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5 YEARS FOR

SOURCE GROUP: HDTS ***

INCLUDING SOURCE(S): 25PQT02U , 25PQT02V , 25PQT02X , 25PQT02Y ,

25PQT02Z ,

25PQT030 , 25PQT031 , 25PQT032 , 25PQT033 , 25PQT034 , 25PQT035 , 25PQT036 ,

25PQT03A ,

25PQT03C ,

*** NETWORK ID: 25PQT02I ; NETWORK TYPE: GRIDCART ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

Y-COORD | (METERS) |	X-COORD (METERS)							
379318.80	379327.90	379337.00	379346.10	379355.20	379364.30	379373.40	379382.50	
379391.60								

3773647.80 |	0.01421	0.01379	0.08733	0.04873	0.03477	0.02765	0.02343	0.02069
0.01881								
3773655.40 |	0.01470	0.01429	0.01395	0.06998	0.04514	0.03390	0.02768	0.02383
0.02125								
3773663.00 |	0.01525	0.01484	0.01451	0.08957	0.05505	0.04010	0.03203	0.02709
0.02384								
3773670.60 |	0.01586	0.01546	0.01513	0.09405	0.06017	0.04426	0.03536	0.02984
0.02615								
3773678.20 |	0.01655	0.01616	0.13488	0.08434	0.05897	0.04516	0.03686	0.03148
0.02778								
3773685.80 |	0.01732	0.12368	0.09359	0.06928	0.05334	0.04319	0.03650	0.03188
0.02857								
3773693.40 |	0.07660	0.07567	0.06665	0.05568	0.04657	0.03985	0.03498	0.03139
0.02869								
3773701.00 |	0.05270	0.05441	0.05132	0.04603	0.04083	0.03654	0.03318	0.03055
0.02848								
3773708.60 |	0.04285	0.04426	0.04293	0.04003	0.03686	0.03405	0.03173	0.02985
0.02831								
3773716.20 |	0.03802	0.03908	0.03843	0.03665	0.03454	0.03259	0.03094	0.02957
0.02843								
3773723.80 |	0.03573	0.03654	0.03622	0.03507	0.03359	0.03216	0.03092	0.02989
0.02902								
3773731.40 |	0.03505	0.03570	0.03558	0.03482	0.03375	0.03266	0.03170	0.03089
0.03021								
3773739.00 |	0.03560	0.03616	0.03618	0.03570	0.03493	0.03409	0.03332	0.03267
0.03213								
3773746.60 |	0.03726	0.03780	0.03796	0.03770	0.03717	0.03654	0.03593	0.03540
0.03497								
3773754.20 |	0.04011	0.04073	0.04106	0.04102	0.04070	0.04025	0.03978	0.03937
0.03903								
3773761.80 |	0.04439	0.04521	0.04586	0.04609	0.04598	0.04570	0.04539	0.04511
0.04488								
3773769.40 |	0.05061	0.05183	0.05310	0.05379	0.05395	0.05388	0.05376	0.05365
0.05353								
3773777.00 |	0.05976	0.06162	0.06427	0.06599	0.06657	0.06685	0.06707	0.06721
0.06721								
3773784.60 |	0.07401	0.07660	0.08265	0.08737	0.08894	0.09011	0.09105	0.09153
0.09167								
3773792.20 |	0.09922	0.10139	0.11648	0.13421	0.13970	0.14374	0.14565	0.14601
0.14578								
3773799.80 |	0.15695	0.15392	0.18390	0.35212	0.38694	0.39444	0.38732	0.37089
0.35697								

*** AERMOD - VERSION 21112 *** *** 5420 Sunset Boulevard Project -

10/02/21

*** AERMET - VERSION 16216 *** *** Update to Include Source Terms (Heavy Duty Trucks) From Project
*** 13:15:52

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*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5 YEARS FOR
SOURCE GROUP: HDTS ***

INCLUDING SOURCE(S): 25PQT02U , 25PQT02V , 25PQT02X , 25PQT02Y ,
25PQT02Z ,
25PQT030 , 25PQT031 , 25PQT032 , 25PQT033 , 25PQT034 , 25PQT035 , 25PQT036 ,
25PQT03A ,
25PQT03C ,

*** NETWORK ID: 25PQT02I ; NETWORK TYPE: GRIDCART ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

Y-COORD |	X-COORD (METERS)		
(METERS) |	379400.70	379409.80	379418.90

3773647.80 |	0.01745	0.01643	0.01564
3773655.40 |	0.01944	0.01811	0.01710
3773663.00 |	0.02158	0.01992	0.01868
3773670.60 |	0.02357	0.02168	0.02025
3773678.20 |	0.02513	0.02316	0.02166
3773685.80 |	0.02612	0.02425	0.02279
3773693.40 |	0.02661	0.02498	0.02367
3773701.00 |	0.02683	0.02548	0.02438
3773708.60 |	0.02703	0.02597	0.02508
3773716.20 |	0.02746	0.02664	0.02593
3773723.80 |	0.02828	0.02765	0.02709
3773731.40 |	0.02964	0.02914	0.02871
3773739.00 |	0.03168	0.03129	0.03092
3773746.60 |	0.03461	0.03427	0.03393
3773754.20 |	0.03876	0.03848	0.03822
3773761.80 |	0.04467	0.04450	0.04429
3773769.40 |	0.05345	0.05334	0.05323
3773777.00 |	0.06726	0.06727	0.06725
3773784.60 |	0.09181	0.09187	0.09187
3773792.20 |	0.14593	0.14595	0.14594
3773799.80 |	0.35694	0.35687	0.35677

*** AERMOD - VERSION 21112 *** *** 5420 Sunset Boulevard Project -

10/02/21

*** AERMET - VERSION 16216 *** *** Update to Include Source Terms (Heavy Duty Trucks) From Project
*** 13:15:52

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*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5 YEARS FOR
SOURCE GROUP: HDTS ***

INCLUDING SOURCE(S): 25PQT02U , 25PQT02V , 25PQT02X , 25PQT02Y ,
25PQT02Z ,

25PQT030 , 25PQT031 , 25PQT032 , 25PQT033 , 25PQT034 , 25PQT035 , 25PQT036 ,
25PQT03A ,
25PQT03C ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
378622.80	3773348.80	0.00286			

*** AERMOD - VERSION 21112 *** ** 5420 Sunset Boulevard Project - ***
10/02/21
*** AERMET - VERSION 16216 *** ** Update to Include Source Terms (Heavy Duty Trucks) From Project
*** 13:15:52

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*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5 YEARS FOR
SOURCE GROUP: HDTS ***
INCLUDING SOURCE(S): 25PQT02U , 25PQT02V , 25PQT02X , 25PQT02Y ,
25PQT02Z ,
25PQT030 , 25PQT031 , 25PQT032 , 25PQT033 , 25PQT034 , 25PQT035 , 25PQT036 ,
25PQT03A ,
25PQT03C ,

*** SENSITIVE DISCRETE RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
378701.50	3773634.90	0.00615	378482.50	3773427.50	0.00201
378899.10	3773999.00	0.00374			

*** AERMOD - VERSION 21112 *** ** 5420 Sunset Boulevard Project - ***
10/02/21
*** AERMET - VERSION 16216 *** ** Update to Include Source Terms (Heavy Duty Trucks) From Project
*** 13:15:52

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*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5 YEARS FOR
SOURCE GROUP: FREEWAY ***
INCLUDING SOURCE(S): 25PQT000 , 25PQT001 , 25PQT002 , 25PQT003 ,
25PQT004 ,
25PQT005 , 25PQT006 , 25PQT007 , 25PQT008 , 25PQT009 , 25PQT00A , 25PQT00B ,
25PQT00C ,
25PQT00D , 25PQT00E , 25PQT00F , 25PQT00G , 25PQT00H , 25PQT00I , 25PQT00J ,
25PQT00K ,
25PQT00L , 25PQT00M , 25PQT00N , 25PQT00O , 25PQT00P , 25PQT00Q , 25PQT00R , ...

*** NETWORK ID: 25PQT02I ; NETWORK TYPE: GRIDCART ***

Y-COORD | (METERS) |	379236.90	379246.00	379255.10	379264.20	379273.30	379282.40	379291.50	379300.60
379309.70								

3773647.80 |	0.00511	0.00492	0.00475	0.00457	0.00440	0.00424	0.00407	0.00392
0.00377								
3773655.40 |	0.00492	0.00475	0.00458	0.00442	0.00426	0.00409	0.00393	0.00378
0.00364								
3773663.00 |	0.00474	0.00458	0.00442	0.00426	0.00411	0.00395	0.00380	0.00366
0.00353								
3773670.60 |	0.00457	0.00441	0.00426	0.00411	0.00397	0.00382	0.00368	0.00355
0.00342								
3773678.20 |	0.00440	0.00425	0.00411	0.00397	0.00383	0.00370	0.00356	0.00344
0.00332								
3773685.80 |	0.00424	0.00410	0.00397	0.00383	0.00370	0.00357	0.00345	0.00333
0.00322								
3773693.40 |	0.00410	0.00397	0.00384	0.00371	0.00359	0.00346	0.00335	0.00323
0.00312								
3773701.00 |	0.00396	0.00384	0.00371	0.00359	0.00347	0.00336	0.00325	0.00314
0.00303								
3773708.60 |	0.00383	0.00372	0.00360	0.00348	0.00337	0.00326	0.00315	0.00304
0.00294								
3773716.20 |	0.00371	0.00360	0.00349	0.00338	0.00327	0.00316	0.00306	0.00296
0.00286								
3773723.80 |	0.00360	0.00349	0.00338	0.00328	0.00317	0.00307	0.00297	0.00287
0.00278								
3773731.40 |	0.00349	0.00339	0.00328	0.00318	0.00308	0.00298	0.00288	0.00278
0.00269								
3773739.00 |	0.00339	0.00329	0.00319	0.00309	0.00299	0.00289	0.00279	0.00270
0.00261								
3773746.60 |	0.00329	0.00319	0.00310	0.00301	0.00291	0.00281	0.00272	0.00262
0.00254								
3773754.20 |	0.00319	0.00310	0.00301	0.00292	0.00283	0.00274	0.00264	0.00256
0.00247								
3773761.80 |	0.00310	0.00301	0.00292	0.00284	0.00275	0.00266	0.00258	0.00249
0.00241								
3773769.40 |	0.00301	0.00293	0.00284	0.00276	0.00268	0.00259	0.00251	0.00243
0.00235								
3773777.00 |	0.00293	0.00285	0.00277	0.00269	0.00261	0.00253	0.00245	0.00237
0.00230								
3773784.60 |	0.00285	0.00278	0.00270	0.00262	0.00254	0.00247	0.00239	0.00232
0.00225								
3773792.20 |	0.00278	0.00271	0.00263	0.00256	0.00248	0.00241	0.00234	0.00226
0.00219								
3773799.80 |	0.00272	0.00264	0.00257	0.00250	0.00243	0.00235	0.00228	0.00221
0.00215								

*** AERMOD - VERSION 21112 *** *** 5420 Sunset Boulevard Project - ***

10/02/21
 *** AERMET - VERSION 16216 *** *** Update to Include Source Terms (Heavy Duty Trucks) From Project
 *** 13:15:52

*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5 YEARS FOR
SOURCE GROUP: FREEWAY ***

INCLUDING SOURCE(S): 25PQT000 , 25PQT001 , 25PQT002 , 25PQT003 ,
25PQT004 ,
25PQT005 , 25PQT006 , 25PQT007 , 25PQT008 , 25PQT009 , 25PQT00A , 25PQT00B ,
25PQT00C ,
25PQT00D , 25PQT00E , 25PQT00F , 25PQT00G , 25PQT00H , 25PQT00I , 25PQT00J ,
25PQT00K ,
25PQT00L , 25PQT00M , 25PQT00N , 25PQT00O , 25PQT00P , 25PQT00Q , 25PQT00R , ...
.

*** NETWORK ID: 25PQT02I ; NETWORK TYPE: GRIDCART ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

Y-COORD | (METERS) |	X-COORD (METERS)							
379318.80	379327.90	379337.00	379346.10	379355.20	379364.30	379373.40	379382.50	379391.60

3773647.80 | 0.00277	0.00363	0.00349	0.00337	0.00326	0.00315	0.00305	0.00295	0.00286
3773655.40 | 0.00269	0.00351	0.00339	0.00327	0.00316	0.00306	0.00296	0.00287	0.00278
3773663.00 | 0.00261	0.00340	0.00329	0.00317	0.00307	0.00297	0.00287	0.00278	0.00269
3773670.60 | 0.00253	0.00330	0.00319	0.00308	0.00298	0.00288	0.00279	0.00270	0.00261
3773678.20 | 0.00245	0.00320	0.00309	0.00299	0.00289	0.00280	0.00271	0.00262	0.00252
3773685.80 | 0.00237	0.00311	0.00300	0.00290	0.00281	0.00272	0.00263	0.00253	0.00245
3773693.40 | 0.00230	0.00302	0.00292	0.00282	0.00273	0.00264	0.00255	0.00246	0.00238
3773701.00 | 0.00224	0.00293	0.00283	0.00274	0.00264	0.00255	0.00247	0.00239	0.00231
3773708.60 | 0.00218	0.00285	0.00275	0.00266	0.00256	0.00248	0.00239	0.00232	0.00225
3773716.20 | 0.00212	0.00277	0.00268	0.00258	0.00249	0.00240	0.00232	0.00225	0.00219
3773723.80 | 0.00207	0.00268	0.00260	0.00251	0.00242	0.00234	0.00226	0.00219	0.00213
3773731.40 | 0.00202	0.00260	0.00252	0.00244	0.00235	0.00228	0.00220	0.00214	0.00207
3773739.00 | 0.00196	0.00253	0.00245	0.00237	0.00229	0.00221	0.00215	0.00208	0.00202
3773746.60 | 0.00192	0.00245	0.00238	0.00230	0.00223	0.00216	0.00209	0.00203	0.00197
3773754.20 | 0.00186	0.00239	0.00232	0.00224	0.00217	0.00211	0.00204	0.00198	0.00192
3773761.80 | 0.00181	0.00233	0.00226	0.00219	0.00212	0.00206	0.00199	0.00193	0.00187

3773769.40 |	0.00228	0.00221	0.00214	0.00207	0.00201	0.00195	0.00188	0.00182
0.00176								
3773777.00 |	0.00223	0.00216	0.00209	0.00202	0.00196	0.00190	0.00183	0.00177
0.00172								
3773784.60 |	0.00218	0.00211	0.00204	0.00198	0.00192	0.00186	0.00179	0.00173
0.00168								
3773792.20 |	0.00213	0.00206	0.00200	0.00194	0.00188	0.00182	0.00176	0.00170
0.00164								
3773799.80 |	0.00208	0.00202	0.00195	0.00190	0.00184	0.00178	0.00172	0.00166
0.00161								

*** AERMOD - VERSION 21112 ***

*** 5420 Sunset Boulevard Project -

10/02/21

*** AERMET - VERSION 16216 ***

*** Update to Include Source Terms (Heavy Duty Trucks) From Project

*** 13:15:52

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*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5 YEARS FOR SOURCE GROUP: FREEWAY ***

INCLUDING SOURCE(S):

25PQT000 , 25PQT001 , 25PQT002 , 25PQT003 ,

25PQT004 ,

25PQT005 , 25PQT006 , 25PQT007 , 25PQT008 , 25PQT009 , 25PQT00A , 25PQT00B ,

25PQT00C ,

25PQT00D , 25PQT00E , 25PQT00F , 25PQT00G , 25PQT00H , 25PQT00I , 25PQT00J ,

25PQT00K ,

25PQT00L , 25PQT00M , 25PQT00N , 25PQT00O , 25PQT00P , 25PQT00Q , 25PQT00R , ...

*** NETWORK ID: 25PQT02I ; NETWORK TYPE: GRIDCART ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

Y-COORD |	X-COORD (METERS)		
(METERS) |	379400.70	379409.80	379418.90

3773647.80 |	0.00268	0.00259	0.00251
3773655.40 |	0.00260	0.00252	0.00244
3773663.00 |	0.00252	0.00244	0.00237
3773670.60 |	0.00245	0.00237	0.00230
3773678.20 |	0.00237	0.00231	0.00224
3773685.80 |	0.00230	0.00224	0.00218
3773693.40 |	0.00224	0.00218	0.00212
3773701.00 |	0.00218	0.00212	0.00207
3773708.60 |	0.00212	0.00206	0.00201
3773716.20 |	0.00207	0.00201	0.00196
3773723.80 |	0.00201	0.00195	0.00190
3773731.40 |	0.00195	0.00190	0.00184
3773739.00 |	0.00190	0.00184	0.00179
3773746.60 |	0.00185	0.00179	0.00174
3773754.20 |	0.00181	0.00175	0.00170
3773761.80 |	0.00176	0.00171	0.00166
3773769.40 |	0.00171	0.00166	0.00162
3773777.00 |	0.00167	0.00162	0.00158

3773784.60 | 0.00163 0.00159 0.00155
3773792.20 | 0.00160 0.00155 0.00151
3773799.80 | 0.00156 0.00152 0.00148

*** AERMOD - VERSION 21112 *** *** 5420 Sunset Boulevard Project -

10/02/21

*** AERMET - VERSION 16216 *** *** Update to Include Source Terms (Heavy Duty Trucks) From Project
*** 13:15:52

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*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5 YEARS FOR
SOURCE GROUP: FREEWAY ***

INCLUDING SOURCE(S): 25PQT000 , 25PQT001 , 25PQT002 , 25PQT003 ,
25PQT004 ,
25PQT005 , 25PQT006 , 25PQT007 , 25PQT008 , 25PQT009 , 25PQT00A , 25PQT00B ,
25PQT00C ,
25PQT00D , 25PQT00E , 25PQT00F , 25PQT00G , 25PQT00H , 25PQT00I , 25PQT00J ,
25PQT00K ,
25PQT00L , 25PQT00M , 25PQT00N , 25PQT00O , 25PQT00P , 25PQT00Q , 25PQT00R , ...
.

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
-------------	-------------	------	-------------	-------------	------

378622.80	3773348.80	0.00227			
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*** AERMOD - VERSION 21112 *** *** 5420 Sunset Boulevard Project -

10/02/21

*** AERMET - VERSION 16216 *** *** Update to Include Source Terms (Heavy Duty Trucks) From Project
*** 13:15:52

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*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5 YEARS FOR
SOURCE GROUP: FREEWAY ***

INCLUDING SOURCE(S): 25PQT000 , 25PQT001 , 25PQT002 , 25PQT003 ,
25PQT004 ,
25PQT005 , 25PQT006 , 25PQT007 , 25PQT008 , 25PQT009 , 25PQT00A , 25PQT00B ,
25PQT00C ,
25PQT00D , 25PQT00E , 25PQT00F , 25PQT00G , 25PQT00H , 25PQT00I , 25PQT00J ,
25PQT00K ,
25PQT00L , 25PQT00M , 25PQT00N , 25PQT00O , 25PQT00P , 25PQT00Q , 25PQT00R , ...
.

*** SENSITIVE DISCRETE RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
-------------	-------------	------	-------------	-------------	------

378701.50	3773634.90	0.00209	378482.50	3773427.50	0.00139
378899.10	3773999.00	0.00111			

*** AERMOD - VERSION 21112 ***

*** 5420 Sunset Boulevard Project -

10/02/21

*** AERMET - VERSION 16216 ***

*** Update to Include Source Terms (Heavy Duty Trucks) From Project

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*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

*** THE SUMMARY OF MAXIMUM ANNUAL RESULTS AVERAGED OVER 5 YEARS

** CONC OF OTHER IN MICROGRAMS/M**3		**
NETWORK		
GROUP ID	AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG) OF TYPE
GRID-ID		

ALL 1ST HIGHEST VALUE IS	0.39711 AT (	379364.30, 3773799.80, 109.20, 347.00, 0.00) GC
25PQT02I		
2ND HIGHEST VALUE IS	0.38992 AT (	379373.40, 3773799.80, 109.50, 347.00, 0.00) GC
25PQT02I		
3RD HIGHEST VALUE IS	0.38968 AT (	379355.20, 3773799.80, 109.00, 347.00, 0.00) GC
25PQT02I		
4TH HIGHEST VALUE IS	0.37342 AT (	379382.50, 3773799.80, 109.80, 347.00, 0.00) GC
25PQT02I		
5TH HIGHEST VALUE IS	0.35943 AT (	379391.60, 3773799.80, 110.00, 347.00, 0.00) GC
25PQT02I		
6TH HIGHEST VALUE IS	0.35935 AT (	379400.70, 3773799.80, 110.00, 347.00, 0.00) GC
25PQT02I		
7TH HIGHEST VALUE IS	0.35923 AT (	379409.80, 3773799.80, 110.00, 347.00, 0.00) GC
25PQT02I		
8TH HIGHEST VALUE IS	0.35909 AT (	379418.90, 3773799.80, 110.00, 347.00, 0.00) GC
25PQT02I		
9TH HIGHEST VALUE IS	0.35493 AT (	379346.10, 3773799.80, 109.00, 347.00, 0.00) GC
25PQT02I		
10TH HIGHEST VALUE IS	0.19872 AT (	379236.90, 3773799.80, 109.00, 109.00, 0.00) GC
25PQT02I		
HDTS 1ST HIGHEST VALUE IS	0.39444 AT (	379364.30, 3773799.80, 109.20, 347.00, 0.00) GC
25PQT02I		
2ND HIGHEST VALUE IS	0.38732 AT (	379373.40, 3773799.80, 109.50, 347.00, 0.00) GC
25PQT02I		
3RD HIGHEST VALUE IS	0.38694 AT (	379355.20, 3773799.80, 109.00, 347.00, 0.00) GC
25PQT02I		
4TH HIGHEST VALUE IS	0.37089 AT (	379382.50, 3773799.80, 109.80, 347.00, 0.00) GC
25PQT02I		
5TH HIGHEST VALUE IS	0.35697 AT (	379391.60, 3773799.80, 110.00, 347.00, 0.00) GC
25PQT02I		
6TH HIGHEST VALUE IS	0.35694 AT (	379400.70, 3773799.80, 110.00, 347.00, 0.00) GC
25PQT02I		
7TH HIGHEST VALUE IS	0.35687 AT (	379409.80, 3773799.80, 110.00, 347.00, 0.00) GC
25PQT02I		
8TH HIGHEST VALUE IS	0.35677 AT (	379418.90, 3773799.80, 110.00, 347.00, 0.00) GC

25PQT02I
 9TH HIGHEST VALUE IS 0.35212 AT (379346.10, 3773799.80, 109.00, 347.00, 0.00) GC
 25PQT02I
 10TH HIGHEST VALUE IS 0.19486 AT (379236.90, 3773799.80, 109.00, 109.00, 0.00) GC
 25PQT02I
 FREEWAY 1ST HIGHEST VALUE IS 0.00511 AT (379236.90, 3773647.80, 107.00, 107.00, 0.00) GC
 25PQT02I
 2ND HIGHEST VALUE IS 0.00492 AT (379246.00, 3773647.80, 107.00, 107.00, 0.00) GC
 25PQT02I
 3RD HIGHEST VALUE IS 0.00492 AT (379236.90, 3773655.40, 107.00, 107.00, 0.00) GC
 25PQT02I
 4TH HIGHEST VALUE IS 0.00475 AT (379246.00, 3773655.40, 107.00, 107.00, 0.00) GC
 25PQT02I
 5TH HIGHEST VALUE IS 0.00475 AT (379255.10, 3773647.80, 107.00, 107.00, 0.00) GC
 25PQT02I
 6TH HIGHEST VALUE IS 0.00474 AT (379236.90, 3773663.00, 107.20, 107.20, 0.00) GC
 25PQT02I
 7TH HIGHEST VALUE IS 0.00458 AT (379255.10, 3773655.40, 107.00, 107.00, 0.00) GC
 25PQT02I
 8TH HIGHEST VALUE IS 0.00458 AT (379246.00, 3773663.00, 107.20, 107.20, 0.00) GC
 25PQT02I
 9TH HIGHEST VALUE IS 0.00457 AT (379264.20, 3773647.80, 107.00, 107.00, 0.00) GC
 25PQT02I
 10TH HIGHEST VALUE IS 0.00457 AT (379236.90, 3773670.60, 107.40, 107.40, 0.00) GC
 25PQT02I

*** RECEPTOR TYPES: GC = GRIDCART
 GP = GRIDPOLR
 DC = DISCCART
 DP = DISCPOLR

*** AERMOD - VERSION 21112 *** *** 5420 Sunset Boulevard Project - ***
 10/02/21
 *** AERMET - VERSION 16216 *** *** Update to Include Source Terms (Heavy Duty Trucks) From Project
 *** 13:15:52

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*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

*** Message Summary : AERMOD Model Execution ***

----- Summary of Total Messages -----

A Total of 0 Fatal Error Message(s)
 A Total of 5 Warning Message(s)
 A Total of 808 Informational Message(s)
 A Total of 43824 Hours Were Processed
 A Total of 4 Calm Hours Identified
 A Total of 804 Missing Hours Identified (1.83 Percent)

***** FATAL ERROR MESSAGES *****

*** NONE ***

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

SO W320 268 VPARM: Input Parameter May Be Out-of-Range for Parameter SZINIT
ME W186 411 MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used 0.50
ME W187 411 MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET
MX W450 17521 CHKDAT: Record Out of Sequence in Meteorological File at: 14010101
MX W450 17521 CHKDAT: Record Out of Sequence in Meteorological File at: 2 year gap

*** AERMOD Finishes Successfully ***

* AERMOD (21112): 5420 Sunset Boulevard Project -

10/02/21

* AERMET (16216):

13:15:52

* MODELING OPTIONS USED: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

* PLOT FILE OF ANNUAL VALUES AVERAGED ACROSS 5 YEARS FOR SOURCE GROUP: ALL
* FOR A TOTAL OF 445 RECEPTORS.

* FORMAT: (A,IX,3(IX,F13.5),3(IX,F8.2),2X,A6,2X,A8,2X,I8.8,2X,A8)

* X Y AVERAGE CONC ZELEV ZHILL ZFLAG AVE GRP NUM YRS NET ID

379236.90000	3773799.80000	0.19872	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379246.00000	3773799.80000	0.17804	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379255.10000	3773799.80000	0.17304	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379264.20000	3773799.80000	0.17075	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379273.30000	3773799.80000	0.16921	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379282.40000	3773799.80000	0.16793	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379291.50000	3773799.80000	0.16665	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379300.60000	3773799.80000	0.16516	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379309.70000	3773799.80000	0.16311	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379318.80000	3773799.80000	0.15998	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379327.90000	3773799.80000	0.15687	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379337.00000	3773799.80000	0.18678	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379346.10000	3773799.80000	0.35493	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379355.20000	3773799.80000	0.38968	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379364.30000	3773799.80000	0.39711	109.20	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379373.40000	3773799.80000	0.38992	109.50	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379382.50000	3773799.80000	0.37342	109.80	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379391.60000	3773799.80000	0.35943	110.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379400.70000	3773799.80000	0.35935	110.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379409.80000	3773799.80000	0.35923	110.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379418.90000	3773799.80000	0.35909	110.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379236.90000	3773792.20000	0.14292	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379246.00000	3773792.20000	0.11991	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379255.10000	3773792.20000	0.11327	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379264.20000	3773792.20000	0.11031	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379273.30000	3773792.20000	0.10857	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379282.40000	3773792.20000	0.10730	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379291.50000	3773792.20000	0.10618	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379300.60000	3773792.20000	0.10496	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379309.70000	3773792.20000	0.10352	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379318.80000	3773792.20000	0.10228	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379327.90000	3773792.20000	0.10436	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379337.00000	3773792.20000	0.11938	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379346.10000	3773792.20000	0.13704	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379355.20000	3773792.20000	0.14245	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379364.30000	3773792.20000	0.14642	109.20	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379373.40000	3773792.20000	0.14826	109.50	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379382.50000	3773792.20000	0.14855	109.80	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379391.60000	3773792.20000	0.14827	110.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379400.70000	3773792.20000	0.14836	110.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379409.80000	3773792.20000	0.14833	110.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379418.90000	3773792.20000	0.14827	110.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379236.90000	3773784.60000	0.11780	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379246.00000	3773784.60000	0.09412	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379255.10000	3773784.60000	0.08690	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379264.20000	3773784.60000	0.08347	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379273.30000	3773784.60000	0.08146	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379282.40000	3773784.60000	0.08006	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379291.50000	3773784.60000	0.07893	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379300.60000	3773784.60000	0.07791	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379309.70000	3773784.60000	0.07708	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379318.80000	3773784.60000	0.07708	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379327.90000	3773784.60000	0.07959	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379337.00000	3773784.60000	0.08556	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379346.10000	3773784.60000	0.09021	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379355.20000	3773784.60000	0.09171	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379364.30000	3773784.60000	0.09282	109.20	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379373.40000	3773784.60000	0.09368	109.50	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379382.50000	3773784.60000	0.09409	109.80	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379391.60000	3773784.60000	0.09417	110.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379400.70000	3773784.60000	0.09426	110.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379409.80000	3773784.60000	0.09427	110.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379418.90000	3773784.60000	0.09423	110.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379236.90000	3773777.00000	0.10334	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379246.00000	3773777.00000	0.07935	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379255.10000	3773777.00000	0.07190	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379264.20000	3773777.00000	0.06826	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT02I

379273.30000	3773777.00000	0.06609	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379282.40000	3773777.00000	0.06462	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379291.50000	3773777.00000	0.06353	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379300.60000	3773777.00000	0.06275	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379309.70000	3773777.00000	0.06239	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379318.80000	3773777.00000	0.06287	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379327.90000	3773777.00000	0.06464	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379337.00000	3773777.00000	0.06721	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379346.10000	3773777.00000	0.06886	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379355.20000	3773777.00000	0.06937	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379364.30000	3773777.00000	0.06957	109.20	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379373.40000	3773777.00000	0.06972	109.50	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379382.50000	3773777.00000	0.06979	109.80	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379391.60000	3773777.00000	0.06973	110.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379400.70000	3773777.00000	0.06973	110.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379409.80000	3773777.00000	0.06969	110.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379418.90000	3773777.00000	0.06962	110.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379236.90000	3773769.40000	0.09372	108.70	108.70	0.00	ANNUAL	ALL	00000005	25PQT02I
379246.00000	3773769.40000	0.06980	108.70	108.70	0.00	ANNUAL	ALL	00000005	25PQT02I
379255.10000	3773769.40000	0.06222	108.70	108.70	0.00	ANNUAL	ALL	00000005	25PQT02I
379264.20000	3773769.40000	0.05849	108.70	108.70	0.00	ANNUAL	ALL	00000005	25PQT02I
379273.30000	3773769.40000	0.05625	108.80	108.80	0.00	ANNUAL	ALL	00000005	25PQT02I
379282.40000	3773769.40000	0.05478	108.90	108.90	0.00	ANNUAL	ALL	00000005	25PQT02I
379291.50000	3773769.40000	0.05381	108.90	108.90	0.00	ANNUAL	ALL	00000005	25PQT02I
379300.60000	3773769.40000	0.05325	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379309.70000	3773769.40000	0.05318	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379318.80000	3773769.40000	0.05374	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379327.90000	3773769.40000	0.05488	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379337.00000	3773769.40000	0.05607	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379346.10000	3773769.40000	0.05669	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379355.20000	3773769.40000	0.05677	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379364.30000	3773769.40000	0.05663	109.10	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379373.40000	3773769.40000	0.05644	109.40	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379382.50000	3773769.40000	0.05626	109.60	347.00	0.00	ANNUAL	ALL	00000	

379391.60000	3773754.20000	0.04165	109.30	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379400.70000	3773754.20000	0.04132	109.50	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379409.80000	3773754.20000	0.04097	109.80	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379418.90000	3773754.20000	0.04066	110.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379236.90000	3773746.60000	0.07673	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379246.00000	3773746.60000	0.05448	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379255.10000	3773746.60000	0.04695	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379264.20000	3773746.60000	0.04323	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379273.30000	3773746.60000	0.04112	108.10	108.10	0.00	ANNUAL	ALL	00000005	25PQT02I
379282.40000	3773746.60000	0.03992	108.40	108.40	0.00	ANNUAL	ALL	00000005	25PQT02I
379291.50000	3773746.60000	0.03939	108.70	108.70	0.00	ANNUAL	ALL	00000005	25PQT02I
379300.60000	3773746.60000	0.03942	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379309.70000	3773746.60000	0.03987	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379318.80000	3773746.60000	0.04049	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379327.90000	3773746.60000	0.04095	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379337.00000	3773746.60000	0.04102	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379346.10000	3773746.60000	0.04069	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379355.20000	3773746.60000	0.04008	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379364.30000	3773746.60000	0.03938	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379373.40000	3773746.60000	0.03871	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379382.50000	3773746.60000	0.03812	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379391.60000	3773746.60000	0.03762	109.10	109.10	0.00	ANNUAL	ALL	00000005	25PQT02I
379400.70000	3773746.60000	0.03720	109.40	109.40	0.00	ANNUAL	ALL	00000005	25PQT02I
379409.80000	3773746.60000	0.03680	109.70	109.70	0.00	ANNUAL	ALL	00000005	25PQT02I
379418.90000	3773746.60000	0.03640	110.00	110.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379236.90000	3773739.00000	0.07381	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379246.00000	3773739.00000	0.05169	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379255.10000	3773739.00000	0.04419	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379264.20000	3773739.00000	0.04052	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379273.30000	3773739.00000	0.03850	108.10	108.10	0.00	ANNUAL	ALL	00000005	25PQT02I
379282.40000	3773739.00000	0.03744	108.30	108.30	0.00	ANNUAL	ALL	00000005	25PQT02I
379291.50000	3773739.00000	0.03711	108.60	108.60	0.00	ANNUAL	ALL	00000005	25PQT02I
379300.60000	3773739.00000	0.03740	108.70	108.70	0.00	ANNUAL	ALL	00000005	25PQT02I
379309.70000	3773739.00000	0.03810	108.70	108.70	0.00	ANNUAL	ALL	00000	

379318.80000	3773723.80000	0.03912	108.20	108.20	0.00	ANNUAL	ALL	00000005	25PQT021
379327.90000	3773723.80000	0.03984	108.20	108.20	0.00	ANNUAL	ALL	00000005	25PQT021
379337.00000	3773723.80000	0.03943	108.40	108.40	0.00	ANNUAL	ALL	00000005	25PQT021
379346.10000	3773723.80000	0.03819	108.70	108.70	0.00	ANNUAL	ALL	00000005	25PQT021
379355.20000	3773723.80000	0.03662	108.90	108.90	0.00	ANNUAL	ALL	00000005	25PQT021
379364.30000	3773723.80000	0.03511	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT021
379373.40000	3773723.80000	0.03381	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT021
379382.50000	3773723.80000	0.03271	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT021
379391.60000	3773723.80000	0.03178	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT021
379400.70000	3773723.80000	0.03098	109.10	109.10	0.00	ANNUAL	ALL	00000005	25PQT021
379409.80000	3773723.80000	0.03029	109.20	109.20	0.00	ANNUAL	ALL	00000005	25PQT021
379418.90000	3773723.80000	0.02969	109.20	109.20	0.00	ANNUAL	ALL	00000005	25PQT021
379236.90000	3773716.20000	0.06813	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT021
379246.00000	3773716.20000	0.04654	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT021
379255.10000	3773716.20000	0.03928	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT021
379264.20000	3773716.20000	0.03592	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT021
379273.30000	3773716.20000	0.03433	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT021
379282.40000	3773716.20000	0.03395	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT021
379291.50000	3773716.20000	0.03469	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT021
379300.60000	3773716.20000	0.03654	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT021
379309.70000	3773716.20000	0.03914	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT021
379318.80000	3773716.20000	0.04148	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT021
379327.90000	3773716.20000	0.04244	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT021
379337.00000	3773716.20000	0.04169	108.30	108.30	0.00	ANNUAL	ALL	00000005	25PQT021
379346.10000	3773716.20000	0.03982	108.60	108.60	0.00	ANNUAL	ALL	00000005	25PQT021
379355.20000	3773716.20000	0.03762	108.90	108.90	0.00	ANNUAL	ALL	00000005	25PQT021
379364.30000	3773716.20000	0.03559	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT021
379373.40000	3773716.20000	0.03387	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT021
379382.50000	3773716.20000	0.03243	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT021
379391.60000	3773716.20000	0.03123	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT021
379400.70000	3773716.20000	0.03021	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT021
379409.80000	3773716.20000	0.02933	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT021
379418.90000	3773716.20000	0.02858	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT021
379236.90000	3773708.60000	0.06692	108.00	108.00	0.00	ANNUAL	ALL	00000	

379246.00000	3773693.40000	0.04430	108.00	108.00	0.00	ANNUAL	ALL	000000005	25PQT02I
379255.10000	3773693.40000	0.03753	108.00	108.00	0.00	ANNUAL	ALL	000000005	25PQT02I
379264.20000	3773693.40000	0.03486	108.00	108.00	0.00	ANNUAL	ALL	000000005	25PQT02I
379273.30000	3773693.40000	0.03439	108.00	108.00	0.00	ANNUAL	ALL	000000005	25PQT02I
379282.40000	3773693.40000	0.03599	108.00	108.00	0.00	ANNUAL	ALL	000000005	25PQT02I
379291.50000	3773693.40000	0.04063	108.00	108.00	0.00	ANNUAL	ALL	000000005	25PQT02I
379300.60000	3773693.40000	0.05035	108.00	108.00	0.00	ANNUAL	ALL	000000005	25PQT02I
379309.70000	3773693.40000	0.06592	108.00	108.00	0.00	ANNUAL	ALL	000000005	25PQT02I
379318.80000	3773693.40000	0.08025	108.00	108.00	0.00	ANNUAL	ALL	000000005	25PQT02I
379327.90000	3773693.40000	0.07921	108.00	108.00	0.00	ANNUAL	ALL	000000005	25PQT02I
379337.00000	3773693.40000	0.07010	108.10	108.10	0.00	ANNUAL	ALL	000000005	25PQT02I
379346.10000	3773693.40000	0.05903	108.10	108.10	0.00	ANNUAL	ALL	000000005	25PQT02I
379355.20000	3773693.40000	0.04983	108.20	108.20	0.00	ANNUAL	ALL	000000005	25PQT02I
379364.30000	3773693.40000	0.04303	108.40	108.40	0.00	ANNUAL	ALL	000000005	25PQT02I
379373.40000	3773693.40000	0.03807	108.60	108.60	0.00	ANNUAL	ALL	000000005	25PQT02I
379382.50000	3773693.40000	0.03441	108.80	108.80	0.00	ANNUAL	ALL	000000005	25PQT02I
379391.60000	3773693.40000	0.03163	109.00	109.00	0.00	ANNUAL	ALL	000000005	25PQT02I
379400.70000	3773693.40000	0.02949	109.00	109.00	0.00	ANNUAL	ALL	000000005	25PQT02I
379409.80000	3773693.40000	0.02780	109.00	109.00	0.00	ANNUAL	ALL	000000005	25PQT02I
379418.90000	3773693.40000	0.02644	109.00	109.00	0.00	ANNUAL	ALL	000000005	25PQT02I
379236.90000	3773685.80000	0.06431	107.90	107.90	0.00	ANNUAL	ALL	000000005	25PQT02I
379246.00000	3773685.80000	0.04398	108.00	108.00	0.00	ANNUAL	ALL	000000005	25PQT02I
379255.10000	3773685.80000	0.03744	108.00	108.00	0.00	ANNUAL	ALL	000000005	25PQT02I
379264.20000	3773685.80000	0.03513	108.00	108.00	0.00	ANNUAL	ALL	000000005	25PQT02I
379273.30000	3773685.80000	0.03534	108.00	108.00	0.00	ANNUAL	ALL	000000005	25PQT02I
379282.40000	3773685.80000	0.03835	108.00	108.00	0.00	ANNUAL	ALL	000000005	25PQT02I
379291.50000	3773685.80000	0.04684	108.00	108.00	0.00	ANNUAL	ALL	000000005	25PQT02I
379300.60000	3773685.80000	0.06712	108.00	108.00	0.00	ANNUAL	ALL	000000005	25PQT02I
379309.70000	3773685.80000	0.10788	108.00	108.00	0.00	ANNUAL	ALL	000000005	25PQT02I
379318.80000	3773685.80000	0.02105	108.00	108.00	0.00	ANNUAL	ALL	000000005	25PQT02I
379327.90000	3773685.80000	0.12729	108.00	108.00	0.00	ANNUAL	ALL	000000005	25PQT02I
379337.00000	3773685.80000	0.09711	108.00	108.00	0.00	ANNUAL	ALL	000000005	25PQT02I
379346.10000	3773685.80000	0.07271	108.00	108.00	0.00	ANNUAL	ALL	000000005	25PQT02I
379355.20000	3773685.80000	0.05668	108.00	108.00					

379364.30000	3773670.60000	0.04764	108.10	108.10	0.00	ANNUAL	ALL	00000005	25PQT02I
379373.40000	3773670.60000	0.03866	108.20	108.20	0.00	ANNUAL	ALL	00000005	25PQT02I
379382.50000	3773670.60000	0.03304	108.40	108.40	0.00	ANNUAL	ALL	00000005	25PQT02I
379391.60000	3773670.60000	0.02928	108.50	108.50	0.00	ANNUAL	ALL	00000005	25PQT02I
379400.70000	3773670.60000	0.02662	108.70	108.70	0.00	ANNUAL	ALL	00000005	25PQT02I
379409.80000	3773670.60000	0.02467	108.80	108.80	0.00	ANNUAL	ALL	00000005	25PQT02I
379418.90000	3773670.60000	0.02317	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379236.90000	3773663.00000	0.06094	107.20	107.20	0.00	ANNUAL	ALL	00000005	25PQT02I
379246.00000	3773663.00000	0.04326	107.20	107.20	0.00	ANNUAL	ALL	00000005	25PQT02I
379255.10000	3773663.00000	0.03771	107.20	107.20	0.00	ANNUAL	ALL	00000005	25PQT02I
379264.20000	3773663.00000	0.03662	107.20	107.20	0.00	ANNUAL	ALL	00000005	25PQT02I
379273.30000	3773663.00000	0.03915	107.30	107.30	0.00	ANNUAL	ALL	00000005	25PQT02I
379282.40000	3773663.00000	0.04762	107.60	107.60	0.00	ANNUAL	ALL	00000005	25PQT02I
379291.50000	3773663.00000	0.07168	107.80	107.80	0.00	ANNUAL	ALL	00000005	25PQT02I
379300.60000	3773663.00000	0.02063	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379309.70000	3773663.00000	0.01985	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379318.80000	3773663.00000	0.01922	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379327.90000	3773663.00000	0.01870	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379337.00000	3773663.00000	0.01826	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379346.10000	3773663.00000	0.09321	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379355.20000	3773663.00000	0.05860	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379364.30000	3773663.00000	0.04355	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379373.40000	3773663.00000	0.03539	108.10	108.10	0.00	ANNUAL	ALL	00000005	25PQT02I
379382.50000	3773663.00000	0.03037	108.20	108.20	0.00	ANNUAL	ALL	00000005	25PQT02I
379391.60000	3773663.00000	0.02705	108.30	108.30	0.00	ANNUAL	ALL	00000005	25PQT02I
379400.70000	3773663.00000	0.02470	108.50	108.50	0.00	ANNUAL	ALL	00000005	25PQT02I
379409.80000	3773663.00000	0.02297	108.80	108.80	0.00	ANNUAL	ALL	00000005	25PQT02I
379418.90000	3773663.00000	0.02166	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379236.90000	3773655.40000	0.06000	107.00	107.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379246.00000	3773655.40000	0.04296	107.00	107.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379255.10000	3773655.40000	0.03762	107.00	107.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379264.20000	3773655.40000	0.03670	107.00	107.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379273.30000	3773655.40000	0.03949	107.10	107.10	0.00	ANNUAL	ALL	00000005	25PQT02I
379282.40000	3773655.40000	0.04804	107.40	107.40	0.00	ANNUAL	ALL	00000005	25PQT02I
379291.50000	3773655.40000	0.06935	107.70	107.70	0.00	ANNUAL	ALL	00000005	25PQT02I
379300.60000	3773655.40000	0.02019	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379309.70000	3773655.40000	0.01941	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379318.80000	3773655.40000	0.01877	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379327.90000	3773655.40000	0.01824	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379337.00000	3773655.40000	0.01778	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379346.10000	3773655.40000	0.07370	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379355.20000	3773655.40000	0.04877	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379364.30000	3773655.40000	0.03743	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379373.40000	3773655.40000	0.03112	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379382.50000	3773655.40000	0.02719	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379391.60000	3773655.40000	0.02453	108.10	108.10	0.00	ANNUAL	ALL	00000005	25PQT02I
379400.70000	3773655.40000	0.02264	108.40	108.40	0.00	ANNUAL	ALL	00000005	25PQT02I
379409.80000	3773655.40000	0.02123	108.70	108.70	0.00	ANNUAL	ALL	00000005	25PQT02I
379418.90000	3773655.40000	0.02014	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379236.90000	3773647.80000	0.05962	107.00	107.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379246.00000	3773647.80000	0.04270	107.00	107.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379255.10000	3773647.80000	0.03738	107.00	107.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379264.20000	3773647.80000	0.03646	107.00	107.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379273.30000	3773647.80000	0.03905	107.10	107.10	0.00	ANNUAL	ALL	00000005	25PQT02I
379282.40000	3773647.80000	0.04641	107.30	107.30	0.00	ANNUAL	ALL	00000005	25PQT02I
379291.50000	3773647.80000	0.06187	107.50	107.50	0.00	ANNUAL	ALL	00000005	25PQT02I
379300.60000	3773647.80000	0.09111	107.70	107.70	0.00	ANNUAL	ALL	00000005	25PQT02I
379309.70000	3773647.80000	0.01904	107.80	107.80	0.00	ANNUAL	ALL	00000005	25PQT02I
379318.80000	3773647.80000	0.01838	107.90	107.90	0.00	ANNUAL	ALL	00000005	25PQT02I
379327.90000	3773647.80000	0.01783	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379337.00000	3773647.80000	0.09125	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379346.10000	3773647.80000	0.05253	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379355.20000	3773647.80000	0.03848	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379364.30000	3773647.80000	0.03126	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379373.40000	3773647.80000	0.02694	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379382.50000	3773647.80000	0.02412	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379391.60000	3773647.80000	0.02215	108.10	108.10	0.00	ANNUAL	ALL	00000005	25PQT02I
379400.70000	3773647.80000	0.02071	108.40	108.40	0.00	ANNUAL	ALL	00000005	25PQT02I
379409.80000	3773647.80000	0.01961	108.70	108.70	0.00	ANNUAL	ALL	00000005	25PQT02I
379418.90000	3773647.80000	0.01875	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT02I
378701.50000	3773634.90000	0.01081	105.91	105.91	0.00	ANNUAL	ALL	00000005	
378482.50000	3773427.50000	0.00467	102.00	102.00	0.00	ANNUAL	ALL	00000005	
378622.80000	3773348.80000	0.00566	101.00	101.00	0.00	ANNUAL	ALL	00000005	
378899.10000	3773999.00000	0.00802	113.40	238.00	0.00	ANNUAL	ALL	00000005	

* AERMOD (21112): 5420 Sunset Boulevard Project -

10/02/21

* AERMET (16216):

13:15:52

* MODELING OPTIONS USED: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

* PLOT FILE OF ANNUAL VALUES AVERAGED ACROSS 5 YEARS FOR SOURCE GROUP: HDTS
* FOR A TOTAL OF 445 RECEPTORS.

* FORMAT: (A,IX,3(IX,F13.5),3(IX,F8.2),2X,A6,2X,A8,2X,I8.8,2X,A8)

* X Y AVERAGE CONC ZELEV ZHILL ZFLAG AVE GRP NUM YRS NET ID

379236.90000	3773799.80000	0.19486	109.00	109.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379246.00000	3773799.80000	0.17428	109.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379255.10000	3773799.80000	0.16937	109.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379264.20000	3773799.80000	0.16718	109.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379273.30000	3773799.80000	0.16574	109.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379282.40000	3773799.80000	0.16455	109.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379291.50000	3773799.80000	0.16336	109.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379300.60000	3773799.80000	0.16196	109.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379309.70000	3773799.80000	0.15999	109.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379318.80000	3773799.80000	0.15695	109.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379327.90000	3773799.80000	0.15392	109.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379337.00000	3773799.80000	0.18390	109.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379346.10000	3773799.80000	0.35212	109.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379355.20000	3773799.80000	0.38694	109.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379364.30000	3773799.80000	0.39444	109.20	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379373.40000	3773799.80000	0.38732	109.50	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379382.50000	3773799.80000	0.37089	109.80	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379391.60000	3773799.80000	0.35697	110.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379400.70000	3773799.80000	0.35694	110.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379409.80000	3773799.80000	0.35687	110.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379418.90000	3773799.80000	0.35677	110.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379236.90000	3773792.20000	0.13903	109.00	109.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379246.00000	3773792.20000	0.11612	109.00	109.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379255.10000	3773792.20000	0.10958	109.00	109.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379264.20000	3773792.20000	0.10672	109.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379273.30000	3773792.20000	0.10507	109.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379282.40000	3773792.20000	0.10390	109.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379291.50000	3773792.20000	0.10287	109.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379300.60000	3773792.20000	0.10174	109.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379309.70000	3773792.20000	0.10038	109.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379318.80000	3773792.20000	0.09922	109.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379327.90000	3773792.20000	0.10139	109.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379337.00000	3773792.20000	0.11648	109.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379346.10000	3773792.20000	0.13421	109.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379355.20000	3773792.20000	0.13970	109.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379364.30000	3773792.20000	0.14374	109.20	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379373.40000	3773792.20000	0.14565	109.50	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379382.50000	3773792.20000	0.14601	109.80	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379391.60000	3773792.20000	0.14578	110.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379400.70000	3773792.20000	0.14593	110.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379409.80000	3773792.20000	0.14595	110.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379418.90000	3773792.20000	0.14594	110.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379236.90000	3773784.60000	0.11388	109.00	109.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379246.00000	3773784.60000	0.09030	109.00	109.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379255.10000	3773784.60000	0.08318	109.00	109.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379264.20000	3773784.60000	0.07985	109.00	109.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379273.30000	3773784.60000	0.07793	109.00	109.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379282.40000	3773784.60000	0.07663	109.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379291.50000	3773784.60000	0.07559	109.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379300.60000	3773784.60000	0.07466	109.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379309.70000	3773784.60000	0.07392	109.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379318.80000	3773784.60000	0.07401	109.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379327.90000	3773784.60000	0.07660	109.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379337.00000	3773784.60000	0.08265	109.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379346.10000	3773784.60000	0.08737	109.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379355.20000	3773784.60000	0.08894	109.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379364.30000	3773784.60000	0.09011	109.20	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379373.40000	3773784.60000	0.09105	109.50	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379382.50000	3773784.60000	0.09153	109.80	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379391.60000	3773784.60000	0.09167	110.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379400.70000	3773784.60000	0.09181	110.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379409.80000	3773784.60000	0.09187	110.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379418.90000	3773784.60000	0.09187	110.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379236.90000	3773777.00000	0.09938	109.00	109.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379246.00000	3773777.00000	0.07550	109.00	109.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379255.10000	3773777.00000	0.06814	109.00	109.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379264.20000	3773777.00000	0.06461	109.00	109.00	0.00	ANNUAL	HDTS	00000005	25PQT02I

379273.30000	3773777.00000	0.06253	109.00	109.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379282.40000	3773777.00000	0.06116	109.00	109.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379291.50000	3773777.00000	0.06017	109.00	109.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379300.60000	3773777.00000	0.05948	109.00	109.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379309.70000	3773777.00000	0.05920	109.00	347.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379318.80000	3773777.00000	0.05976	109.00	347.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379327.90000	3773777.00000	0.06162	109.00	347.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379337.00000	3773777.00000	0.06427	109.00	347.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379346.10000	3773777.00000	0.06599	109.00	347.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379355.20000	3773777.00000	0.06657	109.00	347.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379364.30000	3773777.00000	0.06685	109.20	347.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379373.40000	3773777.00000	0.06707	109.50	347.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379382.50000	3773777.00000	0.06721	109.80	347.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379391.60000	3773777.00000	0.06721	110.00	347.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379400.70000	3773777.00000	0.06726	110.00	347.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379409.80000	3773777.00000	0.06727	110.00	347.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379418.90000	3773777.00000	0.06725	110.00	347.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379236.90000	3773769.40000	0.08971	108.70	108.70	0.00	ANNUAL	HDTs	00000005	25PQT021
379246.00000	3773769.40000	0.06590	108.70	108.70	0.00	ANNUAL	HDTs	00000005	25PQT021
379255.10000	3773769.40000	0.05842	108.70	108.70	0.00	ANNUAL	HDTs	00000005	25PQT021
379264.20000	3773769.40000	0.05480	108.70	108.70	0.00	ANNUAL	HDTs	00000005	25PQT021
379273.30000	3773769.40000	0.05266	108.80	108.80	0.00	ANNUAL	HDTs	00000005	25PQT021
379282.40000	3773769.40000	0.05129	108.90	108.90	0.00	ANNUAL	HDTs	00000005	25PQT021
379291.50000	3773769.40000	0.05041	108.90	108.90	0.00	ANNUAL	HDTs	00000005	25PQT021
379300.60000	3773769.40000	0.04995	109.00	109.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379309.70000	3773769.40000	0.04997	109.00	109.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379318.80000	3773769.40000	0.05061	109.00	109.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379327.90000	3773769.40000	0.05183	109.00	347.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379337.00000	3773769.40000	0.05310	109.00	347.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379346.10000	3773769.40000	0.05379	109.00	347.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379355.20000	3773769.40000	0.05395	109.00	347.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379364.30000	3773769.40000	0.05388	109.10	347.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379373.40000	3773769.40000	0.05376	109.40	347.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379382.50000	3773769.40000	0.05365	109.60	347.00					

379391.60000	3773754.20000	0.03903	109.30	347.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379400.70000	3773754.20000	0.03876	109.50	347.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379409.80000	3773754.20000	0.03848	109.80	347.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379418.90000	3773754.20000	0.03822	110.00	347.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379236.90000	3773746.60000	0.07257	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379246.00000	3773746.60000	0.05043	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379255.10000	3773746.60000	0.04300	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379264.20000	3773746.60000	0.03939	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379273.30000	3773746.60000	0.03738	108.10	108.10	0.00	ANNUAL	HDTs	00000005	25PQT021
379282.40000	3773746.60000	0.03629	108.40	108.40	0.00	ANNUAL	HDTs	00000005	25PQT021
379291.50000	3773746.60000	0.03587	108.70	108.70	0.00	ANNUAL	HDTs	00000005	25PQT021
379300.60000	3773746.60000	0.03600	109.00	109.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379309.70000	3773746.60000	0.03655	109.00	109.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379318.80000	3773746.60000	0.03726	109.00	109.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379327.90000	3773746.60000	0.03780	109.00	109.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379337.00000	3773746.60000	0.03796	109.00	109.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379346.10000	3773746.60000	0.03770	109.00	109.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379355.20000	3773746.60000	0.03717	109.00	109.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379364.30000	3773746.60000	0.03654	109.00	109.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379373.40000	3773746.60000	0.03593	109.00	109.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379382.50000	3773746.60000	0.03540	109.00	109.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379391.60000	3773746.60000	0.03497	109.10	109.10	0.00	ANNUAL	HDTs	00000005	25PQT021
379400.70000	3773746.60000	0.03461	109.40	109.40	0.00	ANNUAL	HDTs	00000005	25PQT021
379409.80000	3773746.60000	0.03427	109.70	109.70	0.00	ANNUAL	HDTs	00000005	25PQT021
379418.90000	3773746.60000	0.03393	110.00	110.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379236.90000	3773739.00000	0.06958	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379246.00000	3773739.00000	0.04758	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379255.10000	3773739.00000	0.04018	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379264.20000	3773739.00000	0.03662	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379273.30000	3773739.00000	0.03471	108.10	108.10	0.00	ANNUAL	HDTs	00000005	25PQT021
379282.40000	3773739.00000	0.03376	108.30	108.30	0.00	ANNUAL	HDTs	00000005	25PQT021
379291.50000	3773739.00000	0.03354	108.60	108.60	0.00	ANNUAL	HDTs	00000005	25PQT021
379300.60000	3773739.00000	0.03393	108.70	108.70	0.00	ANNUAL	HDTs	00000005	25PQT021
379309.70000	3773739.00000	0.03473	108.70	108.70					

379318.80000	3773723.80000	0.03573	108.20	108.20	0.00	ANNUAL	HDTs	00000005	25PQT021
379327.90000	3773723.80000	0.03654	108.20	108.20	0.00	ANNUAL	HDTs	00000005	25PQT021
379337.00000	3773723.80000	0.03622	108.40	108.40	0.00	ANNUAL	HDTs	00000005	25PQT021
379346.10000	3773723.80000	0.03507	108.70	108.70	0.00	ANNUAL	HDTs	00000005	25PQT021
379355.20000	3773723.80000	0.03359	108.90	108.90	0.00	ANNUAL	HDTs	00000005	25PQT021
379364.30000	3773723.80000	0.03216	109.00	109.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379373.40000	3773723.80000	0.03092	109.00	109.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379382.50000	3773723.80000	0.02989	109.00	109.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379391.60000	3773723.80000	0.02902	109.00	109.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379400.70000	3773723.80000	0.02828	109.10	109.10	0.00	ANNUAL	HDTs	00000005	25PQT021
379409.80000	3773723.80000	0.02765	109.20	109.20	0.00	ANNUAL	HDTs	00000005	25PQT021
379418.90000	3773723.80000	0.02709	109.20	109.20	0.00	ANNUAL	HDTs	00000005	25PQT021
379236.90000	3773716.20000	0.06367	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379246.00000	3773716.20000	0.04220	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379255.10000	3773716.20000	0.03506	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379264.20000	3773716.20000	0.03182	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379273.30000	3773716.20000	0.03035	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379282.40000	3773716.20000	0.03008	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379291.50000	3773716.20000	0.03093	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379300.60000	3773716.20000	0.03289	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379309.70000	3773716.20000	0.03558	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379318.80000	3773716.20000	0.03802	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379327.90000	3773716.20000	0.03908	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379337.00000	3773716.20000	0.03843	108.30	108.30	0.00	ANNUAL	HDTs	00000005	25PQT021
379346.10000	3773716.20000	0.03665	108.60	108.60	0.00	ANNUAL	HDTs	00000005	25PQT021
379355.20000	3773716.20000	0.03454	108.90	108.90	0.00	ANNUAL	HDTs	00000005	25PQT021
379364.30000	3773716.20000	0.03259	109.00	109.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379373.40000	3773716.20000	0.03094	109.00	109.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379382.50000	3773716.20000	0.02957	109.00	109.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379391.60000	3773716.20000	0.02843	109.00	109.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379400.70000	3773716.20000	0.02746	109.00	109.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379409.80000	3773716.20000	0.02664	109.00	109.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379418.90000	3773716.20000	0.02593	109.00	109.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379236.90000	3773708.60000	0.06237	108.00	108.00					

379246.00000	3773693.40000	0.03967	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379255.10000	3773693.40000	0.03304	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379264.20000	3773693.40000	0.03050	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379273.30000	3773693.40000	0.03016	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379282.40000	3773693.40000	0.03188	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379291.50000	3773693.40000	0.03664	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379300.60000	3773693.40000	0.04648	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379309.70000	3773693.40000	0.06216	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379318.80000	3773693.40000	0.07660	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379327.90000	3773693.40000	0.07567	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379337.00000	3773693.40000	0.06665	108.10	108.10	0.00	ANNUAL	HDTs	00000005	25PQT021
379346.10000	3773693.40000	0.05568	108.10	108.10	0.00	ANNUAL	HDTs	00000005	25PQT021
379355.20000	3773693.40000	0.04657	108.20	108.20	0.00	ANNUAL	HDTs	00000005	25PQT021
379364.30000	3773693.40000	0.03985	108.40	108.40	0.00	ANNUAL	HDTs	00000005	25PQT021
379373.40000	3773693.40000	0.03498	108.60	108.60	0.00	ANNUAL	HDTs	00000005	25PQT021
379382.50000	3773693.40000	0.03139	108.80	108.80	0.00	ANNUAL	HDTs	00000005	25PQT021
379391.60000	3773693.40000	0.02869	109.00	109.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379400.70000	3773693.40000	0.02661	109.00	109.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379409.80000	3773693.40000	0.02498	109.00	109.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379418.90000	3773693.40000	0.02367	109.00	109.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379236.90000	3773685.80000	0.05942	107.90	107.90	0.00	ANNUAL	HDTs	00000005	25PQT021
379246.00000	3773685.80000	0.03924	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379255.10000	3773685.80000	0.03285	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379264.20000	3773685.80000	0.03067	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379273.30000	3773685.80000	0.03101	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379282.40000	3773685.80000	0.03416	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379291.50000	3773685.80000	0.04277	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379300.60000	3773685.80000	0.06317	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379309.70000	3773685.80000	0.10405	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379318.80000	3773685.80000	0.01732	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379327.90000	3773685.80000	0.12368	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379337.00000	3773685.80000	0.09359	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379346.10000	3773685.80000	0.06928	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379355.20000	3773685.80000	0.05334	108.00	108.00					

379364.30000	3773670.60000	0.04426	108.10	108.10	0.00	ANNUAL	HDTs	00000005	25PQT02I
379373.40000	3773670.60000	0.03536	108.20	108.20	0.00	ANNUAL	HDTs	00000005	25PQT02I
379382.50000	3773670.60000	0.02984	108.40	108.40	0.00	ANNUAL	HDTs	00000005	25PQT02I
379391.60000	3773670.60000	0.02615	108.50	108.50	0.00	ANNUAL	HDTs	00000005	25PQT02I
379400.70000	3773670.60000	0.02357	108.70	108.70	0.00	ANNUAL	HDTs	00000005	25PQT02I
379409.80000	3773670.60000	0.02168	108.80	108.80	0.00	ANNUAL	HDTs	00000005	25PQT02I
379418.90000	3773670.60000	0.02025	109.00	109.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
379236.90000	3773663.00000	0.05563	107.20	107.20	0.00	ANNUAL	HDTs	00000005	25PQT02I
379246.00000	3773663.00000	0.03811	107.20	107.20	0.00	ANNUAL	HDTs	00000005	25PQT02I
379255.10000	3773663.00000	0.03272	107.20	107.20	0.00	ANNUAL	HDTs	00000005	25PQT02I
379264.20000	3773663.00000	0.03178	107.20	107.20	0.00	ANNUAL	HDTs	00000005	25PQT02I
379273.30000	3773663.00000	0.03447	107.30	107.30	0.00	ANNUAL	HDTs	00000005	25PQT02I
379282.40000	3773663.00000	0.04310	107.60	107.60	0.00	ANNUAL	HDTs	00000005	25PQT02I
379291.50000	3773663.00000	0.06731	107.80	107.80	0.00	ANNUAL	HDTs	00000005	25PQT02I
379300.60000	3773663.00000	0.01640	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
379309.70000	3773663.00000	0.01575	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
379318.80000	3773663.00000	0.01525	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
379327.90000	3773663.00000	0.01484	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
379337.00000	3773663.00000	0.01451	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
379346.10000	3773663.00000	0.08957	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
379355.20000	3773663.00000	0.05505	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
379364.30000	3773663.00000	0.04010	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
379373.40000	3773663.00000	0.03203	108.10	108.10	0.00	ANNUAL	HDTs	00000005	25PQT02I
379382.50000	3773663.00000	0.02709	108.20	108.20	0.00	ANNUAL	HDTs	00000005	25PQT02I
379391.60000	3773663.00000	0.02384	108.30	108.30	0.00	ANNUAL	HDTs	00000005	25PQT02I
379400.70000	3773663.00000	0.02158	108.50	108.50	0.00	ANNUAL	HDTs	00000005	25PQT02I
379409.80000	3773663.00000	0.01992	108.80	108.80	0.00	ANNUAL	HDTs	00000005	25PQT02I
379418.90000	3773663.00000	0.01868	109.00	109.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
379236.90000	3773655.40000	0.05452	107.00	107.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
379246.00000	3773655.40000	0.03766	107.00	107.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
379255.10000	3773655.40000	0.03248	107.00	107.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
379264.20000	3773655.40000	0.03173	107.00	107.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
379273.30000	3773655.40000	0.03468	107.10	107.10	0.00	ANNUAL	HDTs	00000005	25PQT02I
379282.40000	3773655.40000	0.04339	107.40	107.40	0.00	ANNUAL	HDTs	00000005	25PQT02I
379291.50000	3773655.40000	0.06486	107.70	107.70	0.00	ANNUAL	HDTs	00000005	25PQT02I
379300.60000	3773655.40000	0.01586	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
379309.70000	3773655.40000	0.01521	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
379318.80000	3773655.40000	0.01470	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
379327.90000	3773655.40000	0.01429	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
379337.00000	3773655.40000	0.01395	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
379346.10000	3773655.40000	0.06998	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
379355.20000	3773655.40000	0.04514	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
379364.30000	3773655.40000	0.03390	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
379373.40000	3773655.40000	0.02768	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
379382.50000	3773655.40000	0.02383	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
379391.60000	3773655.40000	0.02125	108.10	108.10	0.00	ANNUAL	HDTs	00000005	25PQT02I
379400.70000	3773655.40000	0.01944	108.40	108.40	0.00	ANNUAL	HDTs	00000005	25PQT02I
379409.80000	3773655.40000	0.01811	108.70	108.70	0.00	ANNUAL	HDTs	00000005	25PQT02I
379418.90000	3773655.40000	0.01710	109.00	109.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
379236.90000	3773647.80000	0.05398	107.00	107.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
379246.00000	3773647.80000	0.03724	107.00	107.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
379255.10000	3773647.80000	0.03210	107.00	107.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
379264.20000	3773647.80000	0.03135	107.00	107.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
379273.30000	3773647.80000	0.03410	107.10	107.10	0.00	ANNUAL	HDTs	00000005	25PQT02I
379282.40000	3773647.80000	0.04164	107.30	107.30	0.00	ANNUAL	HDTs	00000005	25PQT02I
379291.50000	3773647.80000	0.05726	107.50	107.50	0.00	ANNUAL	HDTs	00000005	25PQT02I
379300.60000	3773647.80000	0.08665	107.70	107.70	0.00	ANNUAL	HDTs	00000005	25PQT02I
379309.70000	3773647.80000	0.01472	107.80	107.80	0.00	ANNUAL	HDTs	00000005	25PQT02I
379318.80000	3773647.80000	0.01421	107.90	107.90	0.00	ANNUAL	HDTs	00000005	25PQT02I
379327.90000	3773647.80000	0.01379	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
379337.00000	3773647.80000	0.08733	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
379346.10000	3773647.80000	0.04873	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
379355.20000	3773647.80000	0.03477	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
379364.30000	3773647.80000	0.02765	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
379373.40000	3773647.80000	0.02343	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
379382.50000	3773647.80000	0.02069	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
379391.60000	3773647.80000	0.01881	108.10	108.10	0.00	ANNUAL	HDTs	00000005	25PQT02I
379400.70000	3773647.80000	0.01745	108.40	108.40	0.00	ANNUAL	HDTs	00000005	25PQT02I
379409.80000	3773647.80000	0.01643	108.70	108.70	0.00	ANNUAL	HDTs	00000005	25PQT02I
379418.90000	3773647.80000	0.01564	109.00	109.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
378701.50000	3773634.90000	0.00615	105.91	105.91	0.00	ANNUAL	HDTs	00000005	
378482.50000	3773427.50000	0.00201	102.00	102.00	0.00	ANNUAL	HDTs	00000005	
378622.80000	3773348.80000	0.00286	101.00	101.00	0.00	ANNUAL	HDTs	00000005	
378899.10000	3773999.00000	0.00374	113.40	238.00	0.00	ANNUAL	HDTs	00000005	

* AERMOD (21112): 5420 Sunset Boulevard Project -

10/02/21

* AERMET (16216):

13:15:52

* MODELING OPTIONS USED: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

* PLOT FILE OF ANNUAL VALUES AVERAGED ACROSS 5 YEARS FOR SOURCE GROUP: FREEWAY
* FOR A TOTAL OF 445 RECEPTORS.

* FORMAT: (A,1X,3(1X,F13.5),3(1X,F8.2),2X,A6,2X,A8,2X,I8.8,2X,A8)

* X Y AVERAGE CONC ZELEV ZHILL ZFLAG AVE GRP NUM YRS NET ID

X	Y	AVERAGE CONC	ZELEV	ZHILL	ZFLAG	AVE	GRP	NUM YRS	NET ID
379236.90000	3773799.80000	0.00272	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379246.00000	3773799.80000	0.00264	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379255.10000	3773799.80000	0.00257	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379264.20000	3773799.80000	0.00250	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379273.30000	3773799.80000	0.00243	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379282.40000	3773799.80000	0.00235	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379291.50000	3773799.80000	0.00228	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379300.60000	3773799.80000	0.00221	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379309.70000	3773799.80000	0.00215	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379318.80000	3773799.80000	0.00208	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379327.90000	3773799.80000	0.00202	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379337.00000	3773799.80000	0.00195	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379346.10000	3773799.80000	0.00190	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379355.20000	3773799.80000	0.00184	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379364.30000	3773799.80000	0.00178	109.20	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379373.40000	3773799.80000	0.00172	109.50	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379382.50000	3773799.80000	0.00166	109.80	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379391.60000	3773799.80000	0.00161	110.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379400.70000	3773799.80000	0.00156	110.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379409.80000	3773799.80000	0.00152	110.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379418.90000	3773799.80000	0.00148	110.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379236.90000	3773792.20000	0.00278	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379246.00000	3773792.20000	0.00271	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379255.10000	3773792.20000	0.00263	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379264.20000	3773792.20000	0.00256	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379273.30000	3773792.20000	0.00248	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379282.40000	3773792.20000	0.00241	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379291.50000	3773792.20000	0.00234	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379300.60000	3773792.20000	0.00226	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379309.70000	3773792.20000	0.00219	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379318.80000	3773792.20000	0.00213	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379327.90000	3773792.20000	0.00206	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379337.00000	3773792.20000	0.00200	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379346.10000	3773792.20000	0.00194	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379355.20000	3773792.20000	0.00188	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379364.30000	3773792.20000	0.00182	109.20	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379373.40000	3773792.20000	0.00176	109.50	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379382.50000	3773792.20000	0.00170	109.80	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379391.60000	3773792.20000	0.00164	110.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379400.70000	3773792.20000	0.00160	110.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379409.80000	3773792.20000	0.00155	110.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379418.90000	3773792.20000	0.00151	110.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379236.90000	3773784.60000	0.00285	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379246.00000	3773784.60000	0.00278	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379255.10000	3773784.60000	0.00270	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379264.20000	3773784.60000	0.00262	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379273.30000	3773784.60000	0.00254	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379282.40000	3773784.60000	0.00247	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379291.50000	3773784.60000	0.00239	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379300.60000	3773784.60000	0.00232	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379309.70000	3773784.60000	0.00225	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379318.80000	3773784.60000	0.00218	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379327.90000	3773784.60000	0.00211	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379337.00000	3773784.60000	0.00204	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379346.10000	3773784.60000	0.00198	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379355.20000	3773784.60000	0.00192	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379364.30000	3773784.60000	0.00186	109.20	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379373.40000	3773784.60000	0.00179	109.50	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379382.50000	3773784.60000	0.00173	109.80	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379391.60000	3773784.60000	0.00168	110.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379400.70000	3773784.60000	0.00163	110.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379409.80000	3773784.60000	0.00159	110.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379418.90000	3773784.60000	0.00155	110.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379236.90000	3773777.00000	0.00293	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379246.00000	3773777.00000	0.00285	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379255.10000	3773777.00000	0.00277	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379264.20000	3773777.00000	0.00269	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I

379273.30000	3773777.00000	0.00261	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379282.40000	3773777.00000	0.00253	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379291.50000	3773777.00000	0.00245	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379300.60000	3773777.00000	0.00237	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379309.70000	3773777.00000	0.00230	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379318.80000	3773777.00000	0.00223	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379327.90000	3773777.00000	0.00216	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379337.00000	3773777.00000	0.00209	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379346.10000	3773777.00000	0.00202	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379355.20000	3773777.00000	0.00196	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379364.30000	3773777.00000	0.00190	109.20	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379373.40000	3773777.00000	0.00183	109.50	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379382.50000	3773777.00000	0.00177	109.80	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379391.60000	3773777.00000	0.00172	110.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379400.70000	3773777.00000	0.00167	110.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379409.80000	3773777.00000	0.00162	110.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379418.90000	3773777.00000	0.00158	110.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379236.90000	3773769.40000	0.00301	108.70	108.70	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379246.00000	3773769.40000	0.00293	108.70	108.70	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379255.10000	3773769.40000	0.00284	108.70	108.70	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379264.20000	3773769.40000	0.00276	108.70	108.70	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379273.30000	3773769.40000	0.00268	108.80	108.80	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379282.40000	3773769.40000	0.00259	108.90	108.90	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379291.50000	3773769.40000	0.00251	108.90	108.90	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379300.60000	3773769.40000	0.00243	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379309.70000	3773769.40000	0.00235	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379318.80000	3773769.40000	0.00228	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379327.90000	3773769.40000	0.00221	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379337.00000	3773769.40000	0.00214	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379346.10000	3773769.40000	0.00207	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379355.20000	3773769.40000	0.00201	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379364.30000	3773769.40000	0.00195	109.10	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379373.40000	3773769.40000	0.00188	109.40	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379382.50000	3773769.40000</								

379391.60000	3773754.20000	0.00186	109.30	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379400.70000	3773754.20000	0.00181	109.50	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379409.80000	3773754.20000	0.00175	109.80	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379418.90000	3773754.20000	0.00170	110.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379236.90000	3773746.60000	0.00329	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379246.00000	3773746.60000	0.00319	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379255.10000	3773746.60000	0.00310	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379264.20000	3773746.60000	0.00301	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379273.30000	3773746.60000	0.00291	108.10	108.10	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379282.40000	3773746.60000	0.00281	108.40	108.40	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379291.50000	3773746.60000	0.00272	108.70	108.70	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379300.60000	3773746.60000	0.00262	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379309.70000	3773746.60000	0.00254	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379318.80000	3773746.60000	0.00245	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379327.90000	3773746.60000	0.00238	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379337.00000	3773746.60000	0.00230	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379346.10000	3773746.60000	0.00223	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379355.20000	3773746.60000	0.00216	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379364.30000	3773746.60000	0.00209	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379373.40000	3773746.60000	0.00203	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379382.50000	3773746.60000	0.00197	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379391.60000	3773746.60000	0.00192	109.10	109.10	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379400.70000	3773746.60000	0.00185	109.40	109.40	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379409.80000	3773746.60000	0.00179	109.70	109.70	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379418.90000	3773746.60000	0.00174	110.00	110.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379236.90000	3773739.00000	0.00339	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379246.00000	3773739.00000	0.00329	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379255.10000	3773739.00000	0.00319	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379264.20000	3773739.00000	0.00309	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379273.30000	3773739.00000	0.00299	108.10	108.10	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379282.40000	3773739.00000	0.00289	108.30	108.30	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379291.50000	3773739.00000	0.00279	108.60	108.60	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379300.60000	3773739.00000	0.00270	108.70	108.70	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379309.70000	3773739.00000</								

379318.80000	3773723.80000	0.00268	108.20	108.20	0.00	ANNUAL	FREEWAY	00000005	25PQT021
379327.90000	3773723.80000	0.00260	108.20	108.20	0.00	ANNUAL	FREEWAY	00000005	25PQT021
379337.00000	3773723.80000	0.00251	108.40	108.40	0.00	ANNUAL	FREEWAY	00000005	25PQT021
379346.10000	3773723.80000	0.00242	108.70	108.70	0.00	ANNUAL	FREEWAY	00000005	25PQT021
379355.20000	3773723.80000	0.00234	108.90	108.90	0.00	ANNUAL	FREEWAY	00000005	25PQT021
379364.30000	3773723.80000	0.00226	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT021
379373.40000	3773723.80000	0.00219	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT021
379382.50000	3773723.80000	0.00213	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT021
379391.60000	3773723.80000	0.00207	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT021
379400.70000	3773723.80000	0.00201	109.10	109.10	0.00	ANNUAL	FREEWAY	00000005	25PQT021
379409.80000	3773723.80000	0.00195	109.20	109.20	0.00	ANNUAL	FREEWAY	00000005	25PQT021
379418.90000	3773723.80000	0.00190	109.20	109.20	0.00	ANNUAL	FREEWAY	00000005	25PQT021
379236.90000	3773716.20000	0.00371	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT021
379246.00000	3773716.20000	0.00360	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT021
379255.10000	3773716.20000	0.00349	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT021
379264.20000	3773716.20000	0.00338	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT021
379273.30000	3773716.20000	0.00327	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT021
379282.40000	3773716.20000	0.00316	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT021
379291.50000	3773716.20000	0.00306	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT021
379300.60000	3773716.20000	0.00296	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT021
379309.70000	3773716.20000	0.00286	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT021
379318.80000	3773716.20000	0.00277	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT021
379327.90000	3773716.20000	0.00268	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT021
379337.00000	3773716.20000	0.00258	108.30	108.30	0.00	ANNUAL	FREEWAY	00000005	25PQT021
379346.10000	3773716.20000	0.00249	108.60	108.60	0.00	ANNUAL	FREEWAY	00000005	25PQT021
379355.20000	3773716.20000	0.00240	108.90	108.90	0.00	ANNUAL	FREEWAY	00000005	25PQT021
379364.30000	3773716.20000	0.00232	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT021
379373.40000	3773716.20000	0.00225	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT021
379382.50000	3773716.20000	0.00219	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT021
379391.60000	3773716.20000	0.00212	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT021
379400.70000	3773716.20000	0.00207	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT021
379409.80000	3773716.20000	0.00201	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT021
379418.90000	3773716.20000	0.00196	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT021
379236.90000	3773708.60000</								

379246.00000	3773693.40000	0.00397	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379255.10000	3773693.40000	0.00384	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379264.20000	3773693.40000	0.00371	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379273.30000	3773693.40000	0.00359	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379282.40000	3773693.40000	0.00346	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379291.50000	3773693.40000	0.00335	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379300.60000	3773693.40000	0.00323	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379309.70000	3773693.40000	0.00312	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379318.80000	3773693.40000	0.00302	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379327.90000	3773693.40000	0.00292	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379337.00000	3773693.40000	0.00282	108.10	108.10	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379346.10000	3773693.40000	0.00273	108.10	108.10	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379355.20000	3773693.40000	0.00264	108.20	108.20	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379364.30000	3773693.40000	0.00255	108.40	108.40	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379373.40000	3773693.40000	0.00246	108.60	108.60	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379382.50000	3773693.40000	0.00238	108.80	108.80	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379391.60000	3773693.40000	0.00230	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379400.70000	3773693.40000	0.00224	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379409.80000	3773693.40000	0.00218	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379418.90000	3773693.40000	0.00212	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379236.90000	3773685.80000	0.00424	107.90	107.90	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379246.00000	3773685.80000	0.00410	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379255.10000	3773685.80000	0.00397	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379264.20000	3773685.80000	0.00383	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379273.30000	3773685.80000	0.00370	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379282.40000	3773685.80000	0.00357	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379291.50000	3773685.80000	0.00345	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379300.60000	3773685.80000	0.00333	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379309.70000	3773685.80000	0.00322	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379318.80000	3773685.80000	0.00311	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379327.90000	3773685.80000	0.00300	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379337.00000	3773685.80000	0.00290	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379346.10000	3773685.80000	0.00281	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379355.20000	3773685.80000</								

379364.30000	3773670.60000	0.00279	108.10	108.10	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379373.40000	3773670.60000	0.00270	108.20	108.20	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379382.50000	3773670.60000	0.00261	108.40	108.40	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379391.60000	3773670.60000	0.00253	108.50	108.50	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379400.70000	3773670.60000	0.00245	108.70	108.70	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379409.80000	3773670.60000	0.00237	108.80	108.80	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379418.90000	3773670.60000	0.00230	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379236.90000	3773663.00000	0.00474	107.20	107.20	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379246.00000	3773663.00000	0.00458	107.20	107.20	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379255.10000	3773663.00000	0.00442	107.20	107.20	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379264.20000	3773663.00000	0.00426	107.20	107.20	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379273.30000	3773663.00000	0.00411	107.30	107.30	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379282.40000	3773663.00000	0.00395	107.60	107.60	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379291.50000	3773663.00000	0.00380	107.80	107.80	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379300.60000	3773663.00000	0.00366	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379309.70000	3773663.00000	0.00353	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379318.80000	3773663.00000	0.00340	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379327.90000	3773663.00000	0.00329	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379337.00000	3773663.00000	0.00317	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379346.10000	3773663.00000	0.00307	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379355.20000	3773663.00000	0.00297	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379364.30000	3773663.00000	0.00287	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379373.40000	3773663.00000	0.00278	108.10	108.10	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379382.50000	3773663.00000	0.00269	108.20	108.20	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379391.60000	3773663.00000	0.00261	108.30	108.30	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379400.70000	3773663.00000	0.00252	108.50	108.50	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379409.80000	3773663.00000	0.00244	108.80	108.80	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379418.90000	3773663.00000	0.00237	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379236.90000	3773655.40000	0.00492	107.00	107.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379246.00000	3773655.40000	0.00475	107.00	107.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379255.10000	3773655.40000	0.00458	107.00	107.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379264.20000	3773655.40000	0.00442	107.00	107.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379273.30000	3773655.40000	0.00426	107.10	107.10	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379282.40000	3773655.40000</								

** AERMAP - VERSION 18081

09/30/21

** 14:35:56

** 5420 Sunset Boulevard Project -

** Update to Include Source Terms (Heavy Duty Trucks) From Project

** A total of 1 DEM files were used

** A total of 445 receptors were processed

** No user-specified DOMAIN; all available data used

** ANCHORXY 0 0 0 0 11 3

** TERRHGTs EXTRACT

RE ELEVUNIT METERS

RE GRIDCART 25PQT02I STA

RE GRIDCART 25PQT02I XYINC 379236.9 21 9.1 3773799.8 21 -7.6

GRIDCART 25PQT02I ELEV	1	109.0	109.0	109.0	109.0	109.0	109.0
GRIDCART 25PQT02I ELEV	1	109.0	109.0	109.0	109.0	109.0	109.0
GRIDCART 25PQT02I ELEV	1	109.0	109.0	109.2	109.5	109.8	110.0
GRIDCART 25PQT02I ELEV	1	110.0	110.0	110.0			
GRIDCART 25PQT02I ELEV	2	109.0	109.0	109.0	109.0	109.0	109.0
GRIDCART 25PQT02I ELEV	2	109.0	109.0	109.0	109.0	109.0	109.0
GRIDCART 25PQT02I ELEV	2	109.0	109.0	109.2	109.5	109.8	110.0
GRIDCART 25PQT02I ELEV	2	110.0	110.0	110.0			
GRIDCART 25PQT02I ELEV	3	109.0	109.0	109.0	109.0	109.0	109.0
GRIDCART 25PQT02I ELEV	3	109.0	109.0	109.0	109.0	109.0	109.0
GRIDCART 25PQT02I ELEV	3	109.0	109.0	109.2	109.5	109.8	110.0
GRIDCART 25PQT02I ELEV	3	110.0	110.0	110.0			
GRIDCART 25PQT02I ELEV	4	109.0	109.0	109.0	109.0	109.0	109.0
GRIDCART 25PQT02I ELEV	4	109.0	109.0	109.0	109.0	109.0	109.0
GRIDCART 25PQT02I ELEV	4	109.0	109.0	109.2	109.5	109.8	110.0
GRIDCART 25PQT02I ELEV	4	110.0	110.0	110.0			
GRIDCART 25PQT02I ELEV	5	108.7	108.7	108.7	108.7	108.8	108.9
GRIDCART 25PQT02I ELEV	5	108.9	109.0	109.0	109.0	109.0	109.0
GRIDCART 25PQT02I ELEV	5	109.0	109.0	109.1	109.4	109.6	109.8
GRIDCART 25PQT02I ELEV	5	109.8	109.9	110.0			
GRIDCART 25PQT02I ELEV	6	108.5	108.5	108.5	108.5	108.6	108.7
GRIDCART 25PQT02I ELEV	6	108.9	109.0	109.0	109.0	109.0	109.0
GRIDCART 25PQT02I ELEV	6	109.0	109.0	109.1	109.2	109.4	109.5
GRIDCART 25PQT02I ELEV	6	109.7	109.8	110.0			
GRIDCART 25PQT02I ELEV	7	108.2	108.2	108.2	108.2	108.4	108.6
GRIDCART 25PQT02I ELEV	7	108.8	109.0	109.0	109.0	109.0	109.0
GRIDCART 25PQT02I ELEV	7	109.0	109.0	109.0	109.1	109.2	109.3
GRIDCART 25PQT02I ELEV	7	109.5	109.8	110.0			
GRIDCART 25PQT02I ELEV	8	108.0	108.0	108.0	108.0	108.1	108.4
GRIDCART 25PQT02I ELEV	8	108.7	109.0	109.0	109.0	109.0	109.0
GRIDCART 25PQT02I ELEV	8	109.0	109.0	109.0	109.0	109.0	109.1
GRIDCART 25PQT02I ELEV	8	109.4	109.7	110.0			
GRIDCART 25PQT02I ELEV	9	108.0	108.0	108.0	108.0	108.1	108.3
GRIDCART 25PQT02I ELEV	9	108.6	108.7	108.7	108.7	108.7	108.8
GRIDCART 25PQT02I ELEV	9	108.9	109.0	109.0	109.0	109.0	109.1
GRIDCART 25PQT02I ELEV	9	109.3	109.5	109.7			
GRIDCART 25PQT02I ELEV	10	108.0	108.0	108.0	108.0	108.1	108.2
GRIDCART 25PQT02I ELEV	10	108.4	108.5	108.5	108.5	108.5	108.6
GRIDCART 25PQT02I ELEV	10	108.8	108.9	109.0	109.0	109.0	109.0
GRIDCART 25PQT02I ELEV	10	109.2	109.3	109.5			

GRIDCART 25PQT02I ELEV	11	108.0	108.0	108.0	108.0	108.0	108.1
GRIDCART 25PQT02I ELEV	11	108.2	108.2	108.2	108.2	108.2	108.4
GRIDCART 25PQT02I ELEV	11	108.7	108.9	109.0	109.0	109.0	109.0
GRIDCART 25PQT02I ELEV	11	109.1	109.2	109.2			
GRIDCART 25PQT02I ELEV	12	108.0	108.0	108.0	108.0	108.0	108.0
GRIDCART 25PQT02I ELEV	12	108.0	108.0	108.0	108.0	108.0	108.3
GRIDCART 25PQT02I ELEV	12	108.6	108.9	109.0	109.0	109.0	109.0
GRIDCART 25PQT02I ELEV	12	109.0	109.0	109.0			
GRIDCART 25PQT02I ELEV	13	108.0	108.0	108.0	108.0	108.0	108.0
GRIDCART 25PQT02I ELEV	13	108.0	108.0	108.0	108.0	108.0	108.2
GRIDCART 25PQT02I ELEV	13	108.4	108.6	108.8	108.9	108.9	109.0
GRIDCART 25PQT02I ELEV	13	109.0	109.0	109.0			
GRIDCART 25PQT02I ELEV	14	108.0	108.0	108.0	108.0	108.0	108.0
GRIDCART 25PQT02I ELEV	14	108.0	108.0	108.0	108.0	108.0	108.1
GRIDCART 25PQT02I ELEV	14	108.3	108.4	108.6	108.7	108.9	109.0
GRIDCART 25PQT02I ELEV	14	109.0	109.0	109.0			
GRIDCART 25PQT02I ELEV	15	107.9	108.0	108.0	108.0	108.0	108.0
GRIDCART 25PQT02I ELEV	15	108.0	108.0	108.0	108.0	108.0	108.1
GRIDCART 25PQT02I ELEV	15	108.1	108.2	108.4	108.6	108.8	109.0
GRIDCART 25PQT02I ELEV	15	109.0	109.0	109.0			
GRIDCART 25PQT02I ELEV	16	107.9	108.0	108.0	108.0	108.0	108.0
GRIDCART 25PQT02I ELEV	16	108.0	108.0	108.0	108.0	108.0	108.0
GRIDCART 25PQT02I ELEV	16	108.0	108.0	108.2	108.5	108.8	109.0
GRIDCART 25PQT02I ELEV	16	109.0	109.0	109.0			
GRIDCART 25PQT02I ELEV	17	107.7	107.7	107.7	107.7	107.8	107.8
GRIDCART 25PQT02I ELEV	17	107.9	108.0	108.0	108.0	108.0	108.0
GRIDCART 25PQT02I ELEV	17	108.0	108.0	108.1	108.3	108.6	108.7
GRIDCART 25PQT02I ELEV	17	108.8	108.9	109.0			
GRIDCART 25PQT02I ELEV	18	107.4	107.5	107.5	107.5	107.5	107.7
GRIDCART 25PQT02I ELEV	18	107.9	108.0	108.0	108.0	108.0	108.0
GRIDCART 25PQT02I ELEV	18	108.0	108.0	108.1	108.2	108.4	108.5
GRIDCART 25PQT02I ELEV	18	108.7	108.8	109.0			
GRIDCART 25PQT02I ELEV	19	107.2	107.2	107.2	107.2	107.3	107.6
GRIDCART 25PQT02I ELEV	19	107.8	108.0	108.0	108.0	108.0	108.0
GRIDCART 25PQT02I ELEV	19	108.0	108.0	108.0	108.1	108.2	108.3
GRIDCART 25PQT02I ELEV	19	108.5	108.8	109.0			
GRIDCART 25PQT02I ELEV	20	107.0	107.0	107.0	107.0	107.1	107.4
GRIDCART 25PQT02I ELEV	20	107.7	108.0	108.0	108.0	108.0	108.0
GRIDCART 25PQT02I ELEV	20	108.0	108.0	108.0	108.0	108.0	108.1
GRIDCART 25PQT02I ELEV	20	108.4	108.7	109.0			
GRIDCART 25PQT02I ELEV	21	107.0	107.0	107.0	107.0	107.1	107.3
GRIDCART 25PQT02I ELEV	21	107.5	107.7	107.8	107.9	108.0	108.0
GRIDCART 25PQT02I ELEV	21	108.0	108.0	108.0	108.0	108.0	108.1
GRIDCART 25PQT02I ELEV	21	108.4	108.7	109.0			
GRIDCART 25PQT02I HILL	1	109.0	347.0	347.0	347.0	347.0	347.0
GRIDCART 25PQT02I HILL	1	347.0	347.0	347.0	347.0	347.0	347.0
GRIDCART 25PQT02I HILL	1	347.0	347.0	347.0	347.0	347.0	347.0
GRIDCART 25PQT02I HILL	1	347.0	347.0	347.0			
GRIDCART 25PQT02I HILL	2	109.0	109.0	109.0	347.0	347.0	347.0
GRIDCART 25PQT02I HILL	2	347.0	347.0	347.0	347.0	347.0	347.0
GRIDCART 25PQT02I HILL	2	347.0	347.0	347.0	347.0	347.0	347.0
GRIDCART 25PQT02I HILL	2	347.0	347.0	347.0			
GRIDCART 25PQT02I HILL	3	109.0	109.0	109.0	109.0	109.0	347.0
GRIDCART 25PQT02I HILL	3	347.0	347.0	347.0	347.0	347.0	347.0

GRIDCART 25PQT02I HILL	3	347.0	347.0	347.0	347.0	347.0	347.0
GRIDCART 25PQT02I HILL	3	347.0	347.0	347.0			
GRIDCART 25PQT02I HILL	4	109.0	109.0	109.0	109.0	109.0	109.0
GRIDCART 25PQT02I HILL	4	109.0	109.0	347.0	347.0	347.0	347.0
GRIDCART 25PQT02I HILL	4	347.0	347.0	347.0	347.0	347.0	347.0
GRIDCART 25PQT02I HILL	4	347.0	347.0	347.0			
GRIDCART 25PQT02I HILL	5	108.7	108.7	108.7	108.7	108.8	108.9
GRIDCART 25PQT02I HILL	5	108.9	109.0	109.0	109.0	347.0	347.0
GRIDCART 25PQT02I HILL	5	347.0	347.0	347.0	347.0	347.0	347.0
GRIDCART 25PQT02I HILL	5	347.0	347.0	347.0			
GRIDCART 25PQT02I HILL	6	108.5	108.5	108.5	108.5	108.6	108.7
GRIDCART 25PQT02I HILL	6	108.9	109.0	109.0	109.0	109.0	109.0
GRIDCART 25PQT02I HILL	6	109.0	347.0	347.0	347.0	347.0	347.0
GRIDCART 25PQT02I HILL	6	347.0	347.0	347.0			
GRIDCART 25PQT02I HILL	7	108.2	108.2	108.2	108.2	108.4	108.6
GRIDCART 25PQT02I HILL	7	108.8	109.0	109.0	109.0	109.0	109.0
GRIDCART 25PQT02I HILL	7	109.0	109.0	109.0	109.1	347.0	347.0
GRIDCART 25PQT02I HILL	7	347.0	347.0	347.0			
GRIDCART 25PQT02I HILL	8	108.0	108.0	108.0	108.0	108.1	108.4
GRIDCART 25PQT02I HILL	8	108.7	109.0	109.0	109.0	109.0	109.0
GRIDCART 25PQT02I HILL	8	109.0	109.0	109.0	109.0	109.0	109.1
GRIDCART 25PQT02I HILL	8	109.4	109.7	110.0			
GRIDCART 25PQT02I HILL	9	108.0	108.0	108.0	108.0	108.1	108.3
GRIDCART 25PQT02I HILL	9	108.6	108.7	108.7	108.7	108.7	108.8
GRIDCART 25PQT02I HILL	9	108.9	109.0	109.0	109.0	109.0	109.1
GRIDCART 25PQT02I HILL	9	109.3	109.5	109.7			
GRIDCART 25PQT02I HILL	10	108.0	108.0	108.0	108.0	108.1	108.2
GRIDCART 25PQT02I HILL	10	108.4	108.5	108.5	108.5	108.5	108.6
GRIDCART 25PQT02I HILL	10	108.8	108.9	109.0	109.0	109.0	109.0
GRIDCART 25PQT02I HILL	10	109.2	109.3	109.5			
GRIDCART 25PQT02I HILL	11	108.0	108.0	108.0	108.0	108.0	108.1
GRIDCART 25PQT02I HILL	11	108.2	108.2	108.2	108.2	108.2	108.4
GRIDCART 25PQT02I HILL	11	108.7	108.9	109.0	109.0	109.0	109.0
GRIDCART 25PQT02I HILL	11	109.1	109.2	109.2			
GRIDCART 25PQT02I HILL	12	108.0	108.0	108.0	108.0	108.0	108.0
GRIDCART 25PQT02I HILL	12	108.0	108.0	108.0	108.0	108.0	108.3
GRIDCART 25PQT02I HILL	12	108.6	108.9	109.0	109.0	109.0	109.0
GRIDCART 25PQT02I HILL	12	109.0	109.0	109.0			
GRIDCART 25PQT02I HILL	13	108.0	108.0	108.0	108.0	108.0	108.0
GRIDCART 25PQT02I HILL	13	108.0	108.0	108.0	108.0	108.0	108.2
GRIDCART 25PQT02I HILL	13	108.4	108.6	108.8	108.9	108.9	109.0
GRIDCART 25PQT02I HILL	13	109.0	109.0	109.0			
GRIDCART 25PQT02I HILL	14	108.0	108.0	108.0	108.0	108.0	108.0
GRIDCART 25PQT02I HILL	14	108.0	108.0	108.0	108.0	108.0	108.1
GRIDCART 25PQT02I HILL	14	108.3	108.4	108.6	108.7	108.9	109.0
GRIDCART 25PQT02I HILL	14	109.0	109.0	109.0			
GRIDCART 25PQT02I HILL	15	107.9	108.0	108.0	108.0	108.0	108.0
GRIDCART 25PQT02I HILL	15	108.0	108.0	108.0	108.0	108.0	108.1
GRIDCART 25PQT02I HILL	15	108.1	108.2	108.4	108.6	108.8	109.0
GRIDCART 25PQT02I HILL	15	109.0	109.0	109.0			
GRIDCART 25PQT02I HILL	16	107.9	108.0	108.0	108.0	108.0	108.0
GRIDCART 25PQT02I HILL	16	108.0	108.0	108.0	108.0	108.0	108.0
GRIDCART 25PQT02I HILL	16	108.0	108.0	108.2	108.5	108.8	109.0
GRIDCART 25PQT02I HILL	16	109.0	109.0	109.0			

GRIDCART 25PQT02I HILL	17	107.7	107.7	107.7	107.7	107.8	107.8
GRIDCART 25PQT02I HILL	17	107.9	108.0	108.0	108.0	108.0	108.0
GRIDCART 25PQT02I HILL	17	108.0	108.0	108.1	108.3	108.6	108.7
GRIDCART 25PQT02I HILL	17	108.8	108.9	109.0			
GRIDCART 25PQT02I HILL	18	107.4	107.5	107.5	107.5	107.5	107.7
GRIDCART 25PQT02I HILL	18	107.9	108.0	108.0	108.0	108.0	108.0
GRIDCART 25PQT02I HILL	18	108.0	108.0	108.1	108.2	108.4	108.5
GRIDCART 25PQT02I HILL	18	108.7	108.8	109.0			
GRIDCART 25PQT02I HILL	19	107.2	107.2	107.2	107.2	107.3	107.6
GRIDCART 25PQT02I HILL	19	107.8	108.0	108.0	108.0	108.0	108.0
GRIDCART 25PQT02I HILL	19	108.0	108.0	108.0	108.1	108.2	108.3
GRIDCART 25PQT02I HILL	19	108.5	108.8	109.0			
GRIDCART 25PQT02I HILL	20	107.0	107.0	107.0	107.0	107.1	107.4
GRIDCART 25PQT02I HILL	20	107.7	108.0	108.0	108.0	108.0	108.0
GRIDCART 25PQT02I HILL	20	108.0	108.0	108.0	108.0	108.0	108.1
GRIDCART 25PQT02I HILL	20	108.4	108.7	109.0			
GRIDCART 25PQT02I HILL	21	107.0	107.0	107.0	107.0	107.1	107.3
GRIDCART 25PQT02I HILL	21	107.5	107.7	107.8	107.9	108.0	108.0
GRIDCART 25PQT02I HILL	21	108.0	108.0	108.0	108.0	108.0	108.1
GRIDCART 25PQT02I HILL	21	108.4	108.7	109.0			

RE GRIDCART 25PQT02I END

DISCCART	378701.50	3773634.90	105.91	105.91
DISCCART	378482.50	3773427.50	102.00	102.00
DISCCART	378622.80	3773348.80	101.00	101.00
DISCCART	378899.10	3773999.00	113.40	238.00

Attachment C: Health Risk Analysis Outputs

GLCs loaded successfully

Pollutants loaded successfully

RISK SCENARIO SETTINGS

Receptor Type: Resident

Scenario: All

Calculation Method: Derived

EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: -0.25

Total Exposure Duration: 30

Exposure Duration Bin Distribution

3rd Trimester Bin: 0.25

0<2 Years Bin: 2

2<9 Years Bin: 0

2<16 Years Bin: 14

16<30 Years Bin: 14

16 to 70 Years Bin: 0

PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True

Soil: False

Dermal: False

Mother's milk: False

Water: False

Fish: False

Homegrown crops: False

Beef: False

Dairy: False

Pig: False

Chicken: False

Egg: False

INHALATION

Daily breathing rate: LongTerm24HR

Worker Adjustment Factors

Worker adjustment factors enabled: NO

Fraction at time at home

3rd Trimester to 16 years: OFF

16 years to 70 years: OFF

TIER 2 SETTINGS

Tier2 not used.

Calculating cancer risk

Cancer risk saved to: C:\Users\jclar\OneDrive\Desktop\Clark and Associates\Project 125 - ABJC - 5420 Sunset Blvd\Comments\max community riskCancerRisk.csv

Calculating chronic risk

Chronic risk saved to: C:\Users\jclar\OneDrive\Desktop\Clark and Associates\Project 125 - ABJC - 5420 Sunset Blvd\Comments\max community riskNCChronicRisk.csv

Calculating acute risk

Acute risk saved to: C:\Users\jclar\OneDrive\Desktop\Clark and Associates\Project 125 - ABJC - 5420 Sunset Blvd\Comments\max community riskNCAcuteRisk.csv

HRA ran successfully

GLCs loaded successfully

Pollutants loaded successfully

RISK SCENARIO SETTINGS

Receptor Type: Resident

Scenario: All

Calculation Method: Derived

EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: 4

Total Exposure Duration: 7

Exposure Duration Bin Distribution

3rd Trimester Bin: 0

0<2 Years Bin: 0

2<9 Years Bin: 5

2<16 Years Bin: 2

16<30 Years Bin: 0

16 to 70 Years Bin: 0

PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True

Soil: False

Dermal: False

Mother's milk: False

Water: False

Fish: False

Homegrown crops: False

Beef: False

Dairy: False

Pig: False

Chicken: False

Egg: False

INHALATION

Daily breathing rate: LongTerm24HR

Worker Adjustment Factors

Worker adjustment factors enabled: NO

Fraction at time at home

3rd Trimester to 16 years: OFF

16 years to 70 years: OFF

TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.

Tier2 - What was changed: ED or start age changed|

Calculating cancer risk

Cancer risk saved to: C:\Users\jclar\OneDrive\Desktop\Clark and Associates\Project 125 - ABJC - 5420 Sunset Blvd\Comments\max grant elementary schoolCancerRisk.csv

Calculating chronic risk

Chronic risk saved to: C:\Users\jclar\OneDrive\Desktop\Clark and Associates\Project 125 - ABJC - 5420 Sunset Blvd\Comments\max grant elementary schoolNCChronicRisk.csv

Calculating acute risk

Acute risk saved to: C:\Users\jclar\OneDrive\Desktop\Clark and Associates\Project 125 - ABJC - 5420 Sunset Blvd\Comments\max grant elementary schoolNCAcuteRisk.csv

HRA ran successfully

GLCs loaded successfully

Pollutants loaded successfully

RISK SCENARIO SETTINGS

Receptor Type: Resident

Scenario: All

Calculation Method: Derived

EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: 12

Total Exposure Duration: 4

Exposure Duration Bin Distribution

3rd Trimester Bin: 0

0<2 Years Bin: 0

2<9 Years Bin: 0

2<16 Years Bin: 4

16<30 Years Bin: 0

16 to 70 Years Bin: 0

PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True

Soil: False

Dermal: False

Mother's milk: False

Water: False

Fish: False

Homegrown crops: False

Beef: False

Dairy: False

Pig: False

Chicken: False

Egg: False

INHALATION

Daily breathing rate: LongTerm24HR

Worker Adjustment Factors

Worker adjustment factors enabled: NO

Fraction at time at home

3rd Trimester to 16 years: OFF

16 years to 70 years: OFF

TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.

Tier2 - What was changed: ED or start age changed|

Calculating cancer risk

Cancer risk saved to: C:\Users\jclar\OneDrive\Desktop\Clark and Associates\Project 125 - ABJC - 5420 Sunset Blvd\Comments\max high schoolCancerRisk.csv

Calculating chronic risk

Chronic risk saved to: C:\Users\jclar\OneDrive\Desktop\Clark and Associates\Project 125 - ABJC - 5420 Sunset Blvd\Comments\max high schoolNCChronicRisk.csv

Calculating acute risk

Acute risk saved to: C:\Users\jclar\OneDrive\Desktop\Clark and Associates\Project 125 - ABJC - 5420 Sunset Blvd\Comments\max high schoolNCAcuteRisk.csv

HRA ran successfully

GLCs loaded successfully

Pollutants loaded successfully

RISK SCENARIO SETTINGS

Receptor Type: Resident

Scenario: All

Calculation Method: Derived

EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: 11

Total Exposure Duration: 2

Exposure Duration Bin Distribution

3rd Trimester Bin: 0

0<2 Years Bin: 0

2<9 Years Bin: 0

2<16 Years Bin: 2

16<30 Years Bin: 0

16 to 70 Years Bin: 0

PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True

Soil: False

Dermal: False

Mother's milk: False

Water: False

Fish: False

Homegrown crops: False

Beef: False

Dairy: False

Pig: False

Chicken: False

Egg: False

INHALATION

Daily breathing rate: LongTerm24HR

Worker Adjustment Factors

Worker adjustment factors enabled: NO

Fraction at time at home

3rd Trimester to 16 years: OFF

16 years to 70 years: OFF

TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.

Tier2 - What was changed: ED or start age changed|

Calculating cancer risk

Cancer risk saved to: C:\Users\jclar\OneDrive\Desktop\Clark and Associates\Project 125 - ABJC - 5420 Sunset Blvd\Comments\max le conte middle schoolCancerRisk.csv

Calculating chronic risk

Chronic risk saved to: C:\Users\jclar\OneDrive\Desktop\Clark and Associates\Project 125 - ABJC - 5420 Sunset Blvd\Comments\max le conte middle schoolNCChronicRisk.csv

Calculating acute risk

Acute risk saved to: C:\Users\jclar\OneDrive\Desktop\Clark and Associates\Project 125 - ABJC - 5420 Sunset Blvd\Comments\max le conte middle schoolNCAcuteRisk.csv

HRA ran successfully

GLCs loaded successfully

Pollutants loaded successfully

RISK SCENARIO SETTINGS

Receptor Type: Resident

Scenario: All

Calculation Method: Derived

EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: -0.25

Total Exposure Duration: 30

Exposure Duration Bin Distribution

3rd Trimester Bin: 0.25

0<2 Years Bin: 2

2<9 Years Bin: 0

2<16 Years Bin: 14

16<30 Years Bin: 14

16 to 70 Years Bin: 0

PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True

Soil: False

Dermal: False

Mother's milk: False

Water: False

Fish: False

Homegrown crops: False

Beef: False

Dairy: False

Pig: False

Chicken: False

Egg: False

INHALATION

Daily breathing rate: LongTerm24HR

Worker Adjustment Factors

Worker adjustment factors enabled: NO

Fraction at time at home

3rd Trimester to 16 years: OFF

16 years to 70 years: OFF

TIER 2 SETTINGS

Tier2 not used.

Calculating cancer risk

Cancer risk saved to: C:\Users\jclar\OneDrive\Desktop\Clark and Associates\Project 125 - ABJC - 5420 Sunset Blvd\Comments\max site riskCancerRisk.csv

Calculating chronic risk

Chronic risk saved to: C:\Users\jclar\OneDrive\Desktop\Clark and Associates\Project 125 - ABJC - 5420 Sunset Blvd\Comments\max site riskNCChronicRisk.csv

Calculating acute risk

Acute risk saved to: C:\Users\jclar\OneDrive\Desktop\Clark and Associates\Project 125 - ABJC - 5420 Sunset Blvd\Comments\max site riskNCAcuteRisk.csv

HRA ran successfully

EXHIBIT B

ADAMS BROADWELL JOSEPH & CARDOZO

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RACHAEL E. KOSS
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Of Counsel

MARC D. JOSEPH
DANIEL L. CARDOZO

August 20, 2021

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Licensed in Colorado.

Via Email and U.S. Mail

Vince Bertoni, Director of Planning
City Planning Department
City of Los Angeles
200 N. Spring St., Suite 525
Los Angeles, CA 90012
Email: vince.bertoni@lacity.org

Holly L. Wolcott, City Clerk
Office of the City Clerk
200 N. Spring Street
City Hall - Room 360
Los Angeles, CA 90012
Email: CityClerk@lacity.org

Via Email Only

Polonia Majas, Planner
Email: polonia.majas@lacity.org

Re: Request for Immediate Access to All Documents Referenced in the Draft Environmental Impact Report for 5420 Sunset Project (Case No. ENV-2017-1084-EIR)

Dear Mr. Bertoni, Ms. Wolcott, and Ms. Majas,

We are writing on behalf of Coalition for Responsible Equitable Economic Development ("CREED LA") to request ***immediate access*** to any and all documents referenced, incorporated by reference, or relied upon in the Draft Environmental Impact Report ("DEIR") prepared for the 5420 Sunset Project (Case No. ENV-2017-1084-EIR) ("Project"), proposed by 5420 Sunset Boulevard LP, LLC ("Applicant"). This request excludes any documents that are currently available by URL link in the "References" sections of the DEIR.

The Project proposes the development of four six-story mixed-use buildings across 882,250 square feet. The Project consists of 735 multi-family residential units, as well as residential lobbies and leasing offices, pools, spas, and recreational facilities, and up to 95,000 square feet of commercial uses, including market/retail and restaurant uses. The Project also proposes approximately 96,800 square feet of open space including landscaped courtyards, a public plaza, and landscaped paseos,

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Page 2

as well as 1,419 parking spaces in two subterranean parking levels and one at-grade parking level, and 548 bicycle parking spaces. The Project site is located at 5420 Sunset Boulevard, in the City of Los Angeles.

Our request for ***immediate access*** to all documents referenced in the DEIR is made pursuant to the California Environmental Quality Act (“CEQA”), which requires that all documents referenced, incorporated by reference, and relied upon in an environmental review document be made available to the public for the entire comment period.¹ I will be contacting you to arrange for the review/duplication/transmission of the requested records soon. In the interim, if you have any questions or concerns regarding this request, my contact information is:

U.S. Mail

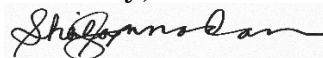
Sheila Sannadan
Adams Broadwell Joseph & Cardozo
601 Gateway Boulevard, Suite 1000
South San Francisco, CA 94080-7037

Email

ssannadan@adamsbroadwell.com

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

¹ See Public Resources Code § 21092(b)(1) (stating that “all documents referenced in the draft environmental impact report” shall be made “available for review”); 14 Cal. Code Reg. § 15087(c)(5) (stating that all documents incorporated by reference in the EIR . . . shall be readily accessible to the public”); see also *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 442, as modified (Apr. 18, 2007) (EIR must transparently incorporate and describe the reference materials relied on in its analysis); *Santiago County Water District v. County of Orange* (1981) 118 Cal.App.3rd 818, 831 (“[W]hatever is required to be considered in an EIR must be in that formal report. . .”), internal citations omitted.

L5451-001acp

EXHIBIT C

Lorrie J. LeLe

From: Sheila M. Sannadan
Sent: Tuesday, September 28, 2021 11:09 AM
To: polonia.majas@lacity.org
Cc: vince.bertoni@lacity.org; beatrice.pacheco@lacity.org; william.lamborn@lacity.org; lourdes.sanchez@lacity.org; Aidan P. Marshall
Subject: 5420 Sunset Project - AERMOD files (native format)

Good Morning Ms. Majas,

We are requesting *immediate access* to files from the DEIR's AERMOD dispersion model analysis for the 5420 Sunset Project. Specifically, we request access to the unlocked, underlying AERMOD files in their native format. These unlocked files are necessary for us to validate the findings in the DEIR's Health Risk Assessment. Our request is made pursuant to Pub. Resources Code § 21092(b)(1), which requires that "all documents referenced" and "all documents incorporated by reference" in an environmental review document shall be "readily accessible to the public during the lead agency's normal working hours" during the entire public comment period. On August 20, 2021, we requested that the City provide immediate access to any and all documents referenced or relied upon in the DEIR prepared for the Project. In response, the City provided us access to a physical case file in the City's planning department office. This file was missing the aforementioned AERMOD files.

Given the shortness of time before the current comment deadline on the DEIR, please send us the files via email as soon as possible.

Thank you for your assistance.

Regards,
Sheila

Sheila Sannadan
Legal Assistant
Adams Broadwell Joseph & Cardozo
601 Gateway Boulevard, Suite 1000
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Phone (650) 589-1660
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ssannadan@adamsbroadwell.com

EXHIBIT D

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DARIEN K. KEY
RACHAEL E. KOSS
AIDAN P. MARSHALL
TARA C. MESSING

Of Counsel

MARC D. JOSEPH
DANIEL L. CARDOZO

September 30, 2021

*Not admitted in California.
Licensed in Colorado.

VIA EMAIL AND U.S. MAIL

Polonia Majas, Planner
City of Los Angeles
Department of City Planning
221 N. Figueroa St., Suite 1350
Los Angeles, CA. 90012
Email: polonia.majas@lacity.org

VIA EMAIL ONLY

Planning Records Management
Department
Email: planning.recordsmgmt@lacity.org

Vince Bertoni, Director of Planning
Email: vince.bertoni@lacity.org

Beatrice Pacheco, Chief Clerk
Los Angeles City Planning
Records Management
Email: beatrice.pacheco@lacity.org

VIA ONLINE PRA PORTAL

<https://clerk.lacity.org/contact-us/RecordsRequest>

**Re: Request to Extend the Public Review and Comment Period for
the Draft Environmental Impact Report for 5420 Sunset Project
(Case No. ENV-2017-1084-EIR).**

Dear Ms. Majas and Planning Records Management Department:

On behalf of Coalition for Responsible Equitable Economic Development Los Angeles ("CREED LA"), we respectfully request that the City of Los Angeles ("City") extend the public review and comment period for the Draft Environmental Impact Report ("DEIR") prepared for the 5420 Sunset Project (Case No. ENV-2017-1084-EIR), proposed by 5420 Sunset Boulevard LP, LLC ("Applicant") due to the City's

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failure to provide timely access to documents referenced in the DEIR to the public for the entire comment period.

The California Environmental Quality Act (“CEQA”) and the CEQA Guidelines require that “all documents referenced” and “all documents incorporated by reference” in an environmental review document shall be “readily accessible to the public during the lead agency’s normal working hours” during the entire public comment period.¹ On August 20, 2021, we requested that the City provide immediate access to any and all documents referenced or relied upon in the DEIR prepared for the Project.² On August 30, 2021, the City informed us that the documents referenced in the Draft EIR are contained on a CD in a physical case file in the City’s planning department office.

After copying and reviewing the contents of this CD, we learned that it did not contain critical reference documents. Specifically, the City failed to provide access to files from the DEIR’s AERMOD dispersion model analysis. Access to the unlocked, underlying AERMOD files in their native format is necessary for the public to validate the findings in the DEIR’s Health Risk Assessment. As soon as we became aware these files were missing from the City’s production of documents, we emailed the City requesting immediate access to the files.³ As of the time of this letter, we have not received a response from the City regarding this request.

The courts have held that the failure to provide even a few pages of a CEQA document for a portion of the review and comment period invalidates the entire CEQA process, and that such a failure must be remedied by permitting additional public comment.⁴ It is also well settled that a CEQA document may not rely on hidden studies or documents that are not provided to the public.⁵ By failing to make all documents referenced and incorporated by reference in the DEIR “readily

¹ Pub. Resources Code § 21092(b)(1); 14 C.C.R. § 15072(g)(4); see *Ultramar v. South Coast Air Quality Man. Dist.* (1993) 17 Cal.App.4th 689, 699.

² **Exhibit A:** Letter from Adams, Broadwell, Joseph & Cardozo (“ABJC”) to the City of Los Angeles re: Request for Immediate Access to All Documents Referenced in the Draft Environmental Impact Report for 5420 Sunset Project (Case No. ENV-2017-1084-EIR) (August 20, 2021).

³ **Exhibit B:** Email from Sheila M. Sannadan, ABJC, to Polonia Majas, City of Los Angeles, re: 5420 Sunset Project - AERMOD files (native format) (September 28, 2021).

⁴ *Ultramar*, 17 Cal.App.4th at 699.

⁵ *Santiago Cty. Water Dist. v. Cty. of Orange* (1981) 118 Cal.App.3d 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.”).

September 30, 2021

Page 3

available” during the current comment period, the City is violating the clear procedural mandates of CEQA to the detriment of CREED LA and other members of the public who wish to meaningfully review and comment on the DEIR.

Without access to all of the relevant documents relied upon and incorporated by reference by the City in its preparation of the DEIR during the entire public comment period, CREED LA and other members of the public are precluded from having this meaningful opportunity to review the DEIR. In particular, the public is unable to evaluate the accuracy of the analyses contained in the DEIR and the significance of any impacts the Project may or may not have on the environment.

Accordingly, we request that:

- 1) The City immediately provide us with access to the unlocked, underlying files from the DEIR's AERMOD dispersion model analysis in their native format, files from all other technical analyses in their native formats, as well any other documents referenced in the DEIR not included in the previous production of documents.
- 2) The City extend the public review and comment period for the DEIR by at least 30 days from the date on which the City releases these 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 Friday, October 1, 2021.

Sincerely,



Aidan P. Marshall

APM:acp

Attachments

L5451-004acp

EXHIBIT A

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Of Counsel

MARC D. JOSEPH
DANIEL L. CARDOZO

August 20, 2021

*Not admitted in California.
Licensed in Colorado.

Via Email and U.S. Mail

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Holly L. Wolcott, City Clerk
Office of the City Clerk
200 N. Spring Street
City Hall - Room 360
Los Angeles, CA 90012
Email: CityClerk@lacity.org

Via Email Only

Polonia Majas, Planner
Email: polonia.majas@lacity.org

Re: Request for Immediate Access to All Documents Referenced in the Draft Environmental Impact Report for 5420 Sunset Project (Case No. ENV-2017-1084-EIR)

Dear Mr. Bertoni, Ms. Wolcott, and Ms. Majas,

We are writing on behalf of Coalition for Responsible Equitable Economic Development ("CREED LA") to request ***immediate access*** to any and all documents referenced, incorporated by reference, or relied upon in the Draft Environmental Impact Report ("DEIR") prepared for the 5420 Sunset Project (Case No. ENV-2017-1084-EIR) ("Project"), proposed by 5420 Sunset Boulevard LP, LLC ("Applicant"). This request excludes any documents that are currently available by URL link in the "References" sections of the DEIR.

The Project proposes the development of four six-story mixed-use buildings across 882,250 square feet. The Project consists of 735 multi-family residential units, as well as residential lobbies and leasing offices, pools, spas, and recreational facilities, and up to 95,000 square feet of commercial uses, including market/retail and restaurant uses. The Project also proposes approximately 96,800 square feet of open space including landscaped courtyards, a public plaza, and landscaped paseos,

L5451-001acp

August 20, 2021
Page 2

as well as 1,419 parking spaces in two subterranean parking levels and one at-grade parking level, and 548 bicycle parking spaces. The Project site is located at 5420 Sunset Boulevard, in the City of Los Angeles.

Our request for ***immediate access*** to all documents referenced in the DEIR is made pursuant to the California Environmental Quality Act (“CEQA”), which requires that all documents referenced, incorporated by reference, and relied upon in an environmental review document be made available to the public for the entire comment period.¹ I will be contacting you to arrange for the review/duplication/transmission of the requested records soon. In the interim, if you have any questions or concerns regarding this request, my contact information is:

U.S. Mail

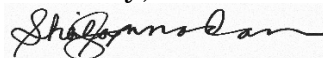
Sheila Sannadan
Adams Broadwell Joseph & Cardozo
601 Gateway Boulevard, Suite 1000
South San Francisco, CA 94080-7037

Email

ssannadan@adamsbroadwell.com

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

¹ See Public Resources Code § 21092(b)(1) (stating that “all documents referenced in the draft environmental impact report” shall be made “available for review”); 14 Cal. Code Reg. § 15087(c)(5) (stating that all documents incorporated by reference in the EIR . . . shall be readily accessible to the public”); see also *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 442, as modified (Apr. 18, 2007) (EIR must transparently incorporate and describe the reference materials relied on in its analysis); *Santiago County Water District v. County of Orange* (1981) 118 Cal.App.3rd 818, 831 (“[W]hatever is required to be considered in an EIR must be in that formal report. . .”), internal citations omitted.

L5451-001acp

EXHIBIT B

Alisha C. Pember

From: Sheila M. Sannadan
Sent: Tuesday, September 28, 2021 11:09 AM
To: polonia.majas@lacity.org
Cc: vince.bertoni@lacity.org; beatrice.pacheco@lacity.org; william.lamborn@lacity.org; lourdes.sanchez@lacity.org; Aidan P. Marshall
Subject: 5420 Sunset Project - AERMOD files (native format)

Good Morning Ms. Majas,

We are requesting *immediate access* to files from the DEIR's AERMOD dispersion model analysis for the 5420 Sunset Project. Specifically, we request access to the unlocked, underlying AERMOD files in their native format. These unlocked files are necessary for us to validate the findings in the DEIR's Health Risk Assessment. Our request is made pursuant to Pub. Resources Code § 21092(b)(1), which requires that "all documents referenced" and "all documents incorporated by reference" in an environmental review document shall be "readily accessible to the public during the lead agency's normal working hours" during the entire public comment period. On August 20, 2021, we requested that the City provide immediate access to any and all documents referenced or relied upon in the DEIR prepared for the Project. In response, the City provided us access to a physical case file in the City's planning department office. This file was missing the aforementioned AERMOD files.

Given the shortness of time before the current comment deadline on the DEIR, please send us the files via email as soon as possible.

Thank you for your assistance.

Regards,
Sheila

Sheila Sannadan
Legal Assistant
Adams Broadwell Joseph & Cardozo
601 Gateway Boulevard, Suite 1000
South San Francisco, CA 94080
Phone (650) 589-1660
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EXHIBIT E

Lorrie J. LeLe

From: William Lamborn <william.lamborn@lacity.org>
Sent: Monday, October 4, 2021 9:40 AM
To: Alisha C. Pember
Cc: Christina Caro; Aidan P. Marshall; Milena Zasadzien; Polonia Majas
Subject: Re: Request to extend the public review and comment period ENV-2017-1084-EIR

Hello Alisha,

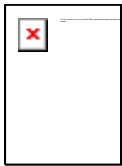
Thank you for your email. The modeling output data and the assumptions underlying the Health Risk Assessment (HRA) are all included within the HRA itself, in Appendix G of the Draft EIR, which has been available throughout the duration of the public comment period.

Please see direct link below:

https://planning.lacity.org/eir/5420_Sunset_Project/deir/files/App_G.pdf

Regards,

--



William Lamborn
Pronouns: He, His, Him
City Planner
Los Angeles City Planning
221 N. Figueroa St., Room 1350
Los Angeles, CA 90012
T: (213) 847-3637 | Planning4LA.org





Polonia Majas <polonia.majas@lacity.org>

5420 Sunset Blvd DEIR Comments

Lorrie J. LeLe <ljllele@adamsbroadwell.com>
To: "polonia.majas@lacity.org" <polonia.majas@lacity.org>
Cc: "Aidan P. Marshall" <amarshall@adamsbroadwell.com>

Mon, Oct 4, 2021 at 4:51 PM

Please find attached the comment references for your convenience that go along with our comments filed earlier this date.

<https://www.dropbox.com/sh/n8016yncvtor2pn/AACg4wYZ0tHgr-lm7hBgIET3a?dl=0>

[Quoted text hidden]

Cleaner Diesel Handbook



BRING CLEANER FUEL AND DIESEL RETROFITS
INTO YOUR NEIGHBORHOOD

APRIL 2005

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ENVIRONMENTAL DEFENSE

finding the ways that work

Cleaner Diesel Handbook

BRING CLEANER FUEL AND DIESEL RETROFITS
INTO YOUR NEIGHBORHOOD

APRIL 2005

AUTHORS

Janea Scott

Isabelle Silverman

Stephanie Tatham

e

ENVIRONMENTAL DEFENSE

finding the ways that work

Cover images: Courtesy of Johnson Matthey (left), Environmental Defense (right).

Our mission

Environmental Defense is dedicated to protecting the environmental rights of all people, including the right to clean air, clean water, healthy food and flourishing ecosystems. Guided by science, we work to create practical solutions that win lasting political, economic and social support because they are nonpartisan, cost-effective and fair.

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The complete report is available online at www.environmentaldefense.org.

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Executive summary

Cost-effective steps to reducing diesel pollution

Environmental Defense's *Cleaner Diesel Handbook* is designed to empower the private sector, public officials and ordinary citizens with the means to reduce harmful pollution from diesel engines. This handbook focuses on methods of reducing pollution created by diesel engines, especially those used in construction and other nonroad sectors. The nonroad sector includes vehicles not typically found on roads, such as agricultural equipment, locomotives, ferries, snowmobiles and airplanes. Construction equipment is part of the nonroad sector. Collectively, nonroad engines discharge more dangerous fine sooty particles than any other source in the transportation sector. The solutions described here can reduce these harmful emissions by up to 90% and are a cost-effective response to the challenge of improving local air quality.

The health imperative: half of Americans live with unhealthy air

Diesel engines emit nearly 40 toxic substances, smog-forming oxides of nitrogen and fine particulate matter, and they contribute to a laundry list of adverse health effects including: asthma, cardiovascular and respiratory problems, strokes, heart attacks, lung cancer and premature death. Diesel exhaust is estimated to contribute to more than 75% of the added cancer risk from air toxics in the United States. Of special concern are two main pollutants: fine particulate matter, which lodges deep in the lungs, and oxides of nitrogen (NO_x), which are precursors to smog. Both can be reduced substantially with the tools described in this handbook.

Recent data from the U.S. Environmental Protection Agency (EPA) shows that about half of all Americans live in places that fail to meet basic health standards for ozone (smog), fine particulates (soot) or both. On April 15, 2004, EPA found 474 counties—home to 159 million Americans—out of full compliance with the health-based eight-hour ozone standard. NO_x is a significant precursor in the formation of ground-level ozone and nonroad engines, as a vehicle class, emit almost one-fifth (more than 4 million tons) of the total national NO_x emissions from all sources.

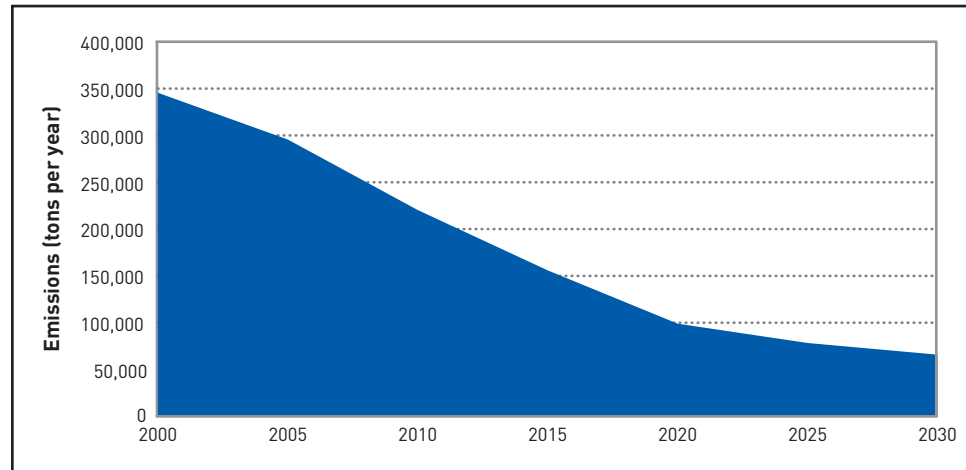
As of April 2005, EPA classified 208 counties spanning 20 states as being out of full compliance with the health-based fine particulate (PM_{2.5}) standard. More than 57 million Americans live in counties that are not meeting the health-based particulate pollution standard. For the states and local communities that are struggling to trim every possible ton of pollution to meet federal health-based air quality standards and protect the health of their community, reducing pollution from existing diesel vehicles and equipment now is vitally important.

Cleaner air: bridging the 25-year gap

On May 10, 2004, EPA announced new air pollution regulations that will significantly lower pollution from new nonroad diesel engines used in construction, agriculture, manufacturing and services. As old diesel equipment is replaced over the coming years, this rule will deliver important public health benefits to communities across America. But the full pollution reductions and

FIGURE 1

Particulate pollution under phase-in of federal standards for diesel trucks, buses, and machinery



National PM_{2.5} emissions under phase-in of federal standards for onroad diesel trucks and buses, and nonroad diesel equipment. (Estimated from EPA, 2000 and EPA, 2004a)

public health benefits of this rule will not be realized for more than 20 years due to the lag in time before the emissions standards come into effect and because of the long life spans of heavy-duty diesel engines. Many nonroad engines, like those used on construction or marine vehicles, may have life spans of several decades. A child born today may still be breathing soot from a backhoe in her neighborhood when she graduates from college—unless that backhoe is replaced with a clean one or retrofit with emissions controls.

Figure 1 shows national particulate pollution under the phase-in of the federal emissions standards for diesel trucks, buses and nonroad machinery.

While the health benefits from full implementation of EPA national diesel emissions standards are extremely important, the incremental phase-in of these benefits indicates that thousands of premature deaths each year could be prevented by speeding the cleanup of diesel engines. The shaded area under the curve represents the pollution a retrofit program could prevent.

Cost-effective diesel pollution reduction

This handbook demonstrates that cleaning up diesel engines is a cost-effective way to reduce the adverse health effects of diesel pollution and outlines some simple steps, like enforcing idling laws and using clean fuels—like ultra-low sulfur diesel (ULSD)—with best available retrofit technologies that can cut diesel emissions by up to 90%.

The three “Rs” of emissions reduction

Repower. Replace the engine, or entire vehicle, with newer, cleaner technologies that meet or exceed EPA’s newest standards and/or uses alternative fuels.

Refuel. Alternative fuels, ultra-low sulfur diesel fuel and other clean fuels or additives are important first steps.

Retrofit. Reduce diesel exhaust with best available pollution control technology.

The handbook describes the “3Rs” of engine operations, as well as the use of best practices in equipment management. It gives particular attention to the subjects of cleaner fuels and retrofit technologies. The main goal is to reduce emissions of both fine particulate matter and NO_x. Appendices to the handbook will include some information on the manufacturers of retrofit technology and distributors of cleaner fuels. Together, this information is meant to serve as a starting point for anyone seeking to cut harmful diesel pollution.

Right now, there are a variety of cleaner fuels and demonstrated retrofit technologies available to reduce emissions of particulate matter (PM), oxides of nitrogen (NO_x), hydrocarbons (HC), carbon monoxide (CO), smoke and odor from existing diesel engines. It is important to remember that not all technologies and fuels target the same pollutants, and that appropriate tech-

nologies or fuels may vary in different contexts. Generally, a combination of multiple technologies and emissions control strategies is necessary for maximum emissions reduction.

In addition to describing the tools available for diesel pollution reduction, this handbook examines a variety of methods for implementing successful retrofit programs. The handbook provides examples of successful programs such as government and private sector efforts, contract specifications, voluntary retrofit programs, and economic or market incentive programs that provide financial support for cleaner technology or fuels.

Ultimately, the handbook demonstrates the need to reduce diesel engine emissions and presents the means to design and implement measures to clean up diesel technology. Together, these tools can be used to build a successful retrofit program in any community.

Introduction: achieving cleaner, healthier air today

Science is very clear that air pollution from diesel engines endangers human health. Fortunately, cost-effective and practical technologies exist to substantially reduce diesel pollution. Across the country, we find successful diesel emissions-reduction programs, from school buses and trucks to construction equipment and ferries. Such programs can cut diesel pollution from targeted fleets by up to 90%. Yet far too many communities still have not taken advantage of these opportunities to win healthier air. This handbook is a guide to how to bring that success to your community, your company and your local government.

The purpose of this handbook is to provide practical information for decision-makers in the public and private sectors to use in creating and implementing effective emissions-reduction projects for construction and other nonroad diesel fleets.¹ Because the nonroad sector is so dirty, and because the emissions-reduction solutions are not yet widely disseminated for this sector, this handbook focuses attention on construction fleets and other nonroad applications. The handbook's basic concepts, however, are applicable across the diesel sector.

This handbook sets forth:

- the health imperative for reducing diesel pollution today;
- an overview of technologies and fuels that can reduce diesel pollution, with detailed follow-up information;
- information about successful retrofit programs;
- examples of contract specifications and other incentives for cleaning diesel engines.

Together, these tools can be used by any citizen concerned about diesel pollution to inform local policymakers and contractors about the benefits of, and the steps involved in, implementing a successful retrofit program.

This handbook focuses on how to reduce pollution from vehicles, engines and equipment used for construction. Construction vehicles are classified as “mobile sources” because they move. Mobile sources are divided into the “onroad” and “nonroad” sectors. The onroad sector includes vehicles used on roads for transportation of passengers or freight.

The nonroad sector includes vehicles that are not typically found on roads, such as agricultural equipment, locomotives, ferries, snowmobiles and airplanes. Construction equipment is part of the nonroad sector. However, the technologies, fuels, and techniques found herein are frequently applicable across the diesel sector (onroad engines and other nonroad engines) as well. For more information, visit the EPA Mobile Source web site at: <http://www.epa.gov/otaq/inventory/overview/examples.htm>.

Since 1996, EPA has required new nonroad diesel engines to meet specific emissions levels. Until 1996, those standards were not very strong, and as a result they allowed for high levels of pollution. On May 10, 2004, EPA announced air pollution regulations that will lower pollution from *new* nonroad diesel engines used in construction, agriculture, manufacturing and services by more than 90%.

To meet this rigorous emissions standard, EPA requires a combination of cleaner engines, pollution control technology and cleaner fuel. Based on

EPA estimates, when the full inventory of older nonroad engines has been replaced, the nonroad diesel program will annually prevent up to 12,000 premature deaths, one million lost work days, 15,000 heart attacks and 6,000 children's asthma-related emergency room visits.² According to EPA, the overall benefits of the nonroad diesel program outweigh the costs by a ratio of 40 to 1.³

But the full pollution reduction and public health benefits of the nonroad rule will not be realized for more than 20 years due to the lag in time before the emissions standards come into effect and because of the long life spans of heavy-duty diesel engines. EPA estimates that by 2030 the entire inventory of nonroad vehicles covered by this new rule should be upgraded.⁴

Given that nonroad engines remain in use for a very long time, even decades, strategies to retrofit existing machinery and the use of ultra-low sulfur diesel (ULSD) fuel are extremely important to win public health gains now. Figure 1 (page v) shows the national particulate pollution under the phase-in of the

federal emissions standards for diesel trucks and buses, and nonroad machinery.

The public health benefits will likewise be phased in over time. EPA estimates, for example, that only about 30% of the ultimate level of annual benefits under its recently announced standards for nonroad diesel engines will be realized by 2015; just over 50% will be realized by 2020. While the health benefits from full implementation of EPA national diesel emissions standards are extremely important, the incremental phase-in of these benefits indicates that thousands of premature deaths each year, occurring now, could be prevented by accelerating the cleanup of diesel engines.

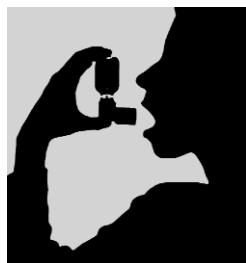
Right now, there are a variety of demonstrated retrofit technologies available to reduce particulate matter (PM), oxides of nitrogen (NO_x), hydrocarbon (HC), carbon monoxide (CO), smoke and odor created by existing diesel engines. Therefore, programs to reduce pollution from existing diesel engines are critical. This handbook explores a variety of methods for implementing successful retrofit programs.

Children are particularly vulnerable to the harmful health effects of diesel exhaust.



ENVIRONMENTAL DEFENSE

The dangers of diesel emissions



According to recent EPA data, about half of all Americans now live in counties that fail to meet basic healthy air standards. On April 15, 2004, EPA found 474 counties, home to 159 million Americans, out of full compliance with the health-based eight-hour ozone standard.⁵ In April 2005, EPA also found 208 counties representing more than 57 million Americans out of full compliance with the health-based particulate pollution standard.⁶

For the states and local communities that are struggling to trim every possible ton of pollution to meet federal health-based air quality standards, reducing pollution from existing diesel vehicles and equipment now is vitally important. Retrofits and the use of clean fuels are one of the most cost-effective ways to reduce diesel emissions and restore healthy air.

Diesel engines, including the construction engines that are the focus of this handbook, emit nearly 40 toxic substances (Table 1), smog-forming oxides of nitrogen and fine particulate matter (PM_{2.5}), which can penetrate the lungs and enter the bloodstream. Due to their small size, particulates are easily inhaled and reach deep into the lungs where they can trigger an inflammatory response. Exposure to particulate matter is associated with heart attacks, irregular heartbeat, asthma attacks, reduced lung function and bronchitis.

Several organizations, including EPA, have designated diesel exhaust as a probable or potential human carcinogen (Table 2). It is estimated that diesel exhaust contributes more than 70% of the cancer risk from air toxics in the United States.⁷ Diesel emissions are also estimated to be the hazardous air pollutant with the highest contribution to cancer risk in many areas across the

country;⁸ according to Environmental Defense's Scorecard, this is true in New York, Los Angeles, Houston, Denver, Chicago and Atlanta.⁹

Smog-forming nitrogen oxides

Nitrogen oxides (NO_x) and volatile organic compounds (VOCs) that are created by diesel exhaust are precursors to ground-level ozone, or smog. Non-road engines, as a vehicle class, also emit more than 4 million tons of NO_x each year—this is approximately 19% of the total national NO_x emissions from all sources (22,349,000 tons).¹⁰ As well as being significant contributors to ground-level ozone or smog, nitrogen oxides are also significant contributors to acid deposition, eutrophication of coastal bodies of water, fine particulate emissions and haze.

Fine particulate matter

There is a well-researched body of epidemiological studies from around the world that documents the serious threats associated with exposure to PM_{2.5}. These studies have linked PM_{2.5} to adverse health effects, such as asthma, cardiovascular and respiratory problems, strokes, heart attacks¹¹ and lower birth weight¹² leading to increased use of asthma medications, doctor visits, emergency room visits, hospital admissions, school absenteeism and premature death.¹³ Researchers estimate that as many as 60,000 Americans die prematurely each year because of exposure to fine particles.¹⁴ Children, the elderly and the ill are particularly vulnerable. National PM_{2.5} emissions from mobile sources totaled approximately 452,000 short

tons in 2001. Nonroad vehicles created the majority of those emissions, 64%, and almost 50% of total PM_{2.5} emissions originated from nonroad diesel sources (221,000 short tons). Construction and surface mining equipment was the largest contributor (30%) to nonroad diesel source PM_{2.5} emissions.

Asthma

People working at and living near construction sites are especially affected by nonroad vehicles' emissions. In urban areas, overall asthma prevalence has increased dramatically over the past two decades, rising

75% between 1980 and the average in 1993–4. While the highest prevalence of asthma is in children ages 5 to 14, the greatest increase in asthma prevalence has occurred in children ages 0 to 4 which increased 160% over the 15-year period.¹⁵ For example, New York City residents suffer from alarmingly high asthma rates (1 out of every 8 adults has been diagnosed with asthma at some point in their lives¹⁶) and New York City air fails to meet many basic health standards. To learn about air quality conditions in your area, visit Environmental Defense's Scorecard web site at: <http://www.scorecard.org/>.

TABLE 1

Toxic air contaminants and hazardous air pollutants found in diesel exhaust

Acetaldehyde*	Chlorine	Methyl ethyl ketone
Acrolein	Chlorobenzene	Naphthalene*
Aluminum	Chromium compounds*	Nickel*
Ammonia	Cobalt compounds*	4-nitrobiphenyl*
Aniline*	Copper	Phenol
Antimony compounds*	Cresol	Phosphorus
Arsenic*	Cyanide compounds	POM (including PAHs)
Barium	Dibenzofuran	Propionaldehyde
Benzene*	Dibutylphthalate compounds*	Selenium
Beryllium compounds*	Ethyl benzene	Silver
Biphenyl	Formaldehyde*	Styrene*
Bis [2-ethylhexyl] phthalate*	Hexane	Sulfuric acid
Bromine	Lead compounds*	Toluene*
1,3-butadiene*	Manganese compounds	Xylene isomers and mixtures
Cadmium*	Mercury compounds*	Zinc
Chlorinated dioxins*	Methanol	

*This compound or class of compounds is known by the state of California to cause cancer or reproductive toxicity. See California EPA, Office of Environmental Health Hazard Assessment, "Chemicals Known to the State to Cause Cancer or Reproductive Toxicity," May 31, 2002.

Note: Toxic air contaminants on this list either have been identified in diesel exhaust or are presumed to be in the exhaust, based on observed chemical reactions or presence in the fuel or oil. See California Air Resources Board, "Toxic Air Contaminant Identification List Summaries, Diesel Exhaust," September 1997, available online at <http://www.arb.ca.gov/toxics/tac/factshts/diesex.pdf>.

TABLE 2

History of determinations of the carcinogenicity of diesel exhaust

Year	Agency	Determination
1988	National Institute for Occupational Safety and Health (NIOSH)	Potential occupational carcinogen
1989	International Agency for Research on Cancer (IARC)	Probable human carcinogen
1990	State of California (under provisions of Proposition 65)	Known by the state to cause cancer
1995	Health Effects Institute (HEI)	Potential to cause cancer
1996	World Health Organization International Programme on Chemical Safety (WHO-IPCS)	Probable human carcinogen
1998	California Air Resources Board (CARB)	Toxic air contaminant (determination based substantially on the cancer risk to humans)
2000	U.S. Department of Health and Human Services National Toxicology Program (U.S. DHHS/NTP)	Reasonably anticipated to be human carcinogen
2001	American Council of Government Industrial Hygienists (ACGIH) (proposed)	Suspected human carcinogen
2002	U.S. Environmental Protection Agency (EPA)	Probable human carcinogen

Sources:

National Institute for Occupational Safety and Health, "Carcinogenic Effects of Exposure to Diesel Exhaust," Current Intelligence Bulletin 50. August 1988. Available online at http://www.cdc.gov/niosh/88116_50.html. Last accessed August 13, 2004.

International Agency for Research on Cancer (IARC), Diesel and Gasoline Engine Exhausts and Some Nitroarenes. IARC Monographs on the Evaluation of Carcinogenic Risks to Humans, no. 46 (Lyons: World Health Organization, 1989), pp. 41-185.

California Environmental Protection Agency, Chemicals Known to the State to Cause Cancer or Reproductive Toxicity (Proposition 65, 1997), revised May 31, 2002.

Health Effects Institute, Diesel Exhaust: A Critical Analysis of Emissions, Exposure and Health Effects. Cambridge, MA: Health Effects Institute, 1995. Online resource, available at: <http://www.healtheffects.org/Pubs/diesum.htm>. Last accessed on August 13, 2004.

American Conference of Governmental Industrial Hygienists, "Documentation of the Threshold Limit Values and Biological Exposure Limits, Notice of Intended Changes," 2001.

International Programme on Chemical Safety, World Health Organization, "Diesel Fuel and Exhaust Emissions," Environmental Health Criteria 171 (1996).

"The Toxic Air Contaminant Identification Process: Toxic Air Contaminant Emissions from Diesel-fueled Engines," fact sheet. Online resource, available at: <http://www.arb.ca.gov/toxics/dieseltac/factsht1.pdf>. Last accessed on August 13, 2004.

U.S. Environmental Protection Agency, Draft Health Assessment Document for Diesel Exhaust, July 2000, EPA/600/8-90/057E.

California Air Resources Board, "Statewide Portable Equipment Registration Program." Online resource, available at: <http://www.arb.ca.gov/perp/perp.htm>. Last accessed on August 13, 2004.

FIGURE 2
National NO_x emissions by source category, 2001
(22.3 million short tons)

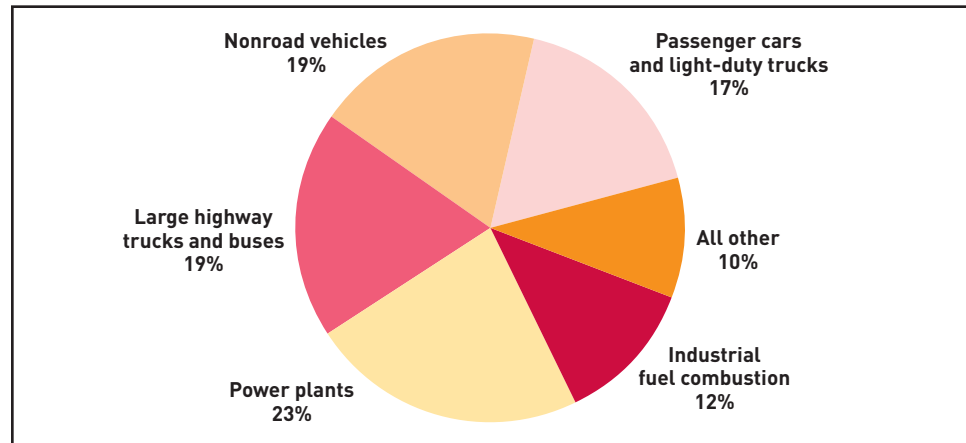


FIGURE 3
National PM_{2.5} emissions from all nonroad diesel sources, 2001
(221,000 short tons)

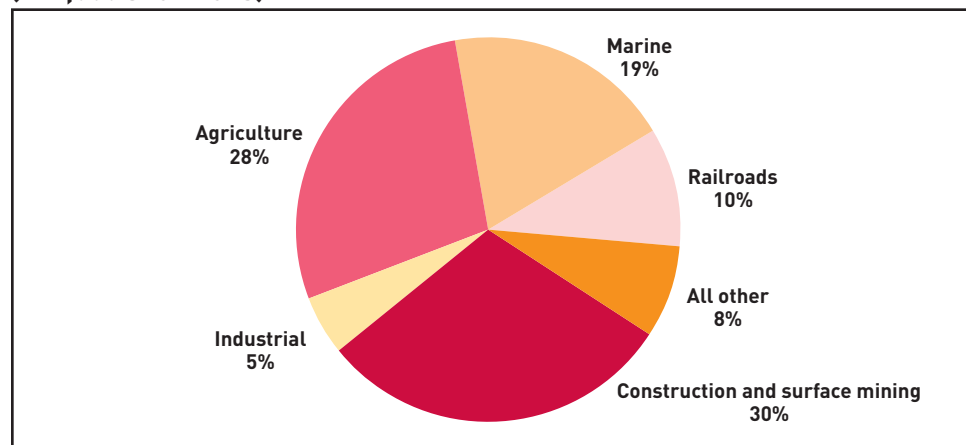
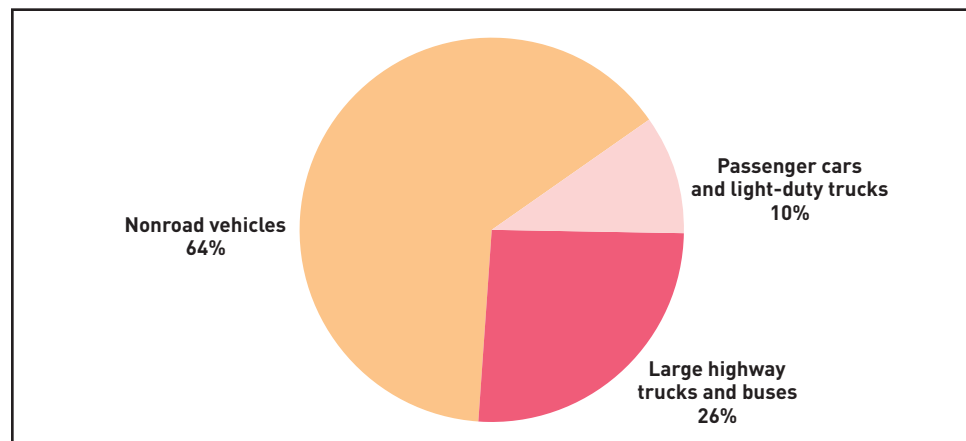


FIGURE 4
National PM_{2.5} emissions from all mobile sources, 2001
(452,000 short tons)



Source (Figures 2, 3, 4):
 National Emission Inventory
 (NEI): Air Pollutant Emission
 Trends, 1999. Online re-
 source, available at: <http://www.epa.gov/ttn/chief/net/1999inventory.html>. Last
 accessed 03/01/05.

Cost-effective ways to reduce health threats

There are many options for reducing pollution from diesel engines in use today. This section describes, first, the “3 R’s” for cleaning up diesel engines and, second, behavioral solutions that can help reduce pollution from diesel exhaust. For existing engines, our goal is to substantially reduce pollution today and, as soon as feasible, bring the pollution level down so that it is at least equivalent to the standards for new engines. Until old engines have been replaced with new and regulated technology, these measures are a cost-effective means of reducing diesel pollution.

A systems approach is the most effective way to curb diesel engine pollution. A systems approach takes into account all aspects of engine operations—from fuel type used, to retrofit technologies, to best practices such as anti-idling and proper maintenance practices—all of which are discussed in detail in the next few chapters of the handbook.

Fleet operators should note that, before undertaking any engine modifications, they should determine what effects retrofitting may have on equipment warranties and resolve any issues. Major engine manufacturers have now issued letters and other guidance with respect to warranty implications of cleaner fuels and retrofits, and “in most cases, engine manufacturers will continue to honor engine warranties if emissions control systems are sized, installed and maintained properly.”¹⁷

The “3 R’s” for cleaning up diesel engines

The “3 R’s” listed below can be used to substantially reduce air pollutant emissions from construction equipment.

Environmental Defense strongly encourages combinations of the 3 R’s in order to maximize emissions reductions. Neither repowering nor refueling alone can achieve the PM reductions that a retrofit can and, similarly, retrofitting alone cannot achieve the NO_x reductions that many repowers can. Repowering or replacing in addition to retrofitting can maximize reductions in PM and NO_x pollution. In addition, refueling with ULSD fuel can result in even more reductions.

1. REPOWER (OR REPLACE)

One way of ensuring emissions reductions is to replace an entire piece of old construction equipment with a model that meets EPA 2008 standards. Another, less costly, strategy to reduce emissions from older, higher-polluting equipment is the replacement of the in-use engine (i.e., repower) with an emissions-certified engine instead of rebuilding the existing engine to its original specifications. Significant NO_x and PM benefits may be achievable due to the high emissions levels of the uncontrolled engine being replaced.

Depending on the engine and rating of older, higher polluting equipment, average emissions reductions may vary from 25% up to 75%.¹⁸ In some instances, higher emissions reductions may be achievable. For example, replacing a 475 horsepower engine in a MY 1975–1986 Caterpillar 631-D Scraper with a Caterpillar engine meeting EPA Tier One standards¹⁹ would produce a 40% reduction in NO_x and a 62% reduction in PM. Replacing the same engine with one meeting Tier Two standards would produce a 62% reduction in NO_x and an 81% reduction in PM.²⁰ It is important to note, that while

Environmental Defense strongly encourages repowering where possible, there are significant technical issues that may make it impossible for some older, higher polluting engines (Tier 0 and Tier 1) to be repowered with newer, cleaner engines (Tier 2 and Tier 3).

2. REFUEL

Using alternative fuels or cleaner petroleum-based fuels can also help reduce diesel engine pollution. Alternative fuels are defined in this handbook as any fuel other than petroleum-based fuels such as gasoline or diesel fuel. Emissions reductions can also be achieved by using diesel fuels with very low levels of sulfur, for example ULSD with a maximum sulfur content of 15 parts per million. Fuel emulsifiers, or fuel-borne catalysts are fuel additives that can be added to ULSD to cut emissions even further. In many cases, use of ULSD at 15 parts per million (ppm) of sulfur or less is a prerequisite to effective use of advanced retrofit technologies. Generally, it is not the fuel itself that is “clean”, it is the engineered

system (i.e. fuel, combustion engineering and exhaust after-treatment). Therefore, to achieve the greatest emissions reductions, a combination of repowered or replaced engines, retrofit technology and cleaner fuels must be used.

3. RETROFIT

“Retrofitting” is incorporating a device into a piece of diesel equipment to reduce pollution.²¹ A wide range of pollution-control, or “retrofit” technologies exist today, and can be used in combination with each other and with cleaner fuels to achieve powerful emissions reductions. Different technologies fit different engine operating needs—the key is to select the combination that achieves maximum clean air benefits for a given machine and use.

For example, a retrofit could be a Diesel Particulate Filter (DPF), which traps particles from engine exhaust until the trap becomes loaded to the point that a regeneration cycle is implemented to burn off the trapped particulate matter.²² DPFs are normally built with a porous ceramic, metal mesh or silicon

A delivery of ultra low sulfur diesel fuel to New York’s World Trade Center site. In late 2006, ULSD will be widely available across the United States.



carbide filter housed in a metal container similar to a muffler. However, DPFs are just one of many technologies available to retrofit diesel engines, and many of these technologies serve different in-use functions. There are other examples of retrofit technologies, in addition to more detail about DPFs, in other sections of this handbook.

A combination of clean fuels and retrofits can reduce some hazardous diesel emissions by up to 90%, improving both environmental conditions and public health. Retrofits are remarkably cost-effective when compared to other means of reducing air pollution. For example, the average cost for most applications of a diesel oxidation catalyst (DOC) is approximately \$2,500²³ (excluding installation) and for a DPF between \$7,000–12,000²⁴ (excluding installation). The California Air Resources Board estimates that the average cost of retrofitting an engine of 275 horsepower with a catalyzed diesel particulate filter ranges between \$6,900–\$9,000.²⁵ By comparison, the average base price for a 200 to 300 horsepower wheel loader is \$275,000.²⁶ Retrofitting an engine with a catalyzed DPF in this price range or with a \$2,500 DOC costs only a small fraction (2.5 to 3.2% and less than 1%, respectively) of the cost of replacing the entire vehicle with one that pollutes less.

Moreover, the use of diesel fuel with 15 ppm of sulfur or less can benefit engine operation and maintenance by reducing wear and tear on heavy equipment. This translates into prolonged engine life and less frequent replacement of parts like pistons and cylinder liners.²⁷ Fleet operators using ULSD may therefore realize a dividend in avoided maintenance.²⁸ EPA expects these benefits to be equivalent to reducing the cost of the fuel by 3.3 cents per gallon.²⁹

Environmental Defense recommends that construction fleet operators who

have decided to take steps towards reducing harmful emissions from their construction vehicles contact their Original Equipment Manufacturer (OEM) or other appropriate technology experts to determine the most effective way to reduce diesel emissions from specific machine models in their fleet. Retrofit technology manufacturers and OEMs will probably need information about the fleet in order to advise construction fleet operators on which retrofit solutions will work best for their individual needs. It is always advisable for construction fleet operators to maintain a full inventory of construction machinery (including model and serial number of equipment, year of manufacture, engine displacement, horsepower and serial number of engine, and engine certification for post-1996 engines) working at a given site. This inventory should also include all machinery used to transport debris and construction material to and from a construction site.

Fleet operators who wish to install retrofit technology should also seek information from manufacturers about the proper monitoring, maintenance and operation of retrofit technology.³⁰ Finally, fleet operators should check with both OEMs and retrofit technology manufacturers about how installing retrofit equipment or using alternative fuels will affect equipment warranties. Most manufacturers have provided guidance to ensure that warranties are not threatened by any use of clean fuels or retrofits.

Equipment management and behavioral solutions to emissions reductions

In addition to the “3 R’s” above, there are fleet management and behavioral solutions that can be implemented to reduce pollution. These common sense practices can be implemented immediately

and can be a good first step in any retrofitting/diesel emissions reduction plan.

Stop engine idling. Users of heavy-duty diesel equipment (both onroad and nonroad) often keep their engines idling when their equipment is not in use. Reducing or eliminating unnecessary idling can save fuel, and therefore money, as well as reduce emissions. According to EPA, a typical heavy-duty truck or bus can burn approximately one gallon of diesel fuel for each hour it idles, generating significant amounts of pollution, wasting fuel, and causing excessive engine wear.³¹ Instead of idling, vehicle owners can purchase small generators or auxiliary power units specifically designed for trucks and buses that provide heat, air conditioning and/or power while a vehicle is not in motion.³² These devices substantially reduce the fuel consumed and emissions generated during long-duration idling. Many communities across the county have anti-idling rules, but there is a need for enforcement and compliance with these rules and a need to develop and enforce worksite specific rules to govern idling.

Improve equipment maintenance and inspection. Proper maintenance, engine tuning and emissions testing is critical to success. This includes replacing worn out parts, cleaning, tuning and generally maintaining the engine. Whether a retrofit device is installed and/or cleaner fuel is being used, it is always important to ensure that the engine is properly tuned and maintained. This is essential not only for the engines to operate efficiently, but also to ensure that emissions reduction technologies can be used

effectively. As with onroad vehicles, nonroad equipment should have regular inspections, including smoke testing. Proper maintenance will ensure complete fuel combustion and as a result PM exhaust is minimized. Proper maintenance can also improve fuel economy and extend engine life.

In addition to reducing idling time and instituting inspection and maintenance programs, the following measures can also help reduce exposure to diesel pollution:

- establishing a staging zone for trucks that are waiting to load or unload material at the work zone in a location where diesel emissions from the trucks will have minimum impact on abutters and the general public; and
- locating construction equipment away from sensitive receptors such as fresh air intakes to buildings, air conditioners and operable windows.

The remainder of this handbook focuses on using cleaner fuel and retrofits to reduce pollution from construction equipment. Reducing pollution from existing nonroad diesel equipment is vital to protecting the public from the health and environmental harms caused by hazardous diesel emissions. Even a relatively new engine can reduce pollution by installing a retrofit and using a cleaner fuel. The goal of these retrofit or emissions control technologies is to reduce emissions, up to and beyond what is required by EPA regulation³³ without negatively impairing the performance of the machine for its intended use.

Successes and regional programs

A variety of regional programs have proven successful at reducing harmful diesel pollution. This section of the handbook provides examples of voluntary government or private sector leadership in retrofitting construction equipment, including: New York City's efforts at the World Trade Center and through Local Law 77, Boston's Big Dig Project, Connecticut's New Haven Harbor Crossing Corridor Improvement Program, the Port of Houston Retrofit Program and retrofits at Washington's Puget Sound. Additionally, this section examines examples of successful economic or market incentive programs that provide financial support for cleaner technologies or fuels, such as the Texas Emissions Reduction Plan, the Carl Moyer Program in California, or the EPA Voluntary Diesel Retrofit Program. The diversity of programs described reflects the varying needs of individual projects with respect to equipment, location, fuel availability and other related factors. When planning a retrofit project, it is always important to take individual situation characteristics into account.

"Best available retrofit technologies": New York City

New York City has demonstrated a strong commitment to reducing pollution from diesel engines. This case study discusses three NYC projects:

- the 7 World Trade Center Diesel Emission Reduction project,
- lower Manhattan redevelopment construction commitments, and
- NYC's Local Law 77.

7 WORLD TRADE CENTER SITE³⁴

The Clean Air Communities Diesel Emissions Reduction Project at 7 World Trade Center is the first public-private endeavor of its kind in the city. As former Northeast States for Coordinated Air Use Management (NESCAUM) Executive Director, Ken Colburn stated, "through the application of advanced emission control technology and the use of ultra low sulfur diesel fuel, this Clean Air Communities initiative demonstrates that innovative, clean air progress is possible even at large-scale urban construction sites across the nation."³⁵

In October of 2002, the site converted to ULSD for all equipment. Six pieces of construction equipment have already been retrofitted, and one electric crane is being used in lieu of the typical diesel engine crane technology. It is important to note that these strategies target PM, HC, and CO reductions, not NO_x.

LOWER MANHATTAN REDEVELOPMENT³⁶

Lower Manhattan is a thriving mix of apartments, art galleries, shops and restaurants. More than 4,000 children live throughout lower Manhattan in neighborhoods as diverse as TriBeCa, Chinatown and Battery Park City. With the rebuilding of the World Trade Center site, lower Manhattan will become one of the nation's largest construction sites, teeming with diesel engines. These engines will be operating just steps from school, playgrounds, parks, homes and offices.

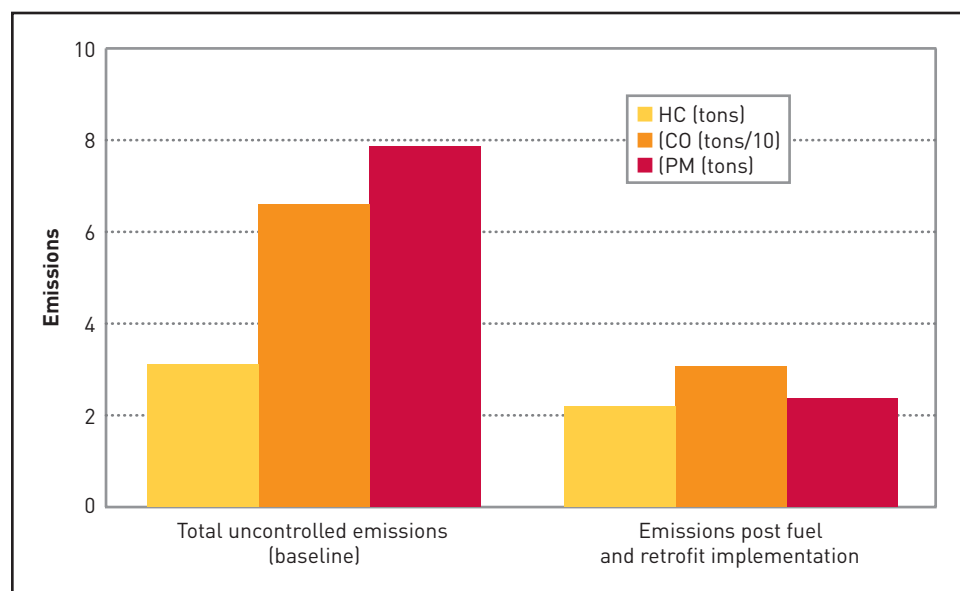
Governor Pataki and New York City have pledged to use the best available retrofits and cleaner diesel fuel in all of the reconstruction efforts. In 2002,

TABLE 3
7 World Trade Center retrofits

Date	Equipment	Retrofit technology
March 2003	Stationary Generator	DOC
	Excavator (CAT 245D, 14.7 l)	DOC
	Excavator (Komatsu PC200, 5.9 l)	DOC
January 2004	Stationary Generator (Rudox, 125 kw, 6.8 l)	Active DPF (Rypos RT500)
May and June 2004	A two-stroke and a four-stroke crane	Metallic High Performance DOC Clean Cat® known by the trade name of “diesel particulate reactors” (by Environmental Solutions World-wide, Inc.)
Pending	The site has plans to retrofit one more piece of equipment, a concrete pump, with a DOC. Rather than purchasing a new DOC, the retrofit will reuse a high-efficiency DOC from one of the cranes after crane use is finished.	

Source: Information provided by Glenn Goldstein at NESCAUM.

FIGURE 5
Total emissions reductions for 7 World Trade Center project



Courtesy of NESCAUM. Includes emissions from equipment that was not retrofit.

Governor Pataki committed to the use of ULSD and best-available retrofits in all state-controlled lower Manhattan construction projects, including at the World Trade Center site. The New York State Assembly and Senate followed Governor Pataki's lead and passed legislation on June 22, 2004 codifying Governor Pataki's commitment.³⁷ The law was unanimously approved in both the

House and the Senate and was recently signed into effect by the governor.³⁸ It requires contractors and subcontractors using diesel-powered nonroad vehicles with an engine horsepower rating of 60 HP and above to use only ULSD and to retrofit, where practicable, their equipment with oxidation catalysts, particulate filters or technology with “comparable or better effectiveness.”³⁹

The pollution reduction efforts at 7 World Trade Center have been paralleled at other redevelopment sites in lower Manhattan. In the PATH reconstruction project, for example, three pieces of construction equipment were chosen for retrofits: a Caterpillar XQ2000 Genset and two Caterpillar 966G TG-22 Loaders. Caterpillar, the original manufacturer of all of the pieces of equipment, was chosen to perform the retrofits.

Caterpillar chose to utilize a passive DPF, the CRT™, manufactured by Johnson Matthey. The CRT™ particulate filter is a patented emissions control technology that contains both a platinum oxidation catalyst and a particulate filter. Caterpillar specifies the minimum exhaust temperature must be at least 260°C for at least 40% of the operating time. Though loaders met these minimum requirements, a detailed engineering analysis on the generator's exhaust temperature found that it was an unsuitable candidate for a DPF. The generator was only being used consistently at approximately 20% of its rate and thus lacked sufficient exhaust temperature.

In August of 2003, H.O. Penn (Caterpillar's local dealership) and Caterpillar design engineers installed the DPFs on the two 966G Loaders. The installation process took eight to ten hours, which was approximately double the expected installation time. This delay can probably be attributed to these retrofits being the first installations of this kind performed by H.O. Penn as well as the need to modify several brackets/components during installation. During the emissions testing, the time required to remove the original muffler and replace it with the DPF was cut in half.

One concern about using DPF technology is failure of the DPF to regenerate, which could lead to excessive

engine backpressure. Backpressure must be checked so that it does not increase to levels that may ultimately damage the engine. For this reason, Caterpillar decided to provide an integrated exhaust backpressure alarm with the retrofits to alert the driver if the backpressure is too much. The alarm, mounted in the cab of the loader, is both visual and audible. If a pre-specified backpressure is exceeded for more than a set time interval the alarm lights up.

The installed cost of the DPFs for the wheel loaders was approximately \$15,000 each. This cost is probably higher than the future cost of retrofits of this type because this was the first installation on a Caterpillar 966G loader for both Caterpillar and H.O. Penn. After the first few installations, labor efficiencies are typically realized, as evidenced by the decreased installation time from the initial installation to the emissions testing installation. Further, as market demand increases, capital costs are expected to decrease. Additional project costs came from the April 2005 price premium of \$0.01–\$0.18 per gallon of ULSD in the New York City area. The use of ULSD is not expected to change maintenance schedules or cost, however, using DPFs is expected to slightly increase maintenance responsibilities and cost. Specifically, the filter technology must be cleaned to maintain emissions reduction benefits. A cleaning contract was not negotiated for this project, but other negotiated contract prices in the New York City area range from \$300 to \$500 per cleaning event. The DPFs have not yet been in service for a year, and have experienced no operational problems.

To establish the emissions reduction potential of the different strategies (ULSD vs. ULSD/DPF), emissions testing was performed using two different types of portable emissions monitoring systems: the Clean Air Technologies

Construction at the World Trade Center site.



ENVIRONMENTAL DEFENSE

International Montana system and the Environment Canada DOES2 system. Emissions testing was conducted for two weeks between September and October of 2003; significant PM emissions reductions were documented. Both monitoring systems identified PM emissions reductions of 15 to 20% for the use of ULSD alone, and of greater than 90% when ULSD was combined with the DPF. Additionally, the use of the DPF also produced significant CO emissions reductions. The switch to ULSD alone produced CO emissions reductions in the range of 1 to 10%, and more than 85% reductions were achieved when the DPF technology was used with ULSD.⁴⁰

NEW YORK CITY LOCAL LAW 77
Recently, New York City committed to emissions reduction measures for all city-funded construction. New York City Local Law 77 calls on New York City to use clean fuels and advanced emissions-control technologies in all city construction fleets and contracts. The law requires two fundamental

steps.⁴¹ First, it requires the use of ULSD with a maximum sulfur content of 15 ppm in all city contracts, on a schedule set forth in the law. Second, it requires use of “best available” emissions control technology for any class of engine to which the law applies.

Local Law 77 provides a high standard for what shall constitute best available technology, calling on the City to use technologies that reduce both fine particulate matter (PM) and oxides of nitrogen (NO_x). Specifically, Local Law 77 requires that agencies use technologies that “shall be primarily based on the reduction in emissions of particulate matter and secondarily based upon the reduction in emissions of nitrogen oxides.”⁴² The DEP recently promulgated rules defining “best available technology.”⁴³

Retrofits and ULSD have been tested at the 7 World Trade Center site, incorporated into Lower Manhattan Development Corporation design guidelines, and now every Environmental Impact Statement for major reconstruction projects in lower Manhattan, from the Fulton Street transit center to Route

Even private NY contractors have joined the diesel retrofit effort. After Pavarini-McGovern Construction Company was found in violation of a local emissions regulation, they retrofit a 1971 380 HP crane with a DOC and committed to using the fuel-borne catalyst Platinum Plus.

9A, has committed to using advanced retrofits in their environmental impact statements. For example, the Fulton Street Transit Center draft environmental impact statement requires the use of Tier 2 compliant equipment with PM emissions reductions at 85%.⁴⁴ Additionally, many projects in lower Manhattan are already moving ahead with emissions-reduction strategies based on a wide range of technologies.

The Big Dig⁴⁵

The Central Artery Project in Boston, also known as the “Big Dig,” has built 161 lane miles of highway in a 7.5-mile

corridor directly through the middle of densely populated downtown. The project, which began in September 1991 and is currently scheduled to be substantially completed by the end of 2005,⁴⁶ presented an historic opportunity to test and demonstrate the feasibility of pollution control retrofits. Use of these retrofits helps to minimize the impact of such a large-scale project by reducing air pollution and lessening the health impact of a major construction project on workers, neighborhoods and regional air quality.

The Massachusetts Turnpike Authority (MTA) in collaboration with the Massachusetts Department of Environmental Protection (DEP) and NESCAUM, chose to retrofit construction equipment with diesel oxidation catalysts. Although other technologies achieve higher particulate reduction rates than DOCs, the MTA preferred DOCs for several reasons—primarily because the very clean diesel fuel (15 ppm of sulfur or less) needed to operate other technologies was not available at the time the Big Dig began.

Retrofit requirements were incorporated into Big Dig construction contracts.



MASSACHUSETTS TURNPIKE AUTHORITY

The Big Dig retrofit project has resulted in the installation of DOCs on approximately 200 pieces of construction equipment—this includes small in-tunnel cranes,⁴⁷ lifts, excavators, bulldozers, generators and compressors. This effort will achieve air emissions reductions that are the equivalent of removing 1,300 diesel buses off of Boston streets for a full year.⁴⁸

The Big Dig retrofit project is a true success: **No adverse operational problems or additional maintenance costs have been experienced by Big Dig construction equipment retrofitted with DOCs.**⁴⁹ Additionally, preliminary estimates of area-wide emissions reductions from the retrofitted equipment amount to approximately 36 tons per year for carbon monoxide, 12 tons per year of hydrocarbons, and 3 tons per year of PM.⁵⁰

The Massachusetts Highway Department provided funding to contractors to purchase the emissions control devices. According to Alex Kasprak, Environmental Engineer, Massachusetts Turnpike Authority, one of the lessons learned from the Big Dig project is that it is best to include the requirement for emissions control equipment as part of the contract's bid package. By doing so, the cost of the retrofit equipment can be included as part of the overall contract cost. This will also ensure that the maximum number of offroad pieces of equipment can be retrofitted.⁵¹ Overall, the Big Dig retrofit program is now being used as a model by regulatory agencies to encourage other construction projects to utilize retrofitted diesel equipment.⁵²

I-95 New Haven Harbor Crossing Corridor Improvement (NHCC Project)⁵³

Eighty-three diesel oxidation catalysts have successfully been installed at the Connecticut NHCC project. In addition, construction contractors have volunteered to use low sulfur diesel (500 ppm sulfur content) on all their nonroad equipment. The NHCC project is part of Connecticut's Clean Air Construction Initiative and was launched to protect laborers as well as residents from harmful construction emissions along a densely populated corridor. Construction began in 2001.

The Connecticut Clean Air Initiative was a mutual effort of the Connecticut Department of Transportation (ConnDOT), the Connecticut Department of Environmental Protection, the Connecticut Department of Motor Vehicles, and the Connecticut Construction Industry Association to come up with real-world solutions to air quality problems. With compromise, a contract specification was evolved from the above mentioned agencies to improve the quality of life through this long duration construction project.

ConnDOT is requiring all contractors and subcontractors to take part in the Connecticut Clean Air Construction Initiative. The cost to purchase the DOCs and the cleaner fuels was included in the overall contract cost, as bid by each contractor. At present, all contractors have decided to install DOCs. Although other technologies achieve higher particulate reduction rates than DOCs, they were preferred primarily because low sulfur diesel fuel

“The Big Dig diesel construction retrofit program has proven that retrofitting construction equipment with DOCs is very feasible, and provides beneficial air quality improvements in terms of emission reduction and odor control.”

—Alex Kasprak, Environmental Engineer, Massachusetts Turnpike Authority, CA/T Project

“I am very proud of Connecticut’s success in this Clean Air Construction Initiative. The State of Connecticut’s various Departments and the Connecticut Construction Industry Association (CCIA) worked and are still working to benefit the people of Connecticut by trying to improve the quality of life in locations where transportation projects are occurring. We are sensitive to those that live or work in an area where construction is going on, day after day, and how it affects those people’s lives. This Initiative is a step in the right direction. As technologies improve, greater air quality can be achieved.”

—Donna Weaver, Transportation Planner, Office of Environmental Planning, Connecticut Department of Transportation

(500 ppm sulfur content), rather than the ULSD (15 ppm of sulfur or less) needed to operate other technologies, was used for the project. Estimates for reduced emissions from the program are 20 tons per year for carbon monoxide, 2 tons per year for fine particulate matter (with clean fuels or oxidation catalysts) and 8 tons per year for hydrocarbons (with oxidation catalysts only).⁵⁴

Because of the success of the Connecticut Clean Air Initiative on ConnDOT projects, other agencies such as the Connecticut Department of Public Works and the Connecticut Department of Economic and Community Development are also requiring their construction contractors to follow the ConnDOT specification. Three or four diesel oxidation catalysts have been installed on two projects as a result.

Port of Houston⁵⁵

The Port of Houston is the sixth largest port in the world,⁵⁶ and a significant contributor to NO_x emissions in the eight counties of the Houston-Galveston area. All eight counties in this region fail to comply with EPA’s health-based eight-hour ozone standards.⁵⁷ Although the Port of Houston Authority is not the largest contributor to emissions in the area, they have become the region’s leader in emissions reduction activities and commitments.

Through demonstration testing of the alternative fuel PuriNOxTM on rubber-tire

gantry crane with a 550 horse-power engine, the Port of Houston Authority (PHA) has reduced NO_x emissions by 25% and PM emissions by 50%.⁵⁸ In September of 2003, the Port Authority converted 39 yard tractors and yard cranes to PuriNOx and enacted the requirement that any new equipment purchased be able to use the technology.⁵⁹ Approximately 49 pieces of cargo-handling equipment are currently operating on PuriNOx for a NO_x emissions reduction of approximately 21 tons per year at a total cost of \$216,000. According to Roger Guenther, container facilities manager at Barbours Cut Container Terminal, “It’s just a different fuel, nothing special has to be done to the equipment. I could put diesel back in any of the offroad vehicles and they would run just fine. I can’t tell any difference from one to the other.”⁶⁰

The PHA also applied for and received \$337,000 in state funding (see the Texas Emissions Reduction Program section below) to replace two Fireboat FARNSWORTH propulsion engines with engines that produced 5.6 tons less NO_x per year.⁶¹ Additionally, the PHA has purchased several new yard tractors and container handlers with clean engine technology, resulting in NO_x emissions reductions of 6.9 tons per year at a cost of \$21,500.⁶² Further, the PHA purchased 33 ultra-low emissions vehicles or propane vehicles for their onroad fleet.⁶³ The PHA plans to extend its retrofit program (which involves either retrofitting vehicles with oxidation catalysts,



New equipment purchased by the Port of Houston Authority must run on PuriNox, an alternative fuel that reduces NO_x emissions.

switching their fuel use to PuriNO_x, or both) to between 50 and 250 vehicles.⁶⁴ In total, the PHA has reduced NO_x emissions by 33.5 tons per year with the assistance of \$574,000 in TERP funding.

Puget Sound in Washington⁶⁵

Washington State's Puget Sound Clean Air Agency has formed a coalition, known as Diesel Solutions®, to dramatically reduce diesel engine pollution in the region. The first step in this program was to work with Conoco/Phillips and U.S. Oil to ensure that ULSD was locally available. Since ULSD was made available, 800 school buses have been retrofit, mostly with DOCs.

Approximately two dozen pilot projects used DPFs for the retrofits. The average retrofit cost has been between

\$1,200 and \$8,000 per vehicle, and projects are financed through a state-wide retrofit program developed as part of the EPA Voluntary Diesel Retrofit Program. The next step in the program is to retrofit diesel engine construction equipment with pollution control technology. As part of this effort, the Puget Sound Clean Air Agency has requested retrofits in their comments on local project environmental impact statements, and has been speaking with a number of construction companies.⁶⁶

The Texas Emissions Reduction Program⁶⁷

In 2001, the Texas State Legislature established the Texas Emissions Reduction Program, enacted through Senate Bill (SB) 5. The goals of the TERP, as stated in SB 5, are to: "assure that the air in the state is safe to breathe and meets minimum federal standards established under the Federal Clean Air Act (42. U.S.C. Section 4707); develop multi-pollutant approaches to solving the state's environmental problems; and adequately fund research and development that will make the state a leader in new technologies that can solve the state's environmental problems while creating new business and industry in the state."⁶⁸

The TERP covers 41 counties in the state where air quality violates or is close to violating EPA standards.⁶⁹ Projects are eligible for financial assistance through a number of programs, including: the Emissions Reduction Initiative Grants Program, which offers incremental funding for NO_x emissions reduction activities; the Small Business Program, which offers grants to small businesses for pollution reduction measures; the Heavy-Duty Motor Vehicle Purchase or Lease Incentive Program, which allows the Texas Com-

mission on Environmental Quality to reimburse a purchaser or lessee of a new onroad heavy-duty vehicle for the difference in price between that vehicle or a higher-emitting diesel-powered vehicle; and the Light-Duty Motor Vehicle Purchase or Lease Incentive Program, which (though currently unfunded) is intended to provide financial incentives for the purchase of light-duty motor vehicles that are EPA-certified at a lower NO_x emissions standard than regular light-duty motor vehicles.

TERP will offer a total of approximately \$130 million in funding for emissions reductions programs each year over the next three years.⁷⁰

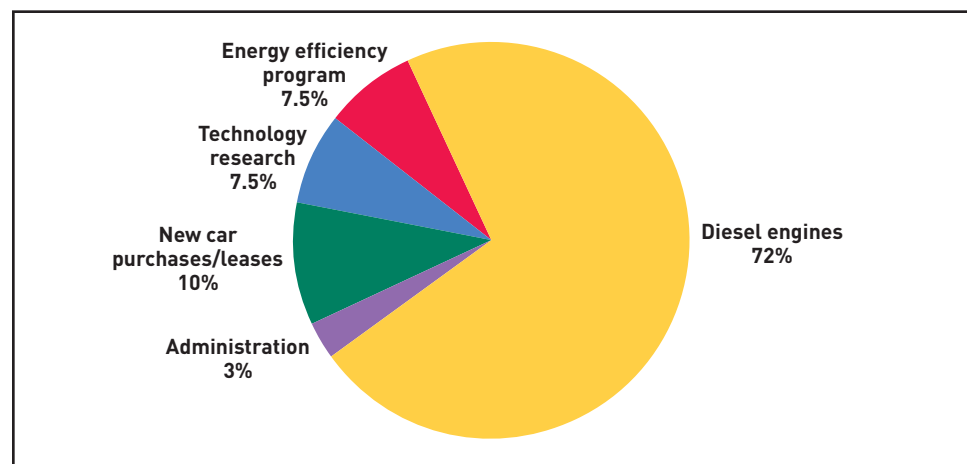
In the 2004 grant application period, the Texas Commission on Environmental Quality had approximately \$127.5 million available for grant programs. Eligible projects include new purchases, replacements, retrofits, repowers, and refueling projects.⁷¹ The projects from the first round of grants are expected to reduce NO_x emissions by over 3,500 tons over their lifetime, at an average cost of about \$5,175 per

ton reduction.⁷² The projects funded by the second round of these grants are expected to reduce NO_x emissions by almost 13,600 tons over the life of the projects, at an average cost of \$5,960 per ton reduction.⁷³ In 2004, the average cost per ton reduction of NO_x emissions was approximately \$5,800. This represents a lower average cost per ton NO_x emissions reduction than achieved by 2002-2003 grants funds, which offered over \$28 million in funding to reduce NO_x emissions by over 4,100 tons over the life of the projects at an average cost of approximately \$8,362 per ton.⁷⁴ The Emissions Reduction Grant Incentive Program NO_x cost-effective criteria will be capped at \$7,000 per ton reduction in 2005.⁷⁵ Grant award details are available at: <http://www.tnrcc.state.tx.us/oprd/sips/terp.html> and more information can be found at: <http://www.tnrcc.state.tx.us/oprd/sips/terp.html>.

California's Carl Moyer Program⁷⁶

The Carl Moyer Memorial Air Quality Standards Attainment Program

FIGURE 6
TERP funding distribution, 2001 (approximately \$130 million)



When the Texas Emissions Reduction Plan is fully implemented, the majority of funds will go toward replacing older diesel engines with cleaner-burning models.

Source: TNRCC. "Clean Air Incentives." Natural Outlook, Fall 2001. Online resource, available at: http://www.tceq.state.tx.us/assets/public/comm_exec/pubs/pd/020/01-04/clean_air.pdf Last accessed 04/12/05.

provides funds on an incentive basis for the incremental cost of cleaner than required engines and equipment. Funding is available for nonroad equipment 50 hp or greater. Eligible projects include cleaner onroad, offroad, marine, locomotive and stationary agricultural pump engines, as well as forklifts, airport ground support equipment, and auxiliary power units. The program achieves near-term reductions in NO_x emissions, which are necessary for California to meet its clean air commitments under the State Implementation Plan. In addition, local air districts use these NO_x emissions reductions to meet commitments in their conformity plans, thus preventing the loss of federal funding for local areas throughout California. The program also seeks to reduce particulate matter (PM) and hydrocarbons.

The California Air Resources Board (CARB) is responsible for the development and oversight of the majority of the Carl Moyer Program. CARB distributes Carl Moyer funding to California's 35 local air districts, which then screen applications and distribute the funding to diesel engine owners. The program has provided grants for projects such as repowering nonroad equipment, agricultural irrigation pumps, sweepers, tractors and marine vessels. It has also helped to fund the purchase of new natural gas refuse trucks and buses.

Governor Schwarzenegger recently signed AB923, which authorized increasing motor vehicle registration fees and tire fees to support programs, such as the Carl Moyer Program, that reduce air pollution. Through year six of the Carl Moyer Program, it had received approximately \$154 million dollars in total funding.⁷⁷ With its recent re-

authorization, up to \$140 million a year of incentive funding is available for air pollution mitigation technologies.⁷⁸ More information is available on the Carl Moyer Program web site at: <http://www.arb.ca.gov/msprog/moyer/moyer.htm>.

The EPA Voluntary Diesel Retrofit Program

The Environmental Protection Agency, through the Office of Transportation and Air Quality, has developed a program to encourage voluntary diesel retrofits. This program uses economic incentives, which can be applied at the federal, regional, state, and local levels, to produce emissions reductions through the use of pollution control technology. One tool used by this program is grants, which have been awarded to various parties to help fund the cost of retrofit projects. Information on recent grants is available on the EPA Voluntary Diesel Retrofit Program web site.

EPA is also in the process of developing a policy to allow diesel engine retrofits to count as credits that can be traded or used to offset stationary source emissions. As a corollary to this program, EPA has developed a verification program to ensure that pollution control technology providers advertised emissions reductions. More information on the EPA verification process is available in the "Onroad and Nonroad EPA/CARB Verification" section of this handbook. Further information on the Voluntary Diesel Retrofit Program, verified technologies, and financial incentives for the use of pollution control technology can be found on the EPA Voluntary Diesel Retrofit web site, at: <http://www.epa.gov/otaq/retrofit/index.htm>.

Fueling a cleaner tomorrow

Ultra-low sulfur diesel fuel (ULSD)

The sulfur in diesel fuel directly contributes to the amount of pollution emitted, such as engine-out PM emissions⁷⁹ and secondary emissions of SO₄.⁸⁰ Currently, the EPA standard for onroad diesel fuel is 500 ppm (also referred to as No. 2 Diesel). The current nonroad standard for diesel fuel is 5,000 ppm, but sulfur levels are generally around 3,400 ppm. As of September 2006, 15 ppm sulfur content (ULSD) will become mandatory for all onroad diesel engines⁸¹ and in 2010, 15 ppm sulfur content fuel will become mandatory for many nonroad engines.⁸²

Because ULSD is not required nationally until September 2006, its current availability and costs vary depending on location, whether ULSD has to be specially trucked in for a project, and the quantities needed. The map below shows areas within a 250-mile radius of where ULSD is refined,⁸³ or areas where ULSD should be available as of August 2004. Once ULSD becomes mandatory for the onroad sector in 2006, it will be readily available across the United States and cost differentials between low sulfur diesel (500 ppm) and ULSD should be minimal.

ULSD reduces harmful emissions, allows for aggressive retrofit devices, and reduces maintenance costs. EPA states: “While the estimated added cost for low-sulfur fuel is about seven cents per gallon, the net cost is projected to average about four cents per gallon because the use of ULSD could significantly reduce engine maintenance expenses.”⁸⁴ The maintenance dividend for low sulfur fuel in large onroad vehicles (e.g. trucks and buses) is about \$600 over the life of the engine or a fuel cost savings of about 1 cent per gallon.⁸⁵ The cost savings for nonroad equipment may be

higher, because baseline sulfur levels in nonroad fuel are up to six times higher than onroad fuel.

The program has been a tremendous success. In the short period from October 1, 2004 to February 1, 2005, the Lane Clean Diesel Project received commitments from its partners to purchase over 2 million gallons of ULSD.

By switching from onroad diesel fuel (500 ppm) or from nonroad diesel fuel (about 2000 ppm–3000 ppm) to ULSD, particulate matter, smoke and sulfate emissions will be reduced.⁸⁶ ULSD used in combination with advanced retrofit technology allows for dramatic reductions of up to 90% of the PM, HC and CO found in diesel exhaust. Those who wish to design a retrofit program should talk with local fuel providers to determine whether ULSD is available in their market, and if it is not yet available, the timeline within which it will be

An Oregon success story

Sharon Banks of the Lane Regional Air Pollution Authority (LRAPA), Oregon successfully built a market for ULSD fuel in Lane County, Oregon. The objective was to bring ULSD fuel to Lane County at an affordable price ahead of the September 2006 mandate.

To bring the price of ULSD fuel down to a competitive level, Ms. Banks built enough demand in Lane County to make ULSD fuel attractive to users. City managers, County administrators, school districts, transit authorities, municipal waste haulers, large private fleets, fuel distributors and public utilities were all involved in the endeavor.

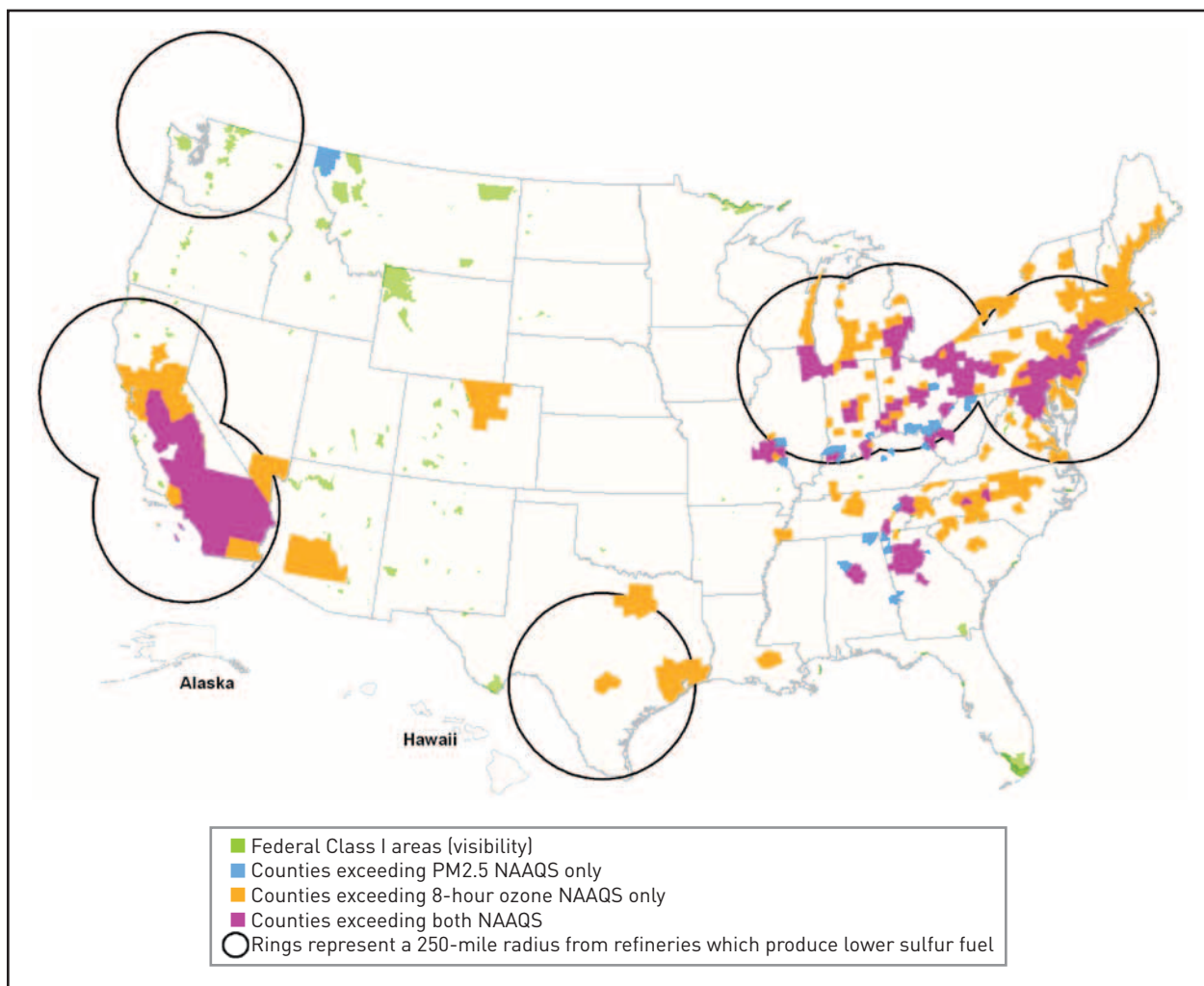
available. EPA rules mandate that all new onroad diesel vehicles use ULSD by 2006, at which point the fuel will be widely available nationwide.⁸⁷ New EPA rules do not require the use of ULSD in the nonroad sector before 2010, but the widespread availability of the fuel by September 2006 makes it easy for any nonroad fleet to begin using the fuel ahead of the EPA nonroad schedule.⁸⁸

Emulsified diesel fuel

Emulsified diesel fuel is diesel fuel (LSD or ULSD) blended with up

to 20% water and a proprietary additive. The water emulsion has to be stirred regularly when kept in a stationary tank to ensure that the water molecules are completely enclosed by fuel molecules. Stirring is important to avoid separation, which could cause engine corrosion and decreased lubricity. Storage tanks can be equipped with stirring devices such as circulation pumps. Though the timeframe for recirculation needs may vary based on individual product specifications, Lubrizol's PuriNOx can be stored at room temperature

FIGURE 7
Ultra low sulfur diesel fuels availability



Source: <http://www.epa.gov/otaq/retrofit/fuelsmap.htm>

for 3–4 weeks before recirculation becomes necessary.⁸⁹

Emulsified diesel fuels generally do not require engine modifications. However, fleet operators should check with OEMs before using a fill-and-go system like emulsified diesel and fleet operators should confirm warranty compatibility with the equipment/engine manufacturer before using emulsified fuels. Emulsified fuels have been tested for many onroad and nonroad diesel engines, although only Lubrizol's PuriNOx summer blend has received EPA verification. Summer blend PuriNOx cannot be used when ambient temperatures fall below 20 degrees Fahrenheit.⁹⁰ EPA has verified PuriNOx for both on and nonroad use and has confirmed a 16.8–23.3% reduction in PM and a 17–20.2% reduction in NO_x for nonroad applications.⁹¹

CARB has verified PuriNOx for onroad engines model years 1988–2003 at 50% PM (Level 2) reduction and 15% NO_x reduction.⁹² In addition, CARB has verified PuriNOx and AZ Purimuffler or AZ Purifier System for 1996 through 2002 diesel engines used in off-road applications specifically at the ports, railway yards and other intermodal/freight handling operation applications only. The PuriNOx and AZ Purimuffler or AZ Purifier System uses a diesel oxidation catalyst and an emulsified diesel fuel to achieve a 50% reduction in PM emissions, qualifying it for a Level 2 CARB verification. The system also achieves a 20% reduction in NO_x emissions.⁹³

Using retrofit technology in conjunction with emulsified fuels significantly reduces both PM and NO_x. For example, use of an emulsified fuel with a DPF produces PM emissions reductions of 95%, HC reductions of 85%, CO reductions of 75% and NO_x reductions of 25%. Use of emulsified diesel fuel in conjunction with a DOC pro-

duces PM emissions reductions of 65%, HC reductions of 60%, CO reductions of 70% and NO_x reductions of 25%.⁹⁴ Thus, Environmental Defense recommends that if emulsified fuel is used, it be used in conjunction with a retrofit device whenever possible to maximize emissions reductions.

While many applications have been successful, some have raised concerns regarding fuel separation in equipment that is not being used regularly, loss of power, slower hydraulic movement, injector pump failure in newer engines and acceleration.⁹⁵ When considering the emissions reduction rates of emulsified fuel, possible loss of engine power and fuel efficiency should be taken into consideration. Fuel efficiency depends highly on the duty cycle, and Lubrizol reports that a typical loss is between 5 and 10%.⁹⁶ Since water does not contribute energy, emulsified diesel fuel can decrease engine power by approximately 10–13%⁹⁷ depending on how much water has been added.⁹⁸ Engine power is also highly dependent on the duty cycle and current engine sizing of the vehicle. PuriNOx has successfully been used in a variety of both low and high horsepower offroad engines, from small little John Deere Gators (all terrain vehicles) to tractors, loaders, scalars, dozers, haul trucks, cranes, marine vessels, etc.⁹⁹

Availability and cost of emulsified fuel should be addressed with the local fuel distributor. If a centralized fuel storage tank is available on site, the emulsified fuel can be blended on site, which may be less expensive than when it has to be trucked in. According to Lubrizol, for example, PuriNOx prices vary by distributor, but a good approximation of cost nationwide is \$0.25 per gallon over diesel fuel.¹⁰⁰ However, depending on where PuriNOx is sold and depending

on the price of regular diesel fuel, it can also be the same price or less expensive than regular diesel fuel.¹⁰¹

Fuel-borne catalyst

A fuel-borne catalyst (FBC) is a liquid fuel additive that conditions diesel fuel, improving combustion and reducing emissions. An FBC can either be added to bulk fuel or directly to the construction vehicle's fuel tank. An FBC typically contains small amounts of precious metals such as platinum, cerium, or iron compounds. Use of an FBC product can also improve fuel economy by up to 10% and increase horsepower by up to 5%.¹⁰²

EPA has verified only one FBC, called Platinum Plus®, so far.¹⁰³ EPA verified reduction rates for the FBC used in conjunction with a DOC are 25-50% for PM, 16-50% for CO and 0-5% for NOx. According to Platinum Plus' manufacturer, only about 2% of the platinum gets into the environment because the platinum bonds with the hot surfaces of the engine.¹⁰⁴ Platinum in the environment has a limited potential to produce allergy-like symptoms for sensitive populations, such as: conjunctivitis, coughing, wheezing or asthma attacks.¹⁰⁵ However, a recent study by the United Kingdom's Committee on Toxicity of Chemicals in Food, Consumer Products, and the Environment reported: "platinum emissions from the platinum based fuel catalyst were unlikely to be in an allergenic form."¹⁰⁶

To address the amount of platinum released into the environment and to achieve the maximum possible emissions reductions, Environmental Defense recommends that an FBC be used in conjunction with retrofit equipment, such as a DPF or the catalyzed wire mesh filter mentioned in the technology section.¹⁰⁷

Alternative fuels

To reduce emissions of hazardous pollutants, construction fleet operators can use an alternative fuel. The use of alternative fuels provides not only environmental benefits, but also can reduce dependency on foreign petroleum and improve energy security through supply diversification. As with all vehicles and equipment, to achieve the maximum possible environmental benefits, alternatively fueled vehicles must be properly maintained.

This section of the handbook explores the specific advantages of biodiesel, compressed natural gas, liquefied natural gas and propane fuels. It is important to note that alternative fuels might be right for some fleets but not for others, especially because, at this time, alternative fuels do not have the same easily accessible infrastructure that diesel fuel does. Information on the availability of these, and other, alternative fuels is available from the Department of Energy's Alternative Fuels Data Center, which can be accessed online at: <http://afdcmap.nrel.gov/locator/LocatePane.asp>.

Additionally, federal and state tax incentives may be available to help defray increased purchasing costs for alternative fuel vehicles. More information on tax and other financial incentives for alternative fuel use is available from the Department of Energy's Alternative Fuels Data Center at: http://www.eere.energy.gov/cleancities/afdc/laws/incen_laws.html.

BIODIESEL

Biodiesel is a renewable, biodegradable, low-sulfur fuel that is produced from many types of feedstocks including vegetable oils (soybeans, rapeseeds, canola oil) or animal fat. Biodiesel is high in oxygen content (oxygenates) which leads to lower PM emissions.

Typically, biodiesel is blended with conventional diesel in a 20% biodiesel to 80% conventional diesel solution (B20). At B20, most of the potential PM benefits have been achieved while minimizing potential NO_x emissions increases. Biodiesel can also be blended with ULSD fuel, and in fact, makes up for ULSD's low lubricity. For example, using a 1% biodiesel and 99% ULSD blend increases lubricity 65% over pure ULSD, which is essentially equivalent to regular diesel fuel.¹⁰⁸

EPA has statistically determined that PM, HC and CO emissions decrease and NO_x emissions increase slightly with B20 mixtures, when compared with conventional diesel. B20 increases NO_x by about 2%, decreases PM by approximately 10%, decreases HC by around 21% and decreases CO by approximately 11%.¹⁰⁹ Thus, biodiesel helps decrease emissions of some air pollutants, but it slightly increases NO_x emissions.¹¹⁰ Due to the slight NO_x increase, biodiesel may only be appropriate for use in areas that are attaining the public health based standards for ozone—and even then, only in combination with other NO_x reduction strategies. B20 may also be appropriate for areas that have achieved their air quality standards but must work actively to maintain that status (maintenance areas).¹¹¹

Biodiesel may also be used alone (B100) rather than blended with conventional or ULSD fuel. EPA has verified Biodiesel blends ranging from B1 to B100 for use in voluntary retrofit initiatives.¹¹² According to EPA, B100 is 5–11% less fuel efficient than conventional diesel.¹¹³ Specifically, B100 reduces emissions of hydrocarbons by an average of 67%, carbon monoxide by an average of 48%, and particulate matter by an average of 47%.¹¹⁴ On average, B100 emits about 10% more NO_x than conventional diesel fuels do.¹¹⁵

COMPRESSED NATURAL GAS AND LIQUEFIED NATURAL GAS

Compressed natural gas (CNG) is a colorless, tasteless, and non-toxic fuel that is mostly derived from methane. Although naturally odorless, an odorant is frequently



added to CNG supplies to warn of its presence, a precaution made necessary by its flammability.¹¹⁶ CNG is extracted from extensive underground reserves in gas wells or in conjunction with crude oil production and is commonly used to power water heaters, stoves, and laundry machines. However, CNG's utility is not limited to the household—it can also be an excellent and clean alternative fuel for mobile sources and has been used in the heavy-duty onroad sector.¹¹⁷

The U.S. Department of Energy describes CNG as “clean burning” producing significantly fewer harmful emissions than reformulated gasoline or diesel when used in natural gas vehicles. According to the U.S. Department of Energy, commercially available medium- and heavy-duty natural gas engines have demonstrated over 90% reductions of CO and PM and more than 50% reduction in NO_x relative to commercial diesel engines.¹¹⁸ To use CNG, one must purchase a vehicle designed specifically for CNG use. At this time, CNG is not commercially available for nonroad use, although several hand-built demonstration units exist.

Liquefied natural gas (LNG) is natural gas that has been cooled to temperatures of 260 degrees below zero, but it is typically kept at high pressure so that it does not have to be so cold. The fuel's freezing temperatures increase the need for safety training by those operating LNG fueled vehicles. Skin contact with the fuel must be avoided, and machines that use LNG can vent a flammable gas mixture when not in use and parked in-

doors. Additionally, LNG must be used in a context where the LNG facility or terminal meets all applicable state or local government safety and siting rules. Similar to compressed natural gas, LNG has been used in the heavy-duty onroad sector,¹¹⁹ but is not commercially available for the nonroad sector at this time.

PROPANE

Propane, known also as Liquefied Petroleum Gas, is a colorless and non-toxic fuel produced as a byproduct of natural gas processing or crude oil refining. Application of moderate pressure can convert the gas into a liquid, increasing the ease with which it is stored and transported. Although propane is less fuel efficient than gasoline, its higher octane rating means that engines run more smoothly and efficiently.

Propane also produces less pollution than gasoline, and it can lower carbon dioxide, carbon monoxide and non-methane hydrocarbon emissions.¹²⁰ Additionally, propane is readily available—fueling stations are found in all 50 states. This fuel is widely used in the onroad sector, and has been successfully used by non-road vehicles such as forklifts or loaders.¹²¹

According to the U.S. Department of Energy, propane vehicles can produce fewer ozone-forming emissions than vehicles powered by reformulated gasoline. In addition, tests on light-duty, bi-fuel vehicles have demonstrated a 98% reduction in the emissions of toxics, including benzene, 1,3 butadiene, formaldehyde, and acetaldehyde, when the vehicles were running on propane rather than gasoline.¹²²

Filtering out pollutants

One of the most effective ways to reduce diesel pollution from existing equipment is to combine the cleaner fuels, discussed previously, with retrofit technology. In this handbook, the term *retrofit* is defined as incorporating any device into diesel equipment to reduce pollution. The term *retrofit technology* is used interchangeably with *emissions control technology*, *pollution control technology* and/or *after-treatment technology*.

There are a variety of demonstrated retrofit technologies available to significantly reduce PM, HC, CO, NO_x, toxics and odor emissions from existing heavy-duty diesel vehicles. Many technologies to reduce diesel PM are commercially available today and have been used for more than 25 years on nonroad diesel engines in construction equipment.¹²³ A number of NO_x control technologies that can significantly reduce pollution are still in development, although some are currently available.¹²⁴ Additionally, companies are making substantial investments to develop and commercialize diesel exhaust emissions control technologies. In fact, just 12 of the over 40 member companies that make up the Manufacturers of Emission Controls Association (MECA) have invested more than \$1.8 billion in R&D and capital expenditures to help reduce pollution from the onroad and offroad diesel sectors.¹²⁵

Thus, available retrofit technologies and applications are expanding rapidly and the industry is working aggressively to pursue solutions to address heavy-duty diesel emissions control.¹²⁶ Hundreds of scientists and engineers across the country are contributing to key developments to speed the evolution of diesel emissions control technology¹²⁷ and EPA has already formed partnerships with state, local and industry stakeholders in numerous states

and the District of Columbia to reduce pollution from existing diesel engines.¹²⁸

This part of the handbook introduces some of the many different options available for retrofitting.¹²⁹ It also provides information on the verification status of each technology:

- *Verified* means that the technology has been approved for use in either the onroad or the nonroad sector by the Environmental Protection Agency or the California Air Resources Board;
- *In development* means that the technology has not yet been verified, but may currently be in use in the onroad or nonroad sector, undergoing field testing, or in development.

Retrofit technologies can be geared towards PM or NO_x reduction, though many also reduce CO and HC emissions as well. Most advanced pollution control technologies require diesel fuels with very low levels of sulfur (15 parts per million of sulfur or less) to work properly and many can be combined for even deeper pollution cuts. Please talk to your fleet managers and Original Equipment Manufacturers (OEM) to determine the best options to meet your air quality goals.

Particulate matter reduction

DIESEL PARTICULATE FILTERS (VERIFIED)¹³⁰

A diesel particulate filter (DPF) is an emissions control technology that traps diesel particulate matter from engine exhaust until the trap becomes loaded to the point that a regeneration cycle is implemented to

DPF in-use reduction numbers	
NO _x	0%
PM	Up to 90%
HC	Up to 90%
CO	Up to 90%

burn off the trapped particulate matter.¹³¹ DPFs are normally built with a porous ceramic and metal mesh or silicon carbide filter housed in a metal container similar to a muffler. There are two main categories of DPFs: active and passive. The difference between the two is in the methods used to regenerate the filters. Passive systems rely on a catalyst to lower the temperature at which the collected soot will burn and, therefore, rely solely on the duty-cycle of the vehicle and resulting exhaust gas temperatures to ensure that regeneration occurs as frequently as required. Active systems use supplemental heat to supply the necessary energy to burn the collected particulate matter. The heat is provided by either onboard or offboard burners or electrical heaters. The type of DPF suitable for a specific application depends, in addition to other factors, upon the exhaust gas temperature, the daily duty cycle of the subject construction equipment and the availability of ULSD. Passive DPFs require the use of ULSD fuel to facilitate regeneration and prevent

catalyst poisoning that would render them inoperable.¹³² Active DPFs do not require ULSD fuel.

Active filter systems can be used on a broader range of vehicles because regeneration is accomplished by supplemental means that do not rely on the operation of the vehicle and the resulting duty-cycle. However, an active system can cost more than a passive system.

Although DPFs work by forcing the exhaust through porous walls, PM is collected without obstructing the flow of exhaust gases or damaging the engine or vehicle. Diesel particulate filters can reduce PM_{2.5}, PM₁₀, HC, and CO emissions by up to 90% and significantly reduce emissions of other toxics, including aldehydes.¹³³ However, DPFs do not remove NO_x.

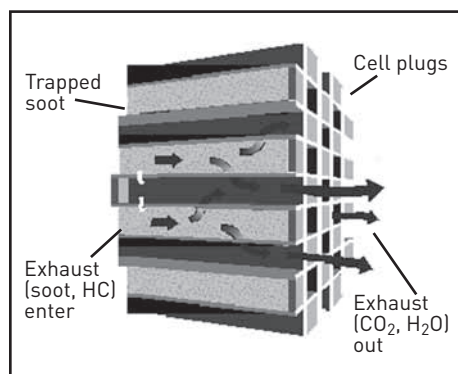
Prior to installing DPFs, engines must be data-logged to ensure timely and consistent regeneration and tested to determine whether the required exhaust gas temperature is achievable for the necessary amount of time during the daily duty cycle. In addition, a back-pressure monitor must also be installed

Construction equipment retrofit with a diesel particulate filter.



COURTESY OF JOHNSON MATTHEY

FIGURE 8
**Schematic of a diesel
particulate filter**



MECA, "Minimizing NO₂ Emissions from Catalyst-Based Diesel Particulate Filters." IDRAC Meeting, February 6, 2002. Online resource, available at: <http://www.arb.ca.gov/diesel/presentations/020602/mecono2resolution.pdf> Last accessed 03/03/05

to allow real-time monitoring of DPF performance and to ensure consistent in-use regeneration. If there is insufficient regeneration, the DPF will become plugged with soot, increasing exhaust gas backpressure levels beyond engine manufacturer specifications.

Particulate filters can be installed on new or existing equipment, sometimes as muffler replacements, to trap particulate matter in the exhaust.¹³⁴ Because DPFs tend to be larger and heavier than a diesel oxidation catalyst or a regular muffler, DPFs require some engineering to be properly installed on construction equipment. Installation of a DPF is more

complex, time consuming and costly than the installation of a DOC. However, the installation of a DPF is worthwhile, because DPFs reduce PM, HC, and CO by up to 90%, whereas DOCs only reduce PM by approximately 20–30%, and HC and CO by approximately 50–70%. According to retrofit manufacturers, installation of a DPF takes about 5–7 hours and a DOC can be installed by the equipment operator in about 1–2 hours.

Depending on the application and size of the equipment, most DPF applications cost between \$7,000 and \$12,000 excluding installation.¹³⁵ Because DPFs are currently more effective at reducing particulate matter than other technologies, Environmental Defense strongly encourages the use of DPFs whenever possible.

Although DPFs are not as common as DOCs, an increasing number of DPFs are already being used at a number of construction sites. Worldwide, DPFs have been installed on over 70,000 heavy-duty vehicles, primarily trucks and buses.¹³⁶ Over 20,000 DPFs have been installed on nonroad engines worldwide.¹³⁷

PASSIVE DIESEL PARTICULATE FILTER (VERIFIED)¹³⁸

There are two different types of passive DPFs: catalyzed and regular. A catalyzed DPF will remove the soluble organic

TABLE 4
Examples of nonroad DPF installations

Type of equipment	Type of DPF	Location
Generator (600 kw)	Active DPF (by Rypos)	World Trade Center 7, NYC
Wheel Loader (CAT966)	Passive DPF (by Johnson Matthey)	World Trade Center 7, NYC
Wheel Loader (CAT 966GII)	Passive DPF (by Johnson Matthey)	American Asphalt, CA
Dump Trucks (Cummins, CAT and ITEC engines)	Passive DPF (by Johnson Matthey)	LA and surrounding areas, Seattle, Riverside County, San Diego

fraction (SOF) portion of the PM emissions in addition to regenerating the elemental carbon (soot) fraction of the PM.¹³⁹ In addition, the exhaust gas temperature required to ensure proper regeneration is slightly lower for the catalyzed passive DPF than for the regular passive DPF. The catalyzed DPF requires a temperature of approximately 210°C, depending on the catalyst used. The catalyst can also be added to the fuel as a fuel-borne catalyst. CARB staff has evaluated the catalyzed DPF as the most effective control technology because it can reduce PM emissions by over 85%.¹⁴⁰

A regular DPF typically requires a greater than 260–320°C operating temperature for a significant portion of the duty cycle and has found limited application because of this.¹⁴¹ If the necessary exhaust gas temperature cannot be achieved for the required portion of the daily duty cycle, an active DPF (see below) should be considered.

ACTIVE DIESEL PARTICULATE FILTER (VERIFIED)¹⁴²

Active filters are used when the engine exhaust temperature is too low for a passive DPF and for older and dirtier engines. Because these systems do not rely on exhaust gas temperatures for regeneration, but rather on heat addition to the exhaust gas stream by use of burners or other means, an active DPF can successfully operate at low exhaust gas temperature. To increase the exhaust temperature for efficient regeneration, some commercial filter systems have incorporated burners, electrical heaters or fuel injection into the exhaust stream. These burners or electric heaters use about 1% of the total fuel consumption.¹⁴³

Although emissions reductions are maximized with the use of ULSD, an active DPF typically does not require the use of ULSD fuel.¹⁴⁴ Like passive DPFs,

an active DPF can be used alone or in conjunction with a DOC to reduce gaseous hydrocarbons and carbon monoxide. The California Air Resources Board has verified Lubrizol's actively regenerated DPF, the Combifilter™, for off-road applications in 1996–2004 diesel engines. The Combifilter system is verified for an 85% reduction in PM emissions.¹⁴⁵

FLOW-THROUGH FILTERS (VERIFIED)¹⁴⁶

There are three types of flow-through filters: 1) the catalyzed wire mesh filter;

2) the pertubated path metal foil filter; and 3) the catalytic particulate oxidizer. Flow-through filters can be

CWMF EPA verified reduction numbers (when used with FBC)

NO _x	0–9%
PM	55–76%
HC	75–89%
CO	50–66%

comprised of wire mesh or pertubated path metal foils. Like other filter materials they can be used with active systems or be catalyzed and perform as a passive system.

First, the catalyzed wire mesh filter (CWMF) is a new technology that has been EPA-verified for onroad use in conjunction with a fuel-borne catalyst.¹⁴⁷ A CWMF requires an exhaust gas temperature of 225°C for at least 25% of the daily duty cycle, which is lower than a DPF typically requires.¹⁴⁸ Thus, if a certain application does not allow for a DPF due to low exhaust gas temperatures, a CWMF might work. A CWMF weighs about the same as a DPF. EPA has verified the following emissions reduction rates for Clean Diesel Technologies, Inc.'s CWMF when used with a fuel borne catalyst: 0–9% for NO_x, 55–76% for PM, 75–89% for HC and 50–66% for CO.¹⁴⁹

Generally, CWMFs should be visually inspected once per year, and in the event that the back pressure monitor signals an unreversed back pressure buildup,

the CWMF should be returned to an authorized dealer for thermal cleaning.¹⁵⁰ However, several CWMF units that have been in operation for over a year have been essentially maintenance free.¹⁵¹ Currently, with limited quantities in production, the price range for a CWMF is \$5,500 to \$7,000.¹⁵² As with all emerging technologies, prices could decline as demand for the technology grows.

Second, the pertubated path metal foil flow-through filter is an emerging technology of similar performance. It can also be catalyzed both for emissions control performance and regeneration characteristics.

Third, a Catalytic Particulate Oxidizer (CPO)¹⁵³ is a new technology developed for heavy and medium duty onroad and offroad diesel engines. The CPO has recently begun the CARB verification process but, as of February 16, 2005, has not been EPA or CARB verified.¹⁵⁴ The CPO has been certified¹⁵⁵ in Europe and is currently undergoing another verification process in Switzerland.¹⁵⁶ The technology does not trap or filter particulates but oxidizes them continuously. Oxidization is the process of adding oxygen to break down pollutants.¹⁵⁷ The chemical reaction between catalyst material and exhaust gases, according to the manufacturer's data, results in over 90% reduction of HCs, CO and PM. The CPO requires a minimum exhaust temperature of 190°C. According to the manufacturer's specifications, the CPO does not store ash, eliminating the need to open and clean the filter regularly. The CPO typically creates less back-pressure than a DPF. CPOs costs range between \$6,000–\$8,000, depending on the size of the equipment.¹⁵⁸

DIESEL OXIDATION CATALYSTS (VERIFIED)¹⁵⁹

A diesel oxidation catalyst (DOC) is a type of catalyst (catalytic converter),

DOC in-use reduction numbers

NO _x	0%
PM	20–30%
HC	50–90%
CO	70–90%

which chemically converts HC, CO, soluble organic fraction (SOF) and polycyclic aromatic

hydrocarbons (PAH) to water vapor and carbon dioxide. A DOC is a flow-through metal or ceramic substrate coated with a precious metal catalyst (e.g. platinum). The outside of the DOC is metal and looks similar to an exhaust muffler. DOCs are a “bolt on” application and they can be easily installed, typically as a direct muffler replacement. DOCs do not require engine modifications and generally are maintenance free. Although ULSD fuel is not required, PM emissions reductions are increased with the use of low sulfur or ultra-low sulfur diesel fuel. DOCs can be installed on old and new pieces of equipment; for example, some new Caterpillar equipment already comes with a DOC.

A DOC is a proven and efficient technology that destroys large fractions of toxic emissions. Typically, DOCs reduce approximately 50–90% HC and 70–90% CO.¹⁶⁰ As to PM reduction, DOCs are effective for reducing the SOF component of the particulate matter.¹⁶¹ The SOF portion of PM is composed of organic material from engine fuel and lube oil that forms on the surface of elemental carbon (black soot).¹⁶² The SOF part of the particulate matter is often referred to as *wet PM*.¹⁶³ As a result, depending on the SOF concentrations in the particulate matter of diesel exhaust, DOCs reduce approximately 20–30% of PM.¹⁶⁴ SOF concentrations tend to decrease with newer engines.¹⁶⁵ If the reduction of black soot (solid fraction) is the goal, a DPF or a CWMF are more effective technologies than a DOC.

DOCs also cut down on aldehyde, smoke and odor.¹⁶⁶ However, DOCs do

Construction equipment retrofit with a diesel oxidation catalyst.



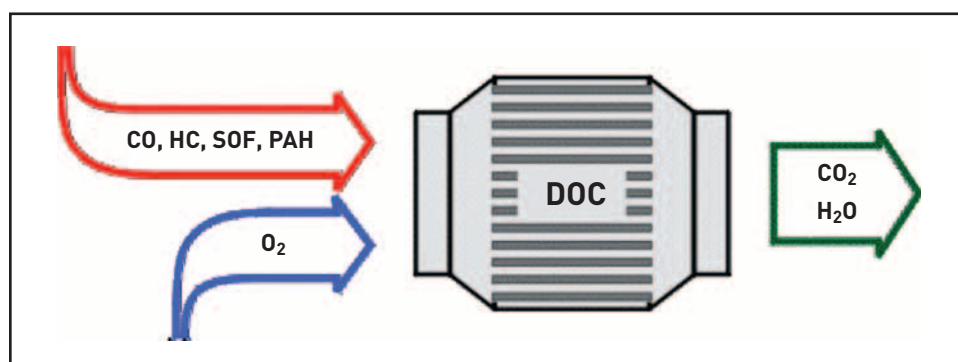
COURTESY OF DONNA WEAVER, CONNECTICUT DEPARTMENT OF TRANSPORTATION

not remove NO_x . To increase emissions reductions, DOCs can be combined with other after-treatment technologies, including particulate filters. DOCs have already enjoyed widespread use in the onroad and nonroad sector. In fact, over 250,000 DOCs have been installed in new and retrofitted nonroad engines worldwide.¹⁶⁷ The cost of an oxidation catalyst is about 1–2% of the cost of new construction equipment. For example, the average cost for a DOC at the Boston Big Dig was about \$2,500 per piece of construction equipment.¹⁶⁸ (See also the

section on “Successes and Regional Programs.”) Costs vary depending on the size of the equipment. Retrofit manufacturers will be able to give accurate cost estimates for each piece of equipment.

Overall, if a high number of construction vehicles should be retrofitted but funds are limited, DOCs might be an attractive option. DOCs might also be an attractive option if ULSD fuel is not available in the area. If ULSD fuel is not available, Environmental Defense encourages the use of low sulfur diesel (500 ppm) instead of typical nonroad diesel.

FIGURE 9
Schematic of a diesel oxidation catalyst



CRANKCASE EMISSIONS FILTRATION SYSTEMS WITH DOC (VERIFIED)

Crankcase emissions, on average, make up between 10–25% of total engine

Crankcase filter with DOC in-use reduction numbers

NO _x	0%
PM	25–33%
HC	12–34%
CO	42–52%

emissions over a prescribed test cycle but become very high (50–80%) on a relative basis when idling.¹⁶⁹

Targeting these emissions with pollution control technology can reduce over-all engine exhaust pollution.

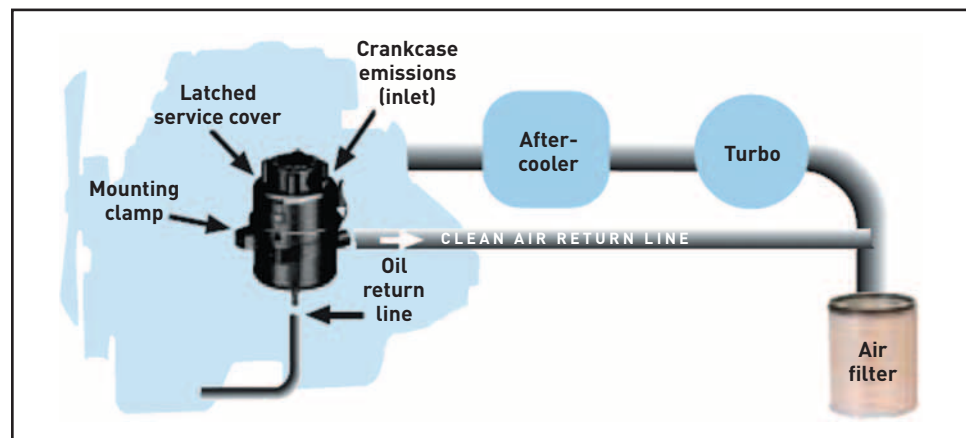
One example of a crankcase emissions filtration system is the Donaldson Spiracle™ crankcase filter. According to Donaldson, the filter eliminates 100% of all crankcase emissions and also eliminates under-hood fumes, reduces oil consumption by about 2–6 gallons/year and provides for a cleaner engine compartment. Donaldson reports that the Spiracle crankcase filter can be used alone, without other pollution control technologies, but EPA and CARB verification only apply the Spiracle when used with a DOC.

When combined with tailpipe pollution reduction technology, such as a

DOC or a DPF, crankcase emissions filtration systems can achieve even greater emissions reductions. The Donaldson Spiracle crankcase filter is the only crankcase emissions reduction system that has been verified for use, when used with a DOC, by both EPA and CARB. The overall system reductions are based on the tailpipe reductions. Donaldson has approval for two different catalysts, depending upon the fuel sulfur level.¹⁷⁰ The use of a DOC with a Spiracle filter has been verified to reduce PM emissions by 25–33%, HC emissions by 12–34%, and CO emissions by 42–52%.¹⁷¹ According to Donaldson, a DPF could be combined with the Spiracle filter in lieu of a DOC for a total engine emissions reduction of 89%. Neither EPA nor CARB have verified use of the Spiracle crankcase filter with a DPF.

The Spiracle system has a broad range of applications such as medium-duty and heavy-duty trucks, buses, off-road equipment and industrial generator sets.¹⁷² For the retrofit market, the Spiracle system is available in two different sizes. For medium-duty applications, the end-user price for the system is approximately \$325. For heavy-duty

FIGURE 10
Schematic of a crankcase emissions filtration system



Source: <http://www.donaldson.com/en/engine/datalibrary/002509.pdf>

applications, the end-user price is approximately \$435.¹⁷³

Nitrogen oxides reduction

In general, the retrofits discussed above do not reduce NO_x, a key precursor to ozone/smog. Thus, to achieve NO_x emissions reductions, additional strategies must be used. There are a number of ways to reduce NO_x pollution, but not all are retrofit devices. NO_x pollution control technology includes: Selective Catalytic Reduction (SCR), NO_x adsorbers, lean NO_x catalysts, exhaust gas recirculation and fuel emulsifiers. The California Air Resources Board has determined that NO_x removal is cost effective at a cost of up to \$13,600 per ton of NO_x reduced.¹⁷⁴ The Texas Emissions Reduction Program follows a similar standard of \$13,000 per ton of NO_x reduced.¹⁷⁵

SELECTIVE CATALYTIC REDUCTION (IN DEVELOPMENT)¹⁷⁶

SCR systems add a reductant¹⁷⁷ (usually ammonia or urea) to diesel exhaust to

SCR combined with DOC in-use reduction numbers

NO _x	60–80%
PM	25%
HC	50–90%
CO	70–90%

convert NO_x to N₂. The exhaust and reductant are processed by a catalyst to reduce PM, HC and NO_x. Initial

results from SCRs being used in combination with other technologies, such as a DOC, show the following possible reduction rates: 60%–80% NO_x, 25% PM, 50–70% HC and CO.¹⁷⁸ SCR systems must maintain a careful balance of proper urea injection and exhaust temperature. Typically, a mobile SCR needs to reach an exhaust gas temperature of 200–250°C to work. As soon as the required exhaust gas temperature is reached, NO_x is being reduced. Thus, unlike a DPF, no minimal daily duty

cycle is necessary for the SCR to function properly. However, if too much urea is injected, ammonia slip (ammonia being emitted through exhaust pipe) may occur. Also, low exhaust temperatures can actually increase NO_x formation.¹⁷⁹ To avoid ammonia slip, proper control of the correct amount of urea injection is needed. For that reason, some mobile SCRs have a NO_x sensor before and a NO_x sensor after the urea injector to remotely record data.¹⁸⁰

While aided by the use of ULSD fuel, SCRs can be used with low sulfur fuel (500 ppm).¹⁸¹ SCR's high NO_x reduction potential makes them an attractive option for NO_x emissions reduction. SCRs can be combined with a DOC or a DPF. SCRs can be used in stationary (i.e. generator set, compressors and pumps) as well as mobile applications. Marine vessels, ferries and trains have successfully installed SCRs.¹⁸² Mobile SCRs are currently being used in a number of construction pilot programs.¹⁸³ As of February 11, 2005, the only SCR system that EPA/CARB have verified is Extengine's ADEC system. Another verification of a mobile SCR system for onroad engines is expected by the end of 2005.¹⁸⁴

Urea, the reductant that is typically used in SCR systems, is a substance that is contained in agricultural fertilizer. Thus, urea is plentiful in the United States and while supply should not cause a problem, lack of infrastructure sometimes does. If a fleet of several vehicles is being retrofitted with SCRs, a urea dispenser can be set up at the construction site. Infrastructure problems sometimes occur if only one or two vehicles are being retrofitted because of the small quantities of urea needed. Urea distribution costs range between \$0.70 and \$35 per gallon.¹⁸⁵ The amount of urea needed per engine is a function of engine-out NO_x levels, which differ depending on the year the engine was built, and vehicle

size.¹⁸⁶ For every gallon of diesel fuel, about 5–10 ounces of urea are needed.¹⁸⁷

The cost range for SCR systems varies greatly depending on the engine horsepower and the application. Mobile SCR systems in the 200–750 hp range cost between \$12,500 and \$15,000 for small quantities of SCR units.¹⁸⁸ These mobile SCR units are similar to an automotive type of system. Large stationary power generating SCR systems in the 750–2000 hp range can cost up to \$80,000.¹⁸⁹

NO_x ADSORBERS (IN DEVELOPMENT)

A NO_x adsorber, also sometimes referred to as a NO_x trap, works in two stages to remove NO_x from diesel exhaust. First, it uses a catalyst to adsorb NO_x emissions during lean operation.¹⁹⁰ Adsorb means to accumulate liquids or gases on a surface and “lean operation” occurs when the air-to-fuel ratio is high (perhaps 50 parts air to one part fuel), for example when a vehicle is going downhill or has a light load. Then, after the adsorber has been fully saturated with NO_x, the system is regenerated (cleans itself) when the engine runs rich.¹⁹¹ An engine runs “rich” when the air-to-fuel ratio is low (perhaps 29 parts air to one part fuel), for example when a vehicle is going uphill or has a heavy load. Also the exhaust gas temperature is very hot when an engine runs rich, which helps burn off the NO_x.

Unlike the other pollution controls discussed in this section, NO_x adsorbers are *not retrofittable*, i.e. they are not muffler replacements like diesel oxidation catalysts or diesel particulate filters and they can not be “added-on” like SCR. Instead they must be incorporated into the engine/vehicle design by the original equipment manufacturer. Although adsorbers have a high potential for NO_x emissions reductions, when

sulfur-rich fuel is used the NO_x adsorption process is rapidly deactivated and rendered ineffective.¹⁹² According to MECA, “To make this technology a commercial reality, low sulfur fuel is a requirement.”¹⁹³ Near zero sulfur levels (less than 15 ppm sulfur) enable the application of catalyst and adsorption technology to run without interference.¹⁹⁴

According to MECA, NO_x adsorber systems (in a low sulfur fuel environment) have the potential to provide “a high level of NO_x reduction across a wide range of operation conditions (temperature and NO_x concentration)—conditions which are consistent with the diversity in engine-out exhaust associated with both light- and heavy-duty diesel applications.”¹⁹⁵ In fact, one manufacturer, Catalytica Energy Systems, states: “while still in early-stage development, our after-treatment approach is designed to offer a continuous production of a reactive reductant across a broad operating range to enable up to a 50% reduction in NO_x.”¹⁹⁶ The operating temperature windows for NO_x adsorber technology ranges from 200 to 550°C.¹⁹⁷ At the present time, only prototypes of NO_x adsorption systems are available, so this technology is not yet commercially available or ready for CARB and/or EPA verification.

LEAN NO_x CATALYSTS (IN DEVELOPMENT)¹⁹⁸

Lean NO_x catalyst technology can achieve a 10–40% reduction in NO_x emissions.¹⁹⁹

Lean NO_x catalyst in-use reduction numbers
--

NO _x 10–40%

This technology is more effective when a supplemental hydrocarbon reductant is injected into the exhaust stream.²⁰⁰ The hydrocarbons facilitate the conversion of NO_x to nitrogen and water vapor in the catalyst.²⁰¹ Lean NO_x catalysts are attractive because the technology requires no core engine modifications or

additional infrastructure and can be used to retrofit older machines.²⁰²

Like NO_x adsorption technology, lean NO_x catalysts require low sulfur fuel; however, this technology has a higher tolerance for sulfur, requiring fuel with a sulfur content of less than 250 ppm versus the less than 15 ppm required for adsorption technology.²⁰³ Additionally, this technology imposes a fuel efficiency penalty of 4–7%.²⁰⁴

Combinations of different retrofit devices

Retrofit devices as well as fuel additives can be combined to maximize emissions reductions. Some retrofit devices combine, PM, HC, CO with NO_x reduction in one unit.²⁰⁵ Three examples follow:

SCR SYSTEM COMBINED WITH PM EMISSIONS CONTROL (VERIFIED)²⁰⁶

Extengine's ADEC system combines NO_x and PM control technology in one unit. The NO_x is reduced with an SCR system, and the PM control is achieved with a

ADEC (SCR/DOC system) verified reduction numbers

NO _x	80%
PM	25%

DOC.²⁰⁷ This technology has been verified by CARB as achieving a 25% reduction in particulate matter emissions, and an 80% reduction in NO_x emissions.²⁰⁸ The City of Houston has successfully retrofitted two excavators with the ADEC system and has praised the emissions benefits.²⁰⁹ The ADEC system can also be incorporated with other DPFs for even higher PM reductions, although each individual retrofit application would require evaluation.²¹⁰ With a DOC, and SCR with Ammonia Slip Catalyst,²¹¹ the cost of the ADEC System is \$14,500 before installation.²¹²

Johnson Matthey is developing a technology that combines NO_x and PM

Johnson Matthey (SCRT) field-testing reduction numbers (not verified as of February 2005)

NO _x	75–90%
PM	75–90%
HC	Over 90%
CO	Over 90%

control technology in one unit, the SCRT™ system (not verified as of February 2005) in which NO_x is reduced with an SCR and PM is reduced with a DPF. The SCRT system virtually eliminates HC and CO emissions and reduces PM and NO_x by 75–90%.²¹³ To date, approximately 100 SCRTs have been installed on heavy-duty diesel engines for field testing.²¹⁴ Johnson Matthey estimates that the SCRT will be commercially available by mid-2005.

LEAN NO_x CATALYST WITH PM EMISSIONS CONTROL (VERIFIED)²¹⁵

Cleaire Advanced Emission Control's Longview™ diesel emissions control

Cleaire's Longview Filter CARB verified reduction numbers

NO _x	25%
PM	85%
HC	90%
CO	90%

system is a CARB and EPA onroad verified NO_x reducing technology.²¹⁶ The Longview system reduces smoke, odors and NO_x by 25%, PM by 85%, and HC and CO by 90%.²¹⁷ The Longview system integrates a NO_x reducing catalyst (Lean NO_x Catalyst) and a catalyzed DPF. The Longview is a muffler replacement system. The use of ULSD fuel and an exhaust gas temperature of 260°C for at least 25% of the daily duty cycle are required.²¹⁸

Longview systems have been successfully installed in onroad applications including refuse, transit, school bus, vocational work trucks, delivery trucks and line haul trucks. They have also been installed on nonroad mobile equipment such as motor graders, bucket loaders, agricultural tractors, agricultural water pumps and generators, some dating back to 1988.²¹⁹ The Longview needs regular maintenance; the maintenance interval

depends on the number of hours of operation. Cleaire has developed maintenance procedures and equipment that are available through local Cleaire distributors. Pre-installation data logging is typically not required.²²⁰ The cost range²²¹ is between \$18,500–\$20,500 (including installation and tax) for 6–11 liter engines and about \$21,000 (including installation and tax) for 12–15 liter engines.²²²

Cleaire's Lonestar system achieves about a 25–30% NO_x, a 50–70% PM,

Cleaire's Lonestar system in-use reduction numbers (not verified as of February 2005)

NO _x	25–30%
PM	50–70%
HC	40–60%
CO	40–60%

and a 40–60% HC and CO emissions reduction.²²³ The Lonestar is a combination of a Lean NO_x catalyst and

a high-performance DOC.²²⁴ The Lonestar is currently undergoing CARB's verification process²²⁵ and Cleaire is expecting verification by the end of 2005.²²⁶ The Lonestar costs about \$12,500 (including tax and installation) for 6–12 liter engines and about \$15,000 (including tax and installation) for 12–15 liter engines.²²⁷

LOW PRESSURE EXHAUST GAS RECIRCULATION (IN DEVELOPMENT)²²⁸

Retrofitting exhaust gas recirculation (EGR) on a diesel engine offers an effective means of reducing NO_x emissions from the engine. Both low-pressure and high-pressure EGR systems exist, but low-pressure EGR is most suitable for retrofit applications because it does not require engine modifications.

As the name implies, EGR involves recirculating a portion of the engine's exhaust back to the charger inlet or intake manifold, in the case of naturally aspirated engines. In most systems, an intercooler lowers the temperature of the recirculated gases. The cooled recirculated gases, which have a higher heat capacity than air and contain less oxygen than air, lower combustion temperature in the engine and reduce NO_x formation. Diesel particulate filters are an integral part of any low-pressure EGR system, ensuring that large amounts of particulate matter are not recirculated to the engine.²²⁹

EGR systems are capable of achieving NO_x reductions of more than 40%. More than 1,500 EGR systems have been installed worldwide. EGR retrofit systems are now being installed in the U.S. on solid waste collection vehicles, buses and some city-owned vehicles. The cost of retrofitting EGR with a DPF on a typical bus or truck engine is about \$13,000–15,000.

Currently, there is one low-pressure EGR system available commercially: STT Emtec's DNOx[®] system. SST Emtec is currently pursuing CARB onroad verification for this technology, and intends to pursue nonroad verification in the future.²³⁰ STT Emtec has stated that though this technology has "not yet been used with nonroad engines, it can be," and the technology is commercially available for nonroad applications.²³¹

Further details of the costs involved in replacing, refueling, and retrofitting diesel vehicles are available from EPA and MECA at <http://www.epa.gov/otaq/retrofit/documents/meca1.pdf>.

Using cleaner diesel fuels or pollution control technologies on diesel engines powering construction equipment provides substantial public health benefits and improvements in air quality, but may also require investments in these fuels or technologies. Fortunately, state and local governments, fleet operators and vehicle owners have a number of options for financing cleaner diesel programs. This section of the *Cleaner Diesel Handbook* describes some programs on which state and local governments could model their own funding programs, followed by a discussion of funding available through federal sources.

State and local retrofit financing program models

CARL MOYER MEMORIAL AIR QUALITY STANDARDS ATTAINMENT PROGRAM

Both the state government of California and local air quality management districts play a substantial role in funding California's Carl Moyer Memorial Air Quality Standards Attainment Program (described in detail in the Success Stories section of this handbook). More information on the Carl Moyer Program is available on the California Air Resources Board web site, at: <http://www.arb.ca.gov/msprog/moyer/moyer.htm>.

In 1998/1999, the years of the program's inception, the legislature and the governor appropriated \$25 million in funding for engine projects. Local air quality districts matched every two dollars of state money with a dollar contribution. In the third year of the program, state funding rose to \$45 million for engine projects, and the district match was reduced to an average of one dollar per every \$3.68 received. "In-kind" con-

tributions, such as administrative costs, comprised up to 15% of match funds.²³²

In 2002, California voters approved Proposition 40, the Clean Water, Clean Air, Safe Neighborhood Parks, and Coastal Protection Act, which included approximately \$40 million for Carl Moyer implementation.²³³ These funds sustained the program through its fifth and sixth years. Carl Moyer's seventh year funding, approved through the 2004/2005 budget, was approximately \$30.5 million.²³⁴ The 2004/2005 budget also authorized an adjustment to Smog Check fees, establishing a continuous source of funding (\$61 million/year) for the program.²³⁵

Assembly Bill 923, approved by the governor in September of 2004, authorized two additional sources of funding for the Carl Moyer program. The first was an increase in funding from tire fees, \$25 million in 2005/2006 and \$16 million in subsequent years. This brought state funding of the program to a total of approximately \$86 million in 2005/2006 and \$77 million thereafter.²³⁶ The second increased the allowed surcharge on district-levied motor vehicle registration fees from \$4 to \$6.²³⁷ Revenue from this program is expected to provide up to \$55 million in local funding for Carl Moyer implementation in 2004/2005 and ensuing years.²³⁸ Of the allowed \$6 charge, \$2 is to be used specifically for the Carl Moyer Program, for the new purchase, retrofit, repower, or add-on of equipment for previously unregulated agricultural sources, for the new purchase of schoolbuses pursuant to the Lower-Emission School Bus Program, or for accelerated vehicle retirement or repair programs. The remaining \$4 will continue to be used to "implement reductions in emissions from

vehicular pollution sources.”²³⁹ The district collecting the surcharge may use only 5% of the surcharge for administration of the program. Emissions reductions achieved through this program may not be used to offset emissions reductions obligations, nor are they tradable (i.e. available for sale/purchase) in a marketable pollution permit system. Rather, credits resulting from this funding must be “retired.”²⁴⁰

NORTH CAROLINA'S MOBILE SOURCE EMISSIONS REDUCTION GRANT PROGRAM

The North Carolina Department of Natural Resources, through its Division of Air Quality, sponsors the Mobile Source Emissions Reduction Grant program in order to provide economic incentives for actual emissions reductions from on and off-road mobile sources. More information on the Mobile Source Emissions Reduction Grant Program is available on the NC Department of Natural Resources web site, at http://daq.state.nc.us/motor/ms_grants/

Funded by a 1/64-cent per gallon tax on gasoline sold in North Carolina, the program has awarded 78 grants totaling \$5.74 million statewide since 1995. In 2004, \$350,000 was awarded to area school districts to install diesel oxidation catalysts on school buses.²⁴¹

THE TEXAS EMISSIONS REDUCTION PLAN (TERP)

The Texas Emissions Reduction Plan (TERP) combines incentive programs, research, and technology development aimed at improving air quality in Texas. The centerpiece of the program provides grants to eligible projects in nonattainment areas and other, TERP-designated, counties to offset the incremental cost associated with the activities to reduce emissions of NO_x from high-emitting

mobile diesel sources.²⁴² More information on the TERP program is available in the Success Stories section of this handbook, and on the Texas Natural Resources Conservation Commission's web site, at: <http://www.tnrcc.state.tx.us/oprd/sips/terp.html>.

The Texas Commission on Environmental Quality (TCEQ) administers the TERP program. The Legislature established the TERP in 2001 through Senate Bill 5, and amended it through House Bill 1365 in 2003.²⁴³ Total 2004 revenue was \$141.7 million, \$127.5 million of which was used for grant programs. The program was extended through 2010 by the Texas Legislature in the 79th regular session.²⁴⁴

For more specific information on funding sources, please refer to the “Texas Emissions Reductions Plan: Biennial Report to the Legislature”: http://www.tceq.state.tx.us/assets/public/comm_exec/pubs/sfr/079_04.pdf

In addition, your State or local community may have funding available. Fleet owners should contact their local and state air quality and transportation agencies to learn more about available funding.

Federal grant funding

Construction companies, fleet operators or individuals operating construction equipment in states or local communities without funding programs such as those described above may find federal grant programs an option for assisting with the cost of retrofitting vehicles or purchasing clean fuels. EPA and the Diesel Technology Forum have compiled lists of funding sources that may be available in your area. Please visit, <http://www.epa.gov/otaq/retrofit/retrofitfunding.htm> and <http://www.dieselforum.org/factsheet/programs.html> for further details.

Onroad and nonroad EPA/CARB verification

Both EPA and CARB operate onroad and nonroad retrofit technology verification programs. These verification programs test retrofit devices in order to assign PM and/or NO_x emissions reduction values to specific devices. Recently, EPA or CARB have verified new retrofit technologies for the non-road sector.²⁴⁵

There is now a Memorandum of Agreement (MOA) between the Environmental Protection Agency and the California Air Resources Board for coordination and reciprocity in diesel retrofit device verification. This MOA is intended to expedite the verification and introduction of innovative emissions reduction technologies. Additionally, this MOA should reduce the effort needed for retrofit technology manufacturers to complete verification. In the near future, EPA and ARB will provide guidance on how this agreement will be implemented. Please see http://www.epa.gov/otaq/retrofit/documents/epa-arb_moa.pdf for additional detail.

The objective of the EPA Voluntary Diesel Retrofit Program Verification Process is to introduce verified technologies to the market in a cost-effective manner, while providing customers with confidence that verified technologies will provide emissions reductions as advertised.²⁴⁶ This verification process will evaluate the emissions reduction

performance of retrofit technologies, including their durability, and identify engine operating criteria and conditions that must exist for these technologies to achieve those reductions.²⁴⁷ According to the CARB web site:

...the ARB has several programs relating to sale, use, or modification of emission control systems. The programs are specific to the type of device as well as the market for which it was designed. The CARB Verification Procedure provides a way to thoroughly evaluate the PM emission reduction capabilities and durability of a variety of diesel emission control strategies as part of a retrofit in-use program. It ensures that emission reductions achieved by a control strategy are both real and durable and that production units in the field are achieving emission reductions consistent with their verification. The verification procedure requires a minimum PM reduction of at least 25%. Although not a requirement at this time, if a diesel emission control strategy also reduces NO_x emissions by at least 15%, that reduction can also be verified. CARB has established a tiered verification plan which is illustrated in the table below..²⁴⁸

In-use testing

In addition to verifying pollution control technologies at certain levels of

TABLE 5
CARB verification classifications for diesel emissions control strategies

Pollutant	Reduction	Classification
PM	< 25%	Not verified
	> 25%	Level 1
	> 50%	Level 2
	> 85%, or ≤ 0.01 g/bhp-hr	Level 3

Source: <http://www.arb.ca.gov/diesel/verdev/background.htm>

emissions reductions, it is also very important to have rigorous in-use testing procedures. In-use testing—the process of testing a technology during real world operating conditions—yields the most accurate picture of emissions from a piece of equipment. By using a portable emissions testing system, researchers can get a better understanding of what is happening to emissions throughout the lifecycle of a piece of equipment. This procedure will ensure that technologies are performing at intended levels for the duration of use for a piece of equipment. For more details on EPA in-use testing requirements for manufacturers, please visit: <http://www.epa.gov/otaq/retrofit/retrotesting.htm>. More information about CARB's verification procedure

and in-use compliance requirements is available at: <http://www.arb.ca.gov/regact/dieselrv/dieselrv.htm>.

Monitoring

While EPA and CARB in-use testing programs are designed for manufacturers of retrofit technologies, Environmental Defense believes that monitoring at a retrofit site can be a valuable part of a retrofit program because it allows all involved to see the actual pollution-control benefits of various retrofit strategies. This type of information can be invaluable to citizens and policy makers advocating on behalf of retrofit programs. We strongly encourage inclusion of good in-use monitoring procedures for all retrofit programs.

Retrofit programs in State Implementation Plans

One way a state may be able to achieve emissions reductions that can be factored into its State Implementation Plan (SIP) is by including a rigorous retrofit program. A State Implementation Plan is a federally enforceable plan that describes a state's strategy for achieving and maintaining the public health based National Ambient Air Quality Standards (NAAQS).²⁴⁹

Recent EPA data shows that about half of all Americans live in places that fail to meet public health based standards for ozone and/or fine particulates. On April 15, 2004, EPA found 474 counties—home to 159 million Americans—out of compliance with the health-based eight-hour ozone standard.²⁵⁰ In December 2004, EPA found that 224 counties in 20 different states are not meeting the nation's first PM_{2.5} air quality standards.²⁵¹

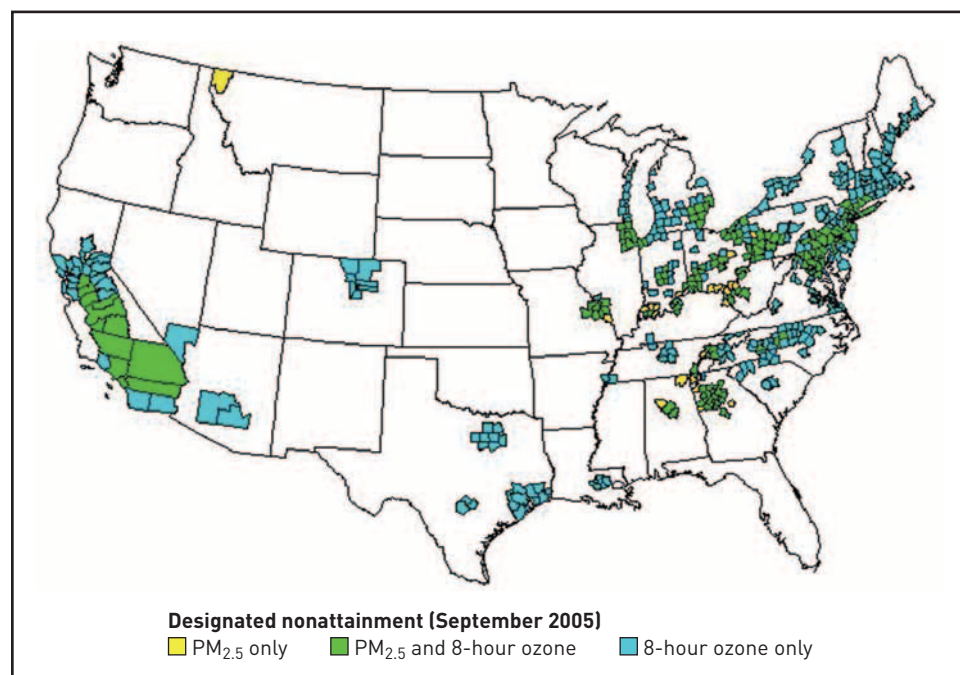
- To find out whether or not you live in a county that is meeting the public health based standards for ozone go to: <http://www.epa.gov/ozonedenignations/statedesig.htm>.
- To find out whether or not you live in a county that is meeting the federal PM_{2.5} standards go to: <http://www.epa.gov/pmdesignations/finaltable.htm>.

Because more than half of the U.S. population lives in areas with unhealthy air, Environmental Defense believes that retrofit programs for all diesel equipment currently in use are critical components of any SIP.

If an area does want to quantify the benefits of a retrofit program, it may be able to do so by incorporating the benefits into the SIP, and it may also be able to use the benefits to demonstrate

FIGURE 11

Counties designated nonattainment for PM_{2.5} and/or 8-hour ozone standard



Several counties have only a portion designated nonattainment. These counties are represented as whole counties on the map.

Source: <http://www.epa.gov/oar/oaqps/greenbk/mappm25o3.html>

conformity to its SIP. Areas with large retrofit programs should work with the appropriate EPA Regional Office²⁵² regarding SIP credits.²⁵³ EPA encourages early consultation between project sponsors, planners, and EPA Regional Offices during the development of a SIP and the calculation of SIP credits. Including a program in a federally enforceable document should be done carefully as legal action can be taken if the program is not carried out as described.

Additionally, project sponsors should work with their state air quality and transportation agencies as well as federal DOT and EPA regarding inclusion of a retrofit program in a SIP or conformity determination and the credits of that program. The state air pollution agency should assume primary responsibility for

the calculation of retrofit credits and incorporation into the SIP. With the guidance of the appropriate EPA Regional Office, the state should work with areas, sponsors, planners, fleets, etc. in implementing retrofit projects and programs for this purpose.

To learn more about calculating SIP credits from retrofit projects, please refer to the EPA web page at: <http://www.epa.gov/otaq/retrofit/aqsipcalc.htm> ("Guidelines For States On Establishing SIP Credits From Heavy-Duty Engine Retrofit Projects"). A NESCAUM report, prepared for EPA in 1999, is a good resource for more information on how these types of calculations are made.²⁵⁴ EPA is expected to issue additional guidance on how to calculate SIP credits for retrofits in Spring of 2005.²⁵⁵

Tools for spurring retrofits

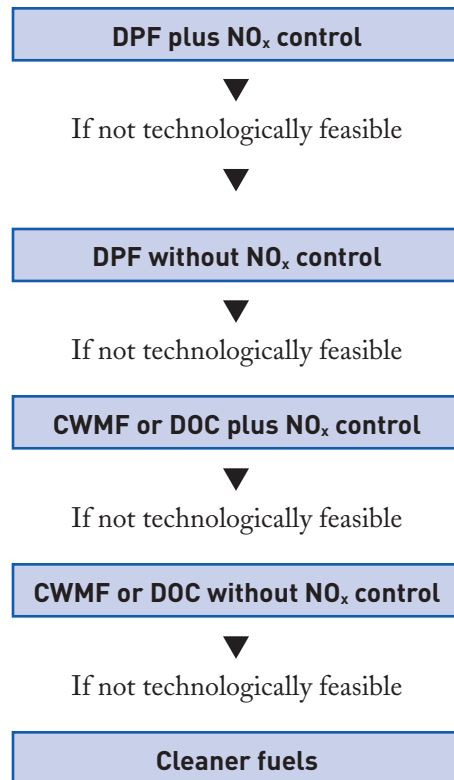
In this section of the handbook, Environmental Defense offers a framework for implementing retrofits and best management practices to help protect public health and ensure clarity for the construction industry and others who wish to reduce the pollution from *existing* diesel construction equipment. Local and state governments seeking to employ clean diesel fuels and technologies in construction projects have a number of options to encourage contractors to retrofit their existing diesel vehicles, use clean fuels or enact other best management practices, such as anti-idling measures. Environmental Defense believes these commitments to cleaner, healthier air can be incorporated in several different ways. The ideas outlined below could be used as: (1) an administrative or legislative commitment; (2) a contract specification, as a preference in the bidding process; (3) in an environmental impact statement, (4) in an executive order; or (5) in a Community Benefit Agreement.

To reduce diesel emissions from existing nonroad vehicles, Environmental Defense recommends both the installation of best available technology and the use of cleaner fuels, including diesel fuel that has 15 ppm of sulfur or less (ULSD). In Environmental Defense's view, "best available" technology is that which achieves maximum emissions reduction of fine particulate matter and NO_x for a given particular engine type and application. Because specific emissions control technologies require different engine performance characteristics (temperature, duty cycles, etc.), each application has to be reviewed to determine the appropriate retrofit technology. Some flexibility and combinations of different technologies will be needed to achieve

maximum emissions reductions for each application. Therefore, we suggest a cascading series of emissions-control choices, ranked according to emissions-reduction performance. In this way, states, local agencies, fleet operators and contractors will be able to match best technologies to the specific engine and application, and will be required to achieve the maximum possible clean air benefit.

To begin, there should be an overarching, central commitment to using DPFs in combination with a NO_x control. DPFs can achieve particle reductions of up to 90%. If no NO_x control is available, then the DPF can be used alone. If it is not possible to use a DPF, then Environmental Defense suggests using a DOC or a CWMF in combination with NO_x control. Diesel oxidation catalysts can achieve particle reductions of 20–30%, and CWMFs can reduce PM by more than 50%. If no NO_x control is available, then the DOC or CWMF can be used alone. Lastly, if no pollution control technology can be used, then Environmental Defense suggests using the cleanest possible fuels. Switching from onroad diesel fuel (500 ppm sulfur content) or from nonroad diesel fuel (about 2000–3000 ppm sulfur content) to ULSD (15 ppm sulfur content or less) can reduce particulate matter, smoke and sulfate emissions.²⁵⁶

Environmental Defense advises using only technologies that are on or in the queue for EPA's or CARB's verified lists to ensure that you are installing a high quality product on your diesel engine. However, states and local governments should include pilot or demonstration products if they wish to investigate promising new emissions control technologies.



Sample legislation regarding green contracting (retrofits and clean fuels)

According to the federal Clean Air Act, only EPA may set emissions standards for new nonroad engines and vehicles. EPA sets emissions standards for *new* nonroad engines and *new* nonroad vehicles. In May of 2004, EPA issued a rule setting emissions standards for new nonroad engines as well as regulating the amount of sulfur allowed in diesel fuel for the nonroad sector.²⁵⁷ For more information on this new nonroad rule, please refer to: <http://www.epa.gov/nonroad-diesel/>. EPA has addressed new nonroad vehicles, but there are many older vehicles on the road today. Therefore, Environmental Defense recommends that states and local municipalities encourage retrofits and the use of cleaner fuels for *existing* nonroad vehicles. Cleaning up older diesel engines will be an important piece for reducing air pollution while the new nonroad rule phases in.

To encourage retrofits on existing nonroad equipment and the use of cleaner fuels, Environmental Defense suggests that state and local municipalities pass regulations (also sometimes referred to as “green contracting laws”) regarding the use of retrofit technology on state/local municipality owned nonroad diesel vehicles as well as nonroad diesel vehicles used when contracting with state/local municipalities. Environmental Defense also suggests including the use of ULSD fuel (15 parts per million of sulfur or less) as one of the contract specifications.

NEW YORK CITY’S LOCAL LAW 77
New York City’s Local Law 77 requires the City to use ULSD fuel and retrofits on city-owned nonroad equipment.²⁵⁸ Local Law 77 also includes use of retrofits and ULSD as a contract specification in public works contracts.

Excerpts from New York City’s Local Law 77, Section 1:²⁵⁹

b. (1) Any diesel-powered nonroad vehicle that is owned by, operated by or on behalf of, or leased by a city agency shall be powered by ultra low sulfur diesel fuel.

(2) Any diesel-powered nonroad vehicle that is owned by, operated by or on behalf of, or leased by a city agency shall utilize the best available technology for reducing the emission of pollutants.

c. (1) Any solicitation for a public works contract and any contract entered into as result of such solicitation shall include a specification that all contractors in the performance of such contract shall use ultra low sulfur diesel fuel in diesel-powered nonroad vehicles and all contractors in the performance of such contract shall comply with such specification.

(2) Any solicitation for a public works contract and any contract entered into as

a result of such solicitation shall include a specification that all contractors in the performance of such contract shall utilize the best available technology for reducing the emission of pollutants for diesel-powered nonroad vehicles and all contractors in the performance of such contract shall comply with such specification.

NEW YORK STATE ASSEMBLY LAW ON CONSTRUCTION IN LOWER MANHATTAN

The Coordinated Construction Act for Lower Manhattan, passed by both the New York State Senate and Assembly, commits New York State construction projects in lower Manhattan to control emissions by requiring that nonroad vehicles be powered with ULSD and retrofit with technologies such as oxidation catalysts, particulate filters or an emissions control technology that achieves the lowest particulate matter emissions.²⁶⁰

Excerpts from Section 4 of the Coordinated Construction Act for Lower Manhattan:

e. Notwithstanding any general, special or local law or rule or regulation to the contrary, a public agency shall require contractors and subcontractors to use only ultra-low sulfur diesel fuel to power the diesel-powered non-road vehicles with engine horsepower (HP) rating of 60 HP and above used on lower Manhattan redevelopment projects and, where practicable, to reduce the emission of pollutants by retrofitting such non-road vehicles with oxidation catalysts, particulate filters, or technology with comparable or better effectiveness. (emphasis added)

SACRAMENTO'S OZONE SUMMIT MODEL "GREEN CONTRACTING" ORDINANCE

The Sacramento Ozone Summit, a gathering of agency heads and elected

officials from around the Sacramento federally designated Ozone Non-attainment Area, led to the design of a green contracting model ordinance by the Sacramento Metropolitan Air Quality Management District's Mobile Source Division. This ordinance offers a voluntary and flexible approach to reducing construction site emissions that would certify rental firms/construction firms as "green contractors." Being "green" would entail curtailing activities on "spare the air" days, mitigating emissions using ULSD or emulsified fuel, and replacing/retrofitting engines using Carl Moyer incentive funds or Sacramento Emergency Clean Air Transportation Funds (SECATF), which at one point totaled \$28 million. "Green contractors" would then receive bidding bonuses that would give them a competitive advantage in the contract bidding process. "Green contractors" would also be subject to detailed monitoring of construction equipment.²⁶¹

Excerpts from Section 3. of the Model "Green Contracting" Ordinance:

Within 90 days of adoption of this Chapter, the (insert name of local agency) shall designate a Program Manager (such as the agency's manager responsible for procurement) and shall develop and implement a Green Contracting Program. The Green Contracting Program must include a description of the plan to encourage contractors operating within the (insert name of local agency) to procure and to operate low-emission vehicles and to obtain low-emission fleet status for off-road equipment fleets and heavy-duty on-road vehicle fleets. The (insert name of local agency)'s Green Contracting Program must focus on fleet owners that have contracts for (insert name of local agency) business.

The (insert name of local agency) must include contract bid language that would

implement the following Green Contracting Program requirements. See (c) for the exception to this requirement.

Sample contract specifications

BOSTON BIG DIG

Excerpt from Section 721.562 of the Big Dig Contract Specifications.

Methods that shall be used by the Contractor to control nuisance odors associated with diesel emissions from construction equipment include:

Turning off diesel combustion engines on construction equipment not in active use and on dump trucks that are idling while waiting to load or unload material for 5 minutes or more.

Establishing a staging zone for trucks that are waiting to load or unload material at the contract area, in a location where the diesel emissions from the trucks will not be noticeable to the public.

Locating combustion engines away from sensitive receptors such as fresh air intakes, air conditioners, and windows. *In addition to the above diesel emission control measures, all off-road diesel powered equipment used for this contract shall contain oxidation catalyst emission control equipment on the exhaust system side of the equipment.* (emphasis added)

Please note that when the Boston Big Dig contract specifications were drafted, ULSD fuel (sulfur content of 15 ppm) was not available in the Boston region. For that reason, DPFs could not be used as retrofit technology and DOCs only were used.

CONNECTICUT I-95 NEW HAVEN HARBOR CROSSING CORRIDOR IMPROVEMENT PROGRAM (NHCC PROJECT)

Connecticut's Department of Transportation (ConnDOT), the Connecti-

cut Department of Environmental Protection, the Connecticut Department of Motor Vehicles, and the Connecticut Construction Industry Association worked together to create a contract specification to improve quality of life during the long-lasting I-95 New Haven Harbor Crossing Corridor Improvement Program.

Notice To Contractors (NTC)—Diesel Vehicle Emission Controls

All diesel powered construction equipment with engine horsepower (HP) ratings of 60 HP and above, that are on the project or are assigned to the contract for a period in excess of 30 days *shall be retrofitted with Emission Control Devices and/or use Clean Fuels* in order to reduce diesel emissions. In addition, all motor vehicles and/or construction equipment shall comply with all pertinent State and Federal regulations relative to exhaust emission controls and safety. (emphasis added)

Truck staging zones

The contractor shall establish truck-staging zones that are waiting to load or unload material at the contract area. Such zones shall be located where the diesel emissions from the trucks will have minimum impact on abutters and the general public.

Idling

Idling of delivery and/or dump trucks, or other diesel powered equipment shall not be permitted during periods of non-active use, and it should be limited to three minutes in accordance with the Regulations of Connecticut State Agencies Section 22a-174-18(a)(5).²⁶²

Environmental performance commitments in environmental impact statements

An Environmental Impact Statement (EIS) is a document required for major

federal actions (or regional, state, or local actions funded with substantial federal monies) that may significantly affect the environment. Describing the positive and negative effects of the major project and citing alternative actions, an EIS serves as a tool for decision-making.

When a governmental agency plans a construction project, Environmental Defense strongly encourages the use of the cleanest possible fuel and pollution control technology in the Environmental Performance Commitments (EPC) section of the project's Environmental Impact Statement (EIS). This puts interested parties on notice that there will probably be future contract specifications that follow the guidelines established in the EIS. Thus, requirements for clean diesel equipment and clean diesel fuel can come out of the EIS and bidding process. Although the following two examples include the type of language that a government seeking cleaner diesel fuel and technology use might include in an Environmental Impact Statement's EPC section, Environmental Defense also recommends that:

- Emissions-reductions steps such as the use of ULSD or best available reductions technologies (BART) should be extended to onroad trucks servicing the construction site and all stationary diesel generators used in connection with construction.
- Emissions standards should cover non-road vehicles of 50 HP and greater.
- Anti-idling measures include a powerful enforcement plan and mechanism.
- Regular emissions testing be conducted at construction sites, and that the results of these tests be made publicly available, to ensure compliance and accountability.
- Trucks and construction equipment be marked with a label or sticker that

certifies that they are using ULSD fuel as well as retrofit technology.

- Truck staging zones should be established for diesel-powered vehicles waiting to load or unload materials. The zones should be located where diesel emissions will have the least impact on abutters and the general public.
- Idling should be limited to three minutes for delivery and dump trucks and other diesel-powered equipment (with some exceptions).
- All work should be conducted to ensure that no harmful effects are caused to adjacent sensitive receptors, such as schools, hospitals, and elderly housing.
- Diesel-powered engines should be located away from fresh air intakes, air conditioners, and windows.

New York's Route 9A Draft Supplemental Environmental Impact Statement²⁶³ can serve as a sample for how diesel emissions impacts can be mitigated and addressed in an EIS.

Excerpt from New York's Route 9A Draft Supplemental EIS, page 10:

All diesel construction engines—excluding trucks—would use ultra low-sulfur diesel (ULSD) fuel; where practicable, engines larger than 60 horsepower (HP) would include emissions reduction measures to reduce emissions of PM and volatile organic compounds (VOCs). For the purpose of this study, it was assumed that PM emissions from all such engines would be reduced by 40 percent—the average reduction achieved by using diesel oxidation catalysts (DOC). PM emissions may be further reduced in cases where diesel particle filters (DPF) would be used—85 percent reductions or higher can be achieved with this technology. Since it is uncertain at this time what emission reduction technologies would be most efficient with each equipment type,

and since DOCs reduce more VOCs, which are ozone precursors and are of regional concern, the environmental performance commitments (EPCs) provide the flexibility to utilize either DOC or DPF control technologies. Therefore, the minimum PM emissions reduction of DOCs was assumed for the local impact analyses.²⁶⁴

Similarly, the Fulton Street Transit Center Draft EIS²⁶⁵ also contains language suggesting the use of ULSD fuel and retrofit technology to mitigate the impact of unhealthy diesel emissions.

Excerpts from the Fulton Street Transit Center Draft EIS, page 2:

The Build Alternatives would be implemented with incorporation of Environmental Performance Commitments (EPCs). The EPCs consist of onsite measures that would include the use of ultra-low sulfur diesel (ULSD), with sulfur content less than 15–30 parts per million (ppm) fuel and retrofit technology in heavy-duty engines and off-road construction vehicles operating during the construction of the FSTC, including during year 2005/2006, the peak period of construction. Other EPCs include a dust control plan for the construction site including a soil erosion sediment control plan which would be part of the Construction Environmental Protection Program (CEPP). The dust control plan could include: spraying of a (non-hazardous, biodegradable) suppressing agent on disturbed soil and other surfaces; containment of fugitive dust; and adjustment of work practices to reflect meteorological conditions as appropriate.²⁶⁶

Community Benefit Agreements

Community Benefit Agreements (CBAs) can also serve as a tool to improve air quality. CBAs are project-

specific contracts between developers of a major project and community organizations. CBAs are safeguards to ensure that local community residents share in the benefits of major developments. They allow community groups to have a voice in shaping a project, press for community benefits that are tailored to their particular needs, and enforce developer's promises.

The CBA process begins with interested members of the community, who identify how a proposed development project can benefit residents and workers. Once a list of potential benefits is determined, community members meet with the developer and/or representatives of the city to negotiate a CBA. Each CBA is unique, reflecting the needs of a particular community.

The first full-fledged CBA came in 2001, when a large coalition of community groups negotiated a far-reaching agreement with the developer of the Staples Center for the Los Angeles Sports and Entertainment District. This was followed by four more CBAs on projects across Los Angeles. A dozen additional projects in Los Angeles have community benefits provisions incorporated into their respective development agreements.

Many communities across the country are now using the community benefits model. In San Jose, two projects have incorporated community benefits provisions into the development agreements, while groups in at least six cities—Denver, Seattle, Milwaukee, Miami, New York and New Haven—are actively pursuing community benefits.²⁶⁷

In 2004, community groups, environmental organizations, and labor unions joined together and reached a CBA with Los Angeles World Airports (LAWA), the government entity that operates LAX.

Excerpts from the LAX CBA regarding reducing harmful diesel emissions via cleaner fuels and retrofits:

F. Construction Equipment.

1. Best Available Emissions Control Devices Required. LAWA shall require that all diesel equipment used for construction related to the LAX Master Plan Program be outfitted with the *best available emission control devices primarily to reduce diesel emissions of PM, including fine PM, and secondarily, to reduce emissions of NO_x*. This requirement shall apply to diesel-powered off-road equipment (such as construction machinery), on-road equipment (such as trucks) and stationary diesel engines (such as generators). The emission control devices utilized for the equipment at the LAX Master Plan Program construction shall be: (i) verified or certified for use by CARB for on-road or off-road vehicles or engines; or (ii) verified for use by EPA for on-road or off-road vehicles or engines. Devices certified or verified for mobile engines may be effective for stationary engines and that technology from EPA/CARB on-road verification lists

may be used in the off-road context. (emphasis added)

5. ULSD and Other Fuels.

a. ULSD and Other Fuel Requirements.

All construction equipment used for construction related to the LAX Master Plan Program *shall use only Ultra-Low Sulfur Diesel fuel (15 ppm or lower), so long as there are adequate supplies of ULSD in the Southern California area*. If adequate supplies of ULSD are not available in the Southern California area, then other fuels may be used, provided that the other fuels do not result in an greater emissions of fine PM or nitrogen oxides than that which would be produced by use of ULSD at 15 ppm or lower. Cost of ULSD shall not be a consideration in determining “adequate supplies.” (emphasis added)

For more information on the LAX CBA go to: http://www.environmentaldefense.org/documents/4174_LAX_CBA_Summary.pdf. For the exact language of the LAX CBA go to: http://www.environmentaldefense.org/documents/4201_LAX_CBA_full.pdf.

APPENDIX A

Acronyms

BART Best Available Retrofit Technology	MECA Manufacturers of Emissions Control Association
CARB California Air Resources Board	MOA Memorandum of Agreement
CA/T Project Central Artery Tunnel Project (Big Dig, Boston)	MTA Massachusetts Turnpike Authority
CCIA Connecticut Construction Industries Association	NAAQS National Ambient Air Quality Standards
CNG Compressed Natural Gas	NESCAUM Northeast States for Coordinated Air Use Management
CO Carbon monoxide	NO_x Nitrogen oxides
CIAQC Construction Industry Air Quality Coalition	OEM Original Equipment Manufacturer
CPO Catalytic Particulate Oxidizer	OTAQ Office of Transportation and Air Quality
CCRT Catalyzed Continuous Regenerating Technology	PHA Port of Houston Authority
CRT Continuous Regenerating Technology	PM Particulate matter
CWMF Catalyzed Wire Mesh Filter	PM_{2.5} Particulate matter smaller than 2.5 microns
DMV Department of Motor Vehicles	PM₁₀ Particulate matter smaller than 10 microns
DOC Diesel Oxidation Catalyst	SCAQMD South Coast Air Quality Management District
DOT Department of Transportation	SCR Selective Catalytic Reduction
DPF Diesel Particulate Filter	SIP State Implementation Plan
DTF Diesel Technology Forum	SOF Soluble Organic Fraction
EGR Exhaust Gas Recirculation	TCEQ Texas Commission on Environmental Quality
EIS Environmental Impact Statement	TERP Texas Emission Reduction Program
EPA United States Environmental Protection Agency	TNRCC Texas Natural Resource Conservation Commission
EPC Environmental Performance Commitments	ULSD Ultra low sulfur diesel fuel (15 ppm)
FBC Fuel Borne Catalyst	VOC Volatile organic compound
HC Hydrocarbon	
LNG Liquefied Natural Gas	
LSD Low sulfur diesel fuel (500 ppm)	

APPENDIX B

Retrofit manufacturers contact information

Manufacturer	PM, HC, CO control	NO _x control	Contact information
Argillon LLC http://www.argillon.com	SCR	SCR	Mr. Gary D. Keefe Argillon 5895 Shiloh Rd. Suite 101 Alpharetta, GA 30005 678.341.7532 404.409.3492 (Mobile) 678.341.7509 (Fax) gary.keefe@argillon.com
Caterpillar, Inc. http://www.caterpillar.com	DOC (CCM: Catalyzed Converter Muffler)	SCR	Mr. Steve Hurd Mos 10 PO Box 610 Mossville, IL 61552-0610 309.578.6088 309.578.7152 (Fax) hurd_stephen_s@cat.com
EPA Verified Technology for Heavy Duty Highway Use http://www.epa.gov/otaq/retrofit/retroverifiedlist.htm	DPF		
Cleaire Advanced Emission Controls, LLC http://www.cleaire.com	Longview® Lonestar™	Longview® Lonestar™	John Egan 14775 Wicks Blvd. San Leandro, CA 94577 510.347.6163 800.308.2111 510.347.6181 (Fax) john.egan@cleaire.com
Longview® CARB and EPA Verified Technology for Heavy Duty Highway Use			Tim Taylor Director of Strategic Market Development 916.296.7049 707.220.7260 (Fax) tim.taylor@cleaire.com
Clean Air Power, Inc. www.cleanairpower.com	Catalytic Particulate Oxidizer (CPO)	Mobile SCR DOX SCAT (reduces NO-)	Frits Tan 9837 Whithorn Drive Houston, TX 77095 832-731-7372 (mobile) 281-463-8883 281-463-8951 fax ftan@cleanairpower.com
Clean Diesel Technologies Inc. http://www.cdti.com	SCR FBC Platinum Plus® Purifier System (fuel borne catalyst plus DOC)	SCR	Mr. Glen Reid 300 Atlantic Street, Ste 702 Stamford, CT 06901 203.327.7050 203.323.0461 greid@cdti.com
EPA Verified Technology for Heavy Duty Highway Use ^a	FBC Platinum Plus® Purifier System and Catalyzed Wire Mesh Filter (FBC/CWMF) System		

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Manufacturer	PM, HC, CO control	NO_x control	Contact information
Combustion Components Associates Inc. http://www.combustioncomponents.com	Mobile SCR		Mr. T.J. Tarabulski 884 Main Street Monroe, CT 06468 203.268.3139 203.223.8246 (Mobile) 203.261.7697 (Fax) tarabulski@cca-inc.net
DCL International Inc. http://www.dcl-inc.com	DOC, DPF (active and passive)		Gerry Wilson P.O. Box 90 Concord Ontario, Canada L4K1B2 905.660.6450, ext. 292 gwilson@dcl-inc.com
Donaldson Company, Inc. http://www.donaldson.com	DOC, DPF		Mr. Fred Schmidt 1400 West 94th Street Minneapolis, MN 55440 952.887.3835 952.887.3008 (Fax) fschmidt@mail.donaldson.com
EPA Verified Technology for Heavy Duty Highway Use ^b	(also offers crankcase emissions filtration system)		
Engelhard Corporation http://www.engelhard.com	DOC, DPF		Mr. Barry Bambo 101 Wood Avenue Iselin, NJ 08830 732.205.7277 732.205.5687 (Fax) Barry.Bambo@engelhard.com
EPA Verified Technology for Heavy Duty Highway Use ^c			
Engine Control Systems, a Division of Lubrizol http://www.lubrizol.com/enginecontrol	DOC AZ Purimuffler™, DPF Purifilter™		Ms. Michelle Bellamy 165 Pony Drive Newmarket, Ontario L3Y 7V1 800-661-9963 or 905-853-5800 (customer service) 905-853-5801 (Fax) ecs@lubrizol.com
EPA Verified Technology for Heavy Duty Highway Use ^d			
Environmental Solutions Worldwide, Inc. Catalyst Division http://www.cleanerfuture.com/products/	Metallic (high performance—50% plus PM reduction) DOC ^e		Mr. Frank Haas 571 Chrislea Rd. #5 Woodbridge, Ontario, Canada L4L8A2 905.850.9970 905.850.9925 Fax fhaas@cleanerfuture.com
EPA and CARB verification pending			

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Manufacturer	PM, HC, CO control	NO_x control	Contact information
Extengine Transport Systems, LLC http://www.extengine.com/index.html	Mobile and Stationary SCR (ADEC System) DOC Hybrid DPF-C (Diesel Particulate Filter and Catalyst) DPF (passive and active)	Mobile and Stationary SCR (ADEC System)	Mr. Phillip Roberts 1370 S. Acacia Ave Fullerton, CA 92831 714.774.3569 714.774.4036 (Fax) roberts@extengine.com
Fleetguard Emission Solutions	DOC (50% pm reduction), DPF		Western U.S.: Rob Ferguson 2931 Elm Hill Pike Nashville, TN 37214 615.366.9855 812.377.7137 (Fax) rob.r.ferguson@fleetguard. com Eastern U.S.: Jennifer Kain 2931 Elm Hill Pike Nashville, TN 37214 812-377-3132 812-377-7137 (Fax) jennifer.kain@fleetguard .com
International Truck and Engine Corporation http://www.greendieseltechnology.com	DOC, DPX	Green Diesel Technology	Mr. Peter Reba International Truck and Engine Corporation 4201 Winfield Road Warrenville, IL 60555 630-753-6537 (Office) 630-753-6537 (FAX) peter.reba@nav-international .com

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Manufacturer	PM, HC, CO control	NO_x control	Contact information
Johnson Matthey – Environmental Catalysts and Technologies http://www.jmcsd.com/html/crt.html http://www.matthey.com/divisions/catalytic.html EPA Verified Technology for Heavy Duty Highway Use ^f	DOC, DPF (CRT or CCRT) SCRT(tm) systems (SCR+DPF) EGRT(tm) systems (EGR+DPF).	SCR SCRT(tm) systems (SC R+DPF) EGRT(tm) systems (EGR+DPF).	Mr. Brett Alkins 380 Lapp Road Malvern, PA 19355 610.341.8356 484.354.8159 (Mobile) 610.971.3116 (Fax) alkinbd@jmus.com or Mr. Jim Hale 380 Lapp Road Malvern, PA 19355 610.476.0161 (Mobile) 717.246.6049 (Home Office) 610.971.3116 (Fax) halejr@jmus.com or Marty Lassen 434 Devon Park Drive Wayne, PA 19087 610.341.3404 610.971.3116 (F) 610.476.0131 (M) lassen@jmus.com
Nett Technologies, Inc. http://www.nett.ca	DOC: D-Series (low temperature DOC) M-Series (high performance, very low back pressure) NETT Series (standard DOC) DPF: SF Catalyzed SK Catalyzed (lower temperatures) SE Catalyzed (sulfur tolerant) SJ Catalyzed (lower temperature, sulfur tolerant)		For technical information: Mr. Wayne Borean 6707 Goreway Drive Mississauga, Ontario 800.361.6388 905.672.5949 (Fax) sales@nett.ca or Ms. Laura McBurney or Mr. Jorge Santos 800.631.6388
PuriNOx	PuriNOx	PuriNOx	Ron O. Dunfee 29400 Lakeland Blvd. Wickliffe, Ohio 44092 Office: (440) 347-6116 Fax: (440) 347-6978 Cell: (440) 463-2038 Email: rod@lubrizol.com

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Manufacturer	PM, HC, CO control	NO_x control	Contact information
RYPOS Inc. http://www.rypos.com/html/index.html	Regular or catalyzed DPF Active DPF (Rypos Trap™)		Mr. Frank DePetrillo 3 Industrial Park Road Medway, MA 02053 Phone: 508.533-9655 Fax: 508.533-9656 Sales: fd@rypos.com

Engine Manufacturer Contacts
http://www.epa.gov/otaq/retrofit/cont_engmfrs.htm

EPA Verified Retrofit Technologies
<http://www.epa.gov/otaq/retrofit/retroverifiedlist.htm>

CARB Verified Retrofit Technologies
<http://www.arb.ca.gov/diesel/verdev/verdev.htm>

^a EPA, "Verified Products." August 11, 2004. Online resource, available at: <http://www.epa.gov/otaq/retrofit/retroverifiedlist.htm> Last accessed 03/01/05.

^b Ibid.

^c Ibid.

^d Ibid.

^e DOC specifically designed for use on small compression ignition engines. Examples of these are small generators and construction equipment such as mixers and concrete floats. Environmental Technology Verification (ETV) Canada Inc. "Current Program Graduates and Licenses." Online resource, available at: http://www.etvcanada.com/English/e_progGrad.htm Last accessed 03/01/05.

^f EPA, "Verified Products." August 11, 2004. Online resource, available at: <http://www.epa.gov/otaq/retrofit/retroverifiedlist.htm> Last accessed 03/01/05.

APPENDIX C

Distributors of ultra low sulfur diesel fuel, emulsified fuels, fuel additives, and synthetic engine oil

Please check with your local Ultra Low Sulfur Diesel (ULSD) fuel distributor whether your fleet needs ULSD fuel No. 1 or No. 2. For example, if a fleet has been using Low Sulfur Diesel (500 ppm) No. 1 then ULSD No. 1 is needed. If only ULSD No. 2 is available and Low Sulfur Diesel No. 1 has been previously used, the engine needs to be tuned accordingly.

1. ULSD Fuel Brokerage

Ultra Low Sulfur Diesel Fuel Brokerage
Ultraco LLC
Mr. Timothy J. Niles
101 Farren Ct, Suite 100
Cary, NC 27511-4559
866.857.3487 or 919.380.0778
<http://ultraco.us>

2. ULSD Distributors

Northeast

Connecticut, Delaware, Maine,
Maryland, Massachusetts, New
Hampshire, New Jersey, New York,
Pennsylvania, Rhode Island, Vermont,
Washington, D.C.

Mr. David Wright, ConocoPhillips
600 North Dairy Ashford (77079-1175)
P.O. Box 2197
Houston, TX 77252-2197
Phone 281.293.1544
Fax 281.293.6113
David.W.Wright@conocophillips.com
[http://www.conocophillips.com/
products/ultralowsulfur/index.htm](http://www.conocophillips.com/products/ultralowsulfur/index.htm)

or

Mr. Steven J. Levy, Sprague
4 New King Street
White Plains, NY 10604
Phone 914.328.6770 Fax
914.701.2819
914.284.2188 (Pager)
slevy@radenergy.com
www.spragueenergy.com

or

Ms. Debbie McNeal, Sunoco
Ten Penn Center
1801 Market Street
Philadelphia, PA 19103
800.842.0339 Ext. 1
Phone 215.977.3000
Fax 215.246.8119
DLMCNEAL@sunocoinc.com
<http://www.sunocoinc.com/>

Midwest, West Coast

Oregon, Washington, California, Arizona
(Phoenix area), all Midwest States,
Chicago area, Detroit area, Toledo area,
Cleveland and Columbus area.

Ms. Renee Marchese, BP America Inc.a
28100 Torch Parkway 4th Fl.
Warrenville, IL 60555
Phone: 630.836.5504
Fax 630.836.5500
marcher2@bp.com

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Mr. David Wright, ConocoPhillips
600 North Dairy Ashford (77079-1175)
P.O. Box 2197
Houston, TX 77252-2197
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David.W.Wright@conocophillips.com
[http://www.conocophillips.com/
products/ultralowsulfur/index.htm](http://www.conocophillips.com/products/ultralowsulfur/index.htm)

South and Southwest

Texas, Colorado, Oklahoma, (southern)
California, New Mexico, Kansas,
Louisiana, Georgia, and Florida.

Mr. Ray Hernandez
Valero Energy Corporation
One Valero Place
San Antonio, TX 78212
Phone 210.345.2757
Fax 210.345.5930
Raymond.Hernandez@valero.com
<http://www.valero.com/About+Valero/>

3. Distributors of emulsified fuel

For further information or to purchase emulsified fuel, contact your local fuel distributor.

Mr. Thomas M. Sopko
The Lubrizol Corporation
29400 Lakeland Boulevard
Wickliffe, OH 44092-2298
Phone 440.943.4200
Fax 440.943.5337
tms@lubrizol.com

To purchase PuriNOx™ in the California and Texas area you may also contact:

Mr. Bill Alford
J.A.M. Distributing
711 W. Bay Area Blvd Suite 310
Webster, Texas 77598
800.228.3848
Phone 713.844.7788
Fax 713.844.7789
jam@jamdistributing.com

or

Ms. Debbie McNeal
Sunococ
800.842.0339 Ext. 1
Phone 215.977.3000
Fax 215.246.8119

4. Fuel additives

Mr. Glen Reid
Clean Diesel Technologies, Inc.^d
300 Atlantic Street, Ste 702
Stamford, CT 06901
Phone 203.327.7050
Fax 203.323.0461
greid@cdti.com

or

Mr. Jim Baumert
AMSOIL Inc.^e
AMSOIL Building
Superior, WI 54880-1527
Phone 631.587.5896 Fax
715.392.5225
<http://www.lubedealer.com/baumert>

or

The Stricklin Companies^f
1415 Stratford Crt.
Del Mar, CA 92014
Phone 858-794-5700 Fax 848-794-2666
stricklin@worldnet.att.net

^a BP America Inc. offers the users of BP's ULSD fuel (ECD®) risk management solutions enabling construction companies to manage their annual budget while reducing emissions at the same time. Construction companies can set a fixed fuel price over a set time period avoiding the risk of increasing fuel prices. For more information go to: <http://www.ecdiesel.com/business/contruction.asp> and <http://www.bpdirect.com/products/risk.html>

^b J.A.M. Distributing also provides assistance with the installation of filters (EMISSION CONTROL TECHNOLOGY) to help further reduce emissions.

^c AquaMix(tm) is Sunoco's emulsified fuel which has been verified by the EPA as an emission reduction diesel fuel. AquaMix™ emulsified diesel fuel is blended with Lubrizol's PuriNOx™ additive technology. AquaMix™ has been verified to reduce diesel particulate matter typically by 50% and NO_x emissions by 20%.

^d Clean Diesel Technologies, Inc. sells a fuel borne catalyst called Platinum Plus.

^e Amsoil Diesel Fuel Additive. AMSOIL also sells synthetic motor oil for heavy duty diesel engines (SAE 15W-40 or SAE 5W-30). Please contact Mr. Baumert for more information.

^f Stricklin sells fuel additive called Blue Marble™. Please contact Stricklin for more information.

APPENDIX D

Summary of retrofit technology status

Status	CARB or EPA verified for onroad use	CARB or EPA verified for nonroad use	In use in nonroad engines*	Known to be pursuing onroad verification	Known to be pursuing nonroad verification	In development
Retrofit technologies						
PM control						
Diesel Particulate Filter (DPF)	●		●	Verified		
Active DPF		●	●		Verified	
Flow-through filters (including CWMF)	●		●	Verified	●	●
Diesel Oxidation Catalyst (DOC)	●	●	●	Verified	Verified	
Closed Crankcase Filter System with DOC—Donaldson Spiracle with DOC Muffler	●	●	●	Verified	Verified	
NO _x control						
Selective Catalytic Reduction (SCR)			●		●	●
NO _x Adsorbers						●
Lean NO _x Catalysts	● (w/ DPF)		●	Verified		
PM and NO _x control						
Low Pressure Exhaust Gas Recirculation (EGR)				●		
SCR System with PM Emission Control		●	●		Verified	
Lean NO _x Catalyst with DPF—Cleaire Longview	●		●	Verified	●	
Lean NO _x Catalyst with DOC—Cleaire Lonestar			●	●		
Retrofit technologies and cleaner fuels						
Fuel Borne Catalyst (FBC) with DOC—Platinum Plus	●		●	Verified	●	
FBC with Catalyzed Wire Mesh Filter (CWMF)—Platinum Plus	●			Verified		
Emulsified Diesel Fuel with DOC		●	●		Verified	
Cleaner fuels and additives						
Emulsified Diesel Fuel—PuriNOx	●	●	●	Verified	Verified	
Biodiesel	●		●	Verified		

*In order for a technology to be considered "in use," it must: 1) be commercially available, and 2) have been used in at least 2 projects with varying locations.

APPENDIX E

Retrofit technology cost and emissions reductions summary

	Cost (excluding installation)	NO _x	PM	HC	CO
Retrofit technologies and emissions reductions					
<i>PM control</i>					
Diesel Particulate Filter (DPF)	\$7,000–\$12,000	0%	Up to 90%	Up to 90%	Up to 90%
Active DPF	\$10,000–\$30,000	0%	85%	0%	0%
Flow-through Filters (including CWMF)	\$5,000–\$7,000	0–9%	55–76%	75–89%	50–66%
Diesel Oxidation Catalyst (DOC)	\$1,200–\$2,500	0%	20–30%	50–90%	70–90%
Closed Crankcase Filter System with DOC—Donaldson Spiracle with DOC Muffler	\$1,900	0%	25–33%	12–34%	42–52%
<i>NO_x control</i>					
Selective Catalytic Reduction (SCR)	Mobile: \$12,500–\$15,000 Stationary: up to \$80,000	60–80%	25%	50–90%	70–90%
NO _x adsorbers	In development	90% or more	10–30%	90%	90%
Lean NO _x Catalysts	\$6,500–\$15,000+	10–40%	Up to 80%	0%	0%
<i>PM and NO_x control</i>					
Low Pressure Exhaust Gas Recirculation (EGR)	\$13,000–\$15,000	40% or more	90% or more	90% or more	90% or more
SCR System with PM Emission Control	\$14,500	80%	25%	50–90%	50–90%
Lean NO _x Catalyst with DPF - Cleaire Longview 90%		\$18,500–\$21,000	25%	85%	90%
Lean NO _x Catalyst with DOC—Cleaire Lonestar	\$12,500	25–30%	50–70%	40–60%	40–60%
Retrofit technologies and cleaner fuels					
Fuel Borne Catalyst (FBC) with DOC—Platinum Plus	Cost of DOC. Fuel economy gains from use of Platinum Plus are expected to outweigh its incremental cost.	0–5%	25–50%	16–50%	25–50%
FBC with Catalyzed Wire Mesh Filter (CWMF)—Platinum Plus	Cost of CWMF. Fuel economy gains from use of Platinum Plus are expected to outweigh its incremental cost.	0–9%	55–76%	75–89%	50–66%
Emulsified Diesel Fuel with DOC	\$0.25 per gallon + \$1,500–\$2,500	25%	95%	85%	75%
Cleaner fuels and additives					
Emulsified Diesel Fuel—PuriNO _x	\$0.25 per gallon	9–20%	16.8–58%	(35%)–33%	(20–120%)
Biodiesel (20)	\$0.15 per gallon	(2%)	10%	21%	11%
Biodiesel (100)	\$0.50 per gallon	(10%)	47%	67%	48%

Emissions reductions data derived from CARB or EPA verified reduction levels where possible.
(Parenthesis denote increase)

APPENDIX F

Examples of nonroad retrofit technology use

Status	In use in nonroad engines*	Two projects/sites in which the technology/fuel has been used
Retrofit technologies		
<i>PM control</i>		
Diesel Particulate Filter (DPF)	●	1. World Trade Center, NYC, NY—Caterpillar 966 Wheel loaders 2. American Asphalt, CA—Caterpillar 966GII Wheel loader
Active DPF	●	1. World Trade Center, NYC, NY—Rypos trap installed on a diesel 600 kW electrical generator 2. Riverside, CA—three Caterpillar backup generators (100, 225, and 350 kw) retrofit with Rypos trap
Flow-through Filters (including CWMF)	●	1. Nationwide . many non-metal mining applications on Deutz and Caterpillar engines, 100-275 hp 2. World Trade Center Site, NYC, NY—Two cranes retrofit with an ESW particulate reactor
Diesel Oxidation Catalyst (DOC)	●	1. World Trade Center, NYC, NY—Komatsu PC200 5.9 liter engine Excavator 2. Big Dig, Boston, MA—more than 200 pieces of equipment successfully retrofit
Closed Crankcase Filter System with DOC—Donaldson Spiracle with DOC Muffler	●	Between the Port of Los Angeles and the Port of Long Beach in CA, this system has been successfully installed on approximately 400 yard hustlers, top picks/side picks, and rubber tired gantry-cranes.
<i>NO_x control</i>		
Selective Catalytic Reduction (SCR)	●	1. Richmond, CA—Caterpillar modular SCR installed on a gas power module, model G3516B LE 2. Palm Desert, CA—Mobile SCRs installed on seven construction vehicles
NO _x Adsorbers		Not in commercial use for non-road engines
Lean NO _x Catalysts	●	See Lean NO _x Catalyst with DOC, below.
<i>PM and NO_x control</i>		
Low Pressure Exhaust Gas Recirculation (EGR)	●	Not in commercial use for non-road engines
SCR System with PM Emission Control	●	1. Houston, TX—Houston City has retrofit Cummins 6BTA 5.9L engines on 6 Gradall excavators 2. Port of Houston, TX—GR Birdwell has retrofit several pieces of construction equipment
Lean NO _x Catalyst with DPF—Cleaire Longview	●	1. Fresno, CA—Case IH STX 375 wheel lower and a Komatsu WA450 wheel loader 2. CADOT, California - John Deere 672 CH motor grader
Lean NO _x Catalyst with DOC—Cleaire Lonestar	●	1. Concord, CA—Onan stationary 300 DGFC generator 2. Sacramento, CA—Caterpillar 8W2517 (16G) motor grader
Retrofit technologies and cleaner fuels		
Fuel Borne Catalyst (FBC) with DOC—Platinum Plus	●	1. Q-Bridge Project, CT—Starr construction excavator, Samsung 280LC 2. New York City, NY—Vergona crane, unknown model
FBC with Catalyzed Wire Mesh Filter (CWMF)—Platinum Plus		Not in commercial use for non-road engines

Status	In use in nonroad engines ^a	Two projects/sites in which the technology/fuel has been used
Emulsified Diesel Fuel with DOC	●	Between the Port of Los Angeles and the Port of Long Beach in CA, approximately 250 yard hustlers, top picks/side picks, and rubber tired gantry-cranes, etc have DOCs and use PuriNOx.
Cleaner fuels and additives		
Emulsified Diesel Fuel— PuriNOx	●	1. Port of Houston, TX—approximately 50+ pieces of cargo-handling equipment use PuriNOx 2. Extensive, multi-engine/model testing conducted by USEPA and by Air Improvement Resources
Biodiesel	●	1. Hutchinson Salt Co, KA—uses B100 in all underground diesel machinery, 32,000 gallons/year 2. Pioneer Hi-Bred Intl., Charlotte, NC—uses biodiesel on all farm and tractor equipment

*In order for a technology to be considered “in use,” it must: 1) be commercially available, and 2) have been used in at least 2 projects with varying locations.

Sample action letter

Dear [Decision Maker].

I write to direct your attention to the growing health and environmental impacts associated with diesel engines, and to encourage you to address this problem. Diesel engines, the workhorses of America's economy, are a significant source of air pollution in many communities across the country. Fortunately, cost-effective technology exists to reduce harmful diesel emissions by as much as 90%. Your help is needed to ensure that this technology is taken advantage of.

Emissions from diesel engines contain almost 40 toxic substances and contribute to a laundry list of adverse health effects including: asthma, cardiovascular and respiratory problems, strokes, heart attacks, lung cancer and premature death. Of special concern are two main pollutants: fine particulate matter, which lodges deep in the lung, and oxides of nitrogen (NO_x), which are precursors to smog. Diesel engines are a significant source of fine particulates and NO_x, and recent EPA data shows that about half of all Americans live in places that fail to meet basic health standards for one or both of these pollutants.

Nonroad diesel engines are, quite literally, engines that power vehicles that do not normally operate on roads. They include, for example, locomotives, agricultural equipment (i.e., tractors), construction and mining equipment (i.e., graders and back hoes), and ships. Collectively, nonroad engines discharge more dangerous fine sooty particles than any other source in the transportation sector.

The EPA recently established rigorous emissions standards for new nonroad diesel engines. Unfortunately, the full pollution reduction and public health benefits of the non-road rule will not be realized for decades because they only apply to new non-road diesel engines and not to older, dirtier diesel engines, which have a long life span. A child born today may still be breathing soot from a backhoe in her neighborhood when she graduates from college—unless that backhoe is replaced with a newer, cleaner one, or is retrofit with emissions controls.

Public and private leadership is needed to ensure that dirty diesel engines in our community are replaced or retrofit to reduce their polluting potential. As a community leader, I am asking you to implement programs to reduce pollution from dangerous diesel engine exhaust from vehicles in use in our community. Environmental Defense's Cleaner Diesel Handbook, available at: www.environmentaldefense.org/go/dieselhandbook, is a good starting point. The handbook shows that there is a cost-effective way to reduce the adverse health effects of diesel pollution.

The Cleaner Diesel Handbook outlines some simple ways to reduce diesel pollution, like enforcing idling laws, using clean fuels (like ultra-low sulfur diesel), and best available retrofit technologies that can reduce diesel emissions by up to 90%. It also offers a variety of methods for implementing successful diesel retrofit programs. With your leadership, these tools can reduce air pollution from diesel engines and protect public health in our community. Thank you.

Sincerely,
[Your name]
[Your address]

Notes

- ¹ Environmental Defense is a national non-profit environmental organization, headquartered in New York City, with 400,000 members around the country and over 50,000 members and activists in New York. The Living Cities program at Environmental Defense is focused specifically on actions that will help to improve water and air quality, clean up contaminated lands, support sound transportation investments and will reduce greenhouse gases (GHGs). Environmental Defense is not affiliated with any manufacturer or supplier identified in this handbook, and Environmental Defense does not endorse any particular supplier, retrofit or fuel technology manufacturer. This handbook provides only a general overview of commercialized nonroad retrofit technology and cleaner fuel technology options. We provide information about specific companies or suppliers for informational purposes only, but inclusion in, or omission from, this handbook should not be interpreted as a judgment about a particular technology or company. Questions about specific products, applications, emerging technologies, or next steps should be taken up directly with appropriate private sector companies or consultants.
- ² EPA, "Clean Air Nonroad Diesel Rule Summary." June 8, 2004. Office of Transportation and Air Quality. Online resource, available at: <http://www.epa.gov/otaq/regs/nonroad/equip-hd/2004fr/420f04029.htm> Last accessed 03/01/05.
- ³ EPA, "Press Release: New Clean Diesel Rule Major Step in a Decade of Progress." May 11, 2004. Online resource, available at: <http://yosemite.epa.gov/opa/admpress.nsf/b1ab9f485b098972852562e7004dc686/f20d2478833ea3bd85256e91004d8f90?OpenDocument> Last accessed 03/01/05.
- ⁴ *Ibid.*
- ⁵ EPA, "8-Hour Ground-level Ozone Designations." 08/13/04. Online resource, available at: www.epa.gov/ozonededesignations Last accessed 03/01/05.
- ⁶ EPA, "Fine Particle (PM 2.5) Designations." Online resource, available at: <http://www.epa.gov/pmdesignations/regions/region2design.htm> Last accessed 03/01/05.
- ⁷ Calculated from 1999 EPA National Scale Assessment of Air Toxics data. Environmental Defense, "Scorecard, 2002." Online resource, available at: <http://www.scorecard.org/> Last accessed 03/01/05.
- ⁸ *Ibid.*
- ⁹ *Ibid.*
- ¹⁰ EPA, "National Emission Inventory (NEI): Air Pollutant Emission Trends." Online resource, available at: <http://www.epa.gov/ttn/chief/trends/index.html> Last accessed 03/01/05.
- ¹¹ California Office of Environmental Health Hazard Assessment, Air Toxicology and Epidemiology Section, "Proposed Identification of Diesel Exhaust as a Toxic Air Contaminant," *Health Risk Assessment for Diesel Exhaust* app. III, part B, as approved by the Scientific Review Panel, April 22, 1998. Online resource, available at: <ftp://ftp.arb.ca.gov/carbis/regact/diesltac/partb.pdf> Last accessed 03/01/05.
- ¹² Air Pollution and Birth Weight Among Term Infants in California, *PEDIATRICS* Vol. 115 No. 1, January 2005, pp. 121–128. Online resource, available at: http://pediatrics.aappublications.org/cgi/content/abstract/115/1/121?maxtoshow=&HITS=10&hits=10&RESULTFORMAT=&author1=Woodruff&fulltext=Birth+weight&andorexactfulltext=and&searchid=1105556093372_12826&stored_search=&FIRSTINDEX=0&sortspec=relevance&resourceType=1&journalcode=pediatrics Last accessed 03/01/05.
- ¹³ Krewski, D., Burnett, R.R., Goldberg, M.S., Hoover, K., Siemiatycki, J., Jerrett, M., Abrahamowicz, M., White, W.H., and Others. Reanalysis of the Harvard Six Cities Study and the American Cancer Society Study of Particulate Air Pollution and Mortality. Health Effects Institute, July, 2000.
- ¹⁴ R. Wilson and J. Spengler, eds., "Particles in Our Air: Concentrations and Health Effects," (1999): 212.
- ¹⁵ U.S. Department of Health and Human Services, National Institutes of Health, National Heart, Lung and Blood Institute; Data Fact Sheet: Asthma Statistics; January 1999. See also http://www.environmentaldefense.org/documents/2655_MotorAirPollutionAsthma.pdf

- ¹⁶ NY State Department of Health and Mental Hygiene, "Asthma Facts." Second Edition, May 2003. Page 7. Online resource, available at: <http://nyc.gov/html/doh/pdf/asthma/facts.pdf> Last accessed 03/01/05.
- ¹⁷ Manufacturers of Emissions Controls Association, "Frequently Asked Questions About the Installation of Emission Controls on Existing Diesel Engines." Online resource, available at: <http://www.meca.org/jahia/engineName/filemanager/pid/224/retrofitFAQ%20%28revised%29.pdf?actionreq=actionFileDownload&fileItem=712> Last accessed 03/01/2005.
- ¹⁸ Based on email correspondence with Roger Suter of Detroit Diesel, Inc. on August 4, 2004.
- ¹⁹ EPA Tier 0 standards refer to unregulated diesel engines. Tier 1 standards refer to the nonroad diesel engine emissions control regulations adopted by EPA in 1994. The regulations came into effect for new nonroad diesel engines greater than 37 kilowatts (50 horsepower) between 1996 and 2000. Tier 2 standards refer to stricter regulations that were phased in between 1999 and 2000. Tier 3 standards applied to engines between 37 kilowatts and 560 kilowatts (50 and 750 hp), and will be phased in between 2006 and 2008. Source: EPA, "Reducing Air Pollution From Nonroad Engines." April 2003. Online resource, Last accessed 09/11/05. Available at: <http://www.epa.gov/otaq/cleaner-nonroad/f03011.pdf>
- ²⁰ (Using California's Carl Moyer Program assumptions for an unregulated engine's replacement with a Tier One engine, NO_x emissions would go from 11 grams per brake horsepower-hour (g/bph-hr) to 6.6 g/bph-hr and PM emissions would go from 0.53 g/bph-hr to 0.1 g/bph-hr. For a Tier Two replacement, NMHC + NO_x emissions would decrease to 4.2 g/bph-hr and PM would decrease to 0.1 g/bph-hr.) Based on email correspondence with Stephen Hurd of Caterpillar Inc. on August 30, 2004.
- ²¹ This definition is narrower than the one found in the EPA's "Retrofit Glossary." The EPA glossary is an online resource, available at: <http://www.epa.gov/otaq/retrofit/glossary.htm> Last accessed 03/01/2005.
- ²² EPA, "Voluntary Diesel Retrofit Program: Glossary" Office of Transportation and Air Quality. Online resource, available at <http://www.epa.gov/otaq/retrofit/glossary.htm> Last accessed 03/01/2005.
- ²³ Information provided by Alex Kasprk from the Boston Big Dig project and various retrofit manufacturers. The operator of the construction equipment to be retrofitted can typically install the replacement muffler containing the DOC.
- ²⁴ Information provided by Johnson Matthey.
- ²⁵ California Air Resource Board, *Diesel PM Control Technologies, Appendix IX*, October 2000.
- ²⁶ Reed Business Information. "Mid-Sized Loaders Pack Plenty of Power." August 24, 2004. *Construction Equipment*. Online resource, available at: <http://www.constructionequipment.com/buyingfile/ce03ga002.asp> Last accessed 03/01/2005.
- ²⁷ British Petroleum, "Low Sulphur Diesel—Frequently Asked Questions." 2003. Online resource, available at: http://www.bp.com.au/products/fuels/low_sulphur/faq.asp?menuid=ec Last accessed 03/01/2005.
- ²⁸ EPA, "Press Release: New Clean Diesel Rule Major Step in a Decade of Progress." May 11, 2004. Online resource, available at: <http://yosemite.epa.gov/opa/admpress.nsf/b1ab9f485b098972852562e7004dc686/f20d2478833ea3bd85256e91004d8f90?OpenDocument> Last accessed 03/01/2005.
- ²⁹ EPA, "Proposed Rules." *Federal Register*. Volume 68, Number 100. May 23, 2003. Online resource, available at: <http://www.epa.gov/fedrgstr/EPA-AIR/2003/May/Day-23/a9737c.pdf> Last accessed 03/01/2005.
- ³⁰ Joe Kubsch. "Retrofit Emission Control Technologies for Diesel Engine." MECA, November 4, 2003. Online resource, available at: <http://www.4cleanair.org/JoeKubsh.pdf> Last accessed 03/01/2005.
- ³¹ EPA, "Idling." July 21, 2004. Online resource, available at: <http://www.epa.gov/region1/eco/diesel/idling.html> Last accessed 03/01/2005.
- ³² *Ibid.*
- ³³ For more information on EPA regulations, please see <http://www.epa.gov/otaq/url1-fr/fr29jn04.pdf> Last accessed 03/01/2005.
- ³⁴ For more information on the WTC 7 retrofits, please contact: NESCAUM at 617.259.2000.
- ³⁵ Environmental Solutions Worldwide, Inc., "Environmental Solutions Worldwide, Inc."

- Puts Diesel Emission Controls to Work at World Trade Center Construction Site.” June 1, 2004. Online resource, available at: <http://www.cleanerfuture.com/june0104.htm> Last accessed 03/23/05.
- ³⁶ All information in this section is from a report conducted by M.J. Bradley and Associates, Inc. for the Port Authority of NY/NJ on August 9, 2004. This report is available online at: http://www.mjbradley.com/documents/PANYNJ_WTC_Final_Report-09Aug04.pdf
- ³⁷ N.Y. ALS Chapter 259, Assembly Bill 11700. 2004.
- ³⁸ New York State Governor’s Office. “Press Release: Governor Signs Bill Creating the Coordinated Construction Act for Lower Manhattan.” August 10, 2004. Online resource, available at: http://www.state.ny.us/governor/press/year04/aug10_1_04.htm Last accessed 03/02/05.
- ³⁹ N.Y. ALS Chapter 259, Assembly Bill 11700. 2004.
- ⁴⁰ Investigation of Diesel Emissions Control Technologies on Off-Road Construction Equipment at the World Trade Center and PATH Re-Development Site” Report prepared for the Port Authority of NY/NJ on August 9, 2004. Pages 39–40. This report is available online at: http://www.mjbradley.com/documents/PANYNJ_WTC_Final_Report-09Aug04.pdf.
- ⁴¹ New York City Council, “Local Laws of the City of New York for the Year 2003: No. 77. §2(d)(1).” December 22, 2003. Available online, at: http://www.nycouncil.info/pdf_files/bills/law03077.pdf Last accessed 03/02/05.
- ⁴² *Ibid.*
- ⁴³ New York City’s rules Concerning the Use of ULSD and Emissions Control Technology in Nonroad Vehicles Used in City Construction are available online at www.nyc.gov/html/dep/pdf/batrul.pdf
- ⁴⁴ Fulton Street Transit Center Draft Environmental Impact Statement, and Section 4(f) Evaluation, Chapter 12, page 31 (2004).
- ⁴⁵ For more information, please contact: Alex Kasprak via email at akasprak@bigdig.com or via phone at 617-556-2462.
- ⁴⁶ Massachusetts Turnpike Authority, “Big Dig: Project Schedule and Timeline.” Online resource, available at: <http://www.masspike.com/bigdig/updates/timeline.html> Last accessed 03/04/05.
- ⁴⁷ Such small, movable cranes that move on tracks for underground tunnel construction included “nichi lifts” and “mantis cranes.” Although stationary cranes can be retrofitted with DOCs, it was decided that those cranes not be retrofitted for the Big Dig project. At the time when the decision to retrofit construction equipment with DOCs was made, it was not clear whether a DOC might affect the stationary crane’s heavy lift. Phone conversation with Alex Kasprak, September 8, 2004.
- ⁴⁸ EPA, “The Big Dig—Program Launch.” Online resource, available at: http://www.epa.gov/otaq/retrofit/documents/bigdig_case_01.htm Last accessed 03/02/05.
- ⁴⁹ Alex Kasprak, Environmental Engineer, Massachusetts Turnpike Authority—CA/T Project.
- ⁵⁰ Massachusetts Turnpike Authority, “Big Dig: Controlling Diesel Air Pollution.” Online resource, available at: <http://www.masspike.com/bigdig/background/airpollution.html> Last accessed 03/04/05.
- ⁵¹ Alex Kasprak, Guido Schattaneck, Ping K. Wan, Emission Reduction Retrofit Program For Construction Equipment Of The Central Artery/Tunnel Project, Paper No. 206, p. 7.
- ⁵² For example, visit the EPA Region 8 web site at: http://www.epa.gov/Region2/air/8_2000.pdf and the EPA Office of Transportation and Air Quality web site at: <http://www.epa.gov/otaq/retrofit/exbigdig.htm>
- ⁵³ For more information, please contact: Donna Weaver via email at Donna.Weaver@po.state.ct.us or by phone at 860-594-2082.
- ⁵⁴ Connecticut Department of Transportation (DOT). “Connecticut Clean Air Construction Initiative.” Online resource, available at: http://www.i95newhaven.com/pooverview/enviro_init.asp For more information please go to another DOT web site at: http://www.i95newhaven.com/pooverview/awma_2002_nhhc.pdf and to the Weaver Presentation on the Clean Fleet USA program’s web site at: http://www.cleanfleetsusa.net/highlights/present/weaver_present.pdf Contact person: Donna Weaver, Connecticut Department of Transportation; Phone: 860.594.2082.
- ⁵⁵ For more information on the Port of Houston Authority’s use of cleaner diesel fuels and/or technology, please contact:

- Shari Baldridge by phone at 713-670-2428 or via email at sbaldridge@poha.com.
- ⁵⁶ EPA, "Region 6: State Designations." Online resource, available at: <http://www.epa.gov/ozonedesignations/regions/region6design.htm> Last accessed 09/11/05.
- ⁵⁷ *Ibid*, Page 20.
- ⁵⁸ *Ibid*, Page 23.
- ⁵⁹ *Ibid*, Page 24.
- ⁶⁰ *Ibid*, Page 23.
- ⁶¹ *Ibid*, Page 24.
- ⁶² *Ibid*.
- ⁶³ *Ibid*, Page 25.
- ⁶⁴ Environmental Protection Agency. "Port of Houston Pilot Retrofit Program." Online resource, available at: <http://www.epa.gov/otaq/retrofit/exporthouston.htm> Last accessed 03/02/05.
- ⁶⁵ More information on the Puget Sound Clean Air Agency, with contact information, is available at: <http://www.pscleanair.org>
- ⁶⁶ Based on a conversation with Paul Carr, of the Puget Sound Clean Air Agency on February 28, 2005.
- ⁶⁷ For a directory of TERP contact information, please visit: http://www.tnrcc.state.tx.us/oprd/sips/contact_info.html
- ⁶⁸ Texas Natural Resource Conservation Commission (TNRCC), "What is the TERP?" March 15, 2004. Online resource, available at: http://www.tnrcc.state.tx.us/oprd/sips/overview.html#what_is Last accessed 03/02/05.
- ⁶⁹ TNRCC. "Incentive Grants for Reducing Emissions." August 17, 2004. Online resource, available at: <http://www.tnrcc.state.tx.us/oprd/sips/grants.html> Last accessed 03/02/05.
- ⁷⁰ EPA, "Voluntary Diesel Retrofit Program: Implementation Progress Update." December 3, 2003. Page 6. Online resource, available at http://www.epa.gov/air/caaac/mstrs/blubaugh_1203.pdf Last accessed 03/02/05.
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Emission Impact: Additional Generator Usage Associated with Power Outage

January 30, 2020

This report has been reviewed by the staff of the California Air Resources Board. The contents do not necessarily reflect the views and policies of the California Air Resources Board, nor does mention of trade names or commercial products constitute endorsement or recommendation for use.

Summary

For public safety, it may be necessary for utilities to turn off electricity when gusty winds and dry conditions, combined with a heightened fire risk, are forecasted. This is called a “Public Safety Power Shutoff” or “PSPS”. According to CPUC de-energization report¹, in October 2019, there have been almost 806 PSPS events that have impacted almost 973,000 customers (~7.5% of households in California) of which ~854,000 of them were residential customers, and the rest were commercial/industrial/medical baseline/other customers. Data also indicates that on average each of these customers had about 43 hours of power outage in October 2019.

Following the PSPS events, many households and businesses in California started operating their back-up generators to provide power for their day-to-day operations. Generators used during power outage will increase emissions as compared to an average day. Staff assessment indicated that with 973,000 customers impacted by PSPS events in October 2019, approximately 125,000 back-up generators were used by customers to provide electricity during power outage. Assuming 50 hours of operation per generator during month of October 2019, staff estimated excess emissions from the use of generators which are summarized in Table 1.

Table 1: Population and excess emissions from the use of electricity power generators during October 2019 PSPS events.

Generator Type		NOx (tons)	PM (tons)	Diesel PM (tons)	Additional Generators Running in PSPS
Portable	Gasoline Less than 25 hp	24.3	10.6		122,000
	Diesel above 25 hp <i>Non-Rental Generator</i>	7.3	0.30	0.30	381
	Diesel above 25 hp <i>Rental Generator</i>	9.1	0.30	0.30	582
Permitted Stationary Back-Up Generators (Assuming 30% Load Factor)		125.7	8.3	8.3	1,810
Non-permitted generators ²		N/A	N/A	N/A	N/A
Total		166.4	19.4	8.9	124,774

¹ <https://www.cpuc.ca.gov/deenergization/>

² This analysis does not include emissions estimates from non-permitted generators such as the residential standby natural gas powered generators with power rating of less than 50 hp (e.g, a 22 kW Guardian Series home standby generator by Generac). At this point there is no information available on their population and sales. According to discussion with industry, it is assumed that most of these generator are powered by natural gas.

To put these numbers into context, 9 tons of diesel PM is equivalent to emissions from almost 29,000 heavy duty diesel trucks (above 14,000 lbs.) driving on California roadways for the period of one month (on average each truck drives around 3,000 miles per month).

The calculations described in the rest of the document outlines the assumptions used to estimate potential emissions impact from the use of gasoline and diesel generators during PSPS events.

Small Gasoline Powered Generators (less than 25 hp)

Population

Based on 2018 California State University Fullerton (CSUF) Survey³ for small off-road (SORE) equipment, about one out of 8 households own a generator in California. For a population of 973,000 households, about 122,000 generators will likely to be used to provide additional power during the power shut-off period.

Emission Factors

According to data provided by manufacturers as part of the SORE Evaporative Reporting Requirement⁴, generators have an average horsepower of 3.5 hp of which when combined with a load factor of 0.68, derived from OFFROAD2007⁵, results in an effective power of 2.4 hp. To determine emission factors, we used emissions data from SORE exhaust certification database. Table 2 shows the derived emission factors along with weighted average emission factors across all horsepower bins.

Table 2: Exhaust emission factors (g/bhp-hr) for gasoline powered generator less than 25 hp

Equipment	Tech Type	Horsepower	Percent Population	HC (g/bhp-hr)	NOX (g/bhp-hr)	PM (g/bhp-hr)
Generator Sets	G2-CARB	0 – 2	5%	27.860	0.900	0.600
	G4-CARB	2 – 5	82%	5.634	1.484	0.740
		5 – 15	9%	2.885	1.975	0.140
		15 – 25	3%	3.390	1.422	0.140
	G4-FI	15 – 25	1%	1.074	2.125	0.140
	Population Weighted Average			6.296	1.505	0.655

Using the effective power and emission factors described earlier, staff estimated excess emissions as well emissions during 50 hours of generators operation (5 days with 10 hours a day operation). For example, with 122,000 generators operating for 50 hours during power shutoff, staff estimated excess emissions of 24.3 tons of NOx, 101.5 tons of THC, and 10.6 tons of PM. The calculation below outlines the assumptions used for this emissions impact assessment. Obviously, a more refined estimate can be made with additional information.

³ Survey of Small Off-Road Engines (SORE) Operating within California: Results from Surveys with Four Statewide Populations, Submitted May 15, 2019, Prepared by the Social Science Research Center (SSRC) at CSU, Fullerton.

⁴ https://ww3.arb.ca.gov/msprog/mailouts/ecars1805/ecars1805.pdf?_ga=2.15158582.1846785299.1570743950-1632999103.1458687259

⁵ <https://ww2.arb.ca.gov/our-work/programs/mobile-source-emissions-inventory/msei-road-archives>

Portable Diesel Generators (above 25 hp)

Portable diesel generators are generally much larger and supply more power than gasoline generators, and could be used during PSPS events to supply power to larger facilities (such as schools, industrial facilities, or buildings). Table 3 provides CARB's latest population, activity, and emissions associated diesel portable generators registered under CARB's PERP program⁶.

Table 3: Emissions and Population of Diesel portable generators registered under CARB's PERP program

	Population (statewide)	Annual Activity (hours)	NOx (tons/yr)	PM (tons/yr)	PM25 (tons/yr)
Portable Equipment - Non-Rental Generator	5,081	1,299	2,537	99	91
Portable Equipment - Rental Generator	7,764	1,392	3,363	123	113

For assessing the emissions impact associated with this event, this analysis will assume that the percent of businesses that use generators and backup generators that are impacted by the PSPS is roughly proportional to the percent of households impacted (about 973,000 households out of 13,000,000 in California, or about 7.5 percent of the population of generators in the state). Table 4 shows the excess emissions from the use of portable diesel power generators during PSPS events assuming 50 hours of operations.

Table 4: Population and excess emissions from the use of portable diesel powered generators during October 2019 PSPS events

	Additional Generators Running in PSPS	NOx (tons)	PM (tons)	PM2.5 (tons)
Portable Equipment - Non-Rental Generator	381	7.3	0.30	0.30
Portable Equipment - Rental Generator	582	9.1	0.30	0.30
Total	964	16.45	0.61	0.61

Permitted Stationary Back-Up Generators (BUG)

Population

Data on permitted stationary back-up generators were provided to CARB by several air districts. Staff used the facility ID from the districts permit data to find the address of the facility that the stationary BUGs are operating and determined whether those BUGs were impacted by the PSPS events or not. Using this process, staff determined that almost 1,810 stationary BUGs across California were impacted by the October 2019 PSPS events.

Emission Factors

Additionally, using actual emission factors for each diesel BUG engines provided in the districts' stationary BUGs database (i.e., stationary BUGs permit database), staff assumed a work based emission factors of 0.44 g/bhp-hr for PM and 6.7 g/bhp-hr for NOx, based on averaging of a

⁶ <https://ww2.arb.ca.gov/our-work/programs/portable-equipment-registration-program-perp>

sample of permitted diesel powered backup generators in the state. The analysis also indicated that an average permitted back-up generator has a power rating of ~ 627 hp and they can go up as high as 4,400 hp which when combined with a load factor assumption of 30% resulted in an effective power of 188 hp. Table 5 provides a summary of excess emissions associated with the stationary BUGs impacted by the PSPS events.

Table 5: Population and excess emissions from the use of diesel powered stationary back-up generators (BUG) during October 2019 PSPS events

	Additional Generators Running in PSPS	NOx (tons)	PM (tons)	Diesel PM (tons)
Permitted Stationary Back-Up Generators	1,810	126	8.3	8.3



Overview: Diesel Exhaust & Health

CATEGORIES

Topics Health, Air Pollution, Transportation Electrification, Construction & Earthmoving Equipment, Environmental Justice, Oceangoing Vessels & Harbor Craft, Freight & Goods Movement, Trains & Railyards, Transit, VW Diesel Vehicles

Programs Exposure, Community Air Protection Program, Community Health, Zero-Emission Powertrain Certification, Alternative Diesel Fuels, In-Use Off-Road Diesel-Fueled Fleets Regulation, Study of Neighborhood Air near Petroleum Sources, School Buses

Type Information

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Background





Diesel engines emit a complex mixture of air pollutants, including both gaseous and solid

material. The solid material in diesel exhaust is known as diesel particulate matter (DPM). More than 90% of DPM is less than 1 μm in diameter (about 1/70th the diameter of a human hair), and thus is a subset of particulate matter less than 2.5 microns in diameter (PM_{2.5}). Most PM_{2.5} derives from combustion, such as use of gasoline and diesel fuels by motor vehicles, burning of natural gas to generate electricity, and wood burning. PM_{2.5} is the size of ambient particulate matter air pollution most associated with adverse health effects of the air pollutants that have ambient air quality standards. These health effects include cardiovascular and respiratory hospitalizations, and premature death. As a California statewide average, DPM comprises about 8% of PM_{2.5} in outdoor air, although DPM levels vary regionally due to the non-uniform distribution of sources throughout the state.



DPM is typically composed of carbon particles (“soot”, also called black carbon, or BC) and numerous organic compounds, including over 40 known cancer-causing organic substances. Examples of these chemicals include polycyclic aromatic hydrocarbons, benzene, formaldehyde, acetaldehyde, acrolein, and 1,3-butadiene. Diesel exhaust also contains gaseous pollutants, including volatile organic compounds and oxides of nitrogen (NO_x). NO_x emissions from diesel engines are important because they can undergo chemical reactions in the atmosphere leading to formation of PM_{2.5} and ozone.

Most major sources of diesel emissions, such as ships, trains, and trucks operate in and around ports, rail yards, and heavily traveled roadways. These areas are often located near highly populated areas. Because of this, elevated DPM levels are mainly an urban problem, with large numbers of people exposed to higher DPM concentrations, resulting in greater health consequences compared to rural areas. A large fraction of personal exposure to DPM occurs during travel on roadways. Although Californians spend a relatively small proportion of their time in enclosed vehicles (about 7% for adults and teenagers, and 4% for children under 12), 30 to 55% of total daily DPM exposure typically occurs during the time people spend in motor vehicles.

Diesel Particulate Matter and Health

The majority of DPM is small enough to be inhaled into the lungs. Most inhaled particles are subsequently exhaled, but some deposit on the lung surface. Although particles the size of DPM can deposit throughout the lung, the largest fraction deposits in the deepest regions of the lungs where the lung is most susceptible to injury.



In 1998, CARB identified DPM as a toxic air contaminant based on published evidence relationship between diesel exhaust exposure and lung cancer and other adverse health effects. In 2012, additional studies on the cancer-causing potential of diesel exhaust published since CARB’s determination led the International Agency for Research on Cancer (IARC, a division of the World Health Organization) to list diesel engine exhaust as “carcinogenic to humans”. This determination is based primarily on evidence from occupational studies that show a link between exposure to DPM and lung cancer induction, as well as death from lung cancer. Download the IARC report (external site).

Because it is part of PM2.5, DPM also contributes to the same non-cancer health effects as PM2.5 exposure. These effects include premature death, hospitalizations and emergency department visits for exacerbated chronic heart and lung disease, including asthma, increased respiratory symptoms, and decreased lung function in children. Several studies suggest that exposure to DPM may also facilitate development of new allergies. Those most vulnerable to non-cancer health effects are children whose lungs are still developing and the elderly who often have chronic health problems.

Estimated Health Effects of DPM in California

DPM has a significant impact on California’s population. It is estimated that about 70% of total known cancer risk related to air toxics in California is attributable to DPM. Based on 2012 estimates of statewide exposure, DPM is estimated to increase statewide cancer risk by 520 cancers per million residents exposed over a lifetime. Non-cancer health effects associated with exposure to DPM (based on 2014 - 2016 air quality data) are shown in the table below.

Health Effect	Estimated Annual Number of Cases*
Cardiopulmonary Death	730 (570 – 890)
Hospitalizations (Cardiovascular and Respiratory)	160 (20 – 290)
Emergency Room Visits for Asthma	370 (240 – 510)

*Values in parenthesis indicate 95% confidence interval.

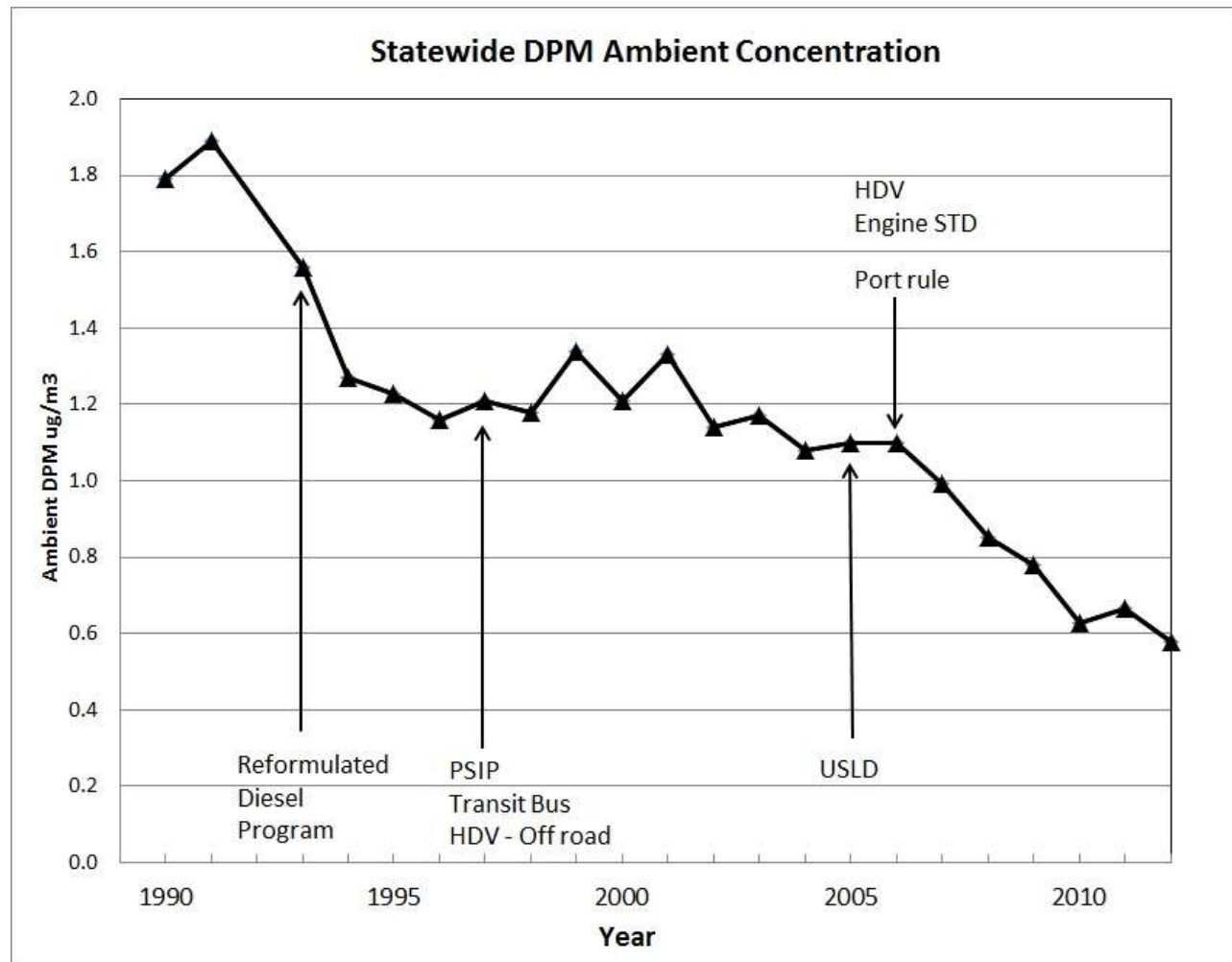
More Information

Trends in Outdoor Levels of DPM



The figure below shows the trend in ambient DPM. CARB regulations** of diesel engines and fuels have had a dramatic effect on DPM concentrations. Since 1990, DPM levels have decreased by 68%. The figure also shows which regulations have had the greatest impact on DPM.

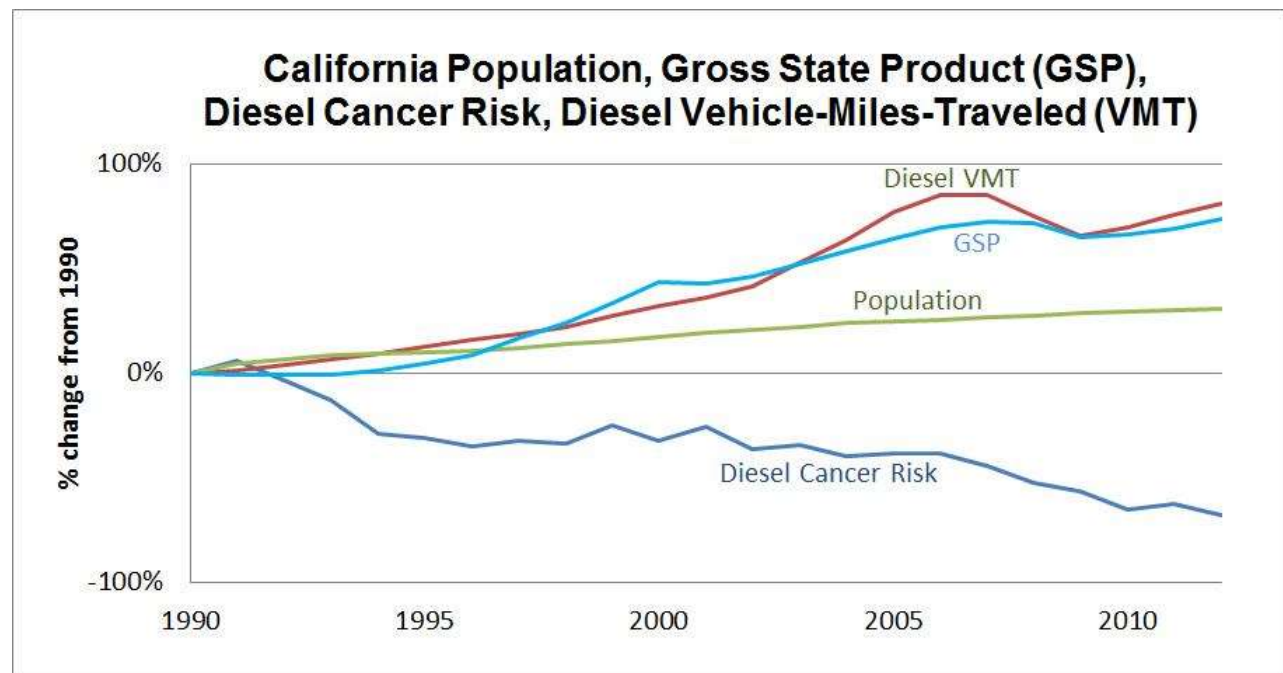
DPM levels are expected to continue declining as additional controls are adopted, and the number of new technology diesel vehicles increases.



**Abbreviations of CARB regulations used in table: HDV Engine STD = Heavy-duty diesel truck engine standard; HDV - Off road = Heavy-duty off-road diesel engines; Port rule = Port (drayage) trucks; PSIP = Periodic self-inspection program; Transit bus = Urban transit buses; ULSD = Clean diesel fuel



The figure below shows that despite the increased number of vehicle miles traveled by diesel vehicles (VMT, red line), and despite increases in statewide population (green line) and gross state product (GSP, a measure of growth in the state's economy, light blue line), CARB's regulatory programs still led to a decline in statewide cancer risk (dark blue line).



Additional Information

- CARB's diesel programs
- CARB's diesel mobile vehicles and equipment activities
- CARB's freight transport, ports and rail programs
- California's diesel fuel program
- Other diesel-related programs
- Selected references on diesel-related health effects

Environmental Effects of Diesel Exhaust

In addition to its health effects, diesel exhaust significantly contributes to haze that reduces visibility by obscuring outdoor views and decreasing the distance over which one can distinguish features across the landscape. Researchers have reported that in the San

Joaquin Valley and in southern California, diesel engines contribute to a reduction in visibility. This decrease in visibility is caused by scattering and absorption of sunlight by particles and gases present in diesel emissions.



DPM also plays an important role in climate change. A large proportion of DPM is composed of BC. Recent studies cited in the Intergovernmental Panel on Climate Change report estimate that emissions of BC are the second largest contributor to global warming, after carbon dioxide emissions. Warming occurs when BC particles absorb sunlight, convert it into infrared (heat) radiation, and emit that radiation to the surrounding air. A recent California-specific study showed that the darkening of snow and ice by BC deposition is a major factor in the rapid disappearance of the Sierra Nevada snow packs. Melting of the snow pack of the Sierra Nevada earlier in the spring is one of the contributing factors to the serious decline in California's water supply. As additional DPM controls are adopted, and the number of new technology diesel vehicles increases, BC emissions will continue to decline.

Conclusions

Although progress has been made over the past decade in reducing exposure to diesel exhaust, diesel exhaust still poses substantial risks to public health and the environment. Efforts to reduce DPM exposure through use of cleaner-burning diesel fuel, retrofitting engines with particle-trapping filters, introduction of new, advanced technologies that reduce particle emissions, and use of alternative fuels are approaches that are being explored and implemented. CARB anticipates that newly adopted diesel exhaust control measures will reduce population exposure even further, and that as the sustainable freight program expands, population exposure to diesel exhaust pollution will decrease even further. It is estimated that emissions of DPM in 2035 will be less than half those in 2010, further reducing statewide cancer risk and non-cancer health effects.

RELATED RESOURCES



**Characterizing
Activity and Emissions
of In-Use Commercial
Harbor Craft**

**Sample CAP
Incentives Policies
and Procedures for Air
Districts**

**South Los Angeles AB
617 Boundaries**



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Working Group Meeting #1

Proposed Amended Rule 1110.2 – Emissions from Gaseous- and Liquid-Fueled Engines

Proposed Amended Rule 1470 – Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines

Proposed Amended Rule 1472 – Requirements For Facilities With Multiple Stationary Emergency Standby Diesel-Fueled Internal Combustion Engines

December 10, 2020, 1:00 p.m.

Join Zoom Meeting

<https://scaqmd.zoom.us/j/92386239548>

Zoom Webinar ID: 923 8623 9548

Teleconference Dial-In: +1 (669) 900-6833

If the Zoom link does not work, please cut and paste it into your browser

Agenda

Background

Rule Development Process

Current Requirements Emergency
Standby Engines

Public Safety Power Shutoff (PSPS)

Rule Comparisons and State Airborne Toxic
Control Measure (ATCM) Requirements

Next Steps

Today's Working Group Meeting

- First Working Group Meeting in a series of future meetings
- Objective is to provide background information about the rulemaking process and regulatory requirements
- Staff is not providing any recommendations today
- Encourage stakeholder comments

Background

- During the 2020 legislative session SB 1099 – Emergency backup generators: critical facilities: exemptions was introduced but was not passed
- Through the legislative process, staff worked with supporters to develop a possible regulatory pathway to address their concerns
- Concerns generally focused on the need for increased use of emergency standby engines at critical facilities due to wildfires and other natural disasters

Key Comments from Supporters of SB1099

- Comments were primarily from water districts and hospitals
- Two general comments:
 - Need for regulatory certainty and relief if an emergency standby engine exceeded allowable usage hours under certain circumstances
 - Need for additional testing and maintenance hours for older higher emitting emergency standby engines

Proposed Rulemaking

- The purpose of this rulemaking process is to work with stakeholders to identify regulatory pathways to address stakeholder comments identified through SB 1099
- Initial thoughts are that proposed rulemaking will focus on:
 - Use of emergency standby engines at essential public services and health facilities during certain events
 - Health facility as defined in Section 1250 of the California Health and Safety Code
- Through the rulemaking staff will discuss types of certain events, initial thoughts are Public Safety Power Shutoffs (PSPS) and possibly wildfires

Rule 1302 Essential Public Services Include:

- Sewage treatment facilities
- Prisons
- Police facilities
- Fire fighting facilities
- Schools
- Hospitals
- Construction and operation of landfill gas control or processing facility
- Water delivery operations
- Public transit

Rule Development Process



South Coast AQMD's rulemaking process is designed to be collaborative



Objective is to build consensus and to work through key issues



All stakeholders are encouraged to participate in the rulemaking process



Working Groups generally meet monthly

Overview of Rule Development Process



Key Milestone Dates in Rulemaking Process



- Preliminary schedule, subject to change
- California Environmental Quality Act (CEQA) compliance required
 - Significant environmental impacts require additional CEQA analysis which may extend rulemaking process
- Draft Rule and Draft Staff Report released 30 days before Public Hearing
 - Socioeconomic impact analysis
 - Substantial rule changes which impact emissions will require re-noticing of Public Hearing

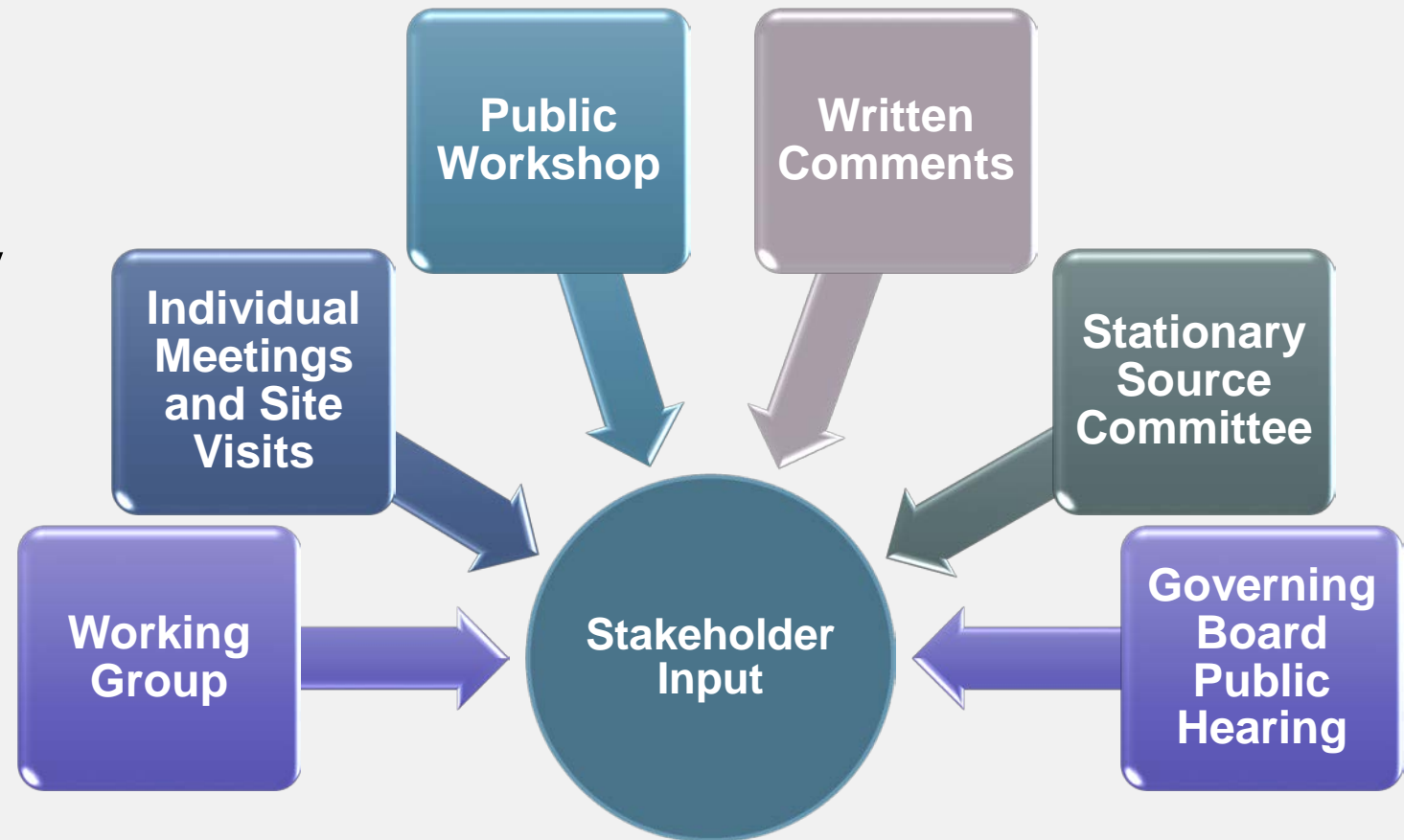
* Generally two months prior to the Public Hearing, staff will brief the Stationary Source Committee. Anticipated briefing

Working Group Meetings

- Working Group Meetings are a key component of the rule development process
- Comprised of representatives from industry, equipment suppliers, community and environmental groups, other agencies, and other interested parties
- Working Group Meetings are generally held monthly and throughout the rule development process
- Objectives of Working Group Meetings:
 - Build consensus and work through issues
 - Exchange information and understanding of key issues
 - Collaboration and create a dialogue with stakeholders

Stakeholder Input

- Stakeholders can provide input throughout the rulemaking process
- Early input is strongly encouraged
 - Provides staff the opportunity to try to resolve issues
- Variety of ways for stakeholders to provide input



Current Requirements for Emergency Standby Engines

- Three main rules that establish existing requirements for emergency standby engines:
 - Rule 1110.2 - Emissions from Gaseous- and Liquid-Fueled Engines
 - Rule 1470 – Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines
 - Rule 1472 - Requirements For Facilities With Multiple Stationary Emergency Standby Diesel-fueled Internal Combustion Engines

RULE 1472. REQUIREMENTS FOR STATIONARY DIESEL-FUELED INTERNAL COMBUSTION ENGINES

- (a) Purpose
The purpose of this rule is to establish requirements for emergency standby diesel-fueled internal combustion engines.
- (b) Applicability
This rule shall apply to all stationary diesel-fueled internal combustion engines with a rated horsepower of 50 or greater, except as otherwise provided.
- (c) Definitions
For the purpose of this rule, the following definitions shall apply:
- (1) COMPRESSION IGNITION ENGINE means an internal combustion engine in which the fuel is ignited by heat generated by compression of the air.
 - (2) DIESEL FUEL means any liquid fuel, including but not limited to diesel oil, diesel fuel, and diesel fuel blends.
 - (3) DIESEL PARTICULATE FILTER means a device that is designed to remove diesel particulate matter from the exhaust of a diesel engine.

RULE 1470. REQUIREMENTS FOR STATIONARY DIESEL-FUELED INTERNAL COMBUSTION AND OTHER COMPRESSION IGNITION ENGINES

- (a) Applicability
This rule shall apply to all stationary diesel-fueled internal combustion engines with a rated horsepower of 50 or greater, except as otherwise provided.
- (b) Definitions
For the purpose of this rule, the following definitions shall apply:
- (1) AGRICULTURAL OPERATING ENGINE means a diesel-fueled internal combustion engine used for the purpose of operating agricultural machinery or equipment.
 - (2) ALTERNATIVE DIESEL FUEL means any liquid fuel, including but not limited to diesel oil, diesel fuel, and diesel fuel blends.
 - (3) DIESEL PARTICULATE FILTER means a device that is designed to remove diesel particulate matter from the exhaust of a diesel engine.

(Adopted August 3, 1990)(Amended September 7, 1990)(Amended August 12, 1994)
(Amended December 9, 1994)(Amended November 14, 1997)(Amended June 3, 2005)
(Amended February 1, 2008)(Amended July 9, 2010)(Amended September 7, 2012)
(Amended December 4, 2015)(Amended June 3, 2016)(Amended November 1, 2019)

RULE 1110.2 EMISSIONS FROM GASEOUS- AND LIQUID-FUELED ENGINES

- (a) Purpose
The purpose of Rule 1110.2 is to reduce Oxides of Nitrogen (NO_x), Volatile Organic Compounds (VOCs), and Carbon Monoxide (CO) from engines.
- (b) Applicability
All stationary and portable engines over 50 rated brake horsepower (bhp) are subject to this rule.
- (c) Definitions
For the purpose of this rule, the following definitions shall apply:
- (1) AGRICULTURAL STATIONARY ENGINE is a non-portable engine used for the growing and harvesting of crops or the raising of fowl or animals for the primary purpose of making a profit, providing a livelihood, or conducting agricultural research or instruction by an educational institution. An engine used for the processing or distribution of crops or fowl or animals is not an agricultural engine.
 - (2) APPROVED EMISSION CONTROL PLAN is a control plan, submitted on or before December 31, 1992, and approved by the Executive Officer prior to November 14, 1997, that was required by subdivision (d) of this rule as amended September 7, 1990.
 - (3) BREAKDOWN is a physical or mechanical failure or malfunction of an engine, air pollution control equipment, or related operating equipment that is not the result of operator error, neglect, improper operation or improper maintenance procedures, which leads to excess emissions beyond rule related emission limits or equipment permit conditions.
 - (4) CERTIFIED SPARK-IGNITION ENGINE means engines certified by California Air Resources Board (CARB) to meet emission standards in accordance with Title 13, Chapter 9, Article 4.5 of the California Code of Regulations (CCR).
 - (5) COMPRESSOR GAS LEAN-BURN ENGINE is a stationary gaseous-fueled two-stroke or four-stroke lean-burn engine used to compress natural gas or pipeline quality natural gas for delivery through a pipeline or into storage.

Rule 1110.2 Requirements

(Adopted August 3, 1990)(Amended September 7, 1990)(Amended August 12, 1994)
(Amended December 9, 1994)(Amended November 14, 1997)(Amended June 3, 2005)
(Amended February 1, 2008)(Amended July 9, 2010)(Amended September 7, 2012)
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- (5) **COMPRESSOR GAS LEAN-BURN ENGINE** is a stationary gaseous-fueled two-stroke or four-stroke lean-burn engine used to compress natural gas or pipeline quality natural gas for delivery through a pipeline or into storage.

1110.2 - 1

- Establishes NO_x, VOC, and CO emission limits for stationary and portable engines > 50 bhp
- Requires emissions testing, monitoring, reporting, and recordkeeping
- Includes specific exemptions for emergency standby engines

NO_x

11 ppmv*

VOC

30 ppmv*

CO

250 ppmv*

* Parts per million by volume, corrected to 15% oxygen

➤ Rule 1110.2 Requirements for Emergency Standby Engines

- Includes specific exemptions for emergency standby engines
- Defines emergency standby engine as an engine which operates as a temporary replacement for primary mechanical or electrical power during periods of fuel or energy shortage or while the primary power supply is under repair

Exemption for Emergency Standby Engines

- Currently exempts emergency standby engines, engines used for fire-fighting and flood control, and any other emergency engine approved by the Executive Officer from meeting NO_x, VOC, and CO emission limits provided:
 - Engine has a permit condition that limits the operation to 200 hours or less per year as determined by an elapsed time meter
- Exempted emergency standby engines also exempted from monitoring, testing, recordkeeping, and reporting requirements
- Operating hours includes all operations:
 - Emergency use
 - Maintenance
 - Testing



Stakeholder Comments Related to Rule 1110.2

- Need for regulatory certainty and relief if an emergency standby engine exceeds 200 hours under certain circumstances
- Some stakeholders are concerned about increased usage of emergency standby engines due to PSPS events
- Under the current regulatory structure, if an operator exceeds the 200 hours they can petition the Hearing Board

Public Safety Power Shutoff

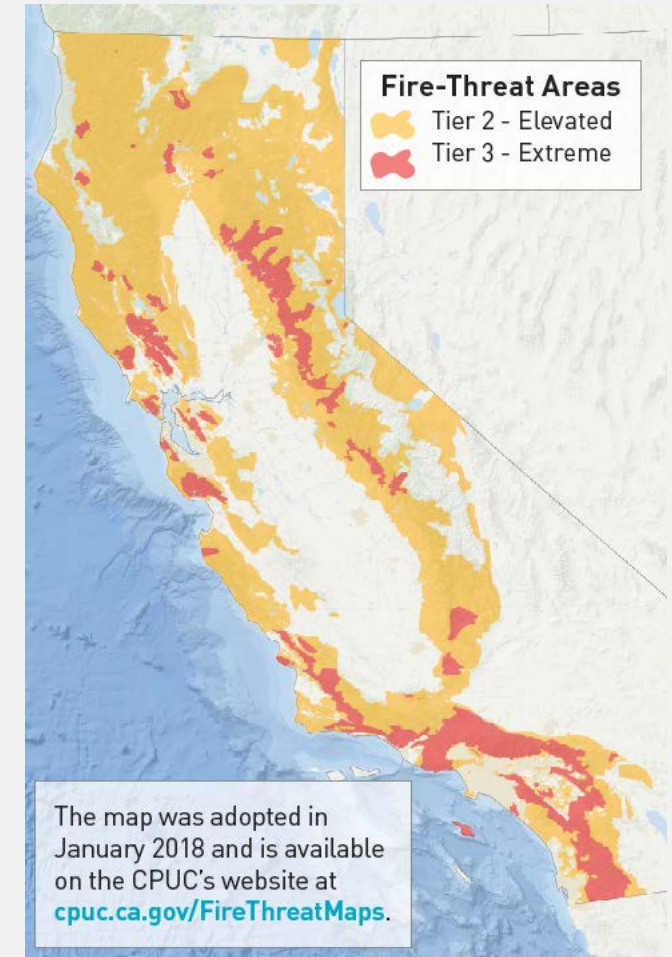
A PSPS occurs in response to severe weather where power is turned off to help prevent a wildfire and keep communities safe

- Over the past decade, California has experienced increased wildfires
 - Roughly half of the most destructive fires in California history are attributed to power lines
- In 2012, California Public Utilities Code Sections 451 and 399.2(a) provides electric utilities the authority to shut off electric power in order to protect public safety



Public Safety Power Shutoff Program

- Electricity providers continually monitor for extreme weather threats and high fire danger
- PSPS events are considered after taking a combination of criteria into account including:
 - “Extreme” fire danger threat level
 - Red flag warning
 - Sustained winds
 - Low humidity levels
 - Site-specific conditions
 - Critically dry vegetation
 - Real-time observations



General Process for PSPS Event

Planning and Monitoring	4-7 Days Ahead	When extreme weather is forecasted, begin planning for potential PSPS
	3 Days Ahead	Send initial notifications about possible PSPS event to local governments, first responders, hospitals, and other critical infrastructure and service providers
	2 Days Ahead	Send initial notifications to customers and update notifications to local government and agencies
	1 Day Ahead	Send update notifications
Outage	Day of Power Shutoff	When extreme fire weather is present and dangerous conditions validated by field resources; notify local government, agencies, and customers of power shutoff
	Power Restoration	Inspections begin when extreme weather subsides to safe levels and conditions validated by field resource. When power is restored, agencies and customers notified of power restoration

Duration of PSPS Events

- From January 2019 to December 2019, Southern California Edison reported 158 of their circuits underwent a PSPS event
 - Sum of PSPS durations per circuit ranging from less than hour to 154 hours
- Table below depicts circuits with PSPS durations totaling over 120 hours
- PSPS hours vary for specific locations within the circuit

Circuit Name	Location	Number of PSPS Events	Average Duration (Hours)	Total Duration (Hours)
Acosta	San Bernardino County	3	45	135
Calstate	San Bernardino County	4	30	120
Club Oaks	San Bernardino County	3	45	136
Energy	Los Angeles County	4	35	141
Shovel	Los Angeles County	4	38	154

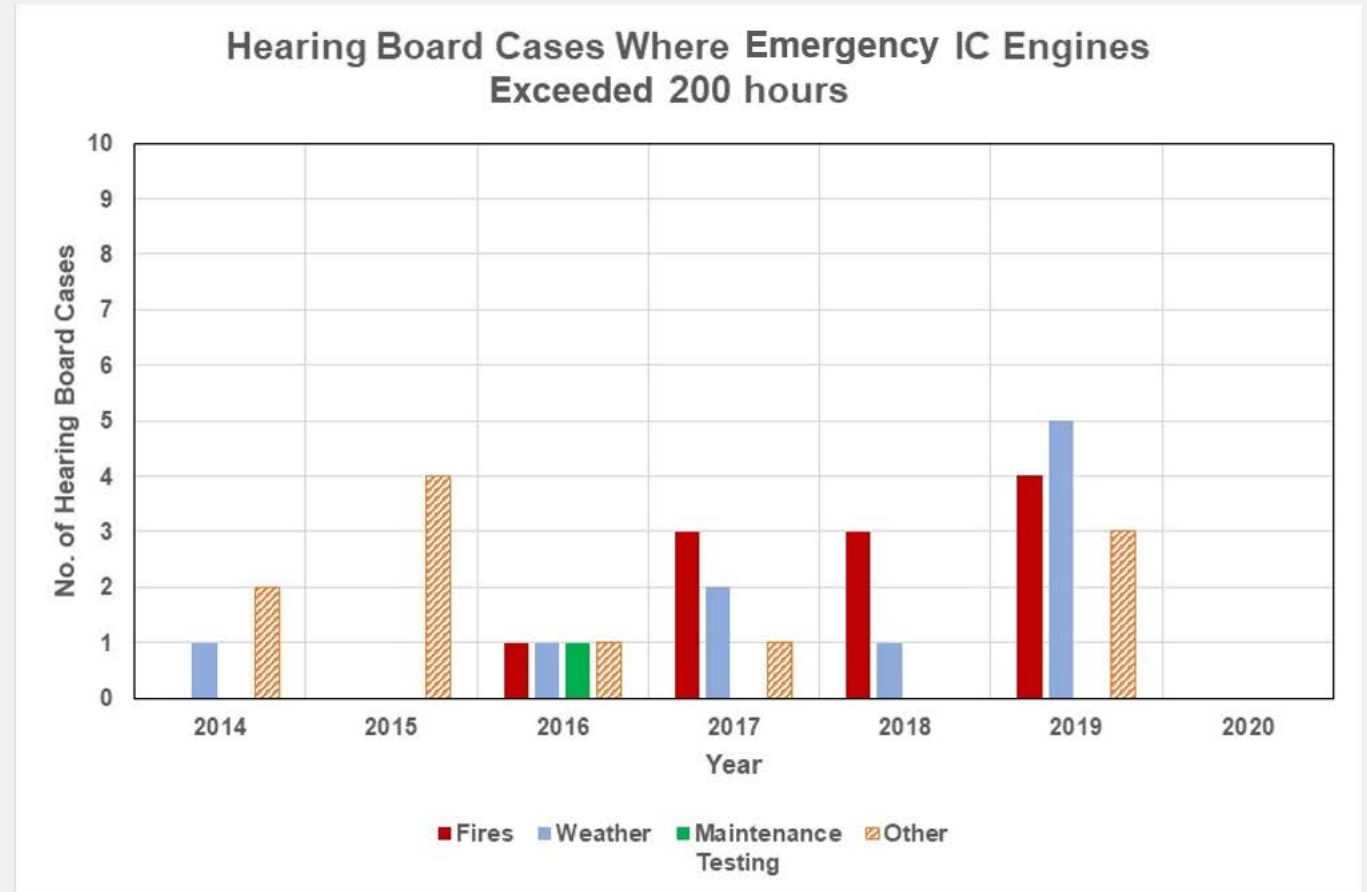
South Coast AQMD's Hearing Board

*Quasi-judicial board
authorized to provide
relief from South Coast
AQMD regulations under
certain circumstances*

- Authorized to hear:
 - Petitions for variances and Orders for Abatement
 - Appeals from granting of permits, permit conditions, permit denials and suspensions, denials of emission reduction credits and pollution control plans
 - Appeals by third parties
- Not authorized to:
 - Modify rules
 - Exempt businesses from compliance with a rule
 - Grant variances from violation of the public nuisance law
 - Review violation notices
- Listens to all sides of a case before weighing evidence to reach a decision

Hearing Board Activity

- Since January 2014, 33 cases for emergency standby engines were filed with the Hearing Board for exceeding 200 hours limit
 - 11 – fire related
 - 10 – weather related
 - 1 – maintenance/testing
 - 11 – other reasons
- Total emergency engine universe at ~13,700 permitted units



Rule 303 - Hearing Board Fees

- All applicants must pay a filing fee for each petition of \$1,300 to \$2,000, depending on type of variance
- When variance is granted, there is a minimum fee of \$204.66 after excess fee is remitted
- Establishes method to calculate excess emission fees
- Table I - Schedule of Excess Emission Fees
 - \$3,771.10 per ton oxides of nitrogen
 - \$4,397.67 per ton of particulate matter

Background for Rule 1470 and 1472

- Diesel particulate matter (PM) from internal combustion engines was designated as a carcinogen by CARB in 1998
- Rules 1470 and 1472 are designed to reduce diesel particulate from engines
 - Both rules are designed to implement and supplement the State ATCM for diesel engines
 - Both rules have specific requirements for emergency standby engines
- Emergency standby engines are currently exempt from health risk requirements under Rule 1401 – Toxics New Source Review

Rule 1470 Requirements

(Adopted April 2, 2004)(Amended March 4, 2005)
(Amended November 3, 2006)(Amended June 1, 2007)
(Amended May 4, 2012)

RULE 1470. REQUIREMENTS FOR STATIONARY DIESEL-FUELED INTERNAL COMBUSTION AND OTHER COMPRESSION IGNITION ENGINES

(a) Applicability

- (1) This rule shall apply to any person who either sells a stationary compression ignition (CI) engine, offers a stationary CI engine for sale, leases a stationary CI engine, or purchases a stationary CI engine for use in the South Coast Air Quality Management District, except as provided in subdivision (h).
- (2) This rule shall apply to any person who owns or operates a stationary CI engine in the South Coast Air Quality Management District with a rated brake horsepower greater than 50 (>50 bhp), except as provided in subdivision (h).


(b) Definitions

For the purpose of this rule, the following definitions shall apply:


- (1) AGRICULTURAL OPERATIONS means the growing and harvesting of crops or the raising of fowl or animals for the primary purpose of making a profit, providing a livelihood, or conducting agricultural research or instruction by an educational institution. Agricultural operations do not include activities involving the processing or distribution of crops or fowl.
- (2) ALTERNATIVE FUEL means natural gas, propane, ethanol, or methanol.
- (3) ALTERNATIVE DIESEL FUEL means any fuel used in a CI engine that is not commonly or commercially known, sold, or represented by the supplier as diesel fuel No. 1-D or No. 2-D, pursuant to the specifications in ASTM Standard Specification for Diesel Fuel Oils D975-11, "Standard Specification for Diesel Fuel Oils," as modified in March 2011, which is incorporated herein by reference, or an alternative fuel, and does not require engine or fuel system modifications for the engine to operate, although minor modifications (e.g., recalibration of the engine fuel control) may enhance performance. Examples of alternative diesel fuels include, but are not limited to, biodiesel and biodiesel blends that do not meet the definition of CARB diesel fuel; Fischer-Tropsch fuels; emulsions of water in diesel fuel; and fuels with a fuel additive, unless:
 - (A) the additive is supplied to the engine fuel by an on-board dosing mechanism; or

- Purpose of Rule 1470 is to reduce diesel PM emissions from new and in-use engines \geq 50 brake horsepower (bhp)
- Rule 1470 establishes requirements for prime and emergency standby engines

Requirements for Emergency Standby Engines



Fuel requirements



Emission Standards for New Engines



Operating Requirements and Emission Standards for In-Use Engines



Stakeholder comments were generally focused on in-use requirements

➤ Rule 1470 Operating Requirements and Emission Standards for In-Use Engines

- Established limits for non-emergency operating requirements for in-use engines within 500 feet of a school including maintenance and testing
- Engines located at an essential public service or health facility may install an engine exhaust back pressure relief device under certain conditions
- Establishes limits on maintenance and testing hours which vary based on the PM emission rate of the engine

Rule 1470 Maintenance and Testing Hours

- Annual maintenance and testing of engines cannot exceed:

Engines	Hours	PM Emission Rate (g/bhp-hr)
In-use	20*	> 0.4 g
	30	>0.15 and \leq 0.4
	50	>0.01 and \leq 0.15
	100	\leq 0.01
New	50	\leq 0.15

*10 additional hours of operation allowed at health facilities (defined by CHSC, Section 1250)

Rule 1472 Requirements

(Adopted March 7, 2008)

RULE 1472. REQUIREMENTS FOR FACILITIES WITH MULTIPLE STATIONARY EMERGENCY STANDBY DIESEL-FUELED INTERNAL COMBUSTION ENGINES

- (a) Purpose
The purpose of this rule is to reduce diesel PM emissions from facilities with three or more stationary emergency standby diesel-fueled internal combustion engines.
- (b) Applicability
This rule shall apply to facilities with three or more stationary emergency standby diesel-fueled internal combustion engines operating in the South Coast Air Quality Management District and each is rated at greater than 50 brake horsepower (>50 bhp), except as provided in subdivision (j). This rule shall not apply to stationary emergency standby diesel-fueled internal combustion engines at agricultural facilities.
- (c) Definitions
For the purpose of this rule, the following definitions shall apply:
- (1) COMPRESSION IGNITION (CI) ENGINE means an internal combustion engine with operating characteristics significantly similar to the theoretical diesel combustion cycle. The regulation of power by controlling fuel supply in lieu of a throttle is indicative of a compression ignition engine.
 - (2) DIESEL FUEL means any fuel that is commonly or commercially known, sold, or represented by the supplier as diesel fuel, including any mixture of primarily liquid hydrocarbons – organic compounds consisting exclusively of the elements carbon and hydrogen – that is sold or represented by the supplier as suitable for use in an internal combustion, compression-ignition engine. For the purposes of this rule, diesel fuel shall include jet fuel.
 - (3) DIESEL PARTICULATE FILTER (DPF) means an emission control technology that reduces PM emissions by trapping the particles in a flow filter substrate and periodically removing the collected particles by either physical action or by oxidizing (burning off) the particles in a process called regeneration.

1472 - 1

- Reduce diesel PM emissions from facilities with three or more stationary emergency standby engines
- Supplements Rule 1470 by requiring facilities with three or more engines to meet a specific risk level (referenced as an “Engine Group Index”)
 - Facilities exceeding Engine Group Index required to reduce diesel PM emissions
- References the testing hours in Rule 1470

Stakeholder Comments Related to Rule 1470

- A water district has commented that up to 10 additional testing hours are needed for the most restrictive engine category (engines with a PM emission rate > 0.4 g/bhp-hour)
- Staff may have limitations on allowing additional testing hours

Implementation of the State ATCM

- Rule 1470 implements State Airborne Toxic Control Measure (ATCM) requirements for Stationary Compression Ignition Engines such as
 - Emission standards and operating requirements for In-Use Stationary Emergency Stand-By Engines
 - Limits on maintenance and testing hours [definition (b)(43)] of engines
- California Health and Safety Code Section 39666 requires local air districts to implement and enforce the ATCMs or adopt and enforce equally effective or more stringent ATCMs requirements than those adopted by the state board

▀ Areas Where Rule 1470 and 1472 are More Stringent than the State ATCM

- Two general areas where Rule 1470 is more stringent than the State ATCM
 - Annual limits for maintenance and testing hours for health facilities
 - New engines less than 50 meters from a sensitive receptor*
- Rule 1472 goes beyond the State ATCM by establishing additional requirements for facilities with three or more engines

*Sensitive receptor means any residence including private homes, condominiums, apartments, and living quarters, schools as defined under paragraph (b)(57), preschools, daycare centers and health facilities such as hospitals or retirement and nursing homes. A sensitive receptor includes long term care hospitals, hospices, prisons, and dormitories or similar live-in housing.

Comparison Between Rule 1470 and the ATCM for Testing Hours at Health Facilities

- Rule 1470 allows fewer testing hours for engines with a PM emission rate > 0.15 g/bhp-hour at health facilities than the ATCM

Engine	Diesel PM Emission Rate (g/bhp-hr)	Rule 1470	State ATCM
In-use	> 0.4 g	30 hours	Up to 40 hours
In-use	>0.15 and ≤ 0.4 g	30 hours	Up to 40 hours for health facilities
In-use	>0.01 and ≤ 0.15	50 hours	50 hours
In-use	≤ 0.01	100 hours	100 hours
New	≤ 0.15	50 hours	50 hours
New	≤ 0.01	50 hours	Up to 100 hours

Comparison Between Rule 1470 and the ATCM for PM Emission Limits for New Engines

- Rule 1470 establishes lower PM limits for new engines less than 50 meters from a sensitive receptor than the ATCM

Engine Size	Rule 1470	State ATCM
$50 < \text{HP} < 175$	0.15 g/bhp-hr	0.15 g/bhp-hr
$175 \leq \text{HP} \leq 750$	0.01 g/bhp-hr	0.15 g/bhp-hr
$> 750 \text{ HP}$	0.075 g/bhp-hr 0.02 g/bhp-hr	0.15 g/bhp-hr

Comparison Between Rule 1472 and the ATCM for In-Use Requirements for Multiple Engines at a Facility

- State ATCM does not establish in-use PM or health risk requirements for facilities with multiple engines
- Rule 1472 goes beyond the State ATCM by requiring facilities to meet an Engine Group Index, which is based on health risk
- Rule 1472 allows three compliance options:
 - Reduce Engine Group Index to less than or equal to 1.0
 - All engines meet a diesel PM emission rate less than or equal to 0.15 g/bhp-hr
 - Emit diesel PM at weighted average rate of less than or equal to 0.15 g/bhp-hr for all engines within engine group

► Comparison of Rule 1110.2, Rule 1470, and Rule 1472

	Rule 1110.2	Rule 1470	Rule 1472
Applicability	All stationary and portable engines > 50 bhp	Stationary compression ignition engines > 50 bhp	Facilities with three or more stationary compression ignition engines > 50 bhp
Fuel Types	All fuel types	Diesel-fueled only	Diesel-fueled only
Pollutants Regulated	NOx, CO, and VOC	Diesel PM (toxic air contaminant)	Diesel PM (toxic air contaminant)
Emergency Engines	Exempt if operating < 200 hours/year	Establishes testing hours depending on how diesel PM emissions	Establishes compliance plan requirements and Engine Group Index calculations

Next Steps

- Staff will discuss possible rule concepts at next Working Group Meeting
- Next Working Group Meeting in early February

Rule Contacts

Proposed Amended Rules 1110.2, 1470, and 1472

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October 4, 2021

Via Email and Overnight Mail

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**Re: Comments on the Draft Environmental Impact Report – 5420
Sunset Project (Case No. ENV-2017-1084-EIR; SCH No. 2017061075).**

Dear Ms. Majas:

We are writing on behalf of Coalition for Responsible Equitable Economic Development Los Angeles (“CREED LA”) to provide comments on the Draft Environmental Impact Report (“DEIR”) prepared by the City of Los Angeles (“City”) for the 5420 Sunset Project (Case No. ENV-2017-1084-EIR; SCH No. 2017061075) (“Project”), proposed by 5420 Sunset Boulevard LP, LLC (“Applicant”).

The Project proposes the development of four six-story mixed-use buildings across 882,250 square feet. The Project consists of 735 multi-family residential units, as well as residential lobbies and leasing offices, pools, spas, and recreational facilities, and up to 95,000 square feet of commercial uses, including market/retail and restaurant uses. The Project also proposes approximately 96,800 square feet of open space including landscaped courtyards, a public plaza, and landscaped paseos, as well as 1,419 parking spaces in two subterranean parking levels and one at-grade parking level, and 548 bicycle parking spaces. The Project site is located at 5420 Sunset Boulevard, in the City of Los Angeles.

Several discretionary approvals are required to implement the Project, including a Main Conditional Use Permit (“MCUP”) pursuant to Los Angeles Municipal Code (“LAMC”) Section 12.24(W)(1) for the sales and/or dispensing of

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alcoholic beverages within the commercial uses of the Project, Site Plan Review pursuant to LAMC Section 16.05, Project Permit Compliance Review under the Vermont/Western Station Neighborhood Area Specific Plan, haul route approval, and construction permits.¹

We have conducted our review of the DEIR with the assistance of air quality and hazardous resources expert James J. Clark, Ph.D.² The City must separately respond to his technical comments.

Based upon our review of the DEIR and supporting documentation, we conclude that the DEIR fails to comply with the requirements of CEQA. The DEIR fails to adequately disclose significant air quality, public health, and noise impacts. As a result of its shortcomings, the DEIR lacks substantial evidence to support its conclusions and fails to properly mitigate the Project's significant environmental impacts. Further, the City cannot make the requisite findings under the LAMC for an MCUP. The City cannot approve the Project until the errors and omissions in the DEIR are remedied, and a revised DEIR is recirculated for public review and comment which fully discloses and mitigates the Project's potentially significant environmental and public health 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 impacts of the Project. The coalition includes the Sheet Metal Workers Local 105, International Brotherhood of Electrical Workers Local 11, Southern California Pipe Trades District Council 16, and District Council of Iron Workers of the State of California, along with their members, their families, and other individuals who live and work in the City of Los Angeles.

Individual members of CREED LA and its member organizations include Jorge L. Aceves, Gerry Bustos, John Ferruccio, and Chris S. Macias. These individuals live, work, recreate, and raise their families in the City of Los Angeles and surrounding communities. Accordingly, they would be directly affected by the Project's environmental and health and safety impacts. Individual members may

¹ DEIR, pg. II-29.

² Dr. Clark's technical comments and curricula vitae are attached hereto as Exhibit A.
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also work on the Project itself. They will be first in line to be exposed to any health and safety hazards that exist onsite.

CREED LA seeks to ensure a sustainable construction industry over the long-term by supporting projects that have positive impacts for the community, and which minimize adverse environmental and public health impacts. 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 has two basic purposes, neither of which the DEIR satisfies. First, CEQA is designed to inform decision makers and the public about the potential, significant environmental effects of a project.³ CEQA requires that an agency analyze potentially significant environmental impacts in an EIR.⁴ The EIR should not rely on scientifically outdated information to assess the significance of impacts, and should result from “extensive research and information gathering,” including consultation with state and federal agencies, local officials, and the interested public.⁵ To be adequate, the EIR should evidence the lead agency’s good faith effort at full disclosure.⁶ 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.”⁷ “Thus, the EIR protects not only the environment but also informed self-government.”⁸

³ CEQA Guidelines, § 15002, subd. (a)(1).

⁴ See Pub. Resources Code, § 21000; CEQA Guidelines, § 15002.

⁵ *Berkeley Keep Jets Over the Bay Comm. v. Board of Port Comm.* (“*Berkeley Jets*”) (2001) 91 Cal.App.4th 1344, 1367.; *Schaeffer Land Trust v. San Jose City Council* (1989) 215 Cal.App.3d 612, 620.

⁶ CEQA Guidelines, § 15151; see also *Laurel Heights Improvement Assn. v. Regents of University of California* (“*Laurel Heights I*”) (1988) 47 Cal.3d 376, 406.

⁷ *County of Inyo v. Yorty* (1973) 32 Cal.App.3d 795, 810.

⁸ *Citizens of Goleta Valley v. Bd. of Supervisors* (1990) 52 Cal.3d 553, 564 (citations omitted).
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Second, CEQA directs public agencies to avoid or reduce environmental damage when possible by requiring alternatives or mitigation measures.⁹ The EIR serves to provide public agencies and the public in general with information about the effect that a proposed project is likely to have on the environment and to “identify ways that environmental damage can be avoided or significantly reduced.”¹⁰ If a project has a significant effect on the environment, the agency may approve the project only upon a finding 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” specified in CEQA section 21081.¹¹

As these comments will demonstrate, the DEIR fails to comply with the requirements of CEQA and may not be used as the basis for approving the Project. It fails in significant aspects to perform its function as an informational document that is meant “to provide public agencies and the public in general with detailed information about the effect which a proposed project is likely to have on the environment” and “to list ways in which the significant effects of such a project might be minimized.”¹² The DEIR also lacks substantial evidence to support the City’s proposed findings that the Project will not result in any significant, unmitigated impacts

III. THE CITY FAILED TO PROVIDE TIMELY ACCESS TO DOCUMENTS REFERENCED AND INCORPORATED BY REFERENCE IN THE DEIR

The City violated CEQA and improperly truncated the DEIR public comment period by failing to make all documents referenced or relied on in the DEIR available for public review during the Project’s public comment period.¹³ As a result, CREED LA was unable to complete its review and analysis of the DEIR and its supporting evidence during the current public comment period, which ends on October 4, 2021. Our request that the City extend the public comment period was denied. We therefore provide these initial comments on the DEIR and reserve our right to submit supplemental comments on the DEIR at a future date.

⁹ CEQA Guidelines, § 15002, subd. (a)(2)-(3); *Berkeley Jets*, *supra*, 91 Cal.App.4th at 1354.

¹⁰ CEQA Guidelines, § 15002, subd. (a)(2).

¹¹ *Id.*, subd. (b)(2)(A)-(B).

¹² *Laurel Heights I*, *supra*, 47 Cal.3d at p. 391.

¹³ *See* PRC § 21092(b)(1); 14 CCR § 15087(c)(5).

Access to all of the documents referenced in the DEIR is necessary to conduct a meaningful review of its analyses, conclusions, and mitigation measures and to assess the Project's potential environmental impacts. CEQA requires that "all documents referenced" and "incorporated by reference" in the draft environmental impact report be available for review and "readily accessible" during the entire comment period.¹⁴ The courts have held that the failure to provide even a few pages of a CEQA document for a portion of the review and comment period invalidates the entire CEQA process, and that such a failure must be remedied by permitting additional public comment.¹⁵ It is also well-settled that a CEQA document may not rely on hidden studies or documents that are not provided to the public.¹⁶

The Notice of Availability for the DEIR states that "the documents referenced in the DEIR are available for public review during office hours, Monday-Friday, 9:00am-4:00pm by appointment only."¹⁷ In compliance with those instructions, on August 20, 2021, we requested that the City provide immediate access to any and all documents referenced or relied upon in the DEIR prepared for the Project.¹⁸ On August 30, 2021, the City informed us that the documents referenced in the Draft EIR are contained on a CD in a physical case file in the City's planning department office. A representative from CREED LA thereafter copied the contents of the CD at the City.

After reviewing the contents of this CD, we learned that it did not contain critical DEIR reference documents. Specifically, the City failed to provide access to files from the DEIR's AERMOD dispersion model analysis. The City only provided the first two pages of each dispersion model analysis, which is not a sufficient method for validating the model results.¹⁹ Access to the complete, unlocked AERMOD files in their native format is necessary for the public to validate the findings in the DEIR's Health Risk Assessment.²⁰ As soon as we became aware these files were missing from the City's production of documents, we emailed the

¹⁴ PRC § 21092(b)(1) (emphasis added); 14 CCR § 15087(c)(5).

¹⁵ See *Ultramar v. South Coast Air Quality Man. Dist.* (1993) 17 Cal.App.4th 689, 699.

¹⁶ *Santiago County Water Dist. V. County of Orange* (1981) 118 Cal.App.3d 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.").

¹⁷ See Notice of Completion and Availability of DEIR, 5420 Sunset Project (August 19, 2021).

¹⁸ **Exhibit B:** Letter from Adams, Broadwell, Joseph & Cardozo ("ABJC") to the City of Los Angeles re: Request for Immediate Access to All Documents Referenced in the Draft Environmental Impact Report for 5420 Sunset Project (Case No. ENV-2017-1084-EIR) (August 20, 2021).

¹⁹ James Clark Comments ("Clark"), pg. 8.

²⁰ *Id.*

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City again requesting immediate access to the files.²¹ We specifically requested the “unlocked, underlying files from the DEIR’s AERMOD dispersion model analysis in their native format.”²²

Having received no response from the City regarding this request, we submitted an additional letter requesting the extension of the comment period in light of these missing files.²³ On October 4, 2021, the last day of the comment period, we received an email from the City stating that “[t]he modeling output data and the assumptions underlying the Health Risk Assessment (HRA) are all included within the HRA itself.”²⁴ This statement is incorrect, as the HRA only included the first two pages of each dispersion model. The City did not provide the files in their native format per our request, thus hiding the City’s full dispersion modeling analysis from public view, and the City denied our request to extend the comment period.

CEQA requires that all documents referenced, incorporated by reference, and relied upon in a DEIR be readily available to the public during the entire CEQA public comment period. Despite CREED LA’s efforts to obtain “immediate access” to all materials referenced in the DEIR during the public comment period, the City failed to provide access to critical reference documents, then failed to respond to our subsequent requests for missing files, and declined to extend the public comment period. The City’s actions violate CEQA’s disclosure requirements.²⁵ By failing to make all documents referenced and incorporated by reference in the DEIR “readily accessible” to the public during the entire comment period, the City violated the clear procedural mandates of CEQA, to the prejudice of CREED LA and other members of the public.

In order to comply with CEQA, the City must immediately make the missing AERMOD files available to CREED LA, then extend the public comment period on the DEIR for and additional 30 days after those files are made available.

²¹ **Exhibit C:** Email from Sheila M. Sannadan, ABJC, to Polonia Majas, City of Los Angeles, re: 5420 Sunset Project - AERMOD files (native format) (September 28, 2021).

²² *Id.*

²³ **Exhibit D:** Letter from ABJC to the City of Los Angeles re: Request to Extend the Public Review and Comment Period for the Draft Environmental Impact Report for 5420 Sunset Project (Case No. ENV-2017-1084-EIR) (September 30, 2021).

²⁴ **Exhibit E:** Email from William Lamborn, City of Los Angeles, to Alicia C. Pember, ABJC, re: Request to extend the public review and comment period ENV-2017-1084-EIR (October 4, 2021).

²⁵ *Id.*; Gov. Code § 6253(a) (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.”).

IV. THE DEIR FAILS TO ADEQUATELY ANALYZE, QUANTIFY, AND MITIGATE THE PROJECT'S POTENTIALLY SIGNIFICANT IMPACTS

An EIR must fully disclose all potentially significant impacts of a project, and implement all feasible mitigation to reduce those impacts to less than significant levels. The lead agency's significance determination with regard to each impact must be supported by accurate scientific and factual data.²⁶ An agency cannot conclude that an impact is less than significant unless it produces rigorous analysis and concrete substantial evidence justifying the finding.²⁷

Moreover, the failure to provide information required by CEQA is a failure to proceed in the manner required by law.²⁸ Challenges to an agency's failure to proceed in the manner required by CEQA, such as the failure to address a subject required to be covered in an EIR or to disclose information about a project's environmental effects or alternatives, are subject to a less deferential standard than challenges to an agency's factual conclusions.²⁹ In reviewing challenges to an agency's approval of an EIR based on a lack of substantial evidence, the court will "determine de novo whether the agency has employed the correct procedures, scrupulously enforcing all legislatively mandated CEQA requirements."³⁰

Even when the substantial evidence standard is applicable to agency decisions to certify an EIR and approve a project, reviewing courts will not 'uncritically rely on every study or analysis presented by a project proponent in support of its position. A clearly inadequate or unsupported study is entitled to no judicial deference.'³¹

A. The DEIR Fails to Disclose and Mitigate Significant Health Risks from Construction and Operational Emissions

²⁶ 14 CCR § 15064(b).

²⁷ *Kings Cty. Farm Bur. v. Hanford* (1990) 221 Cal.App.3d 692, 732.

²⁸ *Sierra Club v. State Bd. Of Forestry* (1994) 7 Cal.4th 1215, 1236.

²⁹ *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 435.

³⁰ *Id.*; *Madera Oversight Coal., Inc. v. County of Madera* (2011) 199 Cal. App. 4th 48, 102.

³¹ *Berkeley Jets*, 91 Cal.App.4th at 1355.

An agency must support its findings of a project's potential environmental impacts with concrete evidence, with "sufficient information to foster informed public participation and to enable the decision makers to consider the environmental factors necessary to make a reasoned decision."³² A project's health risks "must be 'clearly identified' and the discussion must include 'relevant specifics' about the environmental changes attributable to the Project and their associated health outcomes."³³

Courts have held that an environmental review document must disclose a project's potential health risks to a degree of specificity that would allow the public to make the correlation between the project's impacts and adverse effects to human health.³⁴ In *Bakersfield Citizens for Local Control v. City of Bakersfield*, the court found that the EIRs' description of health risks were insufficient and that after reading them, "the public would have no idea of the health consequences that result when more pollutants are added to a nonattainment basin."³⁵ Likewise, in *Sierra Club*, the California Supreme Court held that the EIR's discussion of health impacts associated with exposure to the named pollutants was too general and the failure of the EIR to indicate the concentrations at which each pollutant would trigger the identified symptoms rendered the report inadequate.³⁶ Some connection between air quality impacts and their direct, adverse effects on human health must be made. As the Court explained, "a sufficient discussion of significant impacts requires not merely a determination of whether an impact is significant, but some effort to explain the nature and magnitude of the impact."³⁷ CEQA mandates discussion, supported by substantial evidence, of the nature and magnitude of impacts of air pollution on public health.³⁸

The failure to provide information required by CEQA makes meaningful assessment of potentially significant impacts impossible and is presumed to be prejudicial.³⁹ Challenges to an agency's failure to proceed in the manner required by

³² *Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502, 516.

³³ *Id.* at 518.

³⁴ *Id.* at 518–520; *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184.

³⁵ *Id.* at 1220.

³⁶ *Sierra Club*, at 521.

³⁷ *Id.* at 519, citing *Cleveland National Forest Foundation v. San Diego Assn. of Governments* (2017) 3 Cal.5th 497, 514–515.

³⁸ *Sierra Club*, 6 Cal.5th at 518–522.

³⁹ *Sierra Club v. State Bd. Of Forestry* (1994) 7 Cal.4th 1215, 1236–1237.

CEQA, such as the failure to address a subject required to be covered in an EIR or to disclose information about a project's environmental effects or alternatives, are subject to a less deferential standard than challenges to an agency's factual conclusions.⁴⁰ Courts reviewing challenges to an agency's approval of a CEQA document based on a lack of substantial evidence will "determine de novo whether the agency has employed the correct procedures, scrupulously enforcing all legislatively mandated CEQA requirements."⁴¹

i. The DEIR Fails to Disclose the Project's Diesel Particulate Matter Emissions.

The DEIR acknowledges that the Project's construction activities would create Toxic Air Contaminant ("TAC") emissions.⁴² Specifically, operation of heavy equipment would generate Diesel Particulate Matter ("DPM"), a type of TAC. The DEIR further acknowledges that DPM is carcinogenic.⁴³ However, the DEIR fails to plainly disclose the Project's DPM emissions.⁴⁴

The DEIR does indeed disclose the Project's emission of criteria pollutants, but it is important to note that DPM is not a criteria pollutant.⁴⁵ Criteria pollutants are defined as "very small solid or liquid particles that can be suspended in the atmosphere," and do not themselves contain toxic chemicals.⁴⁶ TACs, by contrast, are defined as "air pollutant[s] which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health. Unlike regular particulate matter, DPM contains toxic chemicals which are not evaluated in a criteria pollutant analysis.

CEQA requires that a project's health risks "must be 'clearly identified' and the discussion must include 'relevant specifics' about the environmental changes

⁴⁰ *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 435.

⁴¹ *Id.* (internal quotations omitted).

⁴² DEIR, pg. IV.A-61.

⁴³ DEIR, pg. IV.A-61.

⁴⁴ DEIR, pg. IV.A-61.

⁴⁵ DEIR, pg. IV.A-59.

⁴⁶ *CURE v. Mojave Desert Air Qual. Mgm't Dist.* (2009) 178 Cal. App. 4th 1225, 1231-32; see 40 C.F.R. § 50.6(c).

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attributable to the Project and their associated health outcomes.”⁴⁷ Therefore, the DEIR must be revised to clearly quantify the extent of the Project’s DPM emissions.

ii. The DEIR Fails to Adequately Disclose and Mitigate the Project’s Significant Health Risks from Construction Emissions.

The DEIR claims that adverse health impacts caused by exposure to TACs from the Project’s construction emissions will be less than significant. However, the DEIR failed to conduct a quantified health risk analysis (“HRA”) to measure the Project’s TAC emissions and disclose the resultant health impacts to sensitive receptors. The DEIR relies on flawed reasoning to justify this omission, arguing that the City does not need to analyze health impacts from the Project’s construction TAC emissions because construction will only last for four years.⁴⁸ The City reasons that health effects from TACs are measured in terms of individual cancer risk. Individual cancer risk is measured in terms of exposure to TACs over a 70-year life. Because construction will only last four years, “the Project would not result in a long-term (i.e. 70-year) source of TAC emissions.”⁴⁹ The City concludes that analysis of health impacts from construction emissions is unnecessary.

This reasoning is flawed. Individual cancer risk is not just affected by the duration of exposure to TACs, but also the concentration of the individual’s unique exposure scenario and the toxicity of the chemical. Accordingly, OEHHA⁵⁰ guidance sets a recommended threshold for preparing an HRA of a construction period of two months or more.⁵¹ Because the DEIR contains no quantitative analysis of TAC emissions, the City lacks substantial evidence to support the DEIR’s untenable conclusion that exposing sensitive receptors to TACs over the Project’s 4-year construction period would not result in health impacts or increase the cancer risk to

⁴⁷ *Id.* at 518.

⁴⁸ DEIR, pg. IV.A-61.

⁴⁹ *Id.*

⁵⁰ OEHHA is the organization responsible for providing recommendations and guidance on how to conduct health risk assessments in California. See OEHHA organization description, available at <http://oehha.ca.gov/about/program.html>.

⁵¹ See “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 (“OEHHA Guidance”), p. 8-18.

those receptors. As construction of the instant Project will last at least four years,⁵² an HRA must be prepared.

The DEIR's failure to prepare a construction HRA violates CEQA. In *Sierra Club*, the Supreme Court of California disapproved of an EIR that failed to compare the health effects from exposure to ozone emissions against applicable thresholds.⁵³ The Court held that it is insufficient to merely state that "exposure to ambient levels of ozone ranging from 0.10 to 0.40 [parts per million of ozone] has been found to significantly alter lung functions" – the EIR must also compare the Project's impacts against this threshold.⁵⁴ Here, the City appropriately discloses that health impacts are significant when the Project exposes sensitive receptors to air contaminants that exceed the maximum incremental cancer risk of 10 in one million.⁵⁵ However, since the City did not perform a construction HRA, it does not compare the Project's impacts against the applicable threshold.

In summary, the DEIR fails to disclose the potentially significant risk posed to nearby residents from TACs, and fails to mitigate it. Because the DEIR fails to support its conclusion that the Project will not have significant health impacts from TAC emissions with the necessary analysis, this finding is not supported by substantial evidence. The DEIR must be revised to include a construction HRA.

iii. The DEIR Fails to Adequately Disclose and Mitigate the Project's Significant Health Risks from Operational Emissions.

The DEIR also claims that adverse health impacts caused by exposure to TACs from the Project's *operational* emissions will be less than significant. The DEIR justifies its failure to conduct a quantified HRA by claiming that the Project would not contain substantial TAC sources.⁵⁶ The DEIR observes that SCAQMD recommends conducting an HRA for Projects with substantial sources of DPM (e.g. facilities that generate more than 100 trucks per day).⁵⁷ The DEIR claims that since the Project would not generate over 100 trucks per day, there is no need for an HRA. But the DEIR's conclusion is false, as elsewhere the DEIR provides that the

⁵² DEIR, pg. IV.A-61.

⁵³ *Sierra Club v. State Bd. Of Forestry* (1994) 7 Cal.4th 1215, 1219-20.

⁵⁴ *Id.*

⁵⁵ DEIR, pg. IV.A-33.

⁵⁶ DEIR, pg. IV.A-65.

⁵⁷ DEIR, pg. IV.A-64.

Project would generate 287 truck trips per day.⁵⁸ Therefore, according to SCAQMD guidance, the City must conduct an HRA to disclose the health risks from the Project's operational emissions. Since the City failed to conduct this HRA, it fails to support its conclusion that operational health impacts are less than significant with substantial evidence. Further, as will be discussed below, Dr. Clark conducted an HRA that shows that the Project's operations would, in fact, have significant health impacts.

B. The DEIR Fails to Disclose Significant Impacts in its Air Quality Analysis and HRA.

i. The Operational HRA's Air Dispersion Model Relies on Inaccurate Traffic Counts, and Does Not Include All of the Sources of Criteria Air Pollutants and Toxic Air Contaminants from the Project.

The City prepared an HRA to analyze the potential effects of pollutants on individuals who will reside at the proposed Project site during Project operation.⁵⁹ The HRA included air quality modeling using the AMS/EPA Regulatory Model AERMOD to assess the downwind extent of mobile source emissions within 1,000 feet of the Project site.⁶⁰ Dr. James Clark, in the attached comments, explains that the HRA's modeling contains flaws that result in inaccurate estimates of health impacts.

Vehicles and back-up generator are sources of TACs, which cause health impacts analyzed in an HRA. Dr. Clark found that the City's model does not include an analysis of the emissions from vehicles coming to and from the Project site as well as the emissions from the back-up generator(s) that will be utilized on-site.⁶¹ As a result, the DEIR underestimates the Project's operational TAC emissions, and

⁵⁸ Clark, pg. 9. Dr. Clark explains, according to the CalEEMOD analysis presented in Appendix B of the DEIR, an estimated 8,655 vehicle trips will occur every weekday and an estimated 12,465.96 vehicle trips will occur each weekend day. Those trips will be solely associated with the commercial development installed on the Project site. The CalEEMOD analysis further details that 3.3% of the traffic is expected to be heavy duty trucks (which emit the most DPM), or approximately 287 trucks will be entering and leaving the Project site daily.

⁵⁹ DEIR, Appendix G, pg. 1.

⁶⁰ *Id.*, pg. 5.

⁶¹ Clark, pg. 3.

underestimates the health impacts of the project on the residents of the Project.⁶² This underestimation of mobile-source TAC emissions is substantial, as the DEIR's Traffic Study concluded that there would be a net increase of 2,369 extra trips per day over the existing project, representing a 45% increase in traffic in the Project area of influence.⁶³

Mobile source emissions from State Route 101 are a major potential cause of health impacts on the Project's future residents. The volume of traffic on State Route 101 is directly related to the severity of health impacts at the Project site. Dr. Clark found that the HRA relies on incorrect average freeway traffic volumes.⁶⁴ The HRA states that its data was based on the California Department of Transportation's ("CalTrans") Performance Measurement System ("PeMS"). But when Dr. Clark reviewed the database, he found that PeMS reported a higher volume of traffic than the DEIR reported. Specifically, the values used in the HRA for northbound and southbound traffic are 2.2 to 2.5 times lower than the values reported by CalTrans.⁶⁵ Because the DEIR underestimates State Route 101's health impact at the Project site, the City must re-evaluate the air quality impacts using correct traffic counts in a revised EIR.

Because of these flaws, the conclusions in the DEIR's HRA lack substantial evidence. The DEIR must be revised and recirculated.

ii. A Re-Calculated HRA Shows that the Project has Significant Health Impacts.

Dr. Clark reconducted the City's HRA to find that the health impacts on the Project's future tenants will be significant. His HRA also shows that the Project has cumulatively significant health impacts on the community.

As explained above, the City's HRA is deficient because it fails to consider the impacts of emissions associated with the Project. Dr. Clark's analysis corrects this error by considering TAC emissions from trips generated by the Project. Specifically, he considers DPM emissions from the 287 trucks trips the DEIR assumes the Project generates daily:

⁶² *Id.*

⁶³ *Id.*, pg. 7.

⁶⁴ *Id.*, pg. 5.

⁶⁵ *Id.*, pg. 5.

According to the CalEEMOD analysis presented in Appendix B of the DEIR , an estimated 8,655 vehicle trips will occur every weekday and an estimated 12,465.96 vehicle trips will occur each weekend day. Those trips will be solely associated with the commercial development installed on the Project site. The CalEEMOD analysis further details that 3.3% of the traffic is expected to be heavy duty trucks (which emit the most DPM), or approximately 287 trucks will be entering and leaving the Project site daily. On the weekends there could be more (approximately 414).⁶⁶

The City's HRA is also deficient because it only considers impacts on the Project site itself. Dr. Clark's HRA considers sensitive receptors in the surrounding community, as well as three schools, including Grant Elementary school (located approximately 0.2 miles northwest of the Project site), Joseph Le Conte Middle School (located approximately 0.5 miles south-southwest of the Project site), and Bernstein High School (located 0.3 miles west of the Project site).⁶⁷

The findings of Dr. Clark's corrected dispersion modeling are contained in Table 1, below.

Table 1.⁶⁸

Receptor	DPM Concentration From Freeway	DPM Concentration From Mobile Sources Project	DPM Cumulative Concentration
	ug/m ³	ug/m ³	ug/m ³
Maximum On Site	5.11 E-03	5.40E-02	5.96E-02
Residents North of Sunset	1.47E-03	3.675E-2	3.82E-02
Grant Elementary School	1.11E-03	3.74E-03	8.02E-03
Joseph Le Conte Middle School	1.39E-03	2.01E-03	5.66E-03
Bernstein High School	2.09E-03	6.15E-03	1.08E-02

Dr. Clark next calculated the residential risk from exposure to DPM using CARB's HARP2 Risk Assessment Standalone Tool. The results of this analysis are contained in Table 2, below.

⁶⁶ Clark, pg. 9.

⁶⁷ *Id.*, pg. 11.

⁶⁸ Clark, pg. 11.

Table 2.

Receptor	DPM Cumulative Concentration ug/m ³	Cumulative Risk
		Per million
Maximum On Site	5.96E-02	52.7
Residents North of Sunset	3.82E-02	33.8
Grant Elementary School	8.02E-03	2.1
Joseph Le Conte Middle School	5.66E-03	0.4
Bernstein High School	1.08E-02	1.5

The above health risks are significant impacts. SCAQMD's CEQA Air Quality Handbook provides that health impacts are significant when the Project exposes sensitive receptors to air contaminants that exceed the maximum incremental cancer risk of 10 in one million.⁶⁹ Here, the cancer risk exceeds 10 in one million for sensitive receptors at the Project site, and residents North of Sunset. Therefore, the Project has significant cumulative health impacts. These significant impacts are not disclosed or mitigated by the Project. The Project must reconduct its HRA, update its significance findings, and adopt binding mitigation to address the Project's impacts.

iii. The City's Air Quality Analysis Underestimates Back-Up Generator Emissions, thus Underestimating Air Quality, GHG, and Health Impacts.

The Project includes a diesel-powered back-up generator.⁷⁰ Such generators can significantly impact air quality, GHG emissions, and public health through

⁶⁹ DEIR, pg. IV.A-33.

⁷⁰ DEIR, Appendix B-14.
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DPM emissions.⁷¹ In the City's air quality analysis, it assumed that the back-up generator will be maintained and tested for no more than 12 hours per year.⁷²

The City's conclusion is unsupported. According to SCAQMD Rules 1110.2⁷³ and 1470,⁷⁴ back-up generators are allowed to operate for up to 200 hours per year, and operate for maintenance up to 50 hours per year. Thus, it is reasonably foreseeable that the Project may use its back-up generator for more than 12 hours, and is legally allowed to operate it for up to 200 hours per year. In order to accurately quantify the extent of the Project's potential generator emissions, the City should have analyzed emissions at the maximum usage authorized under existing regulations.

Further, the DEIR's analysis does not account for back-up generator operation during unscheduled events like Public Safety Power Shutoff ("PSPS") events and extreme heat events ("EHEs"). Courts have explained that an EIR must "address not only the immediate environmental consequences of going forward with the project, but also all "*reasonably foreseeable* consequence[s] of the initial project."⁷⁵ Dr. Clark's comments show that although such events are unscheduled, they occur frequently enough in California that they are reasonably foreseeable.⁷⁶

⁷¹ California Air Resources Board, Emission Impact: Additional Generator Usage Associated with Power Outage (January 30, 2020), available at <https://ww2.arb.ca.gov/resources/documents/emissions-impact-generator-usage-during-psps> (showing that generators commonly rely on gasoline or diesel, and that use of generators during power outages results in excess emissions); California Air Resources Board, Use of Back-up Engines for Electricity Generation During Public Safety Power Shutoff Events (October 25, 2019), available at <https://ww2.arb.ca.gov/resources/documents/use-back-engines-electricity-generation-during-public-safety-power-shutoff> ("When electric utilities de-energize their electric lines, the demand for back-up power increases. This demand for reliable back-up power has health impacts of its own. Of particular concern are health effects related to emissions from diesel back-up engines. Diesel particulate matter (DPM) has been identified as a toxic air contaminant, composed of carbon particles and numerous organic compounds, including over forty known cancer-causing organic substances. The majority of DPM is small enough to be inhaled deep into the lungs and make them more susceptible to injury. Much of the back-up power produced during PSPS events is expected to come from engines regulated by CARB and California's 35 air pollution control and air quality management districts (air districts)").

⁷² DEIR, Appendix B-87.

⁷³ Available at <http://www.aqmd.gov/docs/default-source/rule-book/reg-xi/rule-1110-2.pdf>.

⁷⁴ Available at <https://www.aqmd.gov/docs/default-source/rule-book/reg-xiv/rule-1470.pdf?sfvrsn=4>.

⁷⁵ *Laurel Heights I, supra*, 47 Cal. 3d 376, 398 (emphasis added); *see also Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal. 4th 412, 449-50.

⁷⁶ Clark, pg. 16-17.

For example, the total duration of PSPS events in California lasted between 141 hours to 154 hours in 2019.⁷⁷ In 2021, two EHEs have been declared so far, which lasted 120 hours combined.⁷⁸ Dr. Clark explains that these two EHEs would have tripled the calculated yearly DPM emissions from the Project.⁷⁹ These conditions are expected to increase in severity.⁸⁰ Therefore, the DEIR's failure to consider this source of emissions drastically underestimates the Project's air quality, GHG, and public health impacts.

iv. The DEIR Underestimates Construction Emissions, thus Underestimating Resultant Air Quality, GHG, and Health Impacts.

To calculate the Project's emissions of NO_x during construction, it is important to accurately account for emissions from heavy-duty trucks. However, the DEIR underestimates running emissions and idle emissions for heavy-duty trucks. The values the DEIR provides for running and idle emissions are 25% and 54% lower, respectively, than values reported in the Emission FACTor ("EMFAC") database. EMFAC is CARB's model that estimates the official emissions inventories of onroad and offroad mobile sources in California.

Dr. Clark's comments show that, for running emissions, the DEIR's value of 3.071 grams per mile is significantly lower than the average value for trucks produced in 2007 through 2022 (4.088 grams per mile).⁸¹ Thus, instead of producing an estimated NO_x emission rate of 60.93 lbs per day for trucks hauling materials away from the construction site, the average value for emissions should be reported as 81.11 lbs per day. For idling emissions, the DEIR's value of 32.49 grams of NO_x per hour of idling is significantly lower than the average value for trucks produced in 2007 through 2022 (70.59 grams of NO_x per hour of idling). Thus, instead of producing an estimated NO_x emission rate of 3.22 lbs per day for idling trucks, the average value for emissions should be reported as 7.00 lbs per day. When these

⁷⁷ *Id.*, pg. 16.

⁷⁸ *Id.*, pg. 17.

⁷⁹ *Id.*, pg. 17.

⁸⁰ OEHA, Extreme Heat Events, February 11, 2019, <https://oehha.ca.gov/epic/changes-climate/extreme-heat-events> (showing that frequency of extreme heat events is increasing); NASA Earth Observatory, California Heatwave Fits a Trend, September 6, 2020, <https://earthobservatory.nasa.gov/images/147256/california-heatwave-fits-a-trend> (showing trends toward longer and more intense heatwaves in Southern California).

⁸¹ Clark, pg. 20.

errors are corrected, Dr. Clark calculates the averaged total emissions per day for the Project's construction phase during 2022 should be reported as 89.87 lbs per day.⁸²

Dr. Clark identified another related analytical error: it is inaccurate to merely rely on the *average* total emissions per day of the construction vehicles. Rather, the DEIR should have relied on *the 95 percent upper confidence limit (95% UCL) of the mean* of the running emissions rates and idling rates. A 95% UCL is used when the distribution of values around a mean is uncertain. Here, the emissions rate of the Project's construction vehicles is uncertain, as City cannot predict the year of production of vehicles coming to and leaving the Project site.⁸³ Applying a 95% UCL to the Project's construction emissions, Dr. Clark determined that the total NOx emissions using the 95% UCL method would produce 123.88 lbs of NOx per day, well in excess of the SCAQMD threshold of significance for NOx.⁸⁴

As a result, the DEIR fails to disclose the Project's significant construction emissions and resultant impacts on public health. The City must revise the analyses that rely on the underestimated heavy truck emissions.

C. THE DEIR FAILS TO CONSIDER AND ANALYZE CUMULATIVE IMPACTS

CEQA requires an evaluation of cumulative impacts, defined as "two or more individual effects which, when considered together, are considerable."⁸⁵ Such impacts may "result from individually minor but collectively significant projects taking place over a period of time."⁸⁶ Lead agencies must consider whether a project's potential impacts, although individually limited, are cumulatively considerable.⁸⁷ "Cumulatively considerable" under CEQA means that "the incremental effects of an individual project are significant when viewed in

⁸² Clark, pg. ; DEIR, Appendix B-22 (The DEIR's estimate is 65.91 lbs per day).

⁸³ DEIR, pg. IV.A-15, 16. The DEIR merely requires that "[d]uring the grading phase, all trucks hauling the export of soil material and demolished site improvements shall be model 2007 or newer." The DEIR acknowledges that not all trucks 2007 or newer have the same emissions rates.

⁸⁴ Clark, pg. 21.

⁸⁵ 14 C.C.R. § 15355; see also Staff Report, Attachment 10, pp. 894–896 (explaining IS/MND's failure to analyze cumulative impacts from habitat loss).

⁸⁶ 14 C.C.R. § 15355(b).

⁸⁷ PRC § 21083(b); 14 CCR §§ 15064(h)(1), 15065(a)(3).

connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.”⁸⁸

CEQA Guidelines section 15130(b)(1) provides two options for analyzing cumulative impacts: (A) list “past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency, or” (B) summarize “projection contained in an adopted local, regional or statewide plan, or related planning document that describes or evaluates conditions contributing to the cumulative effect.”⁸⁹ “When relying on a plan, regulation or program, the lead agency should explain how implementing the particular requirements in the plan, regulation or program ensure that the project's incremental contribution to the cumulative effect is not cumulatively considerable.”⁹⁰

i. The DEIR Fails to Disclose, Analyze, and Mitigate Cumulative Noise Impacts

The DEIR acknowledges that vibration impacts on a nearby multi-story office building and parking structure would be significant if the Project’s construction activities were concurrent with those of Related Project 42.⁹¹ Related Project 42 is 125 feet south of the Project site and is adjacent to the office building and parking structure.⁹² However, the DEIR claims that there would be a less than significant cumulative impact. The DEIR reasons that Related Project 42 is subject to provisions in the Los Angeles Municipal Code that require neighboring buildings to be protected from damage during construction. Further, Related Project 42 would undergo CEQA review, and be required to adopt mitigation.

The DEIR’s reasoning is flawed:

First, the DEIR already acknowledges that the Project’s on-site vibration impacts are significant before mitigation. The DEIR uses the thresholds in the Federal Transit Administration’s (“FTA’s”) Transit Noise and Vibration Assessment

⁸⁸ CEQA Guidelines §15064(h)(1).

⁸⁹ 14 C.C.R. § 15130(b)(1).

⁹⁰ *Id.*; *see id.* § 15130(a) (stating that the lead agency shall describe its basis for concluding that an incremental effect is not cumulatively considerable).

⁹¹ DEIR, pg. IV.F-46, 56-59.

⁹² DEIR, pg. IV.F-59.

to assess the significance of the Project's noise and vibration impacts.⁹³ The FTA sets a 0.5 peak particle velocity ("PPV") threshold for vibration impacts on concrete, steel, or timber buildings. The DEIR acknowledges the Project has 0.523 PPV vibration impacts on the office building and parking structure, in excess of the threshold.⁹⁴ Since cumulative vibration impacts are measured against the same threshold,⁹⁵ it is illogical for the City to claim that the cumulative are less than significant. The City lacks substantial evidence to support the DEIR's conclusion that cumulative noise impacts are less than significant.

Second, CEQA prohibits abdicating responsibility for mitigating an impact to another Project. CEQA's requirements that mitigation be enforceable, be effective, and not be improperly deferred militate against the DEIR's approach.⁹⁶

Third, the DEIR provides no evidence that Related Project 42 is subject to CEQA review.

Fourth, the City lacks any evidence to suggest that it is feasible for Related Project 42 to mitigate its vibration impacts.

Fifth, even if the City could rely on another project to mitigate the Project's cumulative impacts, the DEIR compresses analysis of the Project's unmitigated impacts and mitigation to avoid making the finding that the Project has cumulatively significant vibration impacts. The City acknowledges that vibration impacts on a nearby multi-story office building and parking structure would be significant if the Project's construction activities were concurrent with those of Related Project 42, so it must formally find that the Project's cumulative vibration impacts are significant.⁹⁷ Only after the City makes that finding can it argue that these impacts are mitigated by Related Project 42's speculative mitigation.

The City must find that the Project has cumulatively significant vibration impacts, and adopt legally-binding mitigation.

D. The DEIR's Proposed Mitigation Measures are Inadequate

⁹³ DEIR, pg. IV.F-21.

⁹⁴ DEIR, pg. IV.F-46.

⁹⁵ DEIR, pg. IV.F-51.

⁹⁶ 14 Cal. Code Regs. § 15126.4

⁹⁷ DEIR, pg. IV.F-46, 56-59.

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CEQA prohibits agencies from approving projects with significant environmental impacts when feasible mitigation measures can substantially lessen or avoid such impacts.⁹⁸ An agency may not approve a project unless it has “[e]liminated or substantially lessened all significant effects on the environment where feasible.”⁹⁹ The mitigation measures that are adopted by the agency must be enforceable through conditions of approval, contracts, or other means that are *legally* binding.¹⁰⁰ Incorporating mitigation measures into conditions of approval ensures that the measures will be implemented, not merely adopted and ignored.¹⁰¹ Therefore, a project proponent’s agreement to a mitigation measure, by itself, is insufficient under CEQA. The mitigation measure must be adopted in a way that makes it an enforceable agreement that actually mitigates the significant environmental impact.¹⁰²

i. The DEIR Fails to Demonstrate the Feasibility of Proposed Mitigation Measures for Significant Air Quality Impacts from Construction Emissions

The DEIR acknowledges that the Project has significant construction emissions impacts. The DEIR purports to mitigate these impacts through mitigation measures AIR-MM-1, AIR-MM-2, and AIR-MM-6.

AIR-MM-1 requires that all off-road diesel-powered equipment over 50 hp used during project grading/excavation activities meet USEPA Tier 4 Final emissions standards.¹⁰³ Requiring construction equipment to meet USEPA Tier 4 Final emissions standards would result in substantial decreases in emissions. However, the DEIR fails to include an analysis of the feasibility of obtaining exclusively Tier 4 Final construction equipment for the Project’s projected 4-year construction period.

The DEIR fails to explain that Tier 4 Final equipment is of limited availability. As a result, the Project Applicant may not be able to gain access to this equipment in a timely manner in the quantity required for Project construction. Dr. Clark explains that the type of Tier 4 Final certified equipment necessary for

⁹⁸ Pub. Resources Code § 21002.

⁹⁹ CEQA Guidelines § 15092(b)(2).

¹⁰⁰ Pub. Resources Code § 21081.6(b).

¹⁰¹ *Federation of Hillside & Canyon Ass’ns v. City of Los Angeles* (2000) 83 CA 4th 1252, 1261.

¹⁰² *Woodward Park Homeowners Ass’n v. City of Fresno* (2007) 150 CA 4th 683, 730.

¹⁰³ DEIR, pg. I-25.

demolition (rubber tired dozers and tractors/loaders/backhoes), site preparation (graders, scrapers, rubber tired dozers, and tractors/loaders/backhoes), grading (graders, scrapers, rubber tired dozers, off-highway trucks, and tractors/loaders/backhoes), and paving operations (pavers, rollers, and tractors/loaders/backhoes), is still in short supply in California.¹⁰⁴

CEQA requires mitigation measures to be feasible and enforceable.¹⁰⁵ A public agency may not rely on mitigation measures of uncertain efficacy or feasibility.¹⁰⁶ The City must provide documentation in a revised DEIR showing that the Project Applicant can actually obtain Tier 4 Final equipment. Otherwise, there is no evidence AIR-MM-1 will actually mitigate the Project's significant construction emission impacts.

AIR-MM-2 provides that “[d]uring the grading phase, all trucks hauling the export of soil material and demolished site improvements shall be model 2007 or newer.”¹⁰⁷ The DEIR states that this mitigation measure would significantly reduce construction NOx emissions from 107 to 71 pounds per day in 2022, below the SCAQMD significance threshold of 100 pounds per day.¹⁰⁸ Absent an analysis of the feasibility of obtaining Tier 4 Final construction equipment, this reduction in emissions not guaranteed by AIR-MM-2. The DEIR acknowledges that, although diesel particulate filters and emission control features began to be required by the California Air Resources Board (“CARB”) in 2007, implementation of NOx emission controls was staggered – the largest fleets were not in compliance until 2014.¹⁰⁹ Therefore, the DEIR may overestimate the reduction in emissions from AIR-MM-2. The DEIR must either recalculate AIR-MM-2's emissions reductions to address actual quantifiable emissions reductions that would be achieved by AIR-MM-2, as currently drafted, or rework the mitigation measure to add more stringent requirements.

AIR-MM-6 requires the use of solar-powered generators, to the extent commercially available, should generators be required during construction.¹¹⁰ An EIR must implement all feasible mitigation to reduce significant impacts to less

¹⁰⁴ Clark, pg. 23.

¹⁰⁵ 14 CCR §§ 15126.4(a)(2), 15364.

¹⁰⁶ *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 727–728.

¹⁰⁷ *Id.*

¹⁰⁸ DEIR, pg. IV.A-58.

¹⁰⁹ DEIR, pg. IV.A-15, 16.

¹¹⁰ DEIR, pg. I-26.

than significant levels. AIR-MM-6 should be revised to require that generators be powered by solar *or electricity*, not just solar. Project Design Feature AQ-PDF-1 already requires generators used during construction to be powered by solar or electricity where possible,¹¹¹ so the City should include use of electric-powered generators in its enforceable monitoring program.

E. The DEIR Conceals Potentially Significant Environmental Impacts by Disguising Mitigation Measures as Project Design Features

Under CEQA, it is improper to attempt to disguise mitigation measures as part of the project's design if this obfuscates the potential significance of environmental impacts.¹¹² In *Lotus v. Department of Transportation*, an EIR prepared by the California Department of Transportation ("CalTrans") contained measures to help minimize potential stress on redwood trees during highway construction, such as restorative planting, invasive plant removal, watering, and use of an arborist and specialized excavation equipment.¹¹³ The Court of Appeal held that because the EIR relied on these measures to reduce adverse impacts, they were actually mitigation measures.¹¹⁴ The Court of Appeal held that the EIR improperly compressed the analysis of impacts and mitigation measures into a single issue because the EIR did not designate the measures as mitigation and concluded that because of the measures, no significant impacts were anticipated.¹¹⁵ The Court explained that a significance determination must be made independent of mitigation first, then mitigation can be incorporated, and the effectiveness of those measures can be evaluated.¹¹⁶ "Absent a determination regarding the significance of the impacts to the root systems of the old growth redwood trees, it is impossible to determine whether mitigation measures are required or to evaluate whether other more effective measures than those proposed should be considered."¹¹⁷ To ensure that mitigation measures are binding, they must be identified as mitigation measures in an enforceable monitoring program.

¹¹¹ DEIR, pg. I-20.

¹¹² *Lotus v. Department of Transportation* (2014) 223 Cal.App.4th 645, 658 (compression of mitigation measures into project design without acknowledging potentially significant impact if effects were not mitigated violates CEQA)

¹¹³ *Id.* at 650.

¹¹⁴ *Id.* *Lotus v. Dep't of Transp.* (2014) 223 Cal. App. 4th 645, 651-52.

¹¹⁵ *Id.* at 656.

¹¹⁶ *Id.* at 654–656.

¹¹⁷ *Id.* at 656.

i. NOI-PDF-1 through NOI-PDF-5

The DEIR concludes that the Project's on-site construction noise and vibration impacts are significant and unavoidable with all feasible mitigation incorporated.¹¹⁸ The City therefore has a corresponding duty to require all feasible mitigation to reduce the Project's construction noise impacts to the greatest extent feasible before declaring the impact significant and unavoidable.¹¹⁹ The City fails to require all feasible mitigation because it fails to include Project Design Features NOI-PDF-1 through NOI-PDF-5 in an enforceable monitoring program.

Additionally, the DEIR underestimates the severity of the Project's unmitigated noise impacts by incorporating Project Design Features NOI-PDF-1 through NOI-PDF-5 into the DEIR's analysis of the Project's unmitigated impacts. This approach violates CEQA because it improperly compresses the analysis of impacts and mitigation measures into a single issue. Here, Project Design Features NOI-PDF-1 through NOI-PDF-5 are all noise-reducing mitigation measures.¹²⁰ NOI-PDF-1 requires construction equipment to be equipped with noise-muffling devices.¹²¹ NOI-PDF-2 requires screening-off mechanical equipment from noise-sensitive receptors. NOI-PDF-3 imposes maximum noise levels on outdoor amplified sound systems. NOI-PDF-4 screens-off loading docks from sensitive receptors. NOI-PDF-5 provides that Project construction will not utilize drive pile systems. Like the tree-sensitive construction techniques in *Lotus*, use of these noise-muffling techniques are not ordinarily required to construct a mixed-use development – these techniques are only included in the DEIR to mitigate impacts. Further, as in *Lotus*, these noise-muffling techniques are not specifically mandated by law – the Los Angeles Municipal Code only imposes noise thresholds the Project must meet. Instead, the purpose of NOI-PDF-1 through NOI-PDF-5 is to reduce the Project's admittedly significant noise impacts. These PDFs are thus actually mitigation measures. The DEIR must reconduct its noise analyses to disclose the true noise impact of the Project, and must include Project Design Features NOI-PDF-1 through NOI-PDF-5 in an enforceable mitigation monitoring program.

¹¹⁸ See e.g. DEIR, pg. I-16 to 17.

¹¹⁹ Pub. Res. Code § 21081; 14 CCR §§ 15090, 15091; *Covington v GBUAPCD* (2019) 43 Cal.App.5th 867, 879-883 (before impact can be declared significant and unavoidable, lead agency must first adopt all feasible mitigation to reduce impact to greatest extent feasible).

¹²⁰ DEIR, I-21.

¹²¹ *Id.*

F. The City Cannot Approve the Project's Main Conditional Use Permit

The Project seeks approval of a Main Conditional Use Permit ("MCUP") pursuant to LAMC Section 12.24(W)(1) for the sales and/or dispensing of alcoholic beverages within the commercial uses of the Project.¹²² LAMC Section 12.24(E) provides that a decision-maker shall not grant a conditional use permit – including for sale of alcoholic beverages – without finding “that the project's location, size, height, operations and other significant features will be compatible with and will not adversely affect or further degrade adjacent properties, the surrounding neighborhood, or the public health, welfare, and safety.”

The DEIR acknowledges that the Project has significant and unavoidable impacts on the environment and health of the community.¹²³ The DEIR also fails to accurately disclose and mitigate other significant impacts, as discussed herein. Therefore, the Project currently fails to meet the LAMC requirements to obtain a MCUP.

Additionally, Section 12.24(W)(1)(a)(3) requires the below finding be made to approve the MCUP:

“the proposed use will not detrimentally affect nearby residentially zoned communities in the area of the City involved, after giving consideration to the distance of the proposed use from residential buildings, churches, schools, hospitals, public playgrounds and other similar uses, and other establishments dispensing, for sale or other consideration, alcoholic beverages, including beer and wine.”

The Project is located directly across Serrano Avenue from residential buildings. Given this close proximity to residential uses, the City must provide evidence demonstrating that issuance of the MCUP to allow alcohol sales will not detrimentally affect these residences.

¹²² DEIR, pg. II-29.

¹²³ DEIR, pg. I-18-19 (On-site noise, cumulative off-site noise, and on-site vibration (human annoyance) are all significant and unavoidable impacts).
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G. The Statement of Overriding Consideration Must Consider Whether the Project Provides Employment Opportunities for Highly Trained Workers

As previously stated, the City concluded in the DEIR that the Project will have significant and unavoidable environmental impacts related to on-site noise and vibration during construction.¹²⁴ Therefore, in order to approve the Project, CEQA requires the City to adopt a statement of overriding considerations, providing that the Project's overriding benefits outweigh its environmental harm.¹²⁵ An agency's determination that a project's benefits outweigh its significant, unavoidable impacts "lies at the core of the lead agency's discretionary responsibility under CEQA."¹²⁶

The City must set forth the reasons for its action, pointing to supporting substantial evidence in the administrative record.¹²⁷ This requirement reflects the policy that public agencies must weigh a project's benefits against its unavoidable environmental impacts, and may find the adverse impacts acceptable only if the benefits outweigh the impacts.¹²⁸ Importantly, a statement of overriding considerations is legally inadequate if it fails to accurately characterize the relative harms and benefits of a project.¹²⁹

In this case, the City must find that the Project's significant, unavoidable impacts are outweighed by the Project's benefits to the community. CEQA specifically references employment opportunities for highly trained workers as a factor to be considered in making the determination of overriding benefits.¹³⁰ Currently, there is not substantial evidence in the record showing that the Project's significant, unavoidable impacts are outweighed by benefits to the community. For example, there is no evidence in the record that the Applicant has made any commitments to employ graduates of state approved apprenticeship programs or taken other steps to ensure employment of highly trained and skilled

¹²⁴ DEIR, pg. VI-1

¹²⁵ CEQA Guidelines, § 15043.

¹²⁶ *Laurel Heights Improvement Assn. v. Regents of University of California* (1988) 47 Cal.3d 376, 392.

¹²⁷ Pub. Resources Code, § 21081, subd. (b); CEQA Guidelines, § 15093, subds. (a) and (b); *Cherry Valley Pass Acres & Neighbors v. City of Beaumont* (2010) 190 Cal.App.4th 316, 357.

¹²⁸ Pub. Resources Code, § 21081(b); CEQA Guidelines, § 15093, subds. (a) and (b)

¹²⁹ *Woodward Park Homeowners Association v. City of Fresno* (2007) 150 Cal.App.4th 683, 717.

¹³⁰ Pub. Resources Code, § 21081, subds. (a)(3) and (b).

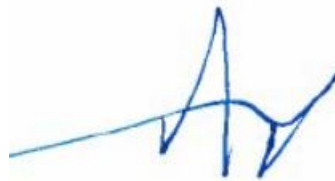
craft workers on Project construction, an action contemplated by CEQA Section 21081. Absent substantial evidence in the record demonstrating that the Project's benefits outweigh its environmental costs, the City would not fulfill its obligations under CEQA if it adopted a statement of overriding considerations and approved the Project.

We urge the City to prepare and circulate a revised DEIR which identifies the Project's potentially significant impacts, requires all feasible mitigation measures and analyzes all feasible alternatives to reduce impacts to a less than significant level. If a Statement of Overriding Considerations is adopted for the Project, we urge the City to consider whether the Project will result in employment opportunities for highly trained workers.

V. CONCLUSION

The DEIR is inadequate and must be withdrawn. We urge the City to prepare and circulate a revised DEIR which accurately discloses all of the Project's potentially significant impacts, and requires all feasible mitigation measures to reduce the Project's significant environmental and public health impacts. We thank you for the opportunity to provide these comments on the DEIR.

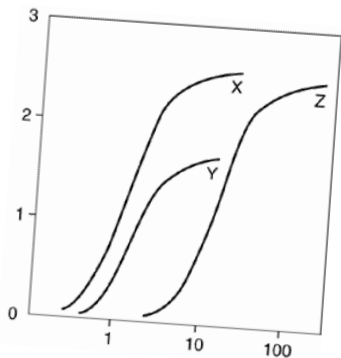
Sincerely,

A handwritten signature in blue ink, appearing to read 'Aidan P. Marshall', with a stylized, cursive-like structure.

Aidan P. Marshall

APM:lj1

EXHIBIT A



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October 4, 2021

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

Attn: Mr. Aidan P. Marshall

**Subject: Comments On 5420 Sunset Blvd Project, Case Number
ENV-2017-1084-EIR, State Clearinghouse Number
2017061075**

Dear Mr. Marshall:

At the request of Adams Broadwell Joseph & Cardozo (ABJC), Clark and Associates (Clark) has reviewed materials related to the 2021 City of Los Angeles Draft Environmental Impact Report (DEIR) of the above referenced project.

Clark's review of the materials in no way constitutes a validation of the conclusions or materials contained within the plan. If we do not comment on a specific item this does not constitute acceptance of the item.

Project Description:

The Project proposes the development of a new mixed-use project (the Project) on a 6.75-acre site located at 5420 Sunset Boulevard (the Project Site) within the Hollywood Community Plan and Vermont/Western Station Neighborhood Area Specific Plan (Specific Plan) areas of the City of Los Angeles (City). The Project would replace an existing grocery store, vacant commercial space, fast-food restaurant, and associated parking areas within the Project Site with a new mixed-use development consisting of 735 multi-family residential units and up to 95,000 square feet of neighborhood-serving commercial uses, including market/retail and restaurant uses. The proposed uses would be provided within four buildings that would be up to six stories with a maximum height of 75 feet.

The proposed uses would be supported by approximately 1,419 vehicle parking spaces that would be distributed throughout the Project Site in two subterranean parking levels and in one at grade parking level. A total of approximately 548 bicycle parking spaces would be provided within the Project Site and on adjacent sidewalks. The Project would include residential lobbies and leasing offices, pools, spas, and other recreational facilities. The Project would provide approximately 96,800 square feet of open space, including landscaped courtyards, a public plaza fronting Sunset Boulevard, and landscaped paseos at the ground level that would be publicly accessible from Sunset Boulevard. Overall, the Project would remove approximately 100,796 square feet of existing floor area and construct up to 882,250 square feet of new floor area, resulting in an increase of 781,454 square feet of net new floor area within the Project Site. The Floor Area Ratio (FAR) on the Project Site would be a maximum of 3 to 1. To provide for the Project, the existing grocery store, vacant commercial space, fast-food restaurant, and associated surface parking areas would be demolished.

General Comments:

According to the City's DEIR, the Project would result in significant and unavoidable impacts related to on-site noise during construction and on-site vibration during construction (pursuant to the threshold for human annoyance). Cumulative impacts with respect to off-site construction noise would also be significant and unavoidable. All other potential impacts would be less than significant or mitigated to less-than-significant levels. The assessment from the City provided in the DEIR misses the significant impacts associated with air quality that have been ignored by the City. The conclusion from the City that all other potential impacts would be less than significant is, in fact, without merit. There are substantial impacts that are not addressed in the City's analysis that must be addressed in a revised environmental impact report (REIR).

Specific Comments:

- 1. The Air Dispersion Model Utilized In The Health Risk Analysis Was Deficient, Used Inaccurate Traffic Counts, and Did Not Include All Of The Sources Of Criteria Air Pollutants and Toxic Air Contaminants From The Project.**

In Appendix G of the DEIR,¹ the description provided to the City states that a health risk assessment (HRA) was prepared to assess the potential effects of pollutants (sic, specifically from roadway emissions associated with State Route 101) on individuals who utilize/reside at the proposed project site. The model fails to accurately assess the concentrations of toxic air contaminants (TACs) released from activities associated with the operation of the Project and underestimates the health impacts of the project on the residents of the Project and the surrounding community since it does not include an analysis of the emissions from vehicles coming to and from the Project site as well as the emissions from the back-up generator(s) that will be utilized on-site.

According to Appendix G of the DEIR², “The (air) modeling analysis also considered the spatial distribution of mobile source activity in relation to the proposed site. To accommodate a Cartesian grid format, direction dependent calculations were obtained by identifying the uniformly placed to provide coverage across the identified transverse mercator (UTM) coordinates for each volume source location. On-site receptors were uniformly placed to provide coverage across the identified project boundary commensurate with residential uses and areas of common access. Terrain height adjustments were incorporated into the modeling exercise to account for the discrepancy in source elevations and the average grade plane of the proposed project.”

Based upon the source description in the HRA, it is clear that the model includes Dispersion Model Input Table, included Appendix C to the HRA, identifies 64 discrete sources. Thirteen (13) sources are identified for north bound traffic on State Route 101, thirteen (13) sources are identified for south bound traffic on State Route 101, ten (10) sources are identified for the southbound offramp leading to Western Avenue, and twenty-eight (28) sources are identified for the northbound onramp for Western Avenue. No source is directly attributed to the emissions from vehicles entering and leaving the Project site.

¹ Appendix G of DEIR. 2021. Sunset/Western Mixed-Use Project Health Risk Assessment. Prepared for Eyestone Environmental by Air Quality Dynamics. Dated May, 2018. Section 1.0 Introduction. Page 4 of 142.

² Appendix G of DEIR. 2021. Sunset/Western Mixed-Use Project Health Risk Assessment. Prepared for Eyestone Environmental by Air Quality Dynamics. Dated May, 2018. Section 5.0 Exposure Quantification. Page 9 of 142.

Figure 2
Source-Receptor Grid Network

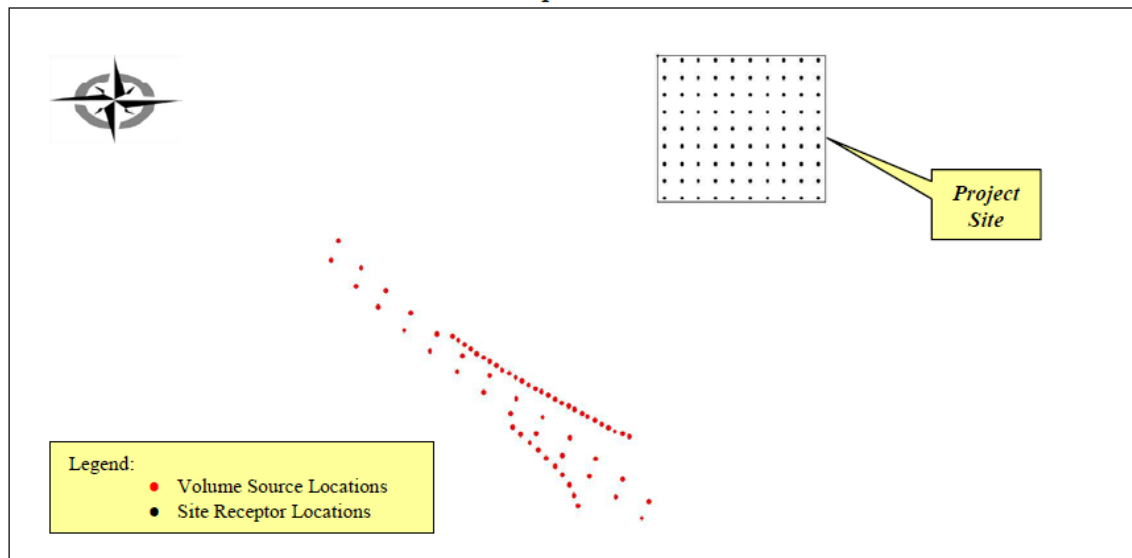


Figure 1: Model Domain From City's Analysis

In the Source Identification section of the HRA³, the report states that based upon the arithmetic average of traffic flow identified in the Performance Measurement System (PeMS) operated by the California Department of Transportation (CalTrans), hourly traffic volumes for the north and southbound freeway segments were identified. Ramp volumes were assumed by the report to have a uniform distribution and were averaged to produce an hourly traffic profile.⁴ The PeMS data utilized in the analysis was for the 2017 calendar year.

³ Appendix G of DEIR. 2021. Sunset/Western Mixed-Use Project Health Risk Assessment. Prepared for Eyestone Environmental by Air Quality Dynamics. Dated May, 2018. Section 3.0 Source Identification. Page 6 of 142.

⁴ Appendix G of DEIR. 2021. Sunset/Western Mixed-Use Project Health Risk Assessment. Prepared for Eyestone Environmental by Air Quality Dynamics. Dated May, 2018. Section 3.0 Source Identification. Page 6 of 142.

Table 1
Hourly Freeway Traffic Volumes

Roadway Segment	Speed Scenario	Traffic Volumes		
		All	Gas	Diesel
U.S. Route 101 Northbound	Average	4904	4699	205
U.S. Route 101 Southbound	Average	3670	3517	153
U.S. Route 101 Northbound	Minimum	1416	1357	59
U.S. Route 101 Southbound	Minimum	2928	2806	122
Southbound Off/Western Avenue	Average Minimum	408	391	17
Northbound On/Western Avenue	Average Minimum	518	496	22

A review of the PeMS database for the year 2017 shows a very different picture of the northbound and southbound average traffic rates. The southbound traffic the hourly average traffic flow is between 8,167 vehicles per hour to 9,042 vehicles per hour in the segment between Western Avenue and Sunset Boulevard. The value used in the HRA for the southbound traffic is 2.2 to 2.5 times lower than the values reported by CalTrans.

DESCRIPTION	Southbound Peak Hour	Southbound Peak MADT	Southbound AADT	Southbound Hourly Ave
LOS ANGELES, WESTERN AVENUE	11600	201000	196000	8167
LOS ANGELES, SUNSET/HOLLYWOOD BOULEVARD	13000	222000	217000	9042

The northbound traffic the hourly average traffic flow is between 8,167 vehicles per hour to 9,042 vehicles per hour in the segment between Western Avenue and Sunset Boulevard. The value used in the HRA for the northbound traffic is 2.2 to 2.5 times lower than the values reported by CalTrans.

DESCRIPTION	Northbound Peak Hour	Northbound Peak MADT	Northbound AADT	Northbound Hourly Ave
LOS ANGELES, WESTERN AVENUE	13000	222000	217000	9042
LOS ANGELES, SUNSET/HOLLYWOOD BOULEVARD	11900	200000	196000	8167

Assuming the same ratios as the table supplied in the DEIR would produce the following traffic estimates for freeway traffic.

Roadway Segment	Speed Scenario	Traffic Volumes		
		All	Gas	Diesel
Route 101 Northbound	Average	9042	8665	377
Route 101 Southbound	Average	8167	7827	340
Route 101 Northbound	Minimum	2611	2502	109
Route 101 Southbound	Minimum	6516	6244	272
Southbound Off/Western Ave	Average	908	870	38
	Minimum			
Northbound On/Western Avenue	Average	955	915	41
	Minimum			

It is evident that the DEIR's analysis of air quality impacts are based upon emission values that are significantly lower than the numbers reported by CalTrans. The DEIR's analysis therefore underestimates actual emissions and is not supported by substantial evidence. The City must re-evaluate the air quality impacts using correct traffic counts in a revised EIR.

As for other mobile sources in the area that will impact the Project, it is clear that the model created for the air quality impact analysis is missing a significant number of sources within 1,000 feet of the proposed project site. In the figure below the red circle indicates an approximate 1,000 foot radius from the edge of the proposed project site. In the figure it is evident that the Sunset Boulevard exit lies just outside the 1,000 foot radius (approximately 1,600 feet to the start of the north bound Sunset Boulevard offramp). Vehicles exiting towards west bound Sunset Boulevard via a dedicated offramp while vehicles exiting towards east bound Sunset Boulevard proceed down Wilton Place to Sunset Boulevard.

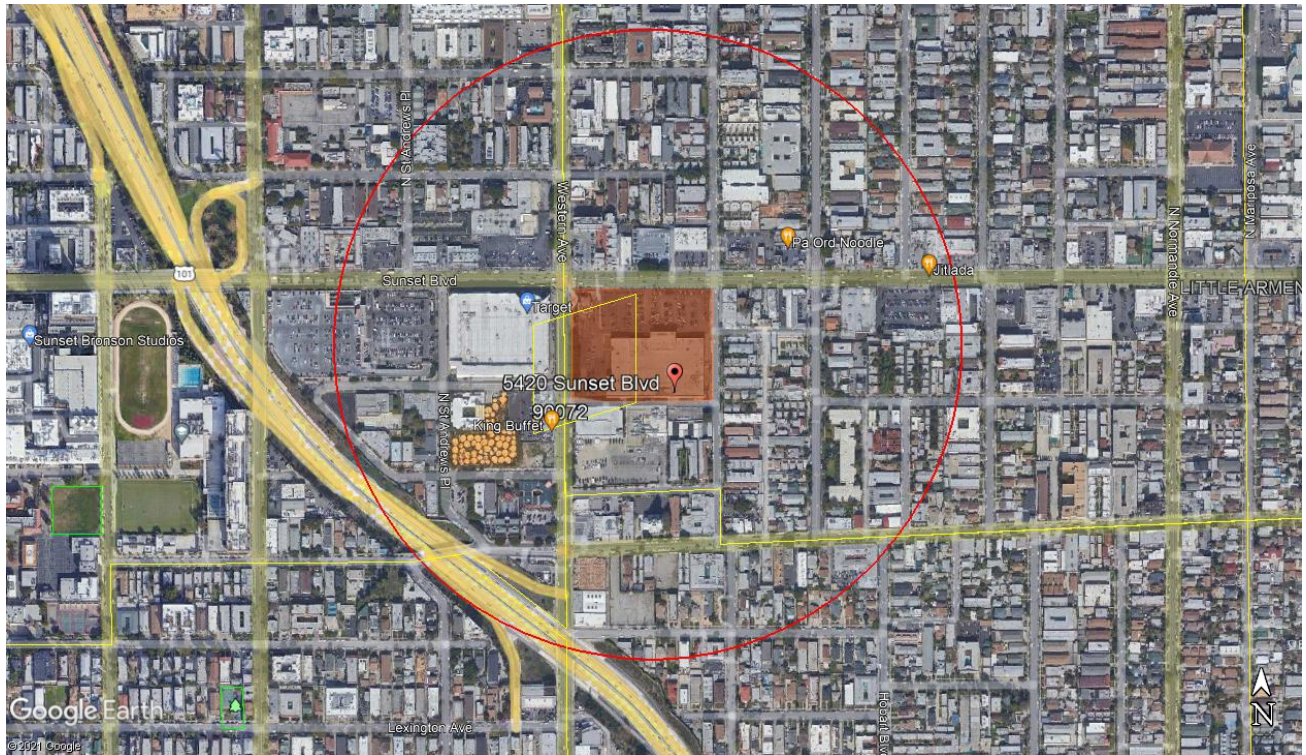


Figure 2: 1,000 Foot Boundary From Project Site

In the Transportation Study, Appendix P of the DEIR⁵, the following descriptions of the area around the project are provided:

- **Sunset Boulevard** – Sunset Boulevard is a designated Avenue I in the Mobility Plan and a designated Major Highway Class II in the General Plan and travels in the east-west direction. It forms the northern boundary of the Project Site and provides six 10- to 15-foot travel lanes, three lanes in each direction, and left-turn lanes at intersections.
- **Western Avenue** – Western Avenue is a designated Avenue I in the Mobility Plan and a designated Major Highway Class II in the General Plan and travels in the north-south direction. It forms the western boundary of the Project Site and provides four 10- to 18-foot travel lanes, three lanes in each direction, and left-turn lanes at intersections.

For the trip generation associated with the project, the Proponent used the rates published in the Trip Generation, 9th Edition (out of date). The study concluded that there would be *a net increase of 2,369 extra trips per day* over the existing project (a total of 7,620 daily trips). The increase

⁵ Appendix P of DEIR. 2021. Transportation Impact Study For The Sunset/Western Mixed-Use Project, Hollywood, California. Prepared for 5420 Sunset Boulevard LP, LLC, prepared by Gibson Transportation Consulting, Inc. Dated May, 2018. Page 24 of 531.

represents a 45% increase in traffic in the project area of influence. The study also concluded that four of the study intersections (Van Ness Avenue and Sunset Boulevard; Wilton Place and Hollywood Boulevard; Western Avenue and Hollywood Boulevard; and, Western Avenue and Sunset Boulevard) were determined to be significant under Existing with Project Conditions during either the morning or afternoon peak hour. Mitigation was required to offset these impacts.

Given the significant net increase of traffic found within the Traffic Study (an extra 2,369 trips per day), the City must add these sources in a revised dispersion model of the project impacts. After accounting for the increased number of vehicles, the model must account for the TACs released from the vehicles, including diesel particulate matter (DPM) and volatile organic compounds (VOCs) from diesel and gasoline powered vehicles. The City must re-evaluate the air quality impacts using the correct number of vehicles associated with the project and re-run the dispersion model (and health risk analysis) in a revised EIR.

2. The Results Of The Health Risk Analysis Cannot Be Verified Since The City Has Not Included The Underlying Files From The AERMOD Dispersion Model Analysis Which Would Have Been Used To Calculate The Ground-Level Concentration Of Toxic Air Contaminants On and Off Site.

While the City claims that a Health Risk Assessment (HRA) in Appendix G of the DEIR⁶ was prepared to assess the potential effects of pollutants (sic, specifically from roadway emissions associated with State Route 101) on individuals who utilize/reside at the proposed Project site or the other residents nearby to the Project site, the results of the HRA cannot be verified without the underlying input and output files from the AERMOD dispersion model of the project. Simply providing the first 2 pages of the output from the model runs is not a sufficient method for validating the model results. The City must disclose the underlying files so that the health impacts from the operational emissions can be validated. The files must be included in a revised DEIR for the project.

⁶ Appendix G of DEIR. 2021. Sunset/Western Mixed-Use Project Health Risk Assessment. Prepared for Eyestone Environmental by Air Quality Dynamics. Dated May, 2018. Section 1.0 Introduction. Page 4 of 142.

3. A Site Specific Health Risk Analysis Of Emissions From The Project Shows That The Emissions Of Diesel Particulate Matter From Heavy Duty Trucks Using The Project Site During The Operational Phase Will Have A Significant Impact On The Community And Residents Of The Project Site.

As is documented above in Comment 1, the health risk analysis (HRA) presented in the DEIR is deficient since it fails to assess the impacts of emissions associated with the Project on the residents of the Project and the surrounding community. According to the CalEEMOD analysis presented in Appendix B of the DEIR⁷, an estimated 8,655 vehicle trips will occur every weekday and an estimated 12,465.96 vehicle trips will occur each weekend day. Those trips will be solely associated with the commercial development installed on the Project site. The CalEEMOD analysis further details that 3.3% of the traffic is expected to be heavy duty trucks (which emit the most DPM), or approximately 287 trucks will be entering and leaving the Project site daily. On the weekends there could be more (approximately 414). None of the emissions from those vehicles, whether while moving along the surface streets adjacent to the Project or idling on site are accounted for in the City's analysis.

Using the results of the traffic analysis (Appendix P to the DEIR), the City has estimated that approximately 5% of the traffic will be headed north on surface street (14 total), 10% will head south (43 total), 25% will head east (72 total), 35% to the west (100 total), 10% to the northwest to US 101 (29 total), 10% to the southwest to US 101 (29 total). The routes are demonstrated below in the attached figure.

⁷ Appendix B of DEIR. 2021. Air Quality and Greenhouse Gas Emissions. Prepared by Eyestone Environmental. Dated July, 2021. Page B-134.

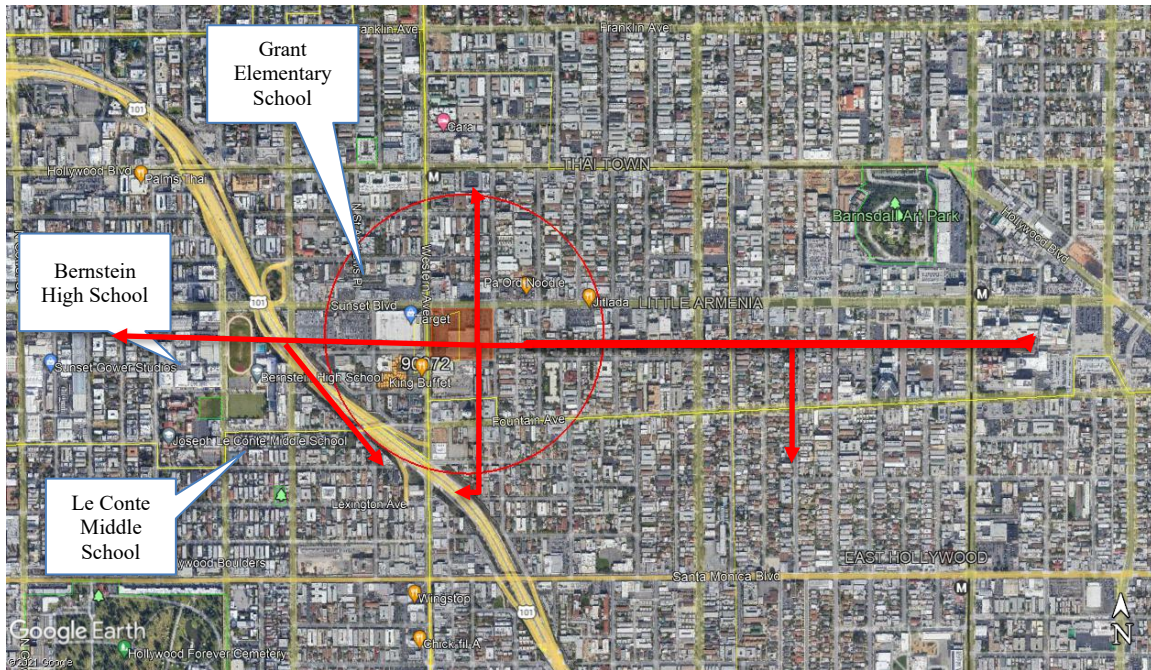


Figure 3: Sensitive Receptor Sites And Truck Routes

Using the same emission rates as cited by the City in Appendix B (emission rate of diesel particulate matter (DPM) while vehicles are moving and while idling), the total DPM emissions for heavy duty trucks using the Project site are presented in the table below.

Direction	Trips per day	miles per trip	grams DPM/mile	lbs/day
Northbound	14	0.33	0.024	2.44E-04
Southbound	43	0.65	0.024	1.48E-03
Eastbound	72	0.65	0.024	2.48E-03
Westbound	100	0.65	0.024	3.44E-03
NW on 101	29	0.5	0.024	7.67E-04
SW on 101	29	0.65	0.024	9.97E-04

For idling vehicles, it was assumed that trucks would not be allowed to idle for more than 5 minutes. The emissions per day for 287 trucks was calculated to be 0.001 lbs per day.

Source	Trucks per day	Total Idling Time (hrs)	grams DPM/hr	lbs/day
Idling	287	23.92	0.02	1.05E-03

For the idling and the mobile source emissions were restricted to a 12-hour period from approximately 7:00 am to 7:00 pm.

In addition to the receptor grid placed over the Project site, three sensitive receptor sites were identified for inclusion in the model. Those sensitive receptor sites included Grant Elementary school, located approximately 0.2 miles northwest of the Project site; Joseph Le Conte Middle School, located approximately 0.5 miles south-southwest of the Project site; and, Bernstein High School, located 0.3 miles west of the Project site were included in the dispersion model domain.

Using the same meteorological data and digital elevation models that were used in the City's analysis, the impacts of the freeway emissions and the operational emissions of DPM from the Project site have been calculated on an annual basis. The results of the dispersion modeling exercise are presented below in the attached table and figures, as well as in Attachment B to this letter.

Receptor	DPM Concentration From Freeway	DPM Concentration From Mobile Sources Project	DPM Cumulative Concentration
	ug/m ³	ug/m ³	ug/m ³
Maximum On Site	5.11 E-03	5.40E-02	5.96E-02
Residents North of Sunset	1.47E-03	3.675E-2	3.82E-02
Grant Elementary School	1.11E-03	3.74E-03	8.02E-03
Joseph Le Conte Middle School	1.39E-03	2.01E-03	5.66E-03
Bernstein High School	2.09E-03	6.15E-03	1.08E-02



Figure 4: DPM Emissions From Freeway Sources

Figure 4 shows the impacts of emissions from freeway sources on the Project site and the surrounding community based on the City's assumptions. For the figure above the yellow contour indicates a concentration of DPM of approximately 0.00147 ug/m^3 .

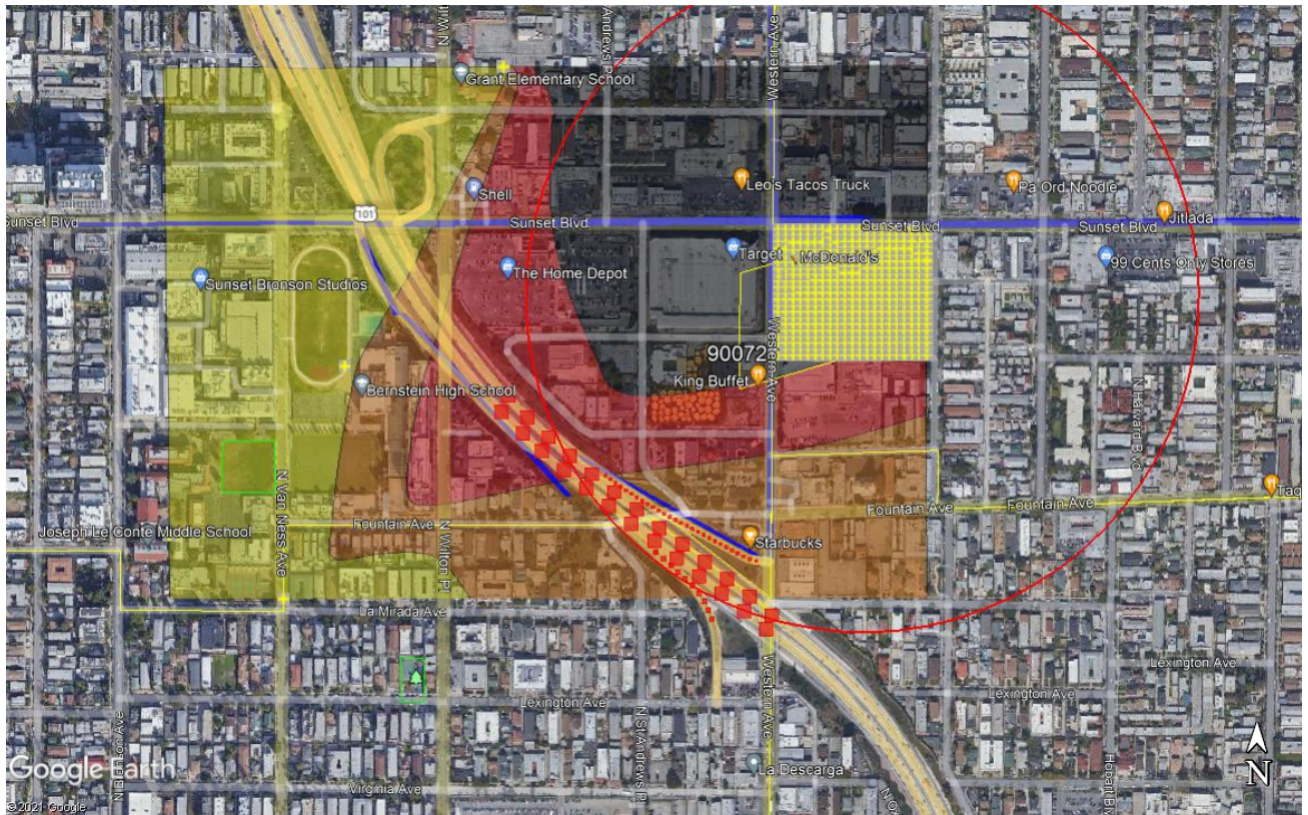


Figure 5: Impact Of Project Site Mobile Sources

Figure 5 shows the impacts of emissions from mobile sources associated with the Project. For the figure above the yellow contour indicates a concentration of DPM of approximately 0.00147 ug/m^3 . The orange contour indicates a concentration of DPM of approximately 0.00735 ug/m^3 . The red contour indicates a concentration of DPM of approximately 0.0147 ug/m^3 . The black contour indicates a concentration of DPM of approximately 0.03675 ug/m^3 .

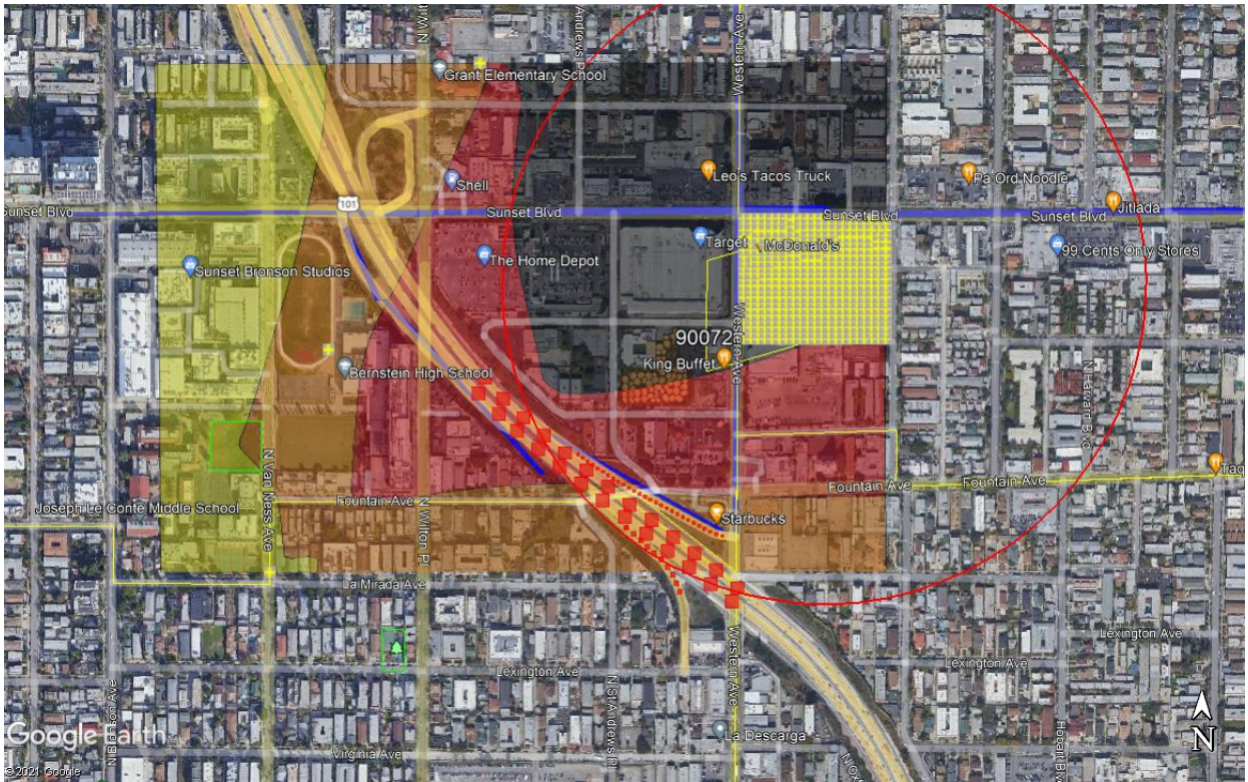


Figure 6: Cumulative Impacts Of All Sources

Figure 6 shows the impacts of all emissions sources associated with the Project and the freeway on the community. For the figure above the yellow contour indicates a concentration of DPM of approximately 0.00147 ug/m^3 . The orange contour indicates a concentration of DPM of approximately 0.00735 ug/m^3 . The red contour indicates a concentration of DPM of approximately 0.0147 ug/m^3 . The black contour indicates a concentration of DPM of approximately 0.03675 ug/m^3 .

The results of the model and the input/output files are included as an attachment to this comment letters. In order to calculate the residential risk from exposure to DPM on and off-site, the CARB's HARP2 Risk Assessment Standalone Tool (date 15065) was used to calculate the health risk to the community by modeling the cancer risk for an individual resident over 30-years using the OEHHA derived method (default assumptions) for community members and site-specific parameters for students (most sensitive receptor) at the schools. The results are presented in Attachment C to this letter.

Receptor	DPM Cumulative Concentration ug/m^3	Cumulative Risk
		Per million
Maximum On Site	5.96E-02	52.7

Receptor	DPM Cumulative Concentration ug/m ³	Cumulative Risk
		Per million
Residents North of Sunset	3.82E-02	33.8
Grant Elementary School	8.02E-03	2.1
Joseph Le Conte Middle School	5.66E-03	0.4
Bernstein High School	1.08E-02	1.5

The model with the mobile sources from the Project site shows that the risk to the residents of the Project site will exceed 10 in 1,000,000 as well as residents nearby the site. Risks to sensitive receptor sites would exceed 1 in 1,000,000 on average. The City must perform its own analysis of the impacts of traffic associated with the Project in a new air dispersion model and health risk analysis as well as derive mitigation measures specific for the project that will reduce the number of diesel powered vehicles entering and exiting the site, reduce idling times for vehicles, and modify pathways to and from the site to prevent exposure of residents on and off site.. The results must be presented in a revised EIR.

4. DEIR Falsely Asserts That The Project Would Not Exposure Sensitive Receptors To Substantial Pollutant Concentrations From Toxic Air Contaminants Emitted During The Construction Phase Of The Project.

In the DEIR analysis of construction emissions, the City asserts that the project would not expose sensitive receptors to substantial pollutants concentrations from TACs emitted during the construction phase of the project but does not substantiate the claim quantitatively. On page IV.A-61 of the DEIR the City states first that the short-term construction schedule of four years would not result in a long-term source of TAC emissions. This assertion completely misses the point of the type of chemicals being emitted. The risk of developing cancer from exposure to TACs is a function of the duration of exposure, the concentration of the individual's unique exposure scenario, and the toxicity of the chemical. In the case of diesel exhaust there is a clear link to a range of serious health problems

including an increase in respiratory disease, lung damage, cancer, and premature death.^{8,9,10} Fine DPM is deposited deep in the lungs in the smallest airways and can result in increased respiratory symptoms and disease; decreased lung function, particularly in children and individuals with asthma; alterations in lung tissue and respiratory tract defense mechanisms; and premature death.¹¹ Exposure to DPM increases the risk of lung cancer. It also causes non-cancer effects including chronic bronchitis, inflammation of lung tissue, thickening of the alveolar walls, immunological allergic reactions, and airway constriction.¹² DPM is a TAC that is recognized by state and federal agencies as causing severe health risk because it contains toxic materials, unlike PM_{2.5} and PM₁₀.¹³ Without quantifying the concentration of the DPM for the sensitive receptors during the construction phase of the Project, the City has failed to meet its responsibility to assess all of the potential impacts. The City must correct this error in a revised environmental impact report.

5. The City's Analysis Of Emissions From The Back Up Generator (BUG) On-Site Ignores The Substantial Emissions That Will Occur From Non-Testing Periods Of The BUG

In the City's air quality analysis, it assumed that the BUG will be maintained and tested for no more than 12 hours per year. Based on the City's CalEEMOD analysis of the 350 hp diesel generator that will be operated on site, the City calculates an emission rate of 0.000942 lbs of DPM per hour.

⁸ California Air Resources Board, Initial Statement of Reasons for Rulemaking, Proposed Identification of Diesel Exhaust as a Toxic Air Contaminant, Staff Report, June 1998; see also California Air Resources Board, Overview: Diesel Exhaust & Health, <https://ww2.arb.ca.gov/resources/overview-diesel-exhaust-and-health#:~:text=Diesel%20Particulate%20Matter%20and%20Health&text=In%201998%2C%20CARB%20identified%20DPM,and%20other%20adverse%20health%20effects>.

⁹ U.S. EPA, Health Assessment Document for Diesel Engine Exhaust, Report EPA/600/8-90/057F, May 2002.

¹⁰ Environmental Defense Fund, Cleaner Diesel Handbook, Bring Cleaner Fuel and Diesel Retrofits into Your Neighborhood, April 2005; http://www.edf.org/documents/4941_cleanerdieselhandbook.pdf, accessed July 5, 2020.

¹¹ California Air Resources Board, Initial Statement of Reasons for Rulemaking, Proposed Identification of Diesel Exhaust as a Toxic Air Contaminant, Staff Report, June 1998.

¹² Findings of the Scientific Review Panel on The Report on Diesel Exhaust as adopted at the Panel's April 22, 1998 Meeting.

¹³ Health & Safety Code § 39655(a) (defining "toxic air contaminant" as air pollutants "which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health. A substance that is listed as a hazardous air pollutant pursuant to subsection (b) of Section 112 of the federal act (42 U.S.C. Sec. 7412 (b)) is a toxic air contaminant.")

According to SCAQMD Rules 1110.2, 1470, BUGs are allowed to operate for up to 200 hours per year and maintenance cannot exceed more than 50 hours per year. Instead of emitting the 0.0113 lbs for 12 hours of operation, the City should be calculating the impact for operation of up to 200 hours per year or 0.18833 lbs of DPM per year. The City's assumption that the BUG would operate at a substantially reduced rate ignores the legally acceptable threshold outlined in SCAQMD Rule 1470. The City has therefore failed to properly measure the potential impact of DPM emissions from the BUG on the receptors nearby.

In addition, the DEIR ignores the substantial increase in operational emissions from BUGs in the Air Basin due to unscheduled events, including but not limited to Public Safety Power Shutoff (PSPS) events and extreme heat events. Extreme heat events are defined as periods where in the temperatures throughout California exceed 100 degrees Fahrenheit.¹⁴ From January, 2019 through December, 2019, Southern California Edison reported 158 of their circuits underwent a PSP event¹⁵. In Los Angeles County, two circuits had 4 PSPS events during that period, lasting an average of 35 to 38 hours. The total duration of the PSPS events lasted between 141 hours to 154 hours in 2019. This would equate to an additional 0.13 to 0.14 lbs of DPM that are not accounted for in the City's model. In 2021, the Governor Of California declared that during extreme heat events the use of stationary generators shall be deemed an emergency use under California Code of Regulations (CCR), title 17, section 93115.4 sub. (a) (30) (A)(2). The number of Extreme Heat Events is likely to increase in California with the continuing change in climate the State is currently undergoing.

Power produced during PSPS or extreme heat events is expected to come from engines regulated by CARB and California's 35 air pollution control and air quality management districts (air districts).¹⁶ Of particular concern are health effects related to emissions from diesel back-up engines. Diesel particulate matter (DPM) has been identified as a toxic air contaminant, composed of carbon particles and numerous organic compounds, including over forty known cancer-causing organic

¹⁴ Governor of California. 2021. Proclamation of a state of emergency. June 17, 2021.

¹⁵ SCAQMD. 2020. Proposed Amendment To Rules (PARS) 1110.2, 1470, and 1472. Dated December 10, 2020. http://www.aqmd.gov/docs/default-source/rule-book/Proposed-Rules/1110.2/1110-2_1470_1472/par1110-2_1470_wgm_121020.pdf?sfvrsn=6.

¹⁶ CARB. 2019. Use of Back-up Engines For Electricity Generation During Public Safety Power Shutoff Events. October 25, 2019.

substances. The majority of DPM is small enough to be inhaled deep into the lungs and make them more susceptible to injury.

According to the California Public Utilities Commission (CPUC) de-energization report¹⁷ in October 2019, there were almost **806 PSPS events** (emphasis added) that impacted almost 973,000 customers (~7.5% of households in California) of which ~854,000 of them were residential customers, and the rest were commercial/industrial/medical baseline/other customers. CARB's data also indicated that on average each of these customers had about 43 hours of power outage in October 2019.¹⁸ Using the actual emission factors for each diesel BUG engines in the air district's stationary BUGs database, CARB staff calculated that the 1,810 additional stationary running during a PSPS in October 2019 generated 126 tons of NOx, 8.3 tons of particulate matter, and 8.3 tons of DPM.

For every PSPS or Extreme Heat Event (EHE) triggered during the operational phase of the project, significant concentrations of DPM will be released that are not accounted for in the City's analysis. In 2021, two EHEs have been declared so far. For the June 17, 2021 Extreme Heat Event, the period for which stationary generator owners were allowed to use their BUGs lasted 48 hours. For the July 9, 2021 EHE, the period for which stationary generator owners were allowed to use their BUGs lasted 72 hours. These two events would have tripled the calculated DPM emissions from the Project for the year if the project had been completed.

The DEIR must be revised to include an analysis of the additional operation of the BUG that will occur at the project site that is not accounted for in the current air quality analysis.

6. The Air Quality Analysis And Project Description In The DEIR Are In Conflict With The Air Quality Analysis And Project Description In Appendix B To The DEIR

In Table IV.A.6 of the Impact Analysis For Air Quality of DEIR, the unmitigated emissions of the nitrogen oxides (NOx) emissions would exceed the SCAQMD threshold for significance. After mitigation (Mitigation Measure AIR-MM-1), which involves the requirement that all off-road diesel-powered equipment over 50 hp used during project grading/excavation activities meet USEPA Tier

¹⁷ <https://www.cpuc.ca.gov/deenergization/> as cited in CARB, 2020. Potential Emission Impact of Public Safety Power Shutoff (PSPS), Emission Impact: Additional Generator Usage associated With Power Outage..

¹⁸ CARB, 2020. Potential Emission Impact of Public Safety Power Shutoff (PSPS), Emission Impact: Additional Generator Usage associated With Power Outage..

4 Final emissions standards, the DEIR claims that construction emission would be reduced from 134 lbs per day to 107 pounds per day in Year 2022. Incorporating Mitigation Measure AIR-MM-2, which requires the use of 2007 or newer haul trucks would reduce peak daily construction emissions from 107 to 71 pounds per day of NO_x in Year 2022.¹⁹ The DEIR goes on to state that the peak daily NO_x emission over the duration of construction would be 97 pounds per day of NO_x during Year 2022. This is not reflected in Table IV.A-8 of the DEIR.

Table IV.A-8
Estimate of Maximum Regional Project Daily Construction Emissions—Mitigated
(pounds per day)

Construction Year	VOC ^b	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Regional Construction Emissions						
Year 2022	3	71	49	<1	4	2
Year 2023	5	97	55	<1	46	13
Year 2024	8	43	78	<1	15	5
Year 2025	31	41	76	<1	14	5
Year 2026	28	21	49	<1	12	4
Maximum Unmitigated Construction Emissions^c	31	97	78	<1	46	13
SCAQMD Daily Significance Thresholds	75	100	550	150	150	55
Over/(Under)	(44)	(3)	(472)	(150)	(104)	(42)
Maximum Unmitigated Construction Emissions Exceed Threshold?	No	No	No	No	No	No
<p><i>Numbers may not add up exactly due to rounding.</i></p> <p>^a <i>The CalEEMod model printout sheets and/or calculation worksheets are presented in Appendix B (CalEEMod Output) of this document.</i></p> <p>^b <i>Please note that the SCAQMD significance threshold is in terms of VOC while CalEEMod calculates reactive organic compounds (ROG) emissions. For purposes of this analysis, VOC and ROG are used interchangeably since ROG represents approximately 99.9 percent of VOC emissions.</i></p> <p>^c <i>Mitigated scenario assumes compliance with SCAQMD Rule 403 requirements for fugitive dust and AIR-MM-1 and AIR-MM-2.</i></p> <p><i>Source: Eyestone Environmental, 2021.</i></p>						

In the Air Quality Analysis, the Construction analysis for NO_x assumed values for NO_x running emissions and idling emissions (page B-22 of Appendix B) that do not match the data presented in the EMFAC database. According to the California Air Resources Board²⁰ (CARB), EMFAC is the official database of emission inventories of onroad and offroad mobile sources. The

¹⁹ DEIR. 2021. Environmental Impact Analysis – Air Quality. Page 59 of 69.

²⁰ CARB. 2021. EMFAC Website. <https://arb.ca.gov/emfac/>

values for running emissions and idle emissions for heavy duty trucks listed below were used in the DEIR, are 25% and 54%, respectively, lower than the values reported in the EMFAC database. The source of the data is not listed in the DEIR.

Sunset Western

Heavy Duty Diesel Truck Emissions Calculations

Construction Year 2022
Truck Model Year 2007

Run Emissions

Trips per Day	360
Trip Length (mi.)	25
Daily VMT	9000

	TOG_RUNEX	CO_RUNEX	NOx_RUNEX	PM10_RUNEX	PM2_5_RUNEX	SOx_RUNEX
Run Emission Factors (g/mi) ¹	0.068	0.289	3.071	0.024	0.023	0.013
Run Emissions (lbs/day)	1.36	5.73	60.93	0.48	0.46	0.26
On-site Emissions (lbs/day)	0.01	0.06	0.61	0.00	0.00	0.00

Idle Emissions

Loads per Day	180
Idle Time Per Truck (min.)	15
Daily Idle Time (hrs)	45.00

	TOG	CO	NOx	PM10	PM2_5	SOx
Idle Emission Factors (g/hr) ²	2.70	32.10	32.49	0.02	0.02	0.06
Idle Emissions (lbs/day)	0.27	3.18	3.22	0.00	0.00	0.01

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	NOx_RUNEX	NOx_IDLEX
South Coast AQMD	2022	HHDT	2007	Aggregate	Diesel	10.49	64.77
South Coast AQMD	2022	HHDT	2008	Aggregate	Diesel	8.97	124.71
South Coast AQMD	2022	HHDT	2009	Aggregate	Diesel	8.90	72.30
South Coast AQMD	2022	HHDT	2010	Aggregate	Diesel	8.22	70.38
South Coast AQMD	2022	HHDT	2011	Aggregate	Diesel	5.02	52.05
South Coast AQMD	2022	HHDT	2012	Aggregate	Diesel	3.93	38.13
South Coast AQMD	2022	HHDT	2013	Aggregate	Diesel	3.73	50.56
South Coast AQMD	2022	HHDT	2014	Aggregate	Diesel	2.50	56.19
South Coast AQMD	2022	HHDT	2015	Aggregate	Diesel	2.14	61.55

South Coast AQMD	2022	HHDT	2016	Aggregate	Diesel	2.06	82.82
South Coast AQMD	2022	HHDT	2017	Aggregate	Diesel	1.92	69.29
South Coast AQMD	2022	HHDT	2018	Aggregate	Diesel	1.80	75.37
Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	NOx_RUNEX	NOx_IDLEX
South Coast AQMD	2022	HHDT	2019	Aggregate	Diesel	1.65	76.59
South Coast AQMD	2022	HHDT	2020	Aggregate	Diesel	1.51	78.76
South Coast AQMD	2022	HHDT	2021	Aggregate	Diesel	1.36	80.72
South Coast AQMD	2022	HHDT	2022	Aggregate	Diesel	1.20	75.24
						Average	4.088
						95% UCL	5.753
							70.59
							80.44

For the running emissions, the value of 3.071 grams per mile is significantly lower than the average value for trucks produced in 2007 through 2022 (4.088 grams per mile). Instead of producing an estimated NOx emission rate of 60.93 lbs per day for trucks hauling materials away from the construction site, the average value for emissions should be reported as 81.11 lbs per day.

For the idling emissions, the value of 32.49 grams of NOx per hour of idling is significantly lower than the average value for trucks produced in 2007 through 2022 (70.59 grams of NOx per hour of idling). Instead of producing an estimated NOx emission rate of 3.22 lbs per day for idling trucks, the average value for emissions should be reported as 7.00 lbs per day.

Assuming the starting emission values are correct in the DEIR, the averaged cumulative emissions per day for the project construction phase during 2022 should be reported as 89.87 lbs per day, not 65.91 lbs per day. Given that the number of trucks for any specific year of vehicle production cannot be ascertained at this time a better method for determining the most likely emission rates would be to use a confidence interval around the average value. In this approach, the emission rates could reasonably be anticipated to not exceed the value calculated. This approach is used commonly in air quality analyses and health risk analyses presented to regulatory agencies, including the U.S. EPA and the California Environmental Protection Agency. The 95 percent upper confidence limit (95% UCL) of the mean of the running emissions rates and idling rates are 5.753 grams of NOx per mile and 80.44 grams of NOx per hour, respectively. Using the 95% UCL values produces running emission rates of 114.15 lbs per day and idling emission rates of 7.98 lbs per day of NOx. The total NOx emissions

using the 95% UCL method would produce 123.88 lbs of NOx per day, well in excess of the SCAQMD threshold of significance for NOx. The City must address the significance level change of construction NOx emissions for the project in a revised DEIR.

7. The DEIR Fails to Demonstrate the Feasibility of Obtaining Exclusively Tier 4 Final Construction Equipment in Light of The Limited Availability Of Tier 4 Equipment In The State Of California And The Potential Impacts That a Shortage Would Have On The Duration Of The Construction Phase Of The Project.

Mitigation (Mitigation Measure AIR-MM-1) involves the requirement that all off-road diesel-powered equipment over 50 hp used during project grading/excavation activities meet USEPA Tier 4 Final emissions standards. The DEIR relies on AIR-MM-1 to conclude that construction air quality impacts would be mitigated below levels of significance. However, the DEIR fails to consider the limited availability of Tier 4 Final equipment, and fails to include evidence demonstrating that Tier 4 Final equipment can be reasonably procured for this Project during its projected construction period.

Although off-road Tier 4 Final equipment is available for purchase, it is still new technology that may not yet be readily available at all construction equipment vendors, and may require special procurement by the Proponent. Based upon a review of public records of the California Air Resources Board's (CARB) Diesel Off-Road Online Reporting System (DOORS), it is evident that the availability of Tiered construction equipment is highly dependent on the type of equipment. Using the CALEEMOD analysis supplied in Appendix to the IS/MND, the availability of the specific pieces of construction equipment required for the Project (highlighted in yellow) across the state are identified in Table 1 below.

Table 1: Percent of Equipment in California DOORS Database by Emission Tier Level

Equipment Type (> 50 hp)	U.S. EPA Emission Tier Level						Percent Total Meeting Requirement MM AQ-1
	T0	T1	T2	T3	T4F	T4I	
Aerial Lifts	1.63%	4.67%	14.86%	4.08%	48.64%	26.12%	74.76%
Boom	0.15%	0.77%	5.22%	1.59%	76.20%	16.06%	92.26%
Bore/Drill Rigs	11.53%	15.42%	16.86%	21.76%	17.72%	14.34%	32.06%
Bucket	8.33%	18.33%	10.00%	6.67%	33.33%	23.33%	56.67%
Concrete Mixer	0.00%	0.00%	0.00%	14.29%	85.71%	0.00%	85.71%
Concrete Pump	1.30%	7.79%	40.26%	1.30%	32.47%	16.88%	49.35%

Equipment Type (> 50 hp)	U.S. EPA Emission Tier Level						Percent Total Meeting Requirement MM AQ-1
	T0	T1	T2	T3	T4F	T4I	
Crane 35ton or more	5.57%	4.41%	5.37%	18.81%	37.62%	27.45%	65.07%
Crane less than 35ton	20.37%	2.47%	6.79%	12.35%	38.27%	19.75%	58.02%
Cranes	27.84%	11.49%	9.13%	26.60%	10.82%	11.80%	22.62%
Crawler Tractors	26.56%	13.31%	13.11%	13.70%	22.39%	10.93%	33.32%
Crushing/Processing Equipment	0.00%	0.78%	2.34%	14.06%	74.22%	8.59%	82.81%
Drill Rig	7.09%	4.14%	8.86%	12.56%	45.79%	17.87%	63.66%
Drill Rig (Mobile)	11.51%	8.71%	11.51%	17.26%	30.95%	14.77%	45.72%
Excavators	5.24%	8.34%	13.95%	7.29%	48.67%	16.50%	65.17%
Forklifts	9.57%	10.57%	13.82%	7.99%	40.45%	17.46%	57.91%
Garbage Refuse	0.00%	0.00%	8.70%	8.70%	43.48%	39.13%	82.61%
Garbage Transfer	0.00%	0.00%	0.00%	33.33%	66.67%	0.00%	66.67%
Graders	29.78%	14.12%	12.89%	15.27%	17.40%	10.52%	27.92%
Hopper Tractor Trailer	0.00%	0.00%	0.00%	0.00%	50.00%	50.00%	100.00%
Mower	2.44%	7.27%	13.58%	1.10%	54.40%	21.22%	75.62%
Nurse Rig Aircraft Supply	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	100.00%
Nurse Rig Other	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%
Off Highway Tractors	3.55%	6.28%	6.01%	8.74%	65.30%	10.11%	75.41%
Off Highway Trucks	1.69%	3.87%	11.14%	5.81%	62.23%	15.25%	77.48%
Off-Highway Tractors	18.25%	17.06%	20.98%	10.02%	17.18%	16.31%	33.49%
Off-Highway Trucks	16.96%	12.96%	17.54%	20.81%	16.13%	13.99%	30.12%
Other Construction Equipment	16.35%	14.20%	17.11%	10.53%	24.03%	17.19%	41.22%
Other General Industrial Equipment	13.18%	16.56%	27.57%	8.61%	13.80%	19.84%	33.65%
Other Material Handling Equipment	10.84%	11.39%	19.25%	15.55%	26.63%	16.26%	42.89%
Other Truck	15.64%	10.34%	5.31%	13.41%	36.87%	11.45%	48.32%
Pavers	12.11%	21.18%	16.99%	14.97%	23.34%	11.41%	34.75%
Paving Equipment	6.49%	12.80%	12.74%	12.44%	38.17%	17.05%	55.22%
Railcars or Track Cars	16.33%	8.16%	0.00%	14.29%	51.02%	10.20%	61.22%
Rollers	14.09%	15.93%	18.30%	6.46%	30.61%	14.59%	45.20%
Rough Terrain Forklifts	3.95%	9.32%	15.89%	8.11%	41.94%	20.80%	62.74%
Rubber Tired Dozers	41.04%	10.02%	9.44%	19.65%	15.22%	4.62%	19.85%
Rubber Tired Loaders	16.74%	12.71%	13.56%	14.94%	29.29%	12.76%	42.05%
Scrapers	28.91%	10.98%	15.47%	30.41%	10.15%	4.04%	14.19%
Skid Steer Loaders	3.70%	10.02%	15.81%	3.20%	54.69%	12.58%	67.27%
Spray Truck	5.56%	4.17%	19.44%	2.78%	34.72%	26.39%	61.11%
Spreader Tractor Trailer	0.00%	14.29%	28.57%	0.00%	42.86%	14.29%	57.14%
Spreader Truck	4.17%	0.00%	4.17%	37.50%	16.67%	25.00%	41.67%

Equipment Type (> 50 hp)	U.S. EPA Emission Tier Level						Percent Total Meeting Requirement MM AQ-1
	T0	T1	T2	T3	T4F	T4I	
Surfacing Equipment	15.38%	14.25%	10.18%	23.08%	19.23%	17.65%	36.88%
Sweepers/Scrubbers	11.02%	20.84%	16.57%	6.61%	25.75%	19.06%	44.81%
Tank Truck	4.05%	6.76%	8.11%	27.03%	37.84%	16.22%	54.05%
Tanker Truck Trailer	0.00%	18.18%	0.00%	0.00%	63.64%	18.18%	81.82%
Telescopic Handler	1.33%	0.00%	2.67%	0.00%	80.00%	16.00%	96.00%
Tow Tractor	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Tractors/Loaders/Backhoes	13.53%	16.50%	18.73%	8.96%	29.23%	13.05%	42.28%
Trenchers	21.86%	19.57%	20.87%	3.28%	21.86%	12.57%	34.43%
Vacuum Truck	2.21%	18.38%	15.44%	25.00%	13.24%	14.71%	27.94%
Water Truck	21.79%	8.21%	16.43%	16.07%	23.57%	13.57%	37.14%
Workover Rig (Mobile)	5.99%	15.14%	9.78%	17.35%	7.10%	13.56%	20.66%
Yard Goat	4.40%	4.58%	9.41%	18.31%	41.71%	21.33%	63.04%

It is clear from the CARB data that access to Tier 4 final certified equipment necessary for demolition (rubber tired dozers and tractors/loaders/backhoes), site preparation (graders, scrapers, rubber tired dozers, and tractors/loaders/backhoes), grading (graders, scrapers, rubber tired dozers, off-highway trucks, and tractors/loaders/backhoes), and paving operations (pavers, rollers, and tractors/loaders/backhoes), are in limited supply in the State. In particular, Tier 4 final dozers, scrapers, graders, and pavers make up a small portion of the registered fleet in California. If the Proponent cannot acquire the necessary equipment during construction or delay the construction until the equipment is available, project construction could be substantially delayed while the Proponent searches for Tier equipment to comply with MM AQ-1. Absent evidence demonstrating that the Proponent can feasibly obtain Tier 4 Final equipment for all off-road diesel equipment required for Project construction, it is unreasonable to presume that the Proponent will fully comply with MM AQ-1, or that the proposed construction schedule is feasible. The DEIR should be revised to provide this evidence and analysis.

8. The DEIR Fails To Perform An Accurate Cumulative Impact Analysis On Air Quality.

A proper cumulative impact analysis is vital for an environmental analysis “because the full environmental impact of a proposed project cannot be gauged in a vacuum. One of the most important

environmental lessons that has been learned is that the environmental damage often occurs incrementally from a variety of small sources with which they interact.”²¹ The DEIR’s conclusion is flawed for the following reasons.

First, the discussion in the comments above indicates that the Project would contribute to an existing significant impact, i.e. degraded air quality in the South Coast air basin as evidenced by frequent violations of PM₁₀, PM_{2.5} and ozone ambient air quality standards. The Project would increase the emissions of PM₁₀, PM_{2.5}, and ozone precursors and thus would contribute to these existing exceedances of ambient air quality standards. Thus, the Project’s contribution is *per se* cumulatively significant.

Second, a cumulative impacts analysis must consider past projects, the effects of other current projects, and the effects of probable future projects.”²² The DEIR did not identify any other closely related, past, present, or reasonably foreseeable probable future projects let alone attempt to quantify their emissions and, thus, to evaluate them cumulatively with the Project.

Third, the method utilized by the City fails to meet the basic requirements for a cumulative air quality analysis as outlined by the SCAQMD’s L.A. CEQA Threshold Guide (2006). A cumulative impact analysis would include a review of the list of related projects and identify those that would have pollutant or odor emissions. Such an analysis would determine the potential impacts of all such projects, together with the proposed project, using the methodology to evaluate the Proposed Project’s pollutant impacts. This significance methodology includes:

- The type, number of pieces, and usage of equipment;
- Rate, quantity, and type of fuel consumption;
- Emission factors, assuming implementation of applicable rules and regulations;
- Type(s) and size(s) of land uses, including location of vehicle driveways and parking facilities;
and
- The location and usage of equipment or processes that may emit odors.

²¹ *Bakersfield Citizens* (2004) 124 Cal. App. 4th at 1214 (quoting *Communities for a Better Environment v. California Resources Agency* 103 Cal.App.4th at 116).

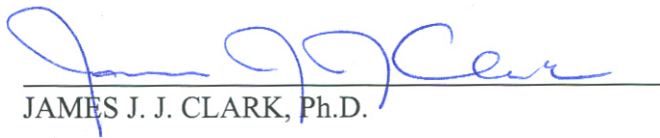
²² CEQA Guidelines §15355(b)

The City's air quality cumulative analysis is clearly deficient and must be supported by the preparation of a revised EIR.

Conclusion

The facts identified and referenced in this comment letter lead me to reasonably conclude that the Project could result in significant unmitigated impacts if the DEIR is approved. The City must re-evaluate the significant impacts identified in this letter by requiring the preparation of a revised draft environmental impact report.

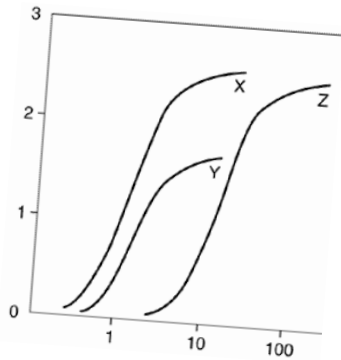
Sincerely,



A handwritten signature in blue ink, appearing to read "James J. Clark", is written over a horizontal line. Below the line, the text "JAMES J. J. CLARK, Ph.D." is printed in a serif font.

JAMES J. J. CLARK, Ph.D.

Attachment A: CV



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James J. J. Clark, Ph.D.

Principal Toxicologist

Toxicology/Exposure Assessment Modeling

Risk Assessment/Analysis/Dispersion Modeling

Education:

Ph.D., Environmental Health Science, University of California, 1995

M.S., Environmental Health Science, University of California, 1993

B.S., Biophysical and Biochemical Sciences, University of Houston, 1987

Professional Experience:

Dr. Clark is a well-recognized toxicologist, air modeler, and health scientist. He has 30 years of experience in researching the effects of environmental contaminants on human health including environmental fate and transport modeling (SCREEN3, AEROMOD, ISCST3, Johnson-Ettinger Vapor Intrusion Modeling, RESRAD, GENII); exposure assessment modeling (partitioning of contaminants in the environment as well as PBPK modeling); conducting and managing human health risk assessments for regulatory compliance and risk-based clean-up levels; and toxicological and medical literature research.

Significant projects performed by Dr. Clark include the following:

LITIGATION SUPPORT

Case: Louise Kowall, Donna Kopecek, and Evelyn Vehouc, et al., V. United States Steel Donora Zinc Works, et al. Court of Common Pleas of Washington County, Pennsylvania, Case No. 2017-3355.

Clients: Bonnett, Fairbourn, Friedman & Balint, P.C., Phoenix, Arizona; Jacks Legal Group, P.L.L.C., Morgantown, West Virginia; The Calwell Law Practice, L.C., Charleston, West Virginia

Dr. Clark assessed the exposure to residual toxic metals released by the Donora Zinc Works (DZW) located within the United States Steel Industrial Area (USSIA) on residents in surrounding communities and to define class members and remediation strategies in this matter based upon their exposure to toxic metals emitted from the DZW. The analysis

focused on emissions from the DZW that impacted soils and the interiors of structures to a point where remediation will be required to reduce potential health effects. For structures and properties closest to the former USSIA, he opined that remediation would be required for soils outside the structures as well as the interiors of the structures to prevent future harm to residents. For structures further away from the USSIA, it was determined that remediation of interiors was likely required.

Case Result: Trial Pending

Case: Marc and Jill Czapla, Plaintiffs vs. Republic Services, Inc., Bridgeton Landfill, LLC, vs. Cotter Corporation, N.S.L., Case No.: 18SL-CC00803-01 Circuit Court of St. Louis County, State of Missouri, Division 4

Client: Humphrey, Farrington & McClain, P.C., Independence, Missouri

Dr. Clark performed a historical dose reconstruction for Marc Czapla from radiologically impacted material (RIM) placed in the West Lake Landfill. The analysis was performed in general accordance with the methods outlined by the Agency for Toxic Substances Control (ATSDR) for assessing radiation doses from historical source areas in North St. Louis County, Missouri.

Case Result: Trial Pending

Case: Pamela Butler Vs. Mallinckrodt, Inc. & Cotter Corporation. Case No.: 4:2018cv01701 United States District Court Eastern District of Missouri Eastern Division

Case: Kenneth Edward Koterba Vs. Mallinckrodt, Inc. & Cotter Corporation. Case No.: 4:2018cv01702 United States District Court Eastern District of Missouri Eastern Division

Case: Anthony Hines Vs. Mallinckrodt, Inc. & Cotter Corporation. Case No.: 4:2018cv01703 United States District Court Eastern District of Missouri Eastern Division

Case: Emery David Walick, III Vs. Mallinckrodt, Inc. & Cotter Corporation. Case No.: 4:2018cv01704 United States District Court Eastern District of Missouri Eastern Division

Client: Humphrey, Farrington & McClain, P.C., Independence, Missouri

Dr. Clark performed a historical dose reconstruction for community members exposed to radioactive waste released into the environment from the St. Louis Air Port Site (SLAPS) and the Hazelwood Interim Storage Site (HISS). The releases resulted in impacts to soils, sediments, surface waters, and groundwater in the vicinity of the SLAPS and HISS sites. The analysis was performed in general accordance with the methods outlined by the Agency for Toxic Substances Control (ATSDR) for assessing radiation doses from historical source areas in North St. Louis County, Missouri.

Case Result: Trial Pending

Case: Don Strong, et al. vs. Republic Services, Inc., Bridgeton Landfill, LLC, vs. Cotter Corporation, N.S.L., Case No.: 17SL-CC01632-01 Circuit Court of St. Louis County, State of Missouri, Division 17

Client: Humphrey, Farrington & McClain, P.C., Independence, Missouri

Dr. Clark performed a historical dose reconstruction for community members from radiologically impacted material (RIM) releases from the adjacent West Lake Landfill. The analysis was performed in general accordance with the methods outlined by the Agency for Toxic Substances Control (ATSDR) for assessing radiation doses from historical source areas in North St. Louis County, Missouri.

Case Result: Settlement in favor of plaintiff.

Case: Arnold Goldstein, John Covas, Gisela Janette La Bella, et al.. vs. Exxon Mobil Corporation, PBF Energy Inc., Torrance Refining Company LLC, et al., Case No.: 2:17-cv-02477DSF United States District Court for the Central District of California

Client: Sher Edling, LLP, San Francisco, California and Matern Law Group , PC., El Segundo, California

Dr. Clark performed a historical dose reconstruction for community members from an active 700 acre petroleum refinery in Los Angeles. The analysis included a multi-year dispersion model was performed in general accordance with the methods outlined by the U.S. EPA and the SCAQMD for assessing the health impacts in Torrance, California. The results of the analysis are being used as the basis for injunctive relief for the communities surrounding the refinery.

Case Result: Trial Pending

Case: Scott D. McClurg, et al. v. Mallinckrodt Inc. and Cotter Corporation.
Lead Case No.: 4:12CV00361 AGF United States District Court Eastern District of Missouri Eastern Division

Client: Environmental Law Group, Birmingham, AL.

Dr. Clark performed a historical dose reconstruction for community members and workers exposed to radioactive waste released into the environment from the St. Louis Air Port Site (SLAPS) and the Hazelwood Interim Storage Site (HISS). The releases resulted in impacts to soils, sediments, surface waters, and groundwater in the vicinity of the SLAPS and HISS sites. The analysis included the incorporation of air dispersion modeling across the community to determine ground-level air concentrations and deposition of thorium and uranium isotopes and their respective daughter products. The dose reconstruction considered all relevant pathways to determine total doses of radiation received across the community from 1946 through 2017.

Case Result: Settlement in favor of plaintiff.

SELECTED AIR MODELING RESEARCH/PROJECTS

Client(s) – Multiple

Indoor Air Evaluations, California: Performed multiple indoor air screening evaluations and risk characterizations consistent with California Environmental Protection Agency's (Cal/EPA) Department of Toxic Substances Control (DTSC) and Regional Water Quality Control Board (RWQCB) methodologies. Characterizations included the use of DTSC's modified Johnson & Ettinger Model and USEPA models, as well as the attenuation factor model currently advocated by Cal/EPA's Office of Environmental Health and Hazard Assessment (OEHHA).

Client – Confidential

Dr. Clark performed a comprehensive evaluation of criteria pollutants, air toxins, and particulate matter emissions from a carbon black production facility to determine the impacts on the surrounding communities. The results of the dispersion model were used to estimate acute and chronic exposure concentrations to multiple contaminants and were be incorporated into a comprehensive risk evaluation.

Client – Confidential

Dr. Clark performed a comprehensive evaluation of air toxins and particulate matter emissions from a railroad tie manufacturing facility to determine the impacts on the surrounding communities. The results of the dispersion model have been used to estimate acute and chronic exposure concentrations to multiple contaminants and have been incorporated into a comprehensive risk evaluation.

EMERGING/PERSISTENT CONTAMINANT RESEARCH/PROJECTS**Client: City of Santa Clarita, Santa Clarita, California**

Dr. Clark managed the oversight of the characterization, remediation and development activities of a former 1,000 acre munitions manufacturing facility for the City of Santa Clarita. The site is impacted with a number of contaminants including perchlorate, unexploded ordinance, and volatile organic compounds (VOCs). The site is currently under a number of regulatory consent orders, including an Imminent and Substantial Endangerment Order. Dr. Clark assisted the impacted municipality with the development of remediation strategies, interaction with the responsible parties and stakeholders, as well as interfacing with the regulatory agency responsible for oversight of the site cleanup.

Client – Confidential, Los Angeles, California

Dr. Clark is performing a comprehensive review of the potential for pharmaceuticals and their by-products to impact groundwater and surface water supplies. This evaluation will include a review if available data on the history of pharmaceutical production in the United States; the chemical characteristics of various pharmaceuticals; environmental fate and transport; uptake by xenobiotics; the potential effects of pharmaceuticals on water treatment systems; and the potential threat to public health. The results of the evaluation may be used as a briefing tool for non-public health professionals.

PUBLIC HEALTH/TOXICOLOGY**Client: Brayton Purcell, Novato, California**

Dr. Clark performed a toxicological assessment of residents exposed to methyl-tertiary butyl ether (MTBE) from leaking underground storage tanks (LUSTs) adjacent to the subject property. The symptomology of residents and guests of the subject property were evaluated against the known outcomes in published literature to exposure to MTBE. The

study found that residents had been exposed to MTBE in their drinking water; that concentrations of MTBE detected at the site were above regulatory guidelines; and, that the symptoms and outcomes expressed by residents and guests were consistent with symptoms and outcomes documented in published literature.

Client: Covanta Energy, Westwood, California

Evaluated health risk from metals in biosolids applied as soil amendment on agricultural lands. The biosolids were created at a forest waste cogeneration facility using 96% whole tree wood chips and 4 percent green waste. Mass loading calculations were used to estimate Cr(VI) concentrations in agricultural soils based on a maximum loading rate of 40 tons of biomass per acre of agricultural soil. The results of the study were used by the Regulatory agency to determine that the application of biosolids did not constitute a health risk to workers applying the biosolids or to residences near the agricultural lands.

Client: Kaiser Venture Incorporated, Fontana, California

Prepared PBPK assessment of lead risk of receptors at a 1,100-acre former steel mill. This evaluation was used as the basis for granting closure of the site by lead regulatory agency.

RISK ASSESSMENTS/REMEDIAL INVESTIGATIONS

Kaiser Ventures Incorporated, Fontana, California

Prepared health risk assessment of semi-volatile organic chemicals and metals for a fifty-year old wastewater treatment facility used at a 1,100-acre former steel mill. This evaluation was used as the basis for granting closure of the site by lead regulatory agency.

ANR Freight - Los Angeles, California

Prepared a comprehensive Preliminary Endangerment Assessment (PEA) of petroleum hydrocarbon and metal contamination of a former freight depot. This evaluation was as the basis for reaching closure of the site with lead regulatory agency.

Kaiser Ventures Incorporated, Fontana, California

Prepared comprehensive health risk assessment of semi-volatile organic chemicals and metals for 23-acre parcel of a 1,100-acre former steel mill. The health risk assessment was used to determine clean up goals and as the basis for granting closure of the site by lead regulatory agency. Air dispersion modeling using ISCST3 was performed to determine downwind exposure point concentrations at sensitive receptors within a 1 kilometer radius of the site. The results of the health risk assessment were presented at a public meeting

sponsored by the Department of Toxic Substances Control (DTSC) in the community potentially affected by the site.

Unocal Corporation - Los Angeles, California

Prepared comprehensive assessment of petroleum hydrocarbons and metals for a former petroleum service station located next to sensitive population center (elementary school). The assessment used a probabilistic approach to estimate risks to the community and was used as the basis for granting closure of the site by lead regulatory agency.

Client: Confidential, Los Angeles, California

Managed oversight of remedial investigation most contaminated heavy metal site in California. Lead concentrations in soil excess of 68,000,000 parts per billion (ppb) have been measured at the site. This State Superfund Site was a former hard chrome plating operation that operated for approximately 40-years.

Client: Confidential, San Francisco, California

Coordinator of regional monitoring program to determine background concentrations of metals in air. Acted as liaison with SCAQMD and CARB to perform co-location sampling and comparison of accepted regulatory method with ASTM methodology.

Client: Confidential, San Francisco, California

Analyzed historical air monitoring data for South Coast Air Basin in Southern California and potential health risks related to ambient concentrations of carcinogenic metals and volatile organic compounds. Identified and reviewed the available literature and calculated risks from toxins in South Coast Air Basin.

IT Corporation, North Carolina

Prepared comprehensive evaluation of potential exposure of workers to air-borne VOCs at hazardous waste storage facility under SUPERFUND cleanup decree. Assessment used in developing health based clean-up levels.

Professional Associations

American Public Health Association (APHA)

Association for Environmental Health and Sciences (AEHS)

American Chemical Society (ACS)

International Society of Environmental Forensics (ISEF)

Society of Environmental Toxicology and Chemistry (SETAC)

Publications and Presentations:

Books and Book Chapters

- Sullivan, P., **J.J. J. Clark**, F.J. Agardy, and P.E. Rosenfeld. (2007). *Synthetic Toxins In The Food, Water and Air of American Cities*. Elsevier, Inc. Burlington, MA.
- Sullivan, P. and **J.J. J. Clark**. 2006. *Choosing Safer Foods, A Guide To Minimizing Synthetic Chemicals In Your Diet*. Elsevier, Inc. Burlington, MA.
- Sullivan, P., Agardy, F.J., and **J.J.J. Clark**. 2005. *The Environmental Science of Drinking Water*. Elsevier, Inc. Burlington, MA.
- Sullivan, P.J., Agardy, F.J., **Clark, J.J.J.** 2002. *America's Threatened Drinking Water: Hazards and Solutions*. Trafford Publishing, Victoria B.C.
- Clark, J.J.J.** 2001. "TBA: Chemical Properties, Production & Use, Fate and Transport, Toxicology, Detection in Groundwater, and Regulatory Standards" in *Oxygenates in the Environment*. Art Diaz, Ed.. Oxford University Press: New York.
- Clark, J.J.J.** 2000. "Toxicology of Perchlorate" in *Perchlorate in the Environment*. Edward Urbansky, Ed. Kluwer/Plenum: New York.
- Clark, J.J.J.** 1995. Probabilistic Forecasting of Volatile Organic Compound Concentrations At The Soil Surface From Contaminated Groundwater. UMI.
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Journal and Proceeding Articles

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Attachment B: Dispersion Model Input/Output Files

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** Trinity Consultants
** VERSION 10.0

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CO TITLETWO Update to Include Source Terms (Heavy Duty Trucks) From Project

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09/30/21

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** Trinity Consultants

** VERSION 10.0

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CO TITLETWO Update to Include Source Terms (Heavy Duty Trucks) From Project

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SO LOCATION 25PQT038 POINT 379843.4 3773806.7
** SRCDESCR Eastbound on Sunset
SO LOCATION 25PQT039 POINT 378842.9 3773811.8
** SRCDESCR West Bound On Sunset
SO LOCATION 25PQT03A POINT 378839 3773807.3
** SRCDESCR SW On US 101
SO FINISHED

RE STARTING
RE ELEVUNIT METERS
RE GRIDCART 25PQT02I STA
** GRDDESCR Grid Over Project Site
RE GRIDCART 25PQT02I XYINC 379236.9 21 9.1 3773799.8 21 -7.6
RE GRIDCART 25PQT02I END
RE DISCCART 378701.5 3773634.9 105.91
** SENSITIV
** RCPDESCR Bernstein High School
RE DISCCART 378482.5 3773427.5 102
** SENSITIV
** RCPDESCR Joseph LeConte Middle School
RE DISCCART 378622.8 3773348.8 101
RE DISCCART 378899.1 3773999 113.4
** SENSITIV
** RCPDESCR Grant Elementary School
RE FINISHED

OU STARTING
OU RECEPTOR AERMAP.APR
OU SOURCLOC AERMAP.APS
OU FINISHED

Exiting DEMCHK

Finished Reading Input DEM Data

Default Data Grids
NADGRIDS Pathname:
AREA NAME

=====

NADCON EXTRACTED REGION

NADGRD

273 121

DX,DY,NR,NC 0.250000000 0.250000000 121 273

MIN Longitude = 63.0000 MAX Longitude = 131.0000

MIN Latitude = 20.0000 MAX Latitude = 50.0000

1 Conus

NADCON EXTRACTED REGION

NADGRD

281 201

DX,DY,NR,NC 2.50000004E-02 2.50000004E-02 201 281

MIN Longitude = 154.0000 MAX Longitude = 161.0000

MIN Latitude = 18.0000 MAX Latitude = 23.0000

2 Hawaii

NADCON EXTRACTED REGION

NADGRD

81 41

DX,DY,NR,NC 5.00000007E-02 5.00000007E-02 41 81

MIN Longitude = 64.0000 MAX Longitude = 68.0000

MIN Latitude = 17.0000 MAX Latitude = 19.0000

3 P.R. and V.I.

NADCON EXTRACTED REGION

NADGRD

81 41

DX,DY,NR,NC 5.00000007E-02 5.00000007E-02 41 81

MIN Longitude = 168.0000 MAX Longitude = 172.0000

MIN Latitude = 62.0000 MAX Latitude = 64.0000

4 St. Laurence I.

NADCON EXTRACTED REGION

NADGRD

121 61

DX,DY,NR,NC 1.66699998E-02 1.66699998E-02 61 121

MIN Longitude = 168.9996 MAX Longitude = 171.0000

MIN Latitude = 56.0000 MAX Latitude = 57.0002

5 St. George I.

NADCON EXTRACTED REGION

NADGRD

41 21

DX,DY,NR,NC 5.00000007E-02 5.00000007E-02 21 41

MIN Longitude = 169.0000 MAX Longitude = 171.0000

MIN Latitude = 57.0000 MAX Latitude = 58.0000

6 St. Paul I.

NADCON EXTRACTED REGION

NADGRD

529 249

DX,DY,NR,NC 0.125000000 0.125000000 249 529

MIN Longitude = 128.0000 MAX Longitude = 194.0000

MIN Latitude = 46.0000 MAX Latitude = 77.0000

7 Alaska

Exiting CHKADJ

Exiting RECCNV

Exiting SRCCNV

Exiting DEMREC

Exiting DEMSRC

*** AERMAP - VERSION 18081 *** *** 5420 Sunset Boulevard Project - ***
09/30/21

*** Update to Include Source Terms (Heavy Duty Trucks) From Project *** 14:35:56

*** Message Summary For AERMAP Setup ***

----- Summary of Total Messages -----

A Total of 0 Fatal Error Message(s)

A Total of 4 Warning Message(s)

A Total of 0 Informational Message(s)

***** FATAL ERROR MESSAGES *****

*** NONE ***

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

RE W229 188 DISCAR:Too Many Parameters - Inputs Ignored on Keyword DISCCART

RE W229 191 DISCAR:Too Many Parameters - Inputs Ignored on Keyword DISCCART

RE W229 194 DISCAR:Too Many Parameters - Inputs Ignored on Keyword DISCCART

RE W229 195 DISCAR:Too Many Parameters - Inputs Ignored on Keyword DISCCART

*** SETUP Finishes Successfully ***

*** AERMAP - VERSION 18081 *** *** 5420 Sunset Boulevard Project - ***
09/30/21

*** Update to Include Source Terms (Heavy Duty Trucks) From Project *** 14:35:56

*** AERMAP SETUP OPTIONS SUMMARY ***

**This Run Includes: 1 DEM File(s)

**This Run Includes: 445 Receptor(s); and 81 Source(s)

**The Input Receptors and Sources Were Assigned a NADA Value of 3: World Geodetic System of 1984

**The Input Receptors and Sources Are Offset: 0.00 meters East; 0.00 meters North
from the User-specified Anchor Point at: 0.00 meters East; 0.00 meters North; Zone 11

**Terrain heights were EXTRACTed from DEM data

**The Following Debug Output Files Have Been Automatically Generated:

DOMDETAIL.OUT - Details of User-specified Domain and Relation to DEM Files

MAPDETAIL.OUT - Details Regarding Input DEM Files

MAPPARAMS.OUT - Summary of DEM File Parameters and DEM File Adjacency

*** AERMAP - VERSION 18081 *** *** 5420 Sunset Boulevard Project -

09/30/21

*** Update to Include Source Terms (Heavy Duty Trucks) From Project *** 14:35:56

*** Message Summary For AERMAP Execution ***

----- Summary of Total Messages -----

A Total of 0 Fatal Error Message(s)

A Total of 4 Warning Message(s)

A Total of 0 Informational Message(s)

***** FATAL ERROR MESSAGES *****

*** NONE ***

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

RE W229 188 DISCAR:Too Many Parameters - Inputs Ignored on Keyword DISCCART

RE W229 191 DISCAR:Too Many Parameters - Inputs Ignored on Keyword DISCCART

RE W229 194 DISCAR:Too Many Parameters - Inputs Ignored on Keyword DISCCART

RE W229 195 DISCAR:Too Many Parameters - Inputs Ignored on Keyword DISCCART

*** AERMAP Finishes Successfully ***

** BREEZE AERMOD
** Trinity Consultants
** VERSION 10.0

CO STARTING

CO TITLEONE 5420 Sunset Boulevard Project -
CO TITLETWO Update to Include Source Terms (Heavy Duty Trucks) From Project
CO MODELOPT DFAULT CONC NODRYDPLT NOWETDPLT
CO RUNORNOT RUN
CO AVERTIME ANNUAL
CO POLLUTID OTHER
CO FINISHED

SO STARTING

SO ELEVUNIT METERS
SO LOCATION 25PQT000 VOLUME 379228.5 3773327.2 99.68
** SRCDESCR N_M_1
SO LOCATION 25PQT001 VOLUME 379201.2 3773350.2 99.32
** SRCDESCR N_M_2
SO LOCATION 25PQT002 VOLUME 379172.8 3773371.7 96.62
** SRCDESCR N_M_3
SO LOCATION 25PQT003 VOLUME 379145.4 3773393.0 96.80
** SRCDESCR N_M_4
SO LOCATION 25PQT004 VOLUME 379117.3 3773415 95.76
** SRCDESCR N_M_5
SO LOCATION 25PQT005 VOLUME 379089.4 3773434.8 92.03
** SRCDESCR N_M_6
SO LOCATION 25PQT006 VOLUME 379061.6 3773458.4 93.12
** SRCDESCR N_M_7
SO LOCATION 25PQT007 VOLUME 379033.3 3773479.5 92.93
** SRCDESCR N_M_8
SO LOCATION 25PQT008 VOLUME 379005.7 3773501.6 94.01
** SRCDESCR N_M_9
SO LOCATION 25PQT009 VOLUME 378978.2 3773524.0 96.49
** SRCDESCR N_M_10
SO LOCATION 25PQT00A VOLUME 378951.9 3773547.3 96.55
** SRCDESCR N_M_11
SO LOCATION 25PQT00B VOLUME 378926.2 3773571.6 96.00
** SRCDESCR N_M_12
SO LOCATION 25PQT00C VOLUME 378902.1 3773599.0 95.99
** SRCDESCR N_M_13
SO LOCATION 25PQT00D VOLUME 378894.1 3773578.6 97.10
** SRCDESCR S_M_1
SO LOCATION 25PQT00E VOLUME 378920.3 3773552.1 97.64
** SRCDESCR S_M_2
SO LOCATION 25PQT00F VOLUME 378944.1 3773530.2 96.71
** SRCDESCR S_M_3
SO LOCATION 25PQT00G VOLUME 378971.1 3773506.0 95.95
** SRCDESCR S_M_4
SO LOCATION 25PQT00H VOLUME 378998.8 3773483.9 95.85
** SRCDESCR S_M_5
SO LOCATION 25PQT00I VOLUME 379026.8 3773462.3 93.48
** SRCDESCR S_M_6

SO LOCATION 25PQT00J	VOLUME	379054.6	3773440.8	93.81
** SRCDESCR S_M_7				
SO LOCATION 25PQT00K	VOLUME	379082.8	3773418.9	93.31
** SRCDESCR S_M_8				
SO LOCATION 25PQT00L	VOLUME	379110.5	3773397.3	95.69
** SRCDESCR S_M_9				
SO LOCATION 25PQT00M	VOLUME	379138.1	3773375.2	96.71
** SRCDESCR S_M_10				
SO LOCATION 25PQT00N	VOLUME	379166.2	3773353.7	97.63
** SRCDESCR S_M_11				
SO LOCATION 25PQT00O	VOLUME	379194.3	3773331.9	98.60
** SRCDESCR S_M_12				
SO LOCATION 25PQT00P	VOLUME	379221.5	3773309.5	98.59
** SRCDESCR S_M_13				
SO LOCATION 25PQT00Q	VOLUME	379085.0	3773405	95.58
** SRCDESCR S_OFF_W_1				
SO LOCATION 25PQT00R	VOLUME	379094.2	3773396.7	96.48
** SRCDESCR S_OFF_W_2				
SO LOCATION 25PQT00S	VOLUME	379103.4	3773388.7	96.88
** SRCDESCR S_OFF_W_3				
SO LOCATION 25PQT00T	VOLUME	379112.1	3773380.6	96.58
** SRCDESCR S_OFF_W_4				
SO LOCATION 25PQT00U	VOLUME	379121.1	3773372.1	96.53
** SRCDESCR S_OFF_W_5				
SO LOCATION 25PQT00V	VOLUME	379129.8	3773363.8	97.20
** SRCDESCR S_OFF_W_6				
SO LOCATION 25PQT00W	VOLUME	379138.1	3773354.4	97.47
** SRCDESCR S_OFF_W_7				
SO LOCATION 25PQT00X	VOLUME	379144.8	3773344.5	97.61
** SRCDESCR S_OFF_W_8				
SO LOCATION 25PQT00Y	VOLUME	379150.1	3773333.4	97.79
** SRCDESCR S_OFF_W_9				
SO LOCATION 25PQT00Z	VOLUME	379154.2	3773322.3	98.13
** SRCDESCR S_OFF_W_10				
SO LOCATION 25PQT010	VOLUME	379208.6	3773395.0	103.95
** SRCDESCR N_ON_W_1				
SO LOCATION 25PQT011	VOLUME	379200.8	3773397.3	102.42
** SRCDESCR N_ON_W_2				
SO LOCATION 25PQT012	VOLUME	379193.1	3773400.4	101.40
** SRCDESCR N_ON_W_3				
SO LOCATION 25PQT013	VOLUME	379185.9	3773403.9	101.00
** SRCDESCR N_ON_W_4				
SO LOCATION 25PQT014	VOLUME	379179.0	3773407.8	101.27
** SRCDESCR N_ON_W_5				
SO LOCATION 25PQT015	VOLUME	379172.0	3773411.5	101.14
** SRCDESCR N_ON_W_6				
SO LOCATION 25PQT016	VOLUME	379164.7	3773415.5	100.47
** SRCDESCR N_ON_W_7				
SO LOCATION 25PQT017	VOLUME	379158.0	3773419.1	99.49
** SRCDESCR N_ON_W_8				
SO LOCATION 25PQT018	VOLUME	379151.0	3773422.8	98.77
** SRCDESCR N_ON_W_9				
SO LOCATION 25PQT019	VOLUME	379144.0	3773426.6	98.52
** SRCDESCR N_ON_W_10				

SO LOCATION	25PQT01A	VOLUME	379137.2	3773430.2	97.82
** SRCDESCR	N_ON_W_11				
SO LOCATION	25PQT01B	VOLUME	379130.0	3773434.1	96.43
** SRCDESCR	N_ON_W_12				
SO LOCATION	25PQT01C	VOLUME	379123.2	3773437.8	94.49
** SRCDESCR	N_ON_W_13				
SO LOCATION	25PQT01D	VOLUME	379115.9	3773441.5	92.66
** SRCDESCR	N_ON_W_14				
SO LOCATION	25PQT01E	VOLUME	379109.3	3773445.1	92.17
** SRCDESCR	N_ON_W_15				
SO LOCATION	25PQT01F	VOLUME	379102.1	3773448.9	92.77
** SRCDESCR	N_ON_W_16				
SO LOCATION	25PQT01G	VOLUME	379095.1	3773452.8	94.33
** SRCDESCR	N_ON_W_17				
SO LOCATION	25PQT01H	VOLUME	379088.5	3773456.6	95.82
** SRCDESCR	N_ON_W_18				
SO LOCATION	25PQT01I	VOLUME	379081.7	3773460.7	96.41
** SRCDESCR	N_ON_W_19				
SO LOCATION	25PQT01J	VOLUME	379074.5	3773464.7	96.27
** SRCDESCR	N_ON_W_20				
SO LOCATION	25PQT01K	VOLUME	379067.9	3773468.9	95.68
** SRCDESCR	N_ON_W_21				
SO LOCATION	25PQT01L	VOLUME	379061.2	3773472.9	94.42
** SRCDESCR	N_ON_W_22				
SO LOCATION	25PQT01M	VOLUME	379054.6	3773477.5	93.89
** SRCDESCR	N_ON_W_23				
SO LOCATION	25PQT01N	VOLUME	379047.8	3773481.6	94.64
** SRCDESCR	N_ON_W_24				
SO LOCATION	25PQT01O	VOLUME	379041.3	3773486.1	95.34
** SRCDESCR	N_ON_W_25				
SO LOCATION	25PQT01P	VOLUME	379034.8	3773490.8	95.90
** SRCDESCR	N_ON_W_26				
SO LOCATION	25PQT01Q	VOLUME	379028.6	3773495.3	96.26
** SRCDESCR	N_ON_W_27				
SO LOCATION	25PQT01R	VOLUME	379022.3	3773499.7	96.41
** SRCDESCR	N_ON_W_28				
SO LOCATION	25PQT02Q	VOLUME	379085.0	3773405.0	95.58
** SRCDESCR	S_OFF_W_1				
SO LOCATION	25PQT02U	AREALINE	379342.8	3773815.3	109.28
** SRCDESCR	North Bound Trucks on Sunset				
SO LOCATION	25PQT02V	AREALINE	379233	3773812	109.17
** SRCDESCR	North Bound Trucks On Western				
SO LOCATION	25PQT02X	AREALINE	379341.6	3773802.8	109.00
** SRCDESCR	Southbound on Normandie - 1				
SO LOCATION	25PQT02Y	AREALINE	380031.2	3773802.8	112.86
** SRCDESCR	Southbound on Normandie				
SO LOCATION	25PQT02Z	AREALINE	379341.6	3773807.1	109.00
** SRCDESCR	Eastbound on Sunset				
SO LOCATION	25PQT030	AREALINE	379341.6	3773815.7	109.29
** SRCDESCR	West Bound on Sunset				
SO LOCATION	25PQT031	AREALINE	379352.3	3773813.5	109.22
** SRCDESCR	NW on US101				
SO LOCATION	25PQT032	AREALINE	379228.1	3773809.2	109.07
** SRCDESCR	NW on US101				

SO LOCATION 25PQT033 AREALINE 379228.1 3773391.6 104.00
** SRCDESCR NW On US101
SO LOCATION 25PQT034 AREALINE 379339.4 3773809.2 109.07
** SRCDESCR SW on US 101
SO LOCATION 25PQT035 AREALINE 378716.2 3773807.1 105.94
** SRCDESCR SW On US101
SO LOCATION 25PQT036 AREALINE 378771.9 3773700 101.57
** SRCDESCR SW On US 101
SO LOCATION 25PQT037 AREALINE 379843.4 3773810.5 113.12
** SRCDESCR Southbound on Normandie
SO LOCATION 25PQT038 AREALINE 379843.4 3773806.7 113.00
** SRCDESCR Eastbound on Sunset
SO LOCATION 25PQT039 AREALINE 378842.9 3773811.8 108.16
** SRCDESCR West Bound On Sunset
SO LOCATION 25PQT03A AREALINE 378839 3773807.3 107.70
** SRCDESCR SW On US 101
SO LOCATION 25PQT03C VOLUME 379318.7 3773664.5 0
** SRCDESCR idling trucks
SO SRCPARAM 25PQT000 1.88E-05 0 16.47 2.55
SO SRCPARAM 25PQT001 1.88E-05 0 16.47 2.55
SO SRCPARAM 25PQT002 1.88E-05 0 16.47 2.55
SO SRCPARAM 25PQT003 1.88E-05 0 16.47 2.55
SO SRCPARAM 25PQT004 1.88E-05 0 16.47 2.55
SO SRCPARAM 25PQT005 1.88E-05 0 16.47 2.55
SO SRCPARAM 25PQT006 1.88E-05 0 16.47 2.55
SO SRCPARAM 25PQT007 1.88E-05 0 16.47 2.55
SO SRCPARAM 25PQT008 1.88E-05 0 16.47 2.55
SO SRCPARAM 25PQT009 1.88E-05 0 16.47 2.55
SO SRCPARAM 25PQT00A 1.88E-05 0 16.47 2.55
SO SRCPARAM 25PQT00B 1.88E-05 0 16.47 2.55
SO SRCPARAM 25PQT00C 1.88E-05 0 16.47 2.55
SO SRCPARAM 25PQT00D 1.21E-05 0 16.47 2.55
SO SRCPARAM 25PQT00E 1.21E-05 0 16.47 2.55
SO SRCPARAM 25PQT00F 1.21E-05 0 16.47 2.55
SO SRCPARAM 25PQT00G 1.21E-05 0 16.47 2.55
SO SRCPARAM 25PQT00H 1.21E-05 0 16.47 2.55
SO SRCPARAM 25PQT00I 1.21E-05 0 16.47 2.55
SO SRCPARAM 25PQT00J 1.21E-05 0 16.47 2.55
SO SRCPARAM 25PQT00K 1.21E-05 0 16.47 2.55
SO SRCPARAM 25PQT00L 1.21E-05 0 16.47 2.55
SO SRCPARAM 25PQT00M 1.21E-05 0 16.47 2.55
SO SRCPARAM 25PQT00N 1.21E-05 0 16.47 2.55
SO SRCPARAM 25PQT00O 1.21E-05 0 16.47 2.55
SO SRCPARAM 25PQT00P 1.21E-05 0 16.47 2.55
SO SRCPARAM 25PQT00Q 1.36E-06 0 5.67 2.23
SO SRCPARAM 25PQT00R 1.36E-06 0 5.67 2.23
SO SRCPARAM 25PQT00S 1.36E-06 0 5.67 2.23
SO SRCPARAM 25PQT00T 1.36E-06 0 5.67 2.23
SO SRCPARAM 25PQT00U 1.36E-06 0 5.67 2.23
SO SRCPARAM 25PQT00V 1.36E-06 0 5.67 2.23
SO SRCPARAM 25PQT00W 1.36E-06 0 5.67 2.23
SO SRCPARAM 25PQT00X 1.36E-06 0 5.67 2.23
SO SRCPARAM 25PQT00Y 1.36E-06 0 5.67 2.23
SO SRCPARAM 25PQT00Z 1.36E-06 0 5.67 2.23

[illegible]

SO EMISFACT 25PQT033 HROFDY 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0
SO EMISFACT 25PQT034 HROFDY 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0
SO EMISFACT 25PQT035 HROFDY 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0
SO EMISFACT 25PQT036 HROFDY 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0
SO EMISFACT 25PQT037 HROFDY 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0
SO EMISFACT 25PQT038 HROFDY 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0
SO EMISFACT 25PQT039 HROFDY 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0
SO EMISFACT 25PQT03A HROFDY 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0
SO EMISFACT 25PQT03C HROFDY 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 00
SO SRCGROUP ALL
SO SRCGROUP HDTS 25PQT02U 25PQT02V 25PQT02X 25PQT02Y 25PQT02Z 25PQT030 25PQT031
25PQT032 25PQT033
SO SRCGROUP HDTS 25PQT034 25PQT035 25PQT036 25PQT03A 25PQT03C
SO SRCGROUP FREEWAY 25PQT000 25PQT001 25PQT002 25PQT003 25PQT004 25PQT005 25PQT006
25PQT007
SO SRCGROUP FREEWAY 25PQT008 25PQT009 25PQT00A 25PQT00B 25PQT00C 25PQT00D 25PQT00E
25PQT00F
SO SRCGROUP FREEWAY 25PQT00G 25PQT00H 25PQT00I 25PQT00J 25PQT00K 25PQT00L 25PQT00M
25PQT00N
SO SRCGROUP FREEWAY 25PQT00O 25PQT00P 25PQT00Q 25PQT00R 25PQT00S 25PQT00T 25PQT00U
25PQT00V
SO SRCGROUP FREEWAY 25PQT00W 25PQT00X 25PQT00Y 25PQT00Z 25PQT010 25PQT011 25PQT012
25PQT013
SO SRCGROUP FREEWAY 25PQT014 25PQT015 25PQT016 25PQT017 25PQT018 25PQT019 25PQT01A
25PQT01B
SO SRCGROUP FREEWAY 25PQT01C 25PQT01D 25PQT01E 25PQT01F 25PQT01G 25PQT01H 25PQT01I
25PQT01J
SO SRCGROUP FREEWAY 25PQT01K 25PQT01L 25PQT01M 25PQT01N 25PQT01O 25PQT01P 25PQT01Q
25PQT01R
SO SRCGROUP FREEWAY 25PQT02Q
SO FINISHED

RE STARTING

RE ELEVUNIT METERS

RE GRIDCART 25PQT02I STA

** GRDDESCR Grid Over Project Site

RE GRIDCART 25PQT02I XYINC 379236.9 21 9.1 3773799.8 21 -7.6

RE GRIDCART 25PQT02I ELEV 1 109.0 109.0 109.0 109.0 109.0 109.0 109.0 109.0 109.0 109.0 109.0

RE GRIDCART 25PQT02I ELEV 1 109.0 109.0 109.0 109.2 109.5 109.8 110.0 110.0 110.0 110.0

RE GRIDCART 25PQT02I ELEV 2 109.0 109.0 109.0 109.0 109.0 109.0 109.0 109.0 109.0 109.0 109.0

RE GRIDCART 25PQT02I ELEV 2 109.0 109.0 109.0 109.2 109.5 109.8 110.0 110.0 110.0 110.0

RE GRIDCART 25PQT02I ELEV 3 109.0 109.0 109.0 109.0 109.0 109.0 109.0 109.0 109.0 109.0 109.0

RE GRIDCART 25PQT02I ELEV 3 109.0 109.0 109.0 109.2 109.5 109.8 110.0 110.0 110.0 110.0

RE GRIDCART 25PQT02I ELEV 4 109.0 109.0 109.0 109.0 109.0 109.0 109.0 109.0 109.0 109.0 109.0

RE GRIDCART 25PQT02I ELEV 4 109.0 109.0 109.0 109.2 109.5 109.8 110.0 110.0 110.0 110.0

RE GRIDCART 25PQT02I ELEV 5 108.7 108.7 108.7 108.7 108.8 108.9 108.9 109.0 109.0 109.0 109.0

RE GRIDCART 25PQT02I ELEV 5 109.0 109.0 109.0 109.1 109.4 109.6 109.8 109.8 109.9 110.0

RE GRIDCART 25PQT02I ELEV 6 108.5 108.5 108.5 108.5 108.6 108.7 108.9 109.0 109.0 109.0 109.0

RE GRIDCART 25PQT02I ELEV 6 109.0 109.0 109.0 109.1 109.2 109.4 109.5 109.7 109.8 110.0

RE GRIDCART 25PQT02I ELEV 7 108.2 108.2 108.2 108.2 108.4 108.6 108.8 109.0 109.0 109.0 109.0

RE GRIDCART 25PQT02I ELEV 7 109.0 109.0 109.0 109.0 109.1 109.2 109.3 109.5 109.8 110.0

RE GRIDCART 25PQT02I ELEV 8 108.0 108.0 108.0 108.0 108.1 108.4 108.7 109.0 109.0 109.0 109.0

RE GRIDCART 25PQT02I ELEV 8 109.0 109.0 109.0 109.0 109.0 109.0 109.1 109.4 109.7 110.0

RE GRIDCART 25PQT02I ELEV 9 108.0 108.0 108.0 108.0 108.1 108.3 108.6 108.7 108.7 108.7 108.7

RE GRIDCART 25PQT02I ELEV	9	108.8	108.9	109.0	109.0	109.0	109.0	109.1	109.3	109.5	109.7		
RE GRIDCART 25PQT02I ELEV	10	108.0	108.0	108.0	108.0	108.1	108.2	108.4	108.5	108.5	108.5	108.5	108.5
RE GRIDCART 25PQT02I ELEV	10	108.6	108.8	108.9	109.0	109.0	109.0	109.0	109.2	109.3	109.5		
RE GRIDCART 25PQT02I ELEV	11	108.0	108.0	108.0	108.0	108.0	108.1	108.2	108.2	108.2	108.2	108.2	108.2
RE GRIDCART 25PQT02I ELEV	11	108.4	108.7	108.9	109.0	109.0	109.0	109.0	109.1	109.2	109.2		
RE GRIDCART 25PQT02I ELEV	12	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0
RE GRIDCART 25PQT02I ELEV	12	108.3	108.6	108.9	109.0	109.0	109.0	109.0	109.0	109.0	109.0		
RE GRIDCART 25PQT02I ELEV	13	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0
RE GRIDCART 25PQT02I ELEV	13	108.2	108.4	108.6	108.8	108.9	108.9	109.0	109.0	109.0	109.0		
RE GRIDCART 25PQT02I ELEV	14	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0
RE GRIDCART 25PQT02I ELEV	14	108.1	108.3	108.4	108.6	108.7	108.9	109.0	109.0	109.0	109.0		
RE GRIDCART 25PQT02I ELEV	15	107.9	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0
RE GRIDCART 25PQT02I ELEV	15	108.1	108.1	108.2	108.4	108.6	108.8	109.0	109.0	109.0	109.0		
RE GRIDCART 25PQT02I ELEV	16	107.9	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0
RE GRIDCART 25PQT02I ELEV	16	108.0	108.0	108.0	108.2	108.5	108.8	109.0	109.0	109.0	109.0		
RE GRIDCART 25PQT02I ELEV	17	107.7	107.7	107.7	107.7	107.8	107.8	107.9	108.0	108.0	108.0	108.0	108.0
RE GRIDCART 25PQT02I ELEV	17	108.0	108.0	108.0	108.1	108.3	108.6	108.7	108.8	108.9	109.0		
RE GRIDCART 25PQT02I ELEV	18	107.4	107.5	107.5	107.5	107.5	107.7	107.9	108.0	108.0	108.0	108.0	108.0
RE GRIDCART 25PQT02I ELEV	18	108.0	108.0	108.0	108.1	108.2	108.4	108.5	108.7	108.8	109.0		
RE GRIDCART 25PQT02I ELEV	19	107.2	107.2	107.2	107.2	107.3	107.6	107.8	108.0	108.0	108.0	108.0	108.0
RE GRIDCART 25PQT02I ELEV	19	108.0	108.0	108.0	108.0	108.1	108.2	108.3	108.5	108.8	109.0		
RE GRIDCART 25PQT02I ELEV	20	107.0	107.0	107.0	107.0	107.1	107.4	107.7	108.0	108.0	108.0	108.0	108.0
RE GRIDCART 25PQT02I ELEV	20	108.0	108.0	108.0	108.0	108.0	108.0	108.1	108.4	108.7	109.0		
RE GRIDCART 25PQT02I ELEV	21	107.0	107.0	107.0	107.0	107.1	107.3	107.5	107.7	107.8	107.9	108.0	
RE GRIDCART 25PQT02I ELEV	21	108.0	108.0	108.0	108.0	108.0	108.0	108.1	108.4	108.7	109.0		
RE GRIDCART 25PQT02I HILL	1	109.0	347.0	347.0	347.0	347.0	347.0	347.0	347.0	347.0	347.0	347.0	347.0
RE GRIDCART 25PQT02I HILL	1	347.0	347.0	347.0	347.0	347.0	347.0	347.0	347.0	347.0	347.0		
RE GRIDCART 25PQT02I HILL	2	109.0	109.0	109.0	347.0	347.0	347.0	347.0	347.0	347.0	347.0	347.0	347.0
RE GRIDCART 25PQT02I HILL	2	347.0	347.0	347.0	347.0	347							

RE GRIDCART 25PQT02I HILL 15 108.1 108.1 108.2 108.4 108.6 108.8 109.0 109.0 109.0 109.0
RE GRIDCART 25PQT02I HILL 16 107.9 108.0 108.0 108.0 108.0 108.0 108.0 108.0 108.0 108.0 108.0
RE GRIDCART 25PQT02I HILL 16 108.0 108.0 108.0 108.2 108.5 108.8 109.0 109.0 109.0 109.0
RE GRIDCART 25PQT02I HILL 17 107.7 107.7 107.7 107.7 107.8 107.8 107.9 108.0 108.0 108.0 108.0
RE GRIDCART 25PQT02I HILL 17 108.0 108.0 108.0 108.1 108.3 108.6 108.7 108.8 108.9 109.0
RE GRIDCART 25PQT02I HILL 18 107.4 107.5 107.5 107.5 107.5 107.7 107.9 108.0 108.0 108.0 108.0
RE GRIDCART 25PQT02I HILL 18 108.0 108.0 108.0 108.1 108.2 108.4 108.5 108.7 108.8 109.0
RE GRIDCART 25PQT02I HILL 19 107.2 107.2 107.2 107.2 107.3 107.6 107.8 108.0 108.0 108.0 108.0
RE GRIDCART 25PQT02I HILL 19 108.0 108.0 108.0 108.0 108.1 108.2 108.3 108.5 108.8 109.0
RE GRIDCART 25PQT02I HILL 20 107.0 107.0 107.0 107.0 107.1 107.4 107.7 108.0 108.0 108.0 108.0
RE GRIDCART 25PQT02I HILL 20 108.0 108.0 108.0 108.0 108.0 108.0 108.1 108.4 108.7 109.0
RE GRIDCART 25PQT02I HILL 21 107.0 107.0 107.0 107.0 107.1 107.3 107.5 107.7 107.8 107.9 108.0
RE GRIDCART 25PQT02I HILL 21 108.0 108.0 108.0 108.0 108.0 108.0 108.1 108.4 108.7 109.0

RE GRIDCART 25PQT02I END

RE DISCCART 378701.5 3773634.9 105.91 105.91

** SENSITIV

** RCPDESCR Bernstein High School

RE DISCCART 378482.5 3773427.5 102 102

** SENSITIV

** RCPDESCR Joseph LeConte Middle School

RE DISCCART 378622.8 3773348.8 101 101

RE DISCCART 378899.1 3773999 113.4 238

** SENSITIV

** RCPDESCR Grant Elementary School

RE FINISHED

ME STARTING

ME SURFFILE "C:\Users\James\Desktop\Clark and Associates\Project 125 - ABJC - 5420 Sunset Blvd\CELA_V9_ADJU\CELA_v9.SFC"

** SURFFILE "C:\Users\James\Desktop\Clark and Associates\Project 125 - ABJC - 5420 Sunset Blvd\CELA_V9_ADJU\CELA_v9.SFC"

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ME SURFDATA 93134 2010

ME UAIRDATA 3190 2010

ME SITEDATA 00099999 2010

ME PROFBASE 87 METERS

ME FINISHED

OU STARTING

OU FILEFORM FIX

OU PLOTFILE ANNUAL ALL ALL`ANNUAL.plt 10000

OU PLOTFILE ANNUAL HDTS HDTS`ANNUAL.plt 10001

OU PLOTFILE ANNUAL FREEWAY FREEWAY`ANNUAL.plt 10002

OU FINISHED

** *****

** It is recommended that the user not edit any data below this line

** *****

** TERRFILE C:\Users\James\Desktop\CLARKA~1\PRC107~1\HOLLYWOOD_30M.DEM 0 2 WGS84 11 30

372947.0 3763009.6 373133.4 3776870.6 384661.3 3776722.5 384491.9 3762861.7

** AMPTYPE DEM
** AMPDATUM 2
** AMPZONE 11
** AMPHEMISPHERE N

** PROJECTIONWKT

PROJCS["UTM_6326_Zone11",GEOGCS["WGS_84",DATUM["World_Geodetic_System_1984",SPHEROID["WGS_1984",6378137,298.257223563],TOWGS84[0,0,0,0,0,0]],PRIMEM["Greenwich",0],UNIT["Degree",0.0174532925199433]],PROJECTION["Universal_Transverse_Mercator"],PARAMETER["Zone",11],UNIT["Meter",1,AUTHORITY["EPSG","9001"]]]]

** PROJECTION UTM

** DATUM WGE

** UNITS METER

** ZONE 11

** HEMISPHERE N

** ORIGINLON 0

** ORIGINLAT 0

** PARALLEL1 0

** PARALLEL2 0

** AZIMUTH 0

** SCALEFACT 0

** FALSEEAST 0

** FALSENORTH 0

** POSTFMT UNFORM

** TEMPLATE UserDefined

** AERMODEXE AERMOD_BREEZE_21112_64.EXE

** AERMAPEXE AERMAP_EPA_18081_64.EXE

AERMODPrMSPx VERSION
(C) COPYRIGHT 1998-2021, Trinity Consultants

* CAUTION: There is a known bug in U.S. EPA AERMOD version 21112 that occurs when RLINE Roadway and *
* RLINEXT Roadway sources are included in a model run and the order of the receptors is changed. Due *
* to this bug, running the BREEZE-Enhanced version of AERMOD 21112 can result in differences in *
* results when compared with U.S. EPA AERMOD 21112 if RLINE and/or RLINEXT Roadway sources are *
* included. A new BREEZE-Enhanced version will be released as soon as U.S. EPA fixes the bug. *
* Note: if RLINE and/or RLINEXT Roadway sources are not included in the model run, then the *
* BREEZE-Enhanced version of AERMOD 21112 can be used without this caution. *

Run Began on 10/02/2021 at 13:15:52

** BREEZE AERMOD
** Trinity Consultants
** VERSION 10.0

CO STARTING

CO TITLEONE 5420 Sunset Boulevard Project -
CO TITLETWO Update to Include Source Terms (Heavy Duty Trucks) From Project
CO MODELOPT DFAULT CONC NODRYDPLT NOWETDPLT
CO RUNORNOT RUN
CO AVERTIME ANNUAL
CO POLLUTID OTHER
CO FINISHED

SO STARTING

SO ELEVUNIT METERS
SO LOCATION 25PQT000 VOLUME 379228.5 3773327.2 99.68
** SRCDESCR N_M_1
SO LOCATION 25PQT001 VOLUME 379201.2 3773350.2 99.32
** SRCDESCR N_M_2
SO LOCATION 25PQT002 VOLUME 379172.8 3773371.7 96.62
** SRCDESCR N_M_3
SO LOCATION 25PQT003 VOLUME 379145.4 3773393.0 96.80
** SRCDESCR N_M_4
SO LOCATION 25PQT004 VOLUME 379117.3 3773415 95.76
** SRCDESCR N_M_5
SO LOCATION 25PQT005 VOLUME 379089.4 3773434.8 92.03
** SRCDESCR N_M_6
SO LOCATION 25PQT006 VOLUME 379061.6 3773458.4 93.12
** SRCDESCR N_M_7
SO LOCATION 25PQT007 VOLUME 379033.3 3773479.5 92.93
** SRCDESCR N_M_8
SO LOCATION 25PQT008 VOLUME 379005.7 3773501.6 94.01
** SRCDESCR N_M_9
SO LOCATION 25PQT009 VOLUME 378978.2 3773524.0 96.49

** SRCDESCR N_M_10			
SO LOCATION 25PQT00A VOLUME	378951.9	3773547.3	96.55
** SRCDESCR N_M_11			
SO LOCATION 25PQT00B VOLUME	378926.2	3773571.6	96.00
** SRCDESCR N_M_12			
SO LOCATION 25PQT00C VOLUME	378902.1	3773599.0	95.99
** SRCDESCR N_M_13			
SO LOCATION 25PQT00D VOLUME	378894.1	3773578.6	97.10
** SRCDESCR S_M_1			
SO LOCATION 25PQT00E VOLUME	378920.3	3773552.1	97.64
** SRCDESCR S_M_2			
SO LOCATION 25PQT00F VOLUME	378944.1	3773530.2	96.71
** SRCDESCR S_M_3			
SO LOCATION 25PQT00G VOLUME	378971.1	3773506.0	95.95
** SRCDESCR S_M_4			
SO LOCATION 25PQT00H VOLUME	378998.8	3773483.9	95.85
** SRCDESCR S_M_5			
SO LOCATION 25PQT00I VOLUME	379026.8	3773462.3	93.48
** SRCDESCR S_M_6			
SO LOCATION 25PQT00J VOLUME	379054.6	3773440.8	93.81
** SRCDESCR S_M_7			
SO LOCATION 25PQT00K VOLUME	379082.8	3773418.9	93.31
** SRCDESCR S_M_8			
SO LOCATION 25PQT00L VOLUME	379110.5	3773397.3	95.69
** SRCDESCR S_M_9			
SO LOCATION 25PQT00M VOLUME	379138.1	3773375.2	96.71
** SRCDESCR S_M_10			
SO LOCATION 25PQT00N VOLUME	379166.2	3773353.7	97.63
** SRCDESCR S_M_11			
SO LOCATION 25PQT00O VOLUME	379194.3	3773331.9	98.60
** SRCDESCR S_M_12			
SO LOCATION 25PQT00P VOLUME	379221.5	3773309.5	98.59
** SRCDESCR S_M_13			
SO LOCATION 25PQT00Q VOLUME	379085.0	3773405	95.58
** SRCDESCR S_OFF_W_1			
SO LOCATION 25PQT00R VOLUME	379094.2	3773396.7	96.48
** SRCDESCR S_OFF_W_2			
SO LOCATION 25PQT00S VOLUME	379103.4	3773388.7	96.88
** SRCDESCR S_OFF_W_3			
SO LOCATION 25PQT00T VOLUME	379112.1	3773380.6	96.58
** SRCDESCR S_OFF_W_4			
SO LOCATION 25PQT00U VOLUME	379121.1	3773372.1	96.53
** SRCDESCR S_OFF_W_5			
SO LOCATION 25PQT00V VOLUME	379129.8	3773363.8	97.20
** SRCDESCR S_OFF_W_6			
SO LOCATION 25PQT00W VOLUME	379138.1	3773354.4	97.47
** SRCDESCR S_OFF_W_7			
SO LOCATION 25PQT00X VOLUME	379144.8	3773344.5	97.61
** SRCDESCR S_OFF_W_8			
SO LOCATION 25PQT00Y VOLUME	379150.1	3773333.4	97.79
** SRCDESCR S_OFF_W_9			
SO LOCATION 25PQT00Z VOLUME	379154.2	3773322.3	98.13
** SRCDESCR S_OFF_W_10			
SO LOCATION 25PQT010 VOLUME	379208.6	3773395.0	103.95

** SRCDESCR N_ON_W_1					
SO LOCATION 25PQT011	VOLUME	379200.8	3773397.3	102.42	
** SRCDESCR N_ON_W_2					
SO LOCATION 25PQT012	VOLUME	379193.1	3773400.4	101.40	
** SRCDESCR N_ON_W_3					
SO LOCATION 25PQT013	VOLUME	379185.9	3773403.9	101.00	
** SRCDESCR N_ON_W_4					
SO LOCATION 25PQT014	VOLUME	379179.0	3773407.8	101.27	
** SRCDESCR N_ON_W_5					
SO LOCATION 25PQT015	VOLUME	379172.0	3773411.5	101.14	
** SRCDESCR N_ON_W_6					
SO LOCATION 25PQT016	VOLUME	379164.7	3773415.5	100.47	
** SRCDESCR N_ON_W_7					
SO LOCATION 25PQT017	VOLUME	379158.0	3773419.1	99.49	
** SRCDESCR N_ON_W_8					
SO LOCATION 25PQT018	VOLUME	379151.0	3773422.8	98.77	
** SRCDESCR N_ON_W_9					
SO LOCATION 25PQT019	VOLUME	379144.0	3773426.6	98.52	
** SRCDESCR N_ON_W_10					
SO LOCATION 25PQT01A	VOLUME	379137.2	3773430.2	97.82	
** SRCDESCR N_ON_W_11					
SO LOCATION 25PQT01B	VOLUME	379130.0	3773434.1	96.43	
** SRCDESCR N_ON_W_12					
SO LOCATION 25PQT01C	VOLUME	379123.2	3773437.8	94.49	
** SRCDESCR N_ON_W_13					
SO LOCATION 25PQT01D	VOLUME	379115.9	3773441.5	92.66	
** SRCDESCR N_ON_W_14					
SO LOCATION 25PQT01E	VOLUME	379109.3	3773445.1	92.17	
** SRCDESCR N_ON_W_15					
SO LOCATION 25PQT01F	VOLUME	379102.1	3773448.9	92.77	
** SRCDESCR N_ON_W_16					
SO LOCATION 25PQT01G	VOLUME	379095.1	3773452.8	94.33	
** SRCDESCR N_ON_W_17					
SO LOCATION 25PQT01H	VOLUME	379088.5	3773456.6	95.82	
** SRCDESCR N_ON_W_18					
SO LOCATION 25PQT01I	VOLUME	379081.7	3773460.7	96.41	
** SRCDESCR N_ON_W_19					
SO LOCATION 25PQT01J	VOLUME	379074.5	3773464.7	96.27	
** SRCDESCR N_ON_W_20					
SO LOCATION 25PQT01K	VOLUME	379067.9	3773468.9	95.68	
** SRCDESCR N_ON_W_21					
SO LOCATION 25PQT01L	VOLUME	379061.2	3773472.9	94.42	
** SRCDESCR N_ON_W_22					
SO LOCATION 25PQT01M	VOLUME	379054.6	3773477.5	93.89	
** SRCDESCR N_ON_W_23					
SO LOCATION 25PQT01N	VOLUME	379047.8	3773481.6	94.64	
** SRCDESCR N_ON_W_24					
SO LOCATION 25PQT01O	VOLUME	379041.3	3773486.1	95.34	
** SRCDESCR N_ON_W_25					
SO LOCATION 25PQT01P	VOLUME	379034.8	3773490.8	95.90	
** SRCDESCR N_ON_W_26					
SO LOCATION 25PQT01Q	VOLUME	379028.6	3773495.3	96.26	
** SRCDESCR N_ON_W_27					
SO LOCATION 25PQT01R	VOLUME	379022.3	3773499.7	96.41	

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** SRCDESCR N_ON_W_28
SO LOCATION 25PQT02Q VOLUME 379085.0 3773405.0 95.58
** SRCDESCR S_OFF_W_1
SO LOCATION 25PQT02U AREALINE 379342.8 3773815.3 109.28
** SRCDESCR North Bound Trucks on Sunset
SO LOCATION 25PQT02V AREALINE 379233 3773812 109.17
** SRCDESCR North Bound Trucks On Western
SO LOCATION 25PQT02X AREALINE 379341.6 3773802.8 109.00
** SRCDESCR Southbound on Normandie - 1
SO LOCATION 25PQT02Y AREALINE 380031.2 3773802.8 112.86
** SRCDESCR Southbound on Normandie
SO LOCATION 25PQT02Z AREALINE 379341.6 3773807.1 109.00
** SRCDESCR Eastbound on Sunset
SO LOCATION 25PQT030 AREALINE 379341.6 3773815.7 109.29
** SRCDESCR West Bound on Sunset
SO LOCATION 25PQT031 AREALINE 379352.3 3773813.5 109.22
** SRCDESCR NW on US101
SO LOCATION 25PQT032 AREALINE 379228.1 3773809.2 109.07
** SRCDESCR NW on US101
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** SRCDESCR NW On US101
SO LOCATION 25PQT034 AREALINE 379339.4 3773809.2 109.07
** SRCDESCR SW on US 101
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** SRCDESCR SW On US101
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** SRCDESCR SW On US 101
SO LOCATION 25PQT037 AREALINE 379843.4 3773810.5 113.12
** SRCDESCR Southbound on Normandie
SO LOCATION 25PQT038 AREALINE 379843.4 3773806.7 113.00
** SRCDESCR Eastbound on Sunset
SO LOCATION 25PQT039 AREALINE 378842.9 3773811.8 108.16
** SRCDESCR West Bound On Sunset
SO LOCATION 25PQT03A AREALINE 378839 3773807.3 107.70
** SRCDESCR SW On US 101
SO LOCATION 25PQT03C VOLUME 379318.7 3773664.5 0
** SRCDESCR idling trucks
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SO SRCPARAM 25PQT002 1.88E-05 0 16.47 2.55
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SO SRCPARAM 25PQT008 1.88E-05 0 16.47 2.55
SO SRCPARAM 25PQT009 1.88E-05 0 16.47 2.55
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SO SRCPARAM 25PQT00B 1.88E-05 0 16.47 2.55
SO SRCPARAM 25PQT00C 1.88E-05 0 16.47 2.55
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SO SRCPARAM 25PQT00G 1.21E-05 0 16.47 2.55

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SO SRCPARAM 25PQT00N 1.21E-05 0 16.47 2.55
SO SRCPARAM 25PQT00O 1.21E-05 0 16.47 2.55
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SO SRCPARAM 25PQT00R 1.36E-06 0 5.67 2.23
SO SRCPARAM 25PQT00S 1.36E-06 0 5.67 2.23
SO SRCPARAM 25PQT00T 1.36E-06 0 5.67 2.23
SO SRCPARAM 25PQT00U 1.36E-06 0 5.67 2.23
SO SRCPARAM 25PQT00V 1.36E-06 0 5.67 2.23
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SO SRCPARAM 25PQT011 7.23E-07 0 3.72 2.18
SO SRCPARAM 25PQT012 7.23E-07 0 3.72 2.18
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SO SRCPARAM 25PQT01A 7.23E-07 0 3.72 2.18
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SO SRCPARAM 25PQT01C 7.23E-07 0 3.72 2.18
SO SRCPARAM 25PQT01D 7.23E-07 0 3.72 2.18
SO SRCPARAM 25PQT01E 7.23E-07 0 3.72 2.18
SO SRCPARAM 25PQT01F 7.23E-07 0 3.72 2.18
SO SRCPARAM 25PQT01G 7.23E-07 0 3.72 2.18
SO SRCPARAM 25PQT01H 7.23E-07 0 3.72 2.18
SO SRCPARAM 25PQT01I 7.23E-07 0 3.72 2.18
SO SRCPARAM 25PQT01J 7.23E-07 0 3.72 2.18
SO SRCPARAM 25PQT01K 7.23E-07 0 3.72 2.18
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SO SRCPARAM 25PQT01N 7.23E-07 0 3.72 2.18
SO SRCPARAM 25PQT01O 7.23E-07 0 3.72 2.18
SO SRCPARAM 25PQT01P 7.23E-07 0 3.72 2.18
SO SRCPARAM 25PQT01Q 7.23E-07 0 3.72 2.18
SO SRCPARAM 25PQT01R 7.23E-07 0 3.72 2.18
SO SRCPARAM 25PQT02Q 1.36E-06 0 5.67 2.23
SO SRCPARAM 25PQT02U 2.52459E-07 0 110 1 180 0
SO SRCPARAM 25PQT02V 2.52459E-07 0 499 1 -91.2 0
SO SRCPARAM 25PQT02X 8.87302E-07 0 499 1 -0.4 0
SO SRCPARAM 25PQT02Y 8.87302E-07 0 360.4 1 90 0
SO SRCPARAM 25PQT02Z 1.48571E-06 0 499 1 -0.3 0
SO SRCPARAM 25PQT030 2.06349E-06 0 499 1 179.5 0

SO SRCPARAM 25PQT031 5.96708E-07 0 120 1 178 0
SO SRCPARAM 25PQT032 5.96708E-07 0 417.6 1 90.3 0
SO SRCPARAM 25PQT033 5.96708E-07 0 272.4 1 -151 0
SO SRCPARAM 25PQT034 5.98413E-07 0 499 1 180 0
SO SRCPARAM 25PQT035 5.98413E-07 0 119.8 1 65.7 0
SO SRCPARAM 25PQT036 5.98413E-07 0 305 1 47.8 0
SO SRCPARAM 25PQT037 8.87302E-07 0 189.2 1 0.8 0
SO SRCPARAM 25PQT038 1.48571E-06 0 499 1 0 0
SO SRCPARAM 25PQT039 2.06349E-06 0 499 1 179.7 0
SO SRCPARAM 25PQT03A 5.98413E-07 0 121 1 -179.1 0
SO SRCPARAM 25PQT03C 0.000664 0 10 0
SO EMISFACT 25PQT02U HROFDY 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0 0 1 1 1 1
SO EMISFACT 25PQT02V HROFDY 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0
SO EMISFACT 25PQT02X HROFDY 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 1 1 1 1
SO EMISFACT 25PQT02Y HROFDY 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0
SO EMISFACT 25PQT02Z HROFDY 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0
SO EMISFACT 25PQT030 HROFDY 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0
SO EMISFACT 25PQT031 HROFDY 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0
SO EMISFACT 25PQT032 HROFDY 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0
SO EMISFACT 25PQT033 HROFDY 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0
SO EMISFACT 25PQT034 HROFDY 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0
SO EMISFACT 25PQT035 HROFDY 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0
SO EMISFACT 25PQT036 HROFDY 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0
SO EMISFACT 25PQT037 HROFDY 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0
SO EMISFACT 25PQT038 HROFDY 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0
SO EMISFACT 25PQT039 HROFDY 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0
SO EMISFACT 25PQT03A HROFDY 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0
SO EMISFACT 25PQT03C HROFDY 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 0 0 0
SO SRCGROUP ALL
SO SRCGROUP HDTS 25PQT02U 25PQT02V 25PQT02X 25PQT02Y 25PQT02Z 25PQT030 25PQT031
25PQT032 25PQT033
SO SRCGROUP HDTS 25PQT034 25PQT035 25PQT036 25PQT03A 25PQT03C
SO SRCGROUP FREEWAY 25PQT000 25PQT001 25PQT002 25PQT003 25PQT004 25PQT005 25PQT006
25PQT007
SO SRCGROUP FREEWAY 25PQT008 25PQT009 25PQT00A 25PQT00B 25PQT00C 25PQT00D 25PQT00E
25PQT00F
SO SRCGROUP FREEWAY 25PQT00G 25PQT00H 25PQT00I 25PQT00J 25PQT00K 25PQT00L 25PQT00M
25PQT00N
SO SRCGROUP FREEWAY 25PQT00O 25PQT00P 25PQT00Q 25PQT00R 25PQT00S 25PQT00T 25PQT00U
25PQT00V
SO SRCGROUP FREEWAY 25PQT00W 25PQT00X 25PQT00Y 25PQT00Z 25PQT010 25PQT011 25PQT012
25PQT013
SO SRCGROUP FREEWAY 25PQT014 25PQT015 25PQT016 25PQT017 25PQT018 25PQT019 25PQT01A
25PQT01B
SO SRCGROUP FREEWAY 25PQT01C 25PQT01D 25PQT01E 25PQT01F 25PQT01G 25PQT01H 25PQT01I
25PQT01J
SO SRCGROUP FREEWAY 25PQT01K 25PQT01L 25PQT01M 25PQT01N 25PQT01O 25PQT01P 25PQT01Q
25PQT01R
SO SRCGROUP FREEWAY 25PQT02Q
SO FINISHED

RE STARTING
RE ELEVUNIT METERS
RE GRIDCART 25PQT02I STA

RE GRIDCART 25PQT02I XYINC	379236.9	21	9.1	3773799.8	21	-7.6							
RE GRIDCART 25PQT02I ELEV	1	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0
RE GRIDCART 25PQT02I ELEV	1	109.0	109.0	109.0	109.2	109.5	109.8	110.0	110.0	110.0	110.0	110.0	
RE GRIDCART 25PQT02I ELEV	2	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0
RE GRIDCART 25PQT02I ELEV	2	109.0	109.0	109.0	109.2	109.5	109.8	110.0	110.0	110.0	110.0	110.0	
RE GRIDCART 25PQT02I ELEV	3	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0
RE GRIDCART 25PQT02I ELEV	3	109.0	109.0	109.0	109.2	109.5	109.8	110.0	110.0	110.0	110.0	110.0	
RE GRIDCART 25PQT02I ELEV	4	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0	109.0
RE GRIDCART 25PQT02I ELEV	4	109.0	109.0	109.0	109.2	109.5	109.8	110.0	110.0	110.0	110.0	110.0	
RE GRIDCART 25PQT02I ELEV	5	108.7	108.7	108.7	108.7	108.8	108.9	108.9	109.0	109.0	109.0	109.0	109.0
RE GRIDCART 25PQT02I ELEV	5	109.0	109.0	109.0	109.1	109.4	109.6	109.8	109.8	109.9	110.0		
RE GRIDCART 25PQT02I ELEV	6	108.5	108.5	108.5	108.5	108.6	108.7	108.9	109.0	109.0	109.0	109.0	109.0
RE GRIDCART 25PQT02I ELEV	6	109.0	109.0	109.0	109.1	109.2	109.4	109.5	109.7	109.8	110.0		
RE GRIDCART 25PQT02I ELEV	7	108.2	108.2	108.2	108.2	108.4	108.6	108.8	109.0	109.0	109.0	109.0	109.0
RE GRIDCART 25PQT02I ELEV	7	109.0	109.0	109.0	109.0	109.1	109.2	109.3	109.5	109.8	110.0		
RE GRIDCART 25PQT02I ELEV	8	108.0	108.0	108.0	108.0	108.1	108.4	108.7	109.0	109.0	109.0	109.0	109.0
RE GRIDCART 25PQT02I ELEV	8	109.0	109.0	109.0	109.0	109.0	109.0	109.1	109.4	109.7	110.0		
RE GRIDCART 25PQT02I ELEV	9	108.0	108.0	108.0	108.0	108.1	108.3	108.6	108.7	108.7	108.7	108.7	108.7
RE GRIDCART 25PQT02I ELEV	9	108.8	108.9	109.0	109.0	109.0	109.0	109.1	109.3	109.5	109.7		
RE GRIDCART 25PQT02I ELEV	10	108.0	108.0	108.0	108.0	108.1	108.2	108.4	108.5	108.5	108.5	108.5	108.5
RE GRIDCART 25PQT02I ELEV	10	108.6	108.8	108.9	109.0	109.0	109.0	109.0	109.2	109.3	109.5		
RE GRIDCART 25PQT02I ELEV	11	108.0	108.0	108.0	108.0	108.0	108.1	108.2	108.2	108.2	108.2	108.2	108.2
RE GRIDCART 25PQT02I ELEV	11	108.4	108.7	108.9	109.0	109.0	109.0	109.0	109.1	109.2	109.2		
RE GRIDCART 25PQT02I ELEV	12	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0
RE GRIDCART 25PQT02I ELEV	12	108.3	108.6	108.9	109.0	109.0	109.0	109.0	109.0	109.0	109.0		
RE GRIDCART 25PQT02I ELEV	13	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0
RE GRIDCART 25PQT02I ELEV	13	108.2	108.4	108.6	108.8	108.9	108.9	109.0	109.0	109.0	109.0		
RE GRIDCART 25PQT02I ELEV	14	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0
RE GRIDCART 25PQT02I ELEV	14	108.1	108.3	108.4	108.6	108.7	108.9</						

RE GRIDCART 25PQT02I HILL 6 108.5 108.5 108.5 108.5 108.6 108.7 108.9 109.0 109.0 109.0 109.0
RE GRIDCART 25PQT02I HILL 6 109.0 109.0 347.0 347.0 347.0 347.0 347.0 347.0 347.0 347.0
RE GRIDCART 25PQT02I HILL 7 108.2 108.2 108.2 108.2 108.4 108.6 108.8 109.0 109.0 109.0 109.0
RE GRIDCART 25PQT02I HILL 7 109.0 109.0 109.0 109.0 109.1 347.0 347.0 347.0 347.0 347.0
RE GRIDCART 25PQT02I HILL 8 108.0 108.0 108.0 108.0 108.1 108.4 108.7 109.0 109.0 109.0 109.0
RE GRIDCART 25PQT02I HILL 8 109.0 109.0 109.0 109.0 109.0 109.0 109.1 109.4 109.7 110.0
RE GRIDCART 25PQT02I HILL 9 108.0 108.0 108.0 108.0 108.1 108.3 108.6 108.7 108.7 108.7 108.7
RE GRIDCART 25PQT02I HILL 9 108.8 108.9 109.0 109.0 109.0 109.0 109.1 109.3 109.5 109.7
RE GRIDCART 25PQT02I HILL 10 108.0 108.0 108.0 108.0 108.1 108.2 108.4 108.5 108.5 108.5 108.5
RE GRIDCART 25PQT02I HILL 10 108.6 108.8 108.9 109.0 109.0 109.0 109.0 109.2 109.3 109.5
RE GRIDCART 25PQT02I HILL 11 108.0 108.0 108.0 108.0 108.0 108.1 108.2 108.2 108.2 108.2 108.2
RE GRIDCART 25PQT02I HILL 11 108.4 108.7 108.9 109.0 109.0 109.0 109.0 109.1 109.2 109.2
RE GRIDCART 25PQT02I HILL 12 108.0 108.0 108.0 108.0 108.0 108.0 108.0 108.0 108.0 108.0 108.0
RE GRIDCART 25PQT02I HILL 12 108.3 108.6 108.9 109.0 109.0 109.0 109.0 109.0 109.0 109.0
RE GRIDCART 25PQT02I HILL 13 108.0 108.0 108.0 108.0 108.0 108.0 108.0 108.0 108.0 108.0 108.0
RE GRIDCART 25PQT02I HILL 13 108.2 108.4 108.6 108.8 108.9 108.9 109.0 109.0 109.0 109.0
RE GRIDCART 25PQT02I HILL 14 108.0 108.0 108.0 108.0 108.0 108.0 108.0 108.0 108.0 108.0 108.0
RE GRIDCART 25PQT02I HILL 14 108.1 108.3 108.4 108.6 108.7 108.9 109.0 109.0 109.0 109.0
RE GRIDCART 25PQT02I HILL 15 107.9 108.0 108.0 108.0 108.0 108.0 108.0 108.0 108.0 108.0 108.0
RE GRIDCART 25PQT02I HILL 15 108.1 108.1 108.2 108.4 108.6 108.8 109.0 109.0 109.0 109.0
RE GRIDCART 25PQT02I HILL 16 107.9 108.0 108.0 108.0 108.0 108.0 108.0 108.0 108.0 108.0 108.0
RE GRIDCART 25PQT02I HILL 16 108.0 108.0 108.0 108.2 108.5 108.8 109.0 109.0 109.0 109.0
RE GRIDCART 25PQT02I HILL 17 107.7 107.7 107.7 107.7 107.8 107.8 107.9 108.0 108.0 108.0 108.0
RE GRIDCART 25PQT02I HILL 17 108.0 108.0 108.0 108.1 108.3 108.6 108.7 108.8 108.9 109.0
RE GRIDCART 25PQT02I HILL 18 107.4 107.5 107.5 107.5 107.5 107.7 107.9 108.0 108.0 108.0 108.0
RE GRIDCART 25PQT02I HILL 18 108.0 108.0 108.0 108.1 108.2 108.4 108.5 108.7 108.8 109.0
RE GRIDCART 25PQT02I HILL 19 107.2 107.2 107.2 107.2 107.3 107.6 107.8 108.0 108.0 108.0 108.0
RE GRIDCART 25PQT02I HILL 19 108.0 108.0 108.0 108.0 108.1 108.2 108.3 108.5 108.8 109.0
RE GRIDCART 25PQT02I HILL 20 107.0 107.0 107.0 107.0 107.1 107.4 107.7 108.0 108.0 108.0 108.0
RE GRIDCART 25PQT02I HILL 20 108.0 108.0 108.0 108.0 108.0 108.0 108.1 108.4 108.7 109.0
RE GRIDCART 25PQT02I HILL 21 107.0 107.0 107.0 107.0 107.1 107.3 107.5 107.7 107.8 107.9 108.0
RE GRIDCART 25PQT02I HILL 21 108.0 108.0 108.0 108.0 108.0 108.0 108.1 108.4 108.7 109.0

RE GRIDCART 25PQT02I END

RE DISCCART 378701.5 3773634.9 105.91 105.91

** SENSITIV

** RCPDESCR Bernstein High School

RE DISCCART 378482.5 3773427.5 102 102

** SENSITIV

** RCPDESCR Joseph LeConte Middle School

RE DISCCART 378622.8 3773348.8 101 101

RE DISCCART 378899.1 3773999 113.4 238

** SENSITIV

** RCPDESCR Grant Elementary School

RE FINISHED

ME STARTING

ME SURFFILE "C:\Users\James\Desktop\Clark and Associates\Project 125 - ABJC - 5420 Sunset
Blvd\CELA_V9_ADJU\CELA_v9.SFC"

** SURFFILE "C:\Users\James\Desktop\Clark and Associates\Project 125 - ABJC - 5420 Sunset
Blvd\CELA_V9_ADJU\CELA_v9.SFC"

ME PROFFILE "C:\Users\James\Desktop\Clark and Associates\Project 125 - ABJC - 5420 Sunset
Blvd\CELA_V9_ADJU\CELA_v9.PFL"

** PROFFILE "C:\Users\James\Desktop\Clark and Associates\Project 125 - ABJC - 5420 Sunset
Blvd\CELA_V9_ADJU\CELA_v9.PFL"

ME SURFDATA 93134 2010
ME UAIRDATA 3190 2010
ME SITEDATA 00099999 2010
ME PROFBASE 87 METERS
ME FINISHED

OU STARTING
OU FILEFORM FIX
OU PLOTFILE ANNUAL ALL ALL`ANNUAL.plt 10000
OU PLOTFILE ANNUAL HDTS HDTS`ANNUAL.plt 10001
OU PLOTFILE ANNUAL FREEWAY FREEWAY`ANNUAL.plt 10002
OU FINISHED

** *****

** It is recommended that the user not edit any data below this line

** *****

** TERRFILE C:\Users\James\Desktop\CLARKA~1\PRC107~1\HOLLYWOOD_30M.DEM 0 2 WGS84 11 30
372947.0 3763009.6 373133.4 3776870.6 384661.3 3776722.5 384491.9 3762861.7
** AMPTYPE DEM
** AMPDATUM 2
** AMPZONE 11
** AMPHEMISPHERE N

** PROJECTIONWKT
PROJCS["UTM_6326_Zone11",GEOGCS["WGS_84",DATUM["World_Geodetic_System_1984",SPHEROID["WGS_1984",6378137,298.257223563],TOWGS84[0,0,0,0,0,0]],PRIMEM["Greenwich",0],UNIT["Degree",0.0174532925199433]],PROJECTION["Universal_Transverse_Mercator"],PARAMETER["Zone",11],UNIT["Meter",1,AUTHORITY["EPSG","9001"]]]]
** PROJECTION UTM
** DATUM WGE
** UNITS METER
** ZONE 11
** HEMISPHERE N
** ORIGINLON 0
** ORIGINLAT 0
** PARALLEL1 0
** PARALLEL2 0
** AZIMUTH 0
** SCALEFACT 0
** FALSEEAST 0
** FALSENORTH 0

** POSTFMT UNFORM
** TEMPLATE UserDefined
** AERMODEXE AERMOD_BREEZE_21112_64.EXE
** AERMAPEXE AERMAP_EPA_18081_64.EXE

*** Message Summary For AERMOD Model Setup ***

----- Summary of Total Messages -----

A Total of 0 Fatal Error Message(s)
A Total of 3 Warning Message(s)
A Total of 0 Informational Message(s)

***** FATAL ERROR MESSAGES *****

*** NONE ***

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

SO W320 268 VPARM: Input Parameter May Be Out-of-Range for Parameter SZINIT
ME W186 411 MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used 0.50
ME W187 411 MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET

*** SETUP Finishes Successfully ***

*** AERMOD - VERSION 21112 *** *** 5420 Sunset Boulevard Project - ***
10/02/21

*** AERMET - VERSION 16216 *** *** Update to Include Source Terms (Heavy Duty Trucks) From Project
*** 13:15:52

PAGE 1

*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

*** MODEL SETUP OPTIONS SUMMARY ***

**Model Is Setup For Calculation of Average CONCentration Values.

-- DEPOSITION LOGIC --

**NO GAS DEPOSITION Data Provided.

**NO PARTICLE DEPOSITION Data Provided.

**Model Uses NO DRY DEPLETION. DRYDPLT = F

**Model Uses NO WET DEPLETION. WETDPLT = F

**Model Uses RURAL Dispersion Only.

**Model Uses Regulatory DEFAULT Options:

1. Stack-tip Downwash.
2. Model Accounts for ELEVated Terrain Effects.
3. Use Calms Processing Routine.
4. Use Missing Data Processing Routine.
5. No Exponential Decay.

**Other Options Specified:

ADJ_U* - Use ADJ_U* option for SBL in AERMET

TEMP_Sub - Meteorological data includes TEMP substitutions

**Model Assumes No FLAGPOLE Receptor Heights.

**The User Specified a Pollutant Type of: OTHER

**Model Calculates ANNUAL Averages Only

**This Run Includes: 82 Source(s); 3 Source Group(s); and 445 Receptor(s)

with: 0 POINT(s), including
0 POINTCAP(s) and 0 POINTHOR(s)
and: 66 VOLUME source(s)
and: 16 AREA type source(s)
and: 0 LINE source(s)
and: 0 RLINE/RLINEXT source(s)
and: 0 OPENPIT source(s)
and: 0 BUOYANT LINE source(s) with a total of 0 line(s)

**Model Set To Continue RUNning After the Setup Testing.

**The AERMET Input Meteorological Data Version Date: 16216

**Output Options Selected:

Model Outputs Tables of ANNUAL Averages by Receptor
Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)

**NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours
m for Missing Hours
b for Both Calm and Missing Hours

**Misc. Inputs: Base Elev. for Pot. Temp. Profile (m MSL) = 87.00 ; Decay Coef. = 0.000 ; Rot. Angle = 0.0
Emission Units = GRAMS/SEC ; Emission Rate Unit Factor = 0.10000E+07
Output Units = MICROGRAMS/M**3

**Approximate Storage Requirements of Model = 3.6 MB of RAM.

**Input Runstream File: aermod.inp

**Output Print File: aermod.out

*** AERMOD - VERSION 21112 *** *** 5420 Sunset Boulevard Project - ***
10/02/21
*** AERMET - VERSION 16216 *** *** Update to Include Source Terms (Heavy Duty Trucks) From Project
*** 13:15:52

PAGE 2

*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

SOURCE ID	PART. CATS.	NUMBER EMISSION RATE (GRAMS/SEC) (METERS)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN EMISSION RATE SOURCE SCALAR VARY BY
25PQT000	0	0.18800E-04	379228.5	3773327.2	99.7	0.00	16.47	2.55	NO
25PQT001	0	0.18800E-04	379201.2	3773350.2	99.3	0.00	16.47	2.55	NO
25PQT002	0	0.18800E-04	379172.8	3773371.7	96.6	0.00	16.47	2.55	NO
25PQT003	0	0.18800E-04	379145.4	3773393.0	96.8	0.00	16.47	2.55	NO

25PQT004	0	0.18800E-04	379117.3	3773415.0	95.8	0.00	16.47	2.55	NO
25PQT005	0	0.18800E-04	379089.4	3773434.8	92.0	0.00	16.47	2.55	NO
25PQT006	0	0.18800E-04	379061.6	3773458.4	93.1	0.00	16.47	2.55	NO
25PQT007	0	0.18800E-04	379033.3	3773479.5	92.9	0.00	16.47	2.55	NO
25PQT008	0	0.18800E-04	379005.7	3773501.6	94.0	0.00	16.47	2.55	NO
25PQT009	0	0.18800E-04	378978.2	3773524.0	96.5	0.00	16.47	2.55	NO
25PQT00A	0	0.18800E-04	378951.9	3773547.3	96.5	0.00	16.47	2.55	NO
25PQT00B	0	0.18800E-04	378926.2	3773571.6	96.0	0.00	16.47	2.55	NO
25PQT00C	0	0.18800E-04	378902.1	3773599.0	96.0	0.00	16.47	2.55	NO
25PQT00D	0	0.12100E-04	378894.1	3773578.6	97.1	0.00	16.47	2.55	NO
25PQT00E	0	0.12100E-04	378920.3	3773552.1	97.6	0.00	16.47	2.55	NO
25PQT00F	0	0.12100E-04	378944.1	3773530.2	96.7	0.00	16.47	2.55	NO
25PQT00G	0	0.12100E-04	378971.1	3773506.0	96.0	0.00	16.47	2.55	NO
25PQT00H	0	0.12100E-04	378998.8	3773483.9	95.8	0.00	16.47	2.55	NO
25PQT00I	0	0.12100E-04	379026.8	3773462.3	93.5	0.00	16.47	2.55	NO
25PQT00J	0	0.12100E-04	379054.6	3773440.8	93.8	0.00	16.47	2.55	NO
25PQT00K	0	0.12100E-04	379082.8	3773418.9	93.3	0.00	16.47	2.55	NO
25PQT00L	0	0.12100E-04	379110.5	3773397.3	95.7	0.00	16.47	2.55	NO
25PQT00M	0	0.12100E-04	379138.1	3773375.2	96.7	0.00	16.47	2.55	NO
25PQT00N	0	0.12100E-04	379166.2	3773353.7	97.6	0.00	16.47	2.55	NO
25PQT00O	0	0.12100E-04	379194.3	3773331.9	98.6	0.00	16.47	2.55	NO
25PQT00P	0	0.12100E-04	379221.5	3773309.5	98.6	0.00	16.47	2.55	NO
25PQT00Q	0	0.13600E-05	379085.0	3773405.0	95.6	0.00	5.67	2.23	NO
25PQT00R	0	0.13600E-05	379094.2	3773396.7	96.5	0.00	5.67	2.23	NO
25PQT00S	0	0.13600E-05	379103.4	3773388.7	96.9	0.00	5.67	2.23	NO
25PQT00T	0	0.13600E-05	379112.1	3773380.6	96.6	0.00	5.67	2.23	NO
25PQT00U	0	0.13600E-05	379121.1	3773372.1	96.5	0.00	5.67	2.23	NO
25PQT00V	0	0.13600E-05	379129.8	3773363.8	97.2	0.00	5.67	2.23	NO
25PQT00W	0	0.13600E-05	379138.1	3773354.4	97.5	0.00	5.67	2.23	NO
25PQT00X	0	0.13600E-05	379144.8	3773344.5	97.6	0.00	5.67	2.23	NO
25PQT00Y	0	0.13600E-05	379150.1	3773333.4	97.8	0.00	5.67	2.23	NO
25PQT00Z	0	0.13600E-05	379154.2	3773322.3	98.1	0.00	5.67	2.23	NO
25PQT010	0	0.72300E-06	379208.6	3773395.0	104.0	0.00	3.72	2.18	NO
25PQT011	0	0.72300E-06	379200.8	3773397.3	102.4	0.00	3.72	2.18	NO
25PQT012	0	0.72300E-06	379193.1	3773400.4	101.4	0.00	3.72	2.18	NO
25PQT013	0	0.72300E-06	379185.9	3773403.9	101.0	0.00	3.72	2.18	NO

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*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER	EMISSION RATE	BASE	RELEASE	INIT.	INIT.	URBAN	EMISSION RATE	
SOURCE	PART. (GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ	SOURCE SCALAR VARY
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
25PQT014	0	0.72300E-06	379179.0	3773407.8	101.3	0.00	3.72	2.18 NO
25PQT015	0	0.72300E-06	379172.0	3773411.5	101.1	0.00	3.72	2.18 NO
25PQT016	0	0.72300E-06	379164.7	3773415.5	100.5	0.00	3.72	2.18 NO

25PQT017	0	0.72300E-06	379158.0	3773419.1	99.5	0.00	3.72	2.18	NO
25PQT018	0	0.72300E-06	379151.0	3773422.8	98.8	0.00	3.72	2.18	NO
25PQT019	0	0.72300E-06	379144.0	3773426.6	98.5	0.00	3.72	2.18	NO
25PQT01A	0	0.72300E-06	379137.2	3773430.2	97.8	0.00	3.72	2.18	NO
25PQT01B	0	0.72300E-06	379130.0	3773434.1	96.4	0.00	3.72	2.18	NO
25PQT01C	0	0.72300E-06	379123.2	3773437.8	94.5	0.00	3.72	2.18	NO
25PQT01D	0	0.72300E-06	379115.9	3773441.5	92.7	0.00	3.72	2.18	NO
25PQT01E	0	0.72300E-06	379109.3	3773445.1	92.2	0.00	3.72	2.18	NO
25PQT01F	0	0.72300E-06	379102.1	3773448.9	92.8	0.00	3.72	2.18	NO
25PQT01G	0	0.72300E-06	379095.1	3773452.8	94.3	0.00	3.72	2.18	NO
25PQT01H	0	0.72300E-06	379088.5	3773456.6	95.8	0.00	3.72	2.18	NO
25PQT01I	0	0.72300E-06	379081.7	3773460.7	96.4	0.00	3.72	2.18	NO
25PQT01J	0	0.72300E-06	379074.5	3773464.7	96.3	0.00	3.72	2.18	NO
25PQT01K	0	0.72300E-06	379067.9	3773468.9	95.7	0.00	3.72	2.18	NO
25PQT01L	0	0.72300E-06	379061.2	3773472.9	94.4	0.00	3.72	2.18	NO
25PQT01M	0	0.72300E-06	379054.6	3773477.5	93.9	0.00	3.72	2.18	NO
25PQT01N	0	0.72300E-06	379047.8	3773481.6	94.6	0.00	3.72	2.18	NO
25PQT01O	0	0.72300E-06	379041.3	3773486.1	95.3	0.00	3.72	2.18	NO
25PQT01P	0	0.72300E-06	379034.8	3773490.8	95.9	0.00	3.72	2.18	NO
25PQT01Q	0	0.72300E-06	379028.6	3773495.3	96.3	0.00	3.72	2.18	NO
25PQT01R	0	0.72300E-06	379022.3	3773499.7	96.4	0.00	3.72	2.18	NO
25PQT02Q	0	0.13600E-05	379085.0	3773405.0	95.6	0.00	5.67	2.23	NO
25PQT03C	0	0.66400E-03	379318.7	3773664.5	0.0	0.00	10.00	0.00	NO HROFDY

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 *** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

*** AREALINE SOURCE DATA ***											
NUMBER EMISSION RATE		COORD (SW CORNER)			BASE	RELEASE	X-DIM	Y-DIM	ORIENT.		
INIT.	URBAN	EMISSION RATE									
SOURCE	PART.	(GRAMS/SEC	X	Y	ELEV.	HEIGHT	OF AREA	OF AREA	OF AREA	SZ	
SOURCE	SCALAR	VARY									
ID	CATS.	/METER**2)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(DEG.)	
(METERS)	BY										

25PQT02U	0	0.25246E-06	379342.8	3773815.3	109.3	0.00	110.00	1.00	180.00	0.00	NO
HROFDY											
25PQT02V	0	0.25246E-06	379233.0	3773812.0	109.2	0.00	499.00	1.00	-91.20	0.00	NO
HROFDY											
25PQT02X	0	0.88730E-06	379341.6	3773802.8	109.0	0.00	499.00	1.00	-0.40	0.00	NO
HROFDY											
25PQT02Y	0	0.88730E-06	380031.2	3773802.8	112.9	0.00	360.40	1.00	90.00	0.00	NO
HROFDY											
25PQT02Z	0	0.14857E-05	379341.6	3773807.1	109.0	0.00	499.00	1.00	-0.30	0.00	NO
HROFDY											
25PQT030	0	0.20635E-05	379341.6	3773815.7	109.3	0.00	499.00	1.00	179.50	0.00	NO
HROFDY											
25PQT031	0	0.59671E-06	379352.3	3773813.5	109.2	0.00	120.00	1.00	178.00	0.00	NO

HROFDY											
25PQT032	0	0.59671E-06	379228.1	3773809.2	109.1	0.00	417.60	1.00	90.30	0.00	NO
HROFDY											
25PQT033	0	0.59671E-06	379228.1	3773391.6	104.0	0.00	272.40	1.00	-151.00	0.00	NO
HROFDY											
25PQT034	0	0.59841E-06	379339.4	3773809.2	109.1	0.00	499.00	1.00	180.00	0.00	NO
HROFDY											
25PQT035	0	0.59841E-06	378716.2	3773807.1	105.9	0.00	119.80	1.00	65.70	0.00	NO
HROFDY											
25PQT036	0	0.59841E-06	378771.9	3773700.0	101.6	0.00	305.00	1.00	47.80	0.00	NO
HROFDY											
25PQT037	0	0.88730E-06	379843.4	3773810.5	113.1	0.00	189.20	1.00	0.80	0.00	NO
HROFDY											
25PQT038	0	0.14857E-05	379843.4	3773806.7	113.0	0.00	499.00	1.00	0.00	0.00	NO
HROFDY											
25PQT039	0	0.20635E-05	378842.9	3773811.8	108.2	0.00	499.00	1.00	179.70	0.00	NO
HROFDY											
25PQT03A	0	0.59841E-06	378839.0	3773807.3	107.7	0.00	121.00	1.00	-179.10	0.00	NO

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*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID

SOURCE IDs

ALL 25PQT000 , 25PQT001 , 25PQT002 , 25PQT003 , 25PQT004 , 25PQT005 , 25PQT006 , 25PQT007 ,

25PQT008 , 25PQT009 , 25PQT00A , 25PQT00B , 25PQT00C , 25PQT00D , 25PQT00E , 25PQT00F ,

25PQT00G , 25PQT00H , 25PQT00I , 25PQT00J , 25PQT00K , 25PQT00L , 25PQT00M , 25PQT00N ,

25PQT00O , 25PQT00P , 25PQT00Q , 25PQT00R , 25PQT00S , 25PQT00T , 25PQT00U , 25PQT00V ,

25PQT00W , 25PQT00X , 25PQT00Y , 25PQT00Z , 25PQT010 , 25PQT011 , 25PQT012 , 25PQT013 ,

25PQT014 , 25PQT015 , 25PQT016 , 25PQT017 , 25PQT018 , 25PQT019 , 25PQT01A , 25PQT01B ,

25PQT01C , 25PQT01D , 25PQT01E , 25PQT01F , 25PQT01G , 25PQT01H , 25PQT01I , 25PQT01J ,

25PQT01K , 25PQT01L , 25PQT01M , 25PQT01N , 25PQT01O , 25PQT01P , 25PQT01Q ,
25PQT01R ,

25PQT02Q , 25PQT02U , 25PQT02V , 25PQT02X , 25PQT02Y , 25PQT02Z , 25PQT030 ,
25PQT031 ,

25PQT032 , 25PQT033 , 25PQT034 , 25PQT035 , 25PQT036 , 25PQT037 , 25PQT038 ,
25PQT039 ,

25PQT03A , 25PQT03C ,

HDTS 25PQT02U , 25PQT02V , 25PQT02X , 25PQT02Y , 25PQT02Z , 25PQT030 , 25PQT031 ,
25PQT032 ,

25PQT033 , 25PQT034 , 25PQT035 , 25PQT036 , 25PQT03A , 25PQT03C ,

FREEWAY 25PQT000 , 25PQT001 , 25PQT002 , 25PQT003 , 25PQT004 , 25PQT005 , 25PQT006 ,
25PQT007 ,

25PQT008 , 25PQT009 , 25PQT00A , 25PQT00B , 25PQT00C , 25PQT00D , 25PQT00E ,
25PQT00F ,

25PQT00G , 25PQT00H , 25PQT00I , 25PQT00J , 25PQT00K , 25PQT00L , 25PQT00M ,
25PQT00N ,

25PQT00O , 25PQT00P , 25PQT00Q , 25PQT00R , 25PQT00S , 25PQT00T , 25PQT00U ,
25PQT00V ,

25PQT00W , 25PQT00X , 25PQT00Y , 25PQT00Z , 25PQT010 , 25PQT011 , 25PQT012 ,
25PQT013 ,

25PQT014 , 25PQT015 , 25PQT016 , 25PQT017 , 25PQT018 , 25PQT019 , 25PQT01A ,
25PQT01B ,

25PQT01C , 25PQT01D , 25PQT01E , 25PQT01F , 25PQT01G , 25PQT01H , 25PQT01I ,
25PQT01J ,

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*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID

SOURCE IDs

25PQT01K , 25PQT01L , 25PQT01M , 25PQT01N , 25PQT01O , 25PQT01P , 25PQT01Q ,
25PQT01R ,

25PQT02Q ,

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*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
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SOURCE ID = 25PQT02U ; SOURCE TYPE = AREALINE :

1	.00000E+00	2	.00000E+00	3	.10000E+01	4	.10000E+01	5	.10000E+01	6	.10000E+01
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.00000E+00	16	.00000E+00	17	.00000E+00	18	.00000E+00
19	.00000E+00	20	.00000E+00	21	.10000E+01	22	.10000E+01	23	.10000E+01	24	.10000E+01

SOURCE ID = 25PQT02V ; SOURCE TYPE = AREALINE :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = 25PQT02X ; SOURCE TYPE = AREALINE :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.10000E+01	22	.10000E+01	23	.10000E+01	24	.10000E+01

SOURCE ID = 25PQT02Y ; SOURCE TYPE = AREALINE :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = 25PQT02Z ; SOURCE TYPE = AREALINE :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

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*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
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SOURCE ID = 25PQT030 ; SOURCE TYPE = AREALINE :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = 25PQT031 ; SOURCE TYPE = AREALINE :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = 25PQT032 ; SOURCE TYPE = AREALINE :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = 25PQT033 ; SOURCE TYPE = AREALINE :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = 25PQT034 ; SOURCE TYPE = AREALINE :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

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*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
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SOURCE ID = 25PQT035 ; SOURCE TYPE = AREALINE :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = 25PQT036 ; SOURCE TYPE = AREALINE :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = 25PQT037 ; SOURCE TYPE = AREALINE :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = 25PQT038 ; SOURCE TYPE = AREALINE :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

SOURCE ID = 25PQT039 ; SOURCE TYPE = AREALINE :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01
19	.00000E+00	20	.00000E+00	21	.00000E+00	22	.00000E+00	23	.00000E+00	24	.00000E+00

*** AERMOD - VERSION 21112 *** *** 5420 Sunset Boulevard Project -
10/02/21

*** AERMET - VERSION 16216 *** *** Update to Include Source Terms (Heavy Duty Trucks) From Project
*** 13:15:52

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*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
------	--------	------	--------	------	--------	------	--------	------	--------

SOURCE ID = 25PQT03A ; SOURCE TYPE = AREALINE :

1	.00000E+00	2	.00000E+00	3	.00000E+00	4	.00000E+00	5	.00000E+00	6	.00000E+00
7	.10000E+01	8	.10000E+01	9	.10000E+01	10	.10000E+01	11	.10000E+01	12	.10000E+01
13	.10000E+01	14	.10000E+01	15	.10000E+01	16	.10000E+01	17	.10000E+01	18	.10000E+01

19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

SOURCE ID = 25PQT03C ; SOURCE TYPE = VOLUME :

1 .00000E+00 2 .00000E+00 3 .00000E+00 4 .00000E+00 5 .00000E+00 6 .00000E+00
7 .10000E+01 8 .10000E+01 9 .10000E+01 10 .10000E+01 11 .10000E+01 12 .10000E+01
13 .10000E+01 14 .10000E+01 15 .10000E+01 16 .10000E+01 17 .10000E+01 18 .10000E+01
19 .00000E+00 20 .00000E+00 21 .00000E+00 22 .00000E+00 23 .00000E+00 24 .00000E+00

*** AERMOD - VERSION 21112 *** *** 5420 Sunset Boulevard Project - ***
10/02/21

*** AERMET - VERSION 16216 *** *** Update to Include Source Terms (Heavy Duty Trucks) From Project
*** 13:15:52

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*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

*** GRIDDED RECEPTOR NETWORK SUMMARY ***

*** NETWORK ID: 25PQT02I ; NETWORK TYPE: GRIDCART ***

*** X-COORDINATES OF GRID ***
(METERS)

379236.9, 379246.0, 379255.1, 379264.2, 379273.3, 379282.4, 379291.5, 379300.6, 379309.7, 379318.8,
379327.9, 379337.0, 379346.1, 379355.2, 379364.3, 379373.4, 379382.5, 379391.6, 379400.7, 379409.8,
379418.9,

*** Y-COORDINATES OF GRID ***
(METERS)

3773799.8, 3773792.2, 3773784.6, 3773777.0, 3773769.4, 3773761.8, 3773754.2, 3773746.6, 3773739.0,
3773731.4,
3773723.8, 3773716.2, 3773708.6, 3773701.0, 3773693.4, 3773685.8, 3773678.2, 3773670.6, 3773663.0,
3773655.4,
3773647.8,

*** AERMOD - VERSION 21112 *** *** 5420 Sunset Boulevard Project - ***
10/02/21

*** AERMET - VERSION 16216 *** *** Update to Include Source Terms (Heavy Duty Trucks) From Project
*** 13:15:52

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*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

*** NETWORK ID: 25PQT02I ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD |	X-COORD (METERS)								
(METERS) |	379236.90	379246.00	379255.10	379264.20	379273.30	379282.40	379291.50	379300.60	379309.70

3773647.80 |	107.00	107.00	107.00	107.00	107.10	107.30	107.50	107.70	107.80
3773655.40 |	107.00	107.00	107.00	107.00	107.10	107.40	107.70	108.00	108.00
3773663.00 |	107.20	107.20	107.20	107.20	107.30	107.60	107.80	108.00	108.00

3773670.60 |	107.40	107.50	107.50	107.50	107.50	107.70	107.90	108.00	108.00
3773678.20 |	107.70	107.70	107.70	107.70	107.80	107.80	107.90	108.00	108.00
3773685.80 |	107.90	108.00	108.00	108.00	108.00	108.00	108.00	108.00	108.00
3773693.40 |	107.90	108.00	108.00	108.00	108.00	108.00	108.00	108.00	108.00
3773701.00 |	108.00	108.00	108.00	108.00	108.00	108.00	108.00	108.00	108.00
3773708.60 |	108.00	108.00	108.00	108.00	108.00	108.00	108.00	108.00	108.00
3773716.20 |	108.00	108.00	108.00	108.00	108.00	108.00	108.00	108.00	108.00
3773723.80 |	108.00	108.00	108.00	108.00	108.00	108.10	108.20	108.20	108.20
3773731.40 |	108.00	108.00	108.00	108.00	108.10	108.20	108.40	108.50	108.50
3773739.00 |	108.00	108.00	108.00	108.00	108.10	108.30	108.60	108.70	108.70
3773746.60 |	108.00	108.00	108.00	108.00	108.10	108.40	108.70	109.00	109.00
3773754.20 |	108.20	108.20	108.20	108.20	108.40	108.60	108.80	109.00	109.00
3773761.80 |	108.50	108.50	108.50	108.50	108.60	108.70	108.90	109.00	109.00
3773769.40 |	108.70	108.70	108.70	108.70	108.80	108.90	108.90	109.00	109.00
3773777.00 |	109.00	109.00	109.00	109.00	109.00	109.00	109.00	109.00	109.00
3773784.60 |	109.00	109.00	109.00	109.00	109.00	109.00	109.00	109.00	109.00
3773792.20 |	109.00	109.00	109.00	109.00	109.00	109.00	109.00	109.00	109.00
3773799.80 |	109.00	109.00	109.00	109.00	109.00	109.00	109.00	109.00	109.00

*** AERMOD - VERSION 21112 *** *** 5420 Sunset Boulevard Project - ***

10/02/21
 *** AERMET - VERSION 16216 *** *** Update to Include Source Terms (Heavy Duty Trucks) From Project
 *** 13:15:52

*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

*** NETWORK ID: 25PQT02I ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD |	X-COORD (METERS)							
(METERS) |	379318.80	379327.90	379337.00	379346.10	379355.20	379364.30	379373.40	379382.50
379391.60								

3773647.80 |	107.90	108.00	108.00	108.00	108.00	108.00	108.00	108.00	108.10
3773655.40 |	108.00	108.00	108.00	108.00	108.00	108.00	108.00	108.00	108.10
3773663.00 |	108.00	108.00	108.00	108.00	108.00	108.00	108.10	108.20	108.30
3773670.60 |	108.00	108.00	108.00	108.00	108.00	108.10	108.20	108.40	108.50
3773678.20 |	108.00	108.00	108.00	108.00	108.00	108.10	108.30	108.60	108.70
3773685.80 |	108.00	108.00	108.00	108.00	108.00	108.20	108.50	108.80	109.00
3773693.40 |	108.00	108.00	108.10	108.10	108.20	108.40	108.60	108.80	109.00
3773701.00 |	108.00	108.00	108.10	108.30	108.40	108.60	108.70	108.90	109.00
3773708.60 |	108.00	108.00	108.20	108.40	108.60	108.80	108.90	108.90	109.00
3773716.20 |	108.00	108.00	108.30	108.60	108.90	109.00	109.00	109.00	109.00
3773723.80 |	108.20	108.20	108.40	108.70	108.90	109.00	109.00	109.00	109.00
3773731.40 |	108.50	108.50	108.60	108.80	108.90	109.00	109.00	109.00	109.00
3773739.00 |	108.70	108.70	108.80	108.90	109.00	109.00	109.00	109.00	109.10
3773746.60 |	109.00	109.00	109.00	109.00	109.00	109.00	109.00	109.00	109.10
3773754.20 |	109.00	109.00	109.00	109.00	109.00	109.00	109.10	109.20	109.30
3773761.80 |	109.00	109.00	109.00	109.00	109.00	109.10	109.20	109.40	109.50
3773769.40 |	109.00	109.00	109.00	109.00	109.00	109.10	109.40	109.60	109.80
3773777.00 |	109.00	109.00	109.00	109.00	109.00	109.20	109.50	109.80	110.00
3773784.60 |	109.00	109.00	109.00	109.00	109.00	109.20	109.50	109.80	110.00
3773792.20 |	109.00	109.00	109.00	109.00	109.00	109.20	109.50	109.80	110.00

10/02/21

*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

*** NETWORK ID: 25PQT02I ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD	X-COORD (METERS)		
(METERS)	379400.70	379409.80	379418.90

3773647.80 |	108.40	108.70	109.00
3773655.40 |	108.40	108.70	109.00
3773663.00 |	108.50	108.80	109.00
3773670.60 |	108.70	108.80	109.00
3773678.20 |	108.80	108.90	109.00
3773685.80 |	109.00	109.00	109.00
3773693.40 |	109.00	109.00	109.00
3773701.00 |	109.00	109.00	109.00
3773708.60 |	109.00	109.00	109.00
3773716.20 |	109.00	109.00	109.00
3773723.80 |	109.10	109.20	109.20
3773731.40 |	109.20	109.30	109.50
3773739.00 |	109.30	109.50	109.70
3773746.60 |	109.40	109.70	110.00
3773754.20 |	109.50	109.80	110.00
3773761.80 |	109.70	109.80	110.00
3773769.40 |	109.80	109.90	110.00
3773777.00 |	110.00	110.00	110.00
3773784.60 |	110.00	110.00	110.00
3773792.20 |	110.00	110.00	110.00
3773799.80 |	110.00	110.00	110.00

10/02/21

*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

*** NETWORK ID: 25PQT02I ; NETWORK TYPE: GRIDCART ***

* HILL HEIGHT SCALES IN METERS *

Y-COORD |	X-COORD (METERS)							
(METERS) |	379236.90	379246.00	379255.10	379264.20	379273.30	379282.40	379291.50	379300.60
379309.70								

3773647.80 |	107.00	107.00	107.00	107.00	107.10	107.30	107.50	107.70	107.80
------------	--------	--------	--------	--------	--------	--------	--------	--------	--------

3773784.60 |	347.00	347.00	347.00	347.00	347.00	347.00	347.00	347.00	347.00
3773792.20 |	347.00	347.00	347.00	347.00	347.00	347.00	347.00	347.00	347.00
3773799.80 |	347.00	347.00	347.00	347.00	347.00	347.00	347.00	347.00	347.00

*** AERMOD - VERSION 21112 *** *** 5420 Sunset Boulevard Project - ***

10/02/21

*** AERMET - VERSION 16216 *** *** Update to Include Source Terms (Heavy Duty Trucks) From Project ***
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*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

*** NETWORK ID: 25PQT02I ; NETWORK TYPE: GRIDCART ***

* HILL HEIGHT SCALES IN METERS *

Y-COORD |	X-COORD (METERS)		
(METERS) |	379400.70	379409.80	379418.90

3773647.80 |	108.40	108.70	109.00
3773655.40 |	108.40	108.70	109.00
3773663.00 |	108.50	108.80	109.00
3773670.60 |	108.70	108.80	109.00
3773678.20 |	108.80	108.90	109.00
3773685.80 |	109.00	109.00	109.00
3773693.40 |	109.00	109.00	109.00
3773701.00 |	109.00	109.00	109.00
3773708.60 |	109.00	109.00	109.00
3773716.20 |	109.00	109.00	109.00
3773723.80 |	109.10	109.20	109.20
3773731.40 |	109.20	109.30	109.50
3773739.00 |	109.30	109.50	109.70
3773746.60 |	109.40	109.70	110.00
3773754.20 |	347.00	347.00	347.00
3773761.80 |	347.00	347.00	347.00
3773769.40 |	347.00	347.00	347.00
3773777.00 |	347.00	347.00	347.00
3773784.60 |	347.00	347.00	347.00
3773792.20 |	347.00	347.00	347.00
3773799.80	347.00	347.00	347.00

*** AERMOD - VERSION 21112 *** *** 5420 Sunset Boulevard Project - ***

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*** AERMET - VERSION 16216 *** *** Update to Include Source Terms (Heavy Duty Trucks) From Project ***
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*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(378622.8, 3773348.8, 101.0, 101.0, 0.0);

*** AERMOD - VERSION 21112 *** *** 5420 Sunset Boulevard Project - ***

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*** AERMET - VERSION 16216 *** *** Update to Include Source Terms (Heavy Duty Trucks) From Project

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*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

* SOURCE-RECEPTOR COMBINATIONS FOR WHICH CALCULATIONS MAY NOT BE PERFORMED *

LESS THAN 1.0 METER; WITHIN OPENPIT; OR BEYOND 80KM FOR FASTAREA/FASTALL

SOURCE	- - RECEPTOR LOCATION - -		DISTANCE
ID	XR (METERS)	YR (METERS)	(METERS)

25PQT03C	379318.8	3773685.8	-0.20
25PQT03C	379309.7	3773678.2	-5.11
25PQT03C	379318.8	3773678.2	-7.80
25PQT03C	379327.9	3773678.2	-5.00
25PQT03C	379300.6	3773670.6	-2.40
25PQT03C	379309.7	3773670.6	-10.63
25PQT03C	379318.8	3773670.6	-15.40
25PQT03C	379327.9	3773670.6	-10.46
25PQT03C	379337.0	3773670.6	-2.21
25PQT03C	379300.6	3773663.0	-3.34
25PQT03C	379309.7	3773663.0	-12.38
25PQT03C	379318.8	3773663.0	-20.00
25PQT03C	379327.9	3773663.0	-12.18
25PQT03C	379337.0	3773663.0	-3.14
25PQT03C	379300.6	3773655.4	-1.24
25PQT03C	379309.7	3773655.4	-8.70
25PQT03C	379318.8	3773655.4	-12.40
25PQT03C	379327.9	3773655.4	-8.56
25PQT03C	379337.0	3773655.4	-1.06
25PQT03C	379309.7	3773647.8	-2.53
25PQT03C	379318.8	3773647.8	-4.80
25PQT03C	379327.9	3773647.8	-2.43

*** AERMOD - VERSION 21112 *** *** 5420 Sunset Boulevard Project -

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*** AERMET - VERSION 16216 *** *** Update to Include Source Terms (Heavy Duty Trucks) From Project

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*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

[illegible]

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

*** AERMOD - VERSION 21112 *** *** 5420 Sunset Boulevard Project - ***
10/02/21

*** AERMET - VERSION 16216 *** *** Update to Include Source Terms (Heavy Duty Trucks) From Project ***
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*** MODELOPTs: RegDEFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: C:\Users\James\Desktop\Clark and Associates\Project 125 - ABJC - 5420 Sunset Blv Met Version:
16216

Profile file: C:\Users\James\Desktop\Clark and Associates\Project 125 - ABJC - 5420 Sunset Blv

Surface format: FREE

Profile format: FREE

Surface station no.: 93134

Upper air station no.: 3190

Name: UNKNOWN

Name: UNKNOWN

Year: 2010

Year: 2010

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O	LEN	Z0	BOWEN	ALBEDO	REF	WS
WD	HT	REF	TA	HT													

10	01	01	1	01	-33.0	0.331	-9.000	-9.000	-999.	456.	120.2	0.56	0.86	1.00	3.10	38.	21.3	284.9	17.7
10	01	01	1	02	-26.9	0.285	-9.000	-9.000	-999.	367.	89.6	0.56	0.86	1.00	2.70	38.	21.3	284.2	17.7
10	01	01	1	03	-38.6	0.387	-9.000	-9.000	-999.	577.	164.6	0.56	0.86	1.00	3.60	35.	21.3	284.2	17.7
10	01	01	1	04	-33.0	0.331	-9.000	-9.000	-999.	458.	120.2	0.56	0.86	1.00	3.10	34.	21.3	283.8	17.7
10	01	01	1	05	-33.1	0.331	-9.000	-9.000	-999.	456.	120.2	0.56	0.86	1.00	3.10	37.	21.3	283.1	17.7
10	01	01	1	06	-38.7	0.387	-9.000	-9.000	-999.	577.	164.5	0.56	0.86	1.00	3.60	24.	21.3	283.1	17.7
10	01	01	1	07	-38.6	0.387	-9.000	-9.000	-999.	577.	164.5	0.56	0.86	1.00	3.60	35.	21.3	283.8	17.7
10	01	01	1	08	-29.6	0.435	-9.000	-9.000	-999.	688.	251.8	0.56	0.86	0.55	4.00	35.	21.3	283.8	17.7
10	01	01	1	09	30.0	0.426	0.367	0.008	59.	666.	-232.0	0.56	0.86	0.32	3.60	38.	21.3	286.4	17.7
10	01	01	1	10	72.3	0.359	0.629	0.008	124.	519.	-57.8	0.56	0.86	0.24	2.70	34.	21.3	290.4	17.7
10	01	01	1	11	104.4	0.321	0.998	0.008	344.	437.	-28.6	0.56	0.86	0.21	2.20	43.	21.3	292.5	17.7
10	01	01	1	12	115.1	0.283	1.156	0.008	484.	363.	-17.9	0.56	0.86	0.20	1.80	62.	21.3	295.9	17.7
10	01	01	1	13	91.4	0.406	1.130	0.008	568.	622.	-66.2	0.56	0.86	0.20	3.10	263.	21.3	294.2	17.7
10	01	01	1	14	89.3	0.316	1.168	0.008	642.	432.	-31.9	0.56	0.86	0.21	2.20	259.	21.3	294.9	17.7
10	01	01	1	15	42.6	0.295	0.928	0.008	675.	384.	-54.0	0.56	0.86	0.25	2.20	267.	21.3	294.9	17.7
10	01	01	1	16	12.0	0.359	0.609	0.008	680.	516.	-347.9	0.56	0.86	0.33	3.10	264.	21.3	292.5	17.7
10	01	01	1	17	-15.7	0.231	-9.000	-9.000	-999.	276.	70.7	0.56	0.86	0.60	2.20	288.	21.3	290.9	17.7
10	01	01	1	18	-6.1	0.135	-9.000	-9.000	-999.	124.	36.7	0.56	0.86	1.00	1.30	344.	21.3	289.2	17.7
10	01	01	1	19	-11.4	0.184	-9.000	-9.000	-999.	190.	49.2	0.56	0.86	1.00	1.80	2.	21.3	288.8	17.7
10	01	01	1	20	-17.4	0.229	-9.000	-9.000	-999.	263.	62.1	0.56	0.86	1.00	2.20	22.	21.3	288.1	17.7
10	01	01	1	21	-17.4	0.229	-9.000	-9.000	-999.	263.	61.9	0.56	0.86	1.00	2.20	40.	21.3	287.0	17.7
10	01	01	1	22	-11.5	0.184	-9.000	-9.000	-999.	190.	49.1	0.56	0.86	1.00	1.80	306.	21.3	287.0	17.7
10	01	01	1	23	-11.5	0.184	-9.000	-9.000	-999.	190.	49.0	0.56	0.86	1.00	1.80	45.	21.3	286.4	17.7

3773647.80 | 0.01904	0.05962	0.04270	0.03738	0.03646	0.03905	0.04641	0.06187	0.09111
3773655.40 | 0.01941	0.06000	0.04296	0.03762	0.03670	0.03949	0.04804	0.06935	0.02019
3773663.00 | 0.01985	0.06094	0.04326	0.03771	0.03662	0.03915	0.04762	0.07168	0.02063
3773670.60 | 0.02036	0.06190	0.04352	0.03765	0.03620	0.03809	0.04514	0.06765	0.02112
3773678.20 | 0.02095	0.06323	0.04370	0.03751	0.03564	0.03667	0.04164	0.05704	0.10655
3773685.80 | 0.10788	0.06431	0.04398	0.03744	0.03513	0.03534	0.03835	0.04684	0.06712
3773693.40 | 0.06592	0.06489	0.04430	0.03753	0.03486	0.03439	0.03599	0.04063	0.05035
3773701.00 | 0.04984	0.06595	0.04481	0.03784	0.03488	0.03391	0.03457	0.03720	0.04242
3773708.60 | 0.04266	0.06692	0.04554	0.03842	0.03523	0.03390	0.03394	0.03540	0.03846

```

*** AERMOD - VERSION 21112 ***    *** 5420 Sunset Boulevard Project - ***
10/02/21
*** AERMET - VERSION 16216 ***    *** Update to Include Source Terms (Heavy Duty Trucks) From Project ***
*** 13:15:52 ***

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*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

*** NETWORK ID: 25PQT02I ; NETWORK TYPE: GRIDCART ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

3773647.80 |	0.01838	0.01783	0.09125	0.05253	0.03848	0.03126	0.02694	0.02412
0.02215								
3773655.40 |	0.01877	0.01824	0.01778	0.07370	0.04877	0.03743	0.03112	0.02719

0.02453								
3773663.00 |	0.01922	0.01870	0.01826	0.09321	0.05860	0.04355	0.03539	0.03037
0.02705								
3773670.60 |	0.01975	0.01923	0.01880	0.09761	0.06365	0.04764	0.03866	0.03304
0.02928								
3773678.20 |	0.02035	0.01985	0.13847	0.08783	0.06237	0.04847	0.04009	0.03461
0.03085								
3773685.80 |	0.02105	0.12729	0.09711	0.07271	0.05668	0.04644	0.03965	0.03495
0.03157								
3773693.40 |	0.08025	0.07921	0.07010	0.05903	0.04983	0.04303	0.03807	0.03441
0.03163								
3773701.00 |	0.05628	0.05789	0.05470	0.04932	0.04403	0.03965	0.03622	0.03351
0.03137								
3773708.60 |	0.04636	0.04768	0.04625	0.04326	0.04000	0.03710	0.03471	0.03276
0.03115								
3773716.20 |	0.04148	0.04244	0.04169	0.03982	0.03762	0.03559	0.03387	0.03243
0.03123								
3773723.80 |	0.03912	0.03984	0.03943	0.03819	0.03662	0.03511	0.03381	0.03271
0.03178								
3773731.40 |	0.03838	0.03895	0.03874	0.03789	0.03674	0.03558	0.03454	0.03367
0.03293								
3773739.00 |	0.03888	0.03936	0.03929	0.03872	0.03787	0.03697	0.03613	0.03542
0.03481								
3773746.60 |	0.04049	0.04095	0.04102	0.04069	0.04008	0.03938	0.03871	0.03812
0.03762								
3773754.20 |	0.04330	0.04384	0.04409	0.04397	0.04358	0.04306	0.04252	0.04205
0.04165								
3773761.80 |	0.04755	0.04829	0.04886	0.04901	0.04883	0.04848	0.04810	0.04775
0.04747								
3773769.40 |	0.05374	0.05488	0.05607	0.05669	0.05677	0.05663	0.05644	0.05626
0.05608								
3773777.00 |	0.06287	0.06464	0.06721	0.06886	0.06937	0.06957	0.06972	0.06979
0.06973								
3773784.60 |	0.07708	0.07959	0.08556	0.09021	0.09171	0.09282	0.09368	0.09409
0.09417								
3773792.20 |	0.10228	0.10436	0.11938	0.13704	0.14245	0.14642	0.14826	0.14855
0.14827								
3773799.80 |	0.15998	0.15687	0.18678	0.35493	0.38968	0.39711	0.38992	0.37342
0.35943								

*** AERMOD - VERSION 21112 *** *** 5420 Sunset Boulevard Project - ***
10/02/21
*** AERMET - VERSION 16216 *** *** Update to Include Source Terms (Heavy Duty Trucks) From Project
*** 13:15:52

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*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*
*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5 YEARS FOR
SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): 25PQT000 , 25PQT001 , 25PQT002 , 25PQT003 ,
25PQT004 ,
25PQT005 , 25PQT006 , 25PQT007 , 25PQT008 , 25PQT009 , 25PQT00A , 25PQT00B ,
25PQT00C ,
25PQT00D , 25PQT00E , 25PQT00F , 25PQT00G , 25PQT00H , 25PQT00I , 25PQT00J ,
25PQT00K ,

25PQT00L , 25PQT00M , 25PQT00N , 25PQT00O , 25PQT00P , 25PQT00Q , 25PQT00R , ...

*** NETWORK ID: 25PQT02I ; NETWORK TYPE: GRIDCART ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

Y-COORD |	X-COORD (METERS)		
(METERS) |	379400.70	379409.80	379418.90

3773647.80 |	0.02071	0.01961	0.01875
3773655.40 |	0.02264	0.02123	0.02014
3773663.00 |	0.02470	0.02297	0.02166
3773670.60 |	0.02662	0.02467	0.02317
3773678.20 |	0.02813	0.02609	0.02453
3773685.80 |	0.02905	0.02713	0.02561
3773693.40 |	0.02949	0.02780	0.02644
3773701.00 |	0.02966	0.02826	0.02710
3773708.60 |	0.02982	0.02870	0.02776
3773716.20 |	0.03021	0.02933	0.02858
3773723.80 |	0.03098	0.03029	0.02969
3773731.40 |	0.03230	0.03175	0.03126
3773739.00 |	0.03430	0.03385	0.03344
3773746.60 |	0.03720	0.03680	0.03640
3773754.20 |	0.04132	0.04097	0.04066
3773761.80 |	0.04719	0.04697	0.04671
3773769.40 |	0.05595	0.05579	0.05563
3773777.00 |	0.06973	0.06969	0.06962
3773784.60 |	0.09426	0.09427	0.09423
3773792.20 |	0.14836	0.14833	0.14827
3773799.80 |	0.35935	0.35923	0.35909

*** AERMOD - VERSION 21112 *** ** 5420 Sunset Boulevard Project - ***
10/02/21

*** AERMET - VERSION 16216 *** ** Update to Include Source Terms (Heavy Duty Trucks) From Project
*** 13:15:52

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*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5 YEARS FOR
SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): 25PQT000 , 25PQT001 , 25PQT002 , 25PQT003 ,
25PQT004 ,
25PQT005 , 25PQT006 , 25PQT007 , 25PQT008 , 25PQT009 , 25PQT00A , 25PQT00B ,
25PQT00C ,
25PQT00D , 25PQT00E , 25PQT00F , 25PQT00G , 25PQT00H , 25PQT00I , 25PQT00J ,
25PQT00K ,
25PQT00L , 25PQT00M , 25PQT00N , 25PQT00O , 25PQT00P , 25PQT00Q , 25PQT00R , ...

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC			

378622.80	3773348.80	0.00566						
*** AERMOD - VERSION 21112 *** ** 5420 Sunset Boulevard Project - ***								
10/02/21								
*** AERMET - VERSION 16216 *** ** Update to Include Source Terms (Heavy Duty Trucks) From Project ***								
13:15:52								
PAGE 26								
*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*								
*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5 YEARS FOR SOURCE GROUP: ALL ***								
INCLUDING SOURCE(S): 25PQT000 , 25PQT001 , 25PQT002 , 25PQT003 , 25PQT004 , 25PQT005 , 25PQT006 , 25PQT007 , 25PQT008 , 25PQT009 , 25PQT00A , 25PQT00B , 25PQT00C , 25PQT00D , 25PQT00E , 25PQT00F , 25PQT00G , 25PQT00H , 25PQT00I , 25PQT00J , 25PQT00K , 25PQT00L , 25PQT00M , 25PQT00N , 25PQT00O , 25PQT00P , 25PQT00Q , 25PQT00R , . . . ,								
*** SENSITIVE DISCRETE RECEPTOR POINTS ***								
** CONC OF OTHER IN MICROGRAMS/M**3 **								
X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC			

378701.50	3773634.90	0.01081	378482.50	3773427.50	0.00467			
378899.10	3773999.00	0.00802						
*** AERMOD - VERSION 21112 *** ** 5420 Sunset Boulevard Project - ***								
10/02/21								
*** AERMET - VERSION 16216 *** ** Update to Include Source Terms (Heavy Duty Trucks) From Project ***								
13:15:52								
PAGE 27								
*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*								
*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5 YEARS FOR SOURCE GROUP: HDTS ***								
INCLUDING SOURCE(S): 25PQT02U , 25PQT02V , 25PQT02X , 25PQT02Y , 25PQT02Z , 25PQT030 , 25PQT031 , 25PQT032 , 25PQT033 , 25PQT034 , 25PQT035 , 25PQT036 , 25PQT03A , 25PQT03C ,								
*** NETWORK ID: 25PQT02I ; NETWORK TYPE: GRIDCART ***								
** CONC OF OTHER IN MICROGRAMS/M**3 **								
Y-COORD |	X-COORD (METERS)							
(METERS) |	379236.90	379246.00	379255.10	379264.20	379273.30	379282.40	379291.50	379300.60
379309.70								

3773647.80 |	0.05398	0.03724	0.03210	0.03135	0.03410	0.04164	0.05726	0.08665

0.01472								
3773655.40 |	0.05452	0.03766	0.03248	0.03173	0.03468	0.04339	0.06486	0.01586
0.01521								
3773663.00 |	0.05563	0.03811	0.03272	0.03178	0.03447	0.04310	0.06731	0.01640
0.01575								
3773670.60 |	0.05674	0.03852	0.03280	0.03151	0.03353	0.04073	0.06338	0.01699
0.01636								
3773678.20 |	0.05822	0.03884	0.03279	0.03106	0.03223	0.03734	0.05287	0.10252
0.01704								
3773685.80 |	0.05942	0.03924	0.03285	0.03067	0.03101	0.03416	0.04277	0.06317
0.10405								
3773693.40 |	0.06012	0.03967	0.03304	0.03050	0.03016	0.03188	0.03664	0.04648
0.06216								
3773701.00 |	0.06130	0.04029	0.03345	0.03061	0.02977	0.03055	0.03329	0.03862
0.04615								
3773708.60 |	0.06237	0.04112	0.03412	0.03105	0.02984	0.02999	0.03157	0.03473
0.03905								
3773716.20 |	0.06367	0.04220	0.03506	0.03182	0.03035	0.03008	0.03093	0.03289
0.03558								
3773723.80 |	0.06526	0.04359	0.03634	0.03296	0.03130	0.03074	0.03110	0.03232
0.03408								
3773731.40 |	0.06720	0.04535	0.03801	0.03453	0.03273	0.03194	0.03198	0.03270
0.03388								
3773739.00 |	0.06958	0.04758	0.04018	0.03662	0.03471	0.03376	0.03354	0.03393
0.03473								
3773746.60 |	0.07257	0.05043	0.04300	0.03939	0.03738	0.03629	0.03587	0.03600
0.03655								
3773754.20 |	0.07699	0.05419	0.04670	0.04305	0.04098	0.03976	0.03917	0.03910
0.03947								
3773761.80 |	0.08269	0.05917	0.05165	0.04799	0.04586	0.04455	0.04380	0.04354
0.04376								
3773769.40 |	0.08971	0.06590	0.05842	0.05480	0.05266	0.05129	0.05041	0.04995
0.04997								
3773777.00 |	0.09938	0.07550	0.06814	0.06461	0.06253	0.06116	0.06017	0.05948
0.05920								
3773784.60 |	0.11388	0.09030	0.08318	0.07985	0.07793	0.07663	0.07559	0.07466
0.07392								
3773792.20 |	0.13903	0.11612	0.10958	0.10672	0.10507	0.10390	0.10287	0.10174
0.10038								
3773799.80 |	0.19486	0.17428	0.16937	0.16718	0.16574	0.16455	0.16336	0.16196
0.15999								

*** AERMOD - VERSION 21112 *** *** 5420 Sunset Boulevard Project - ***
10/02/21
*** AERMET - VERSION 16216 *** *** Update to Include Source Terms (Heavy Duty Trucks) From Project
*** 13:15:52

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*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*
*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5 YEARS FOR
SOURCE GROUP: HDTS ***
INCLUDING SOURCE(S): 25PQT02U , 25PQT02V , 25PQT02X , 25PQT02Y ,
25PQT02Z ,
25PQT030 , 25PQT031 , 25PQT032 , 25PQT033 , 25PQT034 , 25PQT035 , 25PQT036 ,
25PQT03A ,

25PQT03C ,

*** NETWORK ID: 25PQT02I ; NETWORK TYPE: GRIDCART ***

** CONC OF OTHER IN MICROGRAMS/M**3

**

Y-COORD | (METERS) |	X-COORD (METERS)							
379318.80	379327.90	379337.00	379346.10	379355.20	379364.30	379373.40	379382.50	
379391.60								

3773647.80 |	0.01421	0.01379	0.08733	0.04873	0.03477	0.02765	0.02343	0.02069
0.01881								
3773655.40 |	0.01470	0.01429	0.01395	0.06998	0.04514	0.03390	0.02768	0.02383
0.02125								
3773663.00 |	0.01525	0.01484	0.01451	0.08957	0.05505	0.04010	0.03203	0.02709
0.02384								
3773670.60 |	0.01586	0.01546	0.01513	0.09405	0.06017	0.04426	0.03536	0.02984
0.02615								
3773678.20 |	0.01655	0.01616	0.13488	0.08434	0.05897	0.04516	0.03686	0.03148
0.02778								
3773685.80 |	0.01732	0.12368	0.09359	0.06928	0.05334	0.04319	0.03650	0.03188
0.02857								
3773693.40 |	0.07660	0.07567	0.06665	0.05568	0.04657	0.03985	0.03498	0.03139
0.02869								
3773701.00 |	0.05270	0.05441	0.05132	0.04603	0.04083	0.03654	0.03318	0.03055
0.02848								
3773708.60 |	0.04285	0.04426	0.04293	0.04003	0.03686	0.03405	0.03173	0.02985
0.02831								
3773716.20 |	0.03802	0.03908	0.03843	0.03665	0.03454	0.03259	0.03094	0.02957
0.02843								
3773723.80 |	0.03573	0.03654	0.03622	0.03507	0.03359	0.03216	0.03092	0.02989
0.02902								
3773731.40 |	0.03505	0.03570	0.03558	0.03482	0.03375	0.03266	0.03170	0.03089
0.03021								
3773739.00 |	0.03560	0.03616	0.03618	0.03570	0.03493	0.03409	0.03332	0.03267
0.03213								
3773746.60 |	0.03726	0.03780	0.03796	0.03770	0.03717	0.03654	0.03593	0.03540
0.03497								
3773754.20 |	0.04011	0.04073	0.04106	0.04102	0.04070	0.04025	0.03978	0.03937
0.03903								
3773761.80 |	0.04439	0.04521	0.04586	0.04609	0.04598	0.04570	0.04539	0.04511
0.04488								
3773769.40 |	0.05061	0.05183	0.05310	0.05379	0.05395	0.05388	0.05376	0.05365
0.05353								
3773777.00 |	0.05976	0.06162	0.06427	0.06599	0.06657	0.06685	0.06707	0.06721
0.06721								
3773784.60 |	0.07401	0.07660	0.08265	0.08737	0.08894	0.09011	0.09105	0.09153
0.09167								
3773792.20 |	0.09922	0.10139	0.11648	0.13421	0.13970	0.14374	0.14565	0.14601
0.14578								
3773799.80 |	0.15695	0.15392	0.18390	0.35212	0.38694	0.39444	0.38732	0.37089
0.35697								

*** AERMOD - VERSION 21112 *** *** 5420 Sunset Boulevard Project -

10/02/21

*** AERMET - VERSION 16216 *** *** Update to Include Source Terms (Heavy Duty Trucks) From Project
*** 13:15:52

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*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5 YEARS FOR
SOURCE GROUP: HDTS ***

INCLUDING SOURCE(S): 25PQT02U , 25PQT02V , 25PQT02X , 25PQT02Y ,
25PQT02Z ,
25PQT030 , 25PQT031 , 25PQT032 , 25PQT033 , 25PQT034 , 25PQT035 , 25PQT036 ,
25PQT03A ,
25PQT03C ,

*** NETWORK ID: 25PQT02I ; NETWORK TYPE: GRIDCART ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

Y-COORD |	X-COORD (METERS)		
(METERS) |	379400.70	379409.80	379418.90

3773647.80 |	0.01745	0.01643	0.01564
3773655.40 |	0.01944	0.01811	0.01710
3773663.00 |	0.02158	0.01992	0.01868
3773670.60 |	0.02357	0.02168	0.02025
3773678.20 |	0.02513	0.02316	0.02166
3773685.80 |	0.02612	0.02425	0.02279
3773693.40 |	0.02661	0.02498	0.02367
3773701.00 |	0.02683	0.02548	0.02438
3773708.60 |	0.02703	0.02597	0.02508
3773716.20 |	0.02746	0.02664	0.02593
3773723.80 |	0.02828	0.02765	0.02709
3773731.40 |	0.02964	0.02914	0.02871
3773739.00 |	0.03168	0.03129	0.03092
3773746.60 |	0.03461	0.03427	0.03393
3773754.20 |	0.03876	0.03848	0.03822
3773761.80 |	0.04467	0.04450	0.04429
3773769.40 |	0.05345	0.05334	0.05323
3773777.00 |	0.06726	0.06727	0.06725
3773784.60 |	0.09181	0.09187	0.09187
3773792.20 |	0.14593	0.14595	0.14594
3773799.80 |	0.35694	0.35687	0.35677

*** AERMOD - VERSION 21112 *** *** 5420 Sunset Boulevard Project -

10/02/21

*** AERMET - VERSION 16216 *** *** Update to Include Source Terms (Heavy Duty Trucks) From Project
*** 13:15:52

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*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5 YEARS FOR
SOURCE GROUP: HDTS ***

INCLUDING SOURCE(S): 25PQT02U , 25PQT02V , 25PQT02X , 25PQT02Y ,
25PQT02Z ,

25PQT030 , 25PQT031 , 25PQT032 , 25PQT033 , 25PQT034 , 25PQT035 , 25PQT036 ,
25PQT03A ,
25PQT03C ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
378622.80	3773348.80	0.00286			

*** AERMOD - VERSION 21112 *** ** 5420 Sunset Boulevard Project - ***
10/02/21
*** AERMET - VERSION 16216 *** ** Update to Include Source Terms (Heavy Duty Trucks) From Project
*** 13:15:52

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*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5 YEARS FOR
SOURCE GROUP: HDTS ***
INCLUDING SOURCE(S): 25PQT02U , 25PQT02V , 25PQT02X , 25PQT02Y ,
25PQT02Z ,
25PQT030 , 25PQT031 , 25PQT032 , 25PQT033 , 25PQT034 , 25PQT035 , 25PQT036 ,
25PQT03A ,
25PQT03C ,

*** SENSITIVE DISCRETE RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
378701.50	3773634.90	0.00615	378482.50	3773427.50	0.00201
378899.10	3773999.00	0.00374			

*** AERMOD - VERSION 21112 *** ** 5420 Sunset Boulevard Project - ***
10/02/21
*** AERMET - VERSION 16216 *** ** Update to Include Source Terms (Heavy Duty Trucks) From Project
*** 13:15:52

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*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5 YEARS FOR
SOURCE GROUP: FREEWAY ***
INCLUDING SOURCE(S): 25PQT000 , 25PQT001 , 25PQT002 , 25PQT003 ,
25PQT004 ,
25PQT005 , 25PQT006 , 25PQT007 , 25PQT008 , 25PQT009 , 25PQT00A , 25PQT00B ,
25PQT00C ,
25PQT00D , 25PQT00E , 25PQT00F , 25PQT00G , 25PQT00H , 25PQT00I , 25PQT00J ,
25PQT00K ,
25PQT00L , 25PQT00M , 25PQT00N , 25PQT00O , 25PQT00P , 25PQT00Q , 25PQT00R , ...

*** NETWORK ID: 25PQT02I ; NETWORK TYPE: GRIDCART ***

Y-COORD | (METERS) |	379236.90	379246.00	379255.10	379264.20	379273.30	379282.40	379291.50	379300.60
379309.70								

3773647.80 |	0.00511	0.00492	0.00475	0.00457	0.00440	0.00424	0.00407	0.00392
0.00377								
3773655.40 |	0.00492	0.00475	0.00458	0.00442	0.00426	0.00409	0.00393	0.00378
0.00364								
3773663.00 |	0.00474	0.00458	0.00442	0.00426	0.00411	0.00395	0.00380	0.00366
0.00353								
3773670.60 |	0.00457	0.00441	0.00426	0.00411	0.00397	0.00382	0.00368	0.00355
0.00342								
3773678.20 |	0.00440	0.00425	0.00411	0.00397	0.00383	0.00370	0.00356	0.00344
0.00332								
3773685.80 |	0.00424	0.00410	0.00397	0.00383	0.00370	0.00357	0.00345	0.00333
0.00322								
3773693.40 |	0.00410	0.00397	0.00384	0.00371	0.00359	0.00346	0.00335	0.00323
0.00312								
3773701.00 |	0.00396	0.00384	0.00371	0.00359	0.00347	0.00336	0.00325	0.00314
0.00303								
3773708.60 |	0.00383	0.00372	0.00360	0.00348	0.00337	0.00326	0.00315	0.00304
0.00294								
3773716.20 |	0.00371	0.00360	0.00349	0.00338	0.00327	0.00316	0.00306	0.00296
0.00286								
3773723.80 |	0.00360	0.00349	0.00338	0.00328	0.00317	0.00307	0.00297	0.00287
0.00278								
3773731.40 |	0.00349	0.00339	0.00328	0.00318	0.00308	0.00298	0.00288	0.00278
0.00269								
3773739.00 |	0.00339	0.00329	0.00319	0.00309	0.00299	0.00289	0.00279	0.00270
0.00261								
3773746.60 |	0.00329	0.00319	0.00310	0.00301	0.00291	0.00281	0.00272	0.00262
0.00254								
3773754.20 |	0.00319	0.00310	0.00301	0.00292	0.00283	0.00274	0.00264	0.00256
0.00247								
3773761.80 |	0.00310	0.00301	0.00292	0.00284	0.00275	0.00266	0.00258	0.00249
0.00241								
3773769.40 |	0.00301	0.00293	0.00284	0.00276	0.00268	0.00259	0.00251	0.00243
0.00235								
3773777.00 |	0.00293	0.00285	0.00277	0.00269	0.00261	0.00253	0.00245	0.00237
0.00230								
3773784.60 |	0.00285	0.00278	0.00270	0.00262	0.00254	0.00247	0.00239	0.00232
0.00225								
3773792.20 |	0.00278	0.00271	0.00263	0.00256	0.00248	0.00241	0.00234	0.00226
0.00219								
3773799.80 |	0.00272	0.00264	0.00257	0.00250	0.00243	0.00235	0.00228	0.00221
0.00215								

*** AERMOD - VERSION 21112 *** *** 5420 Sunset Boulevard Project - ***
10/02/21

*** AERMET - VERSION 16216 *** *** Update to Include Source Terms (Heavy Duty Trucks) From Project ***
13:15:52

*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5 YEARS FOR
SOURCE GROUP: FREEWAY ***

INCLUDING SOURCE(S): 25PQT000 , 25PQT001 , 25PQT002 , 25PQT003 ,
25PQT004 ,
25PQT005 , 25PQT006 , 25PQT007 , 25PQT008 , 25PQT009 , 25PQT00A , 25PQT00B ,
25PQT00C ,
25PQT00D , 25PQT00E , 25PQT00F , 25PQT00G , 25PQT00H , 25PQT00I , 25PQT00J ,
25PQT00K ,
25PQT00L , 25PQT00M , 25PQT00N , 25PQT00O , 25PQT00P , 25PQT00Q , 25PQT00R , ...
.

*** NETWORK ID: 25PQT02I ; NETWORK TYPE: GRIDCART ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

Y-COORD |	X-COORD (METERS)							
(METERS) |	379318.80	379327.90	379337.00	379346.10	379355.20	379364.30	379373.40	379382.50
379391.60								

3773647.80 |	0.00363	0.00349	0.00337	0.00326	0.00315	0.00305	0.00295	0.00286
0.00277								
3773655.40 |	0.00351	0.00339	0.00327	0.00316	0.00306	0.00296	0.00287	0.00278
0.00269								
3773663.00 |	0.00340	0.00329	0.00317	0.00307	0.00297	0.00287	0.00278	0.00269
0.00261								
3773670.60 |	0.00330	0.00319	0.00308	0.00298	0.00288	0.00279	0.00270	0.00261
0.00253								
3773678.20 |	0.00320	0.00309	0.00299	0.00289	0.00280	0.00271	0.00262	0.00252
0.00245								
3773685.80 |	0.00311	0.00300	0.00290	0.00281	0.00272	0.00263	0.00253	0.00245
0.00237								
3773693.40 |	0.00302	0.00292	0.00282	0.00273	0.00264	0.00255	0.00246	0.00238
0.00230								
3773701.00 |	0.00293	0.00283	0.00274	0.00264	0.00255	0.00247	0.00239	0.00231
0.00224								
3773708.60 |	0.00285	0.00275	0.00266	0.00256	0.00248	0.00239	0.00232	0.00225
0.00218								
3773716.20 |	0.00277	0.00268	0.00258	0.00249	0.00240	0.00232	0.00225	0.00219
0.00212								
3773723.80 |	0.00268	0.00260	0.00251	0.00242	0.00234	0.00226	0.00219	0.00213
0.00207								
3773731.40 |	0.00260	0.00252	0.00244	0.00235	0.00228	0.00220	0.00214	0.00207
0.00202								
3773739.00 |	0.00253	0.00245	0.00237	0.00229	0.00221	0.00215	0.00208	0.00202
0.00196								
3773746.60 |	0.00245	0.00238	0.00230	0.00223	0.00216	0.00209	0.00203	0.00197
0.00192								
3773754.20 |	0.00239	0.00232	0.00224	0.00217	0.00211	0.00204	0.00198	0.00192
0.00186								
3773761.80 |	0.00233	0.00226	0.00219	0.00212	0.00206	0.00199	0.00193	0.00187
0.00181								

3773769.40 |	0.00228	0.00221	0.00214	0.00207	0.00201	0.00195	0.00188	0.00182
0.00176								
3773777.00 |	0.00223	0.00216	0.00209	0.00202	0.00196	0.00190	0.00183	0.00177
0.00172								
3773784.60 |	0.00218	0.00211	0.00204	0.00198	0.00192	0.00186	0.00179	0.00173
0.00168								
3773792.20 |	0.00213	0.00206	0.00200	0.00194	0.00188	0.00182	0.00176	0.00170
0.00164								
3773799.80 |	0.00208	0.00202	0.00195	0.00190	0.00184	0.00178	0.00172	0.00166
0.00161								

*** AERMOD - VERSION 21112 ***

*** 5420 Sunset Boulevard Project -

10/02/21

*** AERMET - VERSION 16216 ***

*** Update to Include Source Terms (Heavy Duty Trucks) From Project

*** 13:15:52

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*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5 YEARS FOR SOURCE GROUP: FREEWAY ***

INCLUDING SOURCE(S):

25PQT000 , 25PQT001 , 25PQT002 , 25PQT003 ,

25PQT004 ,

25PQT005 , 25PQT006 , 25PQT007 , 25PQT008 , 25PQT009 , 25PQT00A , 25PQT00B ,

25PQT00C ,

25PQT00D , 25PQT00E , 25PQT00F , 25PQT00G , 25PQT00H , 25PQT00I , 25PQT00J ,

25PQT00K ,

25PQT00L , 25PQT00M , 25PQT00N , 25PQT00O , 25PQT00P , 25PQT00Q , 25PQT00R , ...

*** NETWORK ID: 25PQT02I ; NETWORK TYPE: GRIDCART ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

Y-COORD |	X-COORD (METERS)		
(METERS) |	379400.70	379409.80	379418.90

3773647.80 |	0.00268	0.00259	0.00251
3773655.40 |	0.00260	0.00252	0.00244
3773663.00 |	0.00252	0.00244	0.00237
3773670.60 |	0.00245	0.00237	0.00230
3773678.20 |	0.00237	0.00231	0.00224
3773685.80 |	0.00230	0.00224	0.00218
3773693.40 |	0.00224	0.00218	0.00212
3773701.00 |	0.00218	0.00212	0.00207
3773708.60 |	0.00212	0.00206	0.00201
3773716.20 |	0.00207	0.00201	0.00196
3773723.80 |	0.00201	0.00195	0.00190
3773731.40 |	0.00195	0.00190	0.00184
3773739.00 |	0.00190	0.00184	0.00179
3773746.60 |	0.00185	0.00179	0.00174
3773754.20 |	0.00181	0.00175	0.00170
3773761.80 |	0.00176	0.00171	0.00166
3773769.40 |	0.00171	0.00166	0.00162
3773777.00 |	0.00167	0.00162	0.00158

3773784.60 | 0.00163 0.00159 0.00155
3773792.20 | 0.00160 0.00155 0.00151
3773799.80 | 0.00156 0.00152 0.00148

*** AERMOD - VERSION 21112 *** *** 5420 Sunset Boulevard Project -

10/02/21

*** AERMET - VERSION 16216 *** *** Update to Include Source Terms (Heavy Duty Trucks) From Project
*** 13:15:52

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*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5 YEARS FOR
SOURCE GROUP: FREEWAY ***

INCLUDING SOURCE(S): 25PQT000 , 25PQT001 , 25PQT002 , 25PQT003 ,
25PQT004 ,
25PQT005 , 25PQT006 , 25PQT007 , 25PQT008 , 25PQT009 , 25PQT00A , 25PQT00B ,
25PQT00C ,
25PQT00D , 25PQT00E , 25PQT00F , 25PQT00G , 25PQT00H , 25PQT00I , 25PQT00J ,
25PQT00K ,
25PQT00L , 25PQT00M , 25PQT00N , 25PQT00O , 25PQT00P , 25PQT00Q , 25PQT00R , ...
.

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
-------------	-------------	------	-------------	-------------	------

378622.80	3773348.80	0.00227			
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*** AERMOD - VERSION 21112 *** *** 5420 Sunset Boulevard Project -

10/02/21

*** AERMET - VERSION 16216 *** *** Update to Include Source Terms (Heavy Duty Trucks) From Project
*** 13:15:52

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*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5 YEARS FOR
SOURCE GROUP: FREEWAY ***

INCLUDING SOURCE(S): 25PQT000 , 25PQT001 , 25PQT002 , 25PQT003 ,
25PQT004 ,
25PQT005 , 25PQT006 , 25PQT007 , 25PQT008 , 25PQT009 , 25PQT00A , 25PQT00B ,
25PQT00C ,
25PQT00D , 25PQT00E , 25PQT00F , 25PQT00G , 25PQT00H , 25PQT00I , 25PQT00J ,
25PQT00K ,
25PQT00L , 25PQT00M , 25PQT00N , 25PQT00O , 25PQT00P , 25PQT00Q , 25PQT00R , ...
.

*** SENSITIVE DISCRETE RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
-------------	-------------	------	-------------	-------------	------

378701.50	3773634.90	0.00209	378482.50	3773427.50	0.00139
378899.10	3773999.00	0.00111			

*** AERMOD - VERSION 21112 ***

*** 5420 Sunset Boulevard Project -

10/02/21

*** AERMET - VERSION 16216 ***

*** Update to Include Source Terms (Heavy Duty Trucks) From Project

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*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

*** THE SUMMARY OF MAXIMUM ANNUAL RESULTS AVERAGED OVER 5 YEARS

** CONC OF OTHER IN MICROGRAMS/M**3		**
NETWORK		
GROUP ID	AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG) OF TYPE
GRID-ID		

ALL 1ST HIGHEST VALUE IS	0.39711 AT (379364.30, 3773799.80, 109.20, 347.00, 0.00)	GC
25PQT02I		
2ND HIGHEST VALUE IS	0.38992 AT (379373.40, 3773799.80, 109.50, 347.00, 0.00)	GC
25PQT02I		
3RD HIGHEST VALUE IS	0.38968 AT (379355.20, 3773799.80, 109.00, 347.00, 0.00)	GC
25PQT02I		
4TH HIGHEST VALUE IS	0.37342 AT (379382.50, 3773799.80, 109.80, 347.00, 0.00)	GC
25PQT02I		
5TH HIGHEST VALUE IS	0.35943 AT (379391.60, 3773799.80, 110.00, 347.00, 0.00)	GC
25PQT02I		
6TH HIGHEST VALUE IS	0.35935 AT (379400.70, 3773799.80, 110.00, 347.00, 0.00)	GC
25PQT02I		
7TH HIGHEST VALUE IS	0.35923 AT (379409.80, 3773799.80, 110.00, 347.00, 0.00)	GC
25PQT02I		
8TH HIGHEST VALUE IS	0.35909 AT (379418.90, 3773799.80, 110.00, 347.00, 0.00)	GC
25PQT02I		
9TH HIGHEST VALUE IS	0.35493 AT (379346.10, 3773799.80, 109.00, 347.00, 0.00)	GC
25PQT02I		
10TH HIGHEST VALUE IS	0.19872 AT (379236.90, 3773799.80, 109.00, 109.00, 0.00)	GC
25PQT02I		
HDTS 1ST HIGHEST VALUE IS	0.39444 AT (379364.30, 3773799.80, 109.20, 347.00, 0.00)	GC
25PQT02I		
2ND HIGHEST VALUE IS	0.38732 AT (379373.40, 3773799.80, 109.50, 347.00, 0.00)	GC
25PQT02I		
3RD HIGHEST VALUE IS	0.38694 AT (379355.20, 3773799.80, 109.00, 347.00, 0.00)	GC
25PQT02I		
4TH HIGHEST VALUE IS	0.37089 AT (379382.50, 3773799.80, 109.80, 347.00, 0.00)	GC
25PQT02I		
5TH HIGHEST VALUE IS	0.35697 AT (379391.60, 3773799.80, 110.00, 347.00, 0.00)	GC
25PQT02I		
6TH HIGHEST VALUE IS	0.35694 AT (379400.70, 3773799.80, 110.00, 347.00, 0.00)	GC
25PQT02I		
7TH HIGHEST VALUE IS	0.35687 AT (379409.80, 3773799.80, 110.00, 347.00, 0.00)	GC
25PQT02I		
8TH HIGHEST VALUE IS	0.35677 AT (379418.90, 3773799.80, 110.00, 347.00, 0.00)	GC

25PQT02I
 9TH HIGHEST VALUE IS 0.35212 AT (379346.10, 3773799.80, 109.00, 347.00, 0.00) GC
 25PQT02I
 10TH HIGHEST VALUE IS 0.19486 AT (379236.90, 3773799.80, 109.00, 109.00, 0.00) GC
 25PQT02I
 FREEWAY 1ST HIGHEST VALUE IS 0.00511 AT (379236.90, 3773647.80, 107.00, 107.00, 0.00) GC
 25PQT02I
 2ND HIGHEST VALUE IS 0.00492 AT (379246.00, 3773647.80, 107.00, 107.00, 0.00) GC
 25PQT02I
 3RD HIGHEST VALUE IS 0.00492 AT (379236.90, 3773655.40, 107.00, 107.00, 0.00) GC
 25PQT02I
 4TH HIGHEST VALUE IS 0.00475 AT (379246.00, 3773655.40, 107.00, 107.00, 0.00) GC
 25PQT02I
 5TH HIGHEST VALUE IS 0.00475 AT (379255.10, 3773647.80, 107.00, 107.00, 0.00) GC
 25PQT02I
 6TH HIGHEST VALUE IS 0.00474 AT (379236.90, 3773663.00, 107.20, 107.20, 0.00) GC
 25PQT02I
 7TH HIGHEST VALUE IS 0.00458 AT (379255.10, 3773655.40, 107.00, 107.00, 0.00) GC
 25PQT02I
 8TH HIGHEST VALUE IS 0.00458 AT (379246.00, 3773663.00, 107.20, 107.20, 0.00) GC
 25PQT02I
 9TH HIGHEST VALUE IS 0.00457 AT (379264.20, 3773647.80, 107.00, 107.00, 0.00) GC
 25PQT02I
 10TH HIGHEST VALUE IS 0.00457 AT (379236.90, 3773670.60, 107.40, 107.40, 0.00) GC
 25PQT02I

*** RECEPTOR TYPES: GC = GRIDCART
 GP = GRIDPOLR
 DC = DISCCART
 DP = DISCPOLR

*** AERMOD - VERSION 21112 *** *** 5420 Sunset Boulevard Project - ***
 10/02/21
 *** AERMET - VERSION 16216 *** *** Update to Include Source Terms (Heavy Duty Trucks) From Project
 *** 13:15:52

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*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

*** Message Summary : AERMOD Model Execution ***

----- Summary of Total Messages -----

A Total of 0 Fatal Error Message(s)
 A Total of 5 Warning Message(s)
 A Total of 808 Informational Message(s)
 A Total of 43824 Hours Were Processed
 A Total of 4 Calm Hours Identified
 A Total of 804 Missing Hours Identified (1.83 Percent)

***** FATAL ERROR MESSAGES *****

*** NONE ***

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

SO W320 268 VPARM: Input Parameter May Be Out-of-Range for Parameter SZINIT
ME W186 411 MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used 0.50
ME W187 411 MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET
MX W450 17521 CHKDAT: Record Out of Sequence in Meteorological File at: 14010101
MX W450 17521 CHKDAT: Record Out of Sequence in Meteorological File at: 2 year gap

*** AERMOD Finishes Successfully ***

* AERMOD (21112): 5420 Sunset Boulevard Project -

10/02/21

* AERMET (16216):

13:15:52

* MODELING OPTIONS USED: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

* PLOT FILE OF ANNUAL VALUES AVERAGED ACROSS 5 YEARS FOR SOURCE GROUP: ALL
* FOR A TOTAL OF 445 RECEPTORS.

* FORMAT: (A,IX,3(IX,F13.5),3(IX,F8.2),2X,A6,2X,A8,2X,I8.8,2X,A8)

* X Y AVERAGE CONC ZELEV ZHILL ZFLAG AVE GRP NUM YRS NET ID

379236.90000	3773799.80000	0.19872	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379246.00000	3773799.80000	0.17804	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379255.10000	3773799.80000	0.17304	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379264.20000	3773799.80000	0.17075	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379273.30000	3773799.80000	0.16921	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379282.40000	3773799.80000	0.16793	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379291.50000	3773799.80000	0.16665	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379300.60000	3773799.80000	0.16516	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379309.70000	3773799.80000	0.16311	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379318.80000	3773799.80000	0.15998	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379327.90000	3773799.80000	0.15687	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379337.00000	3773799.80000	0.18678	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379346.10000	3773799.80000	0.35493	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379355.20000	3773799.80000	0.38968	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379364.30000	3773799.80000	0.39711	109.20	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379373.40000	3773799.80000	0.38992	109.50	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379382.50000	3773799.80000	0.37342	109.80	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379391.60000	3773799.80000	0.35943	110.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379400.70000	3773799.80000	0.35935	110.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379409.80000	3773799.80000	0.35923	110.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379418.90000	3773799.80000	0.35909	110.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379236.90000	3773792.20000	0.14292	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379246.00000	3773792.20000	0.11991	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379255.10000	3773792.20000	0.11327	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379264.20000	3773792.20000	0.11031	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379273.30000	3773792.20000	0.10857	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379282.40000	3773792.20000	0.10730	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379291.50000	3773792.20000	0.10618	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379300.60000	3773792.20000	0.10496	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379309.70000	3773792.20000	0.10352	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379318.80000	3773792.20000	0.10228	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379327.90000	3773792.20000	0.10436	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379337.00000	3773792.20000	0.11938	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379346.10000	3773792.20000	0.13704	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379355.20000	3773792.20000	0.14245	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379364.30000	3773792.20000	0.14642	109.20	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379373.40000	3773792.20000	0.14826	109.50	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379382.50000	3773792.20000	0.14855	109.80	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379391.60000	3773792.20000	0.14827	110.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379400.70000	3773792.20000	0.14836	110.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379409.80000	3773792.20000	0.14833	110.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379418.90000	3773792.20000	0.14827	110.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379236.90000	3773784.60000	0.11780	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379246.00000	3773784.60000	0.09412	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379255.10000	3773784.60000	0.08690	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379264.20000	3773784.60000	0.08347	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379273.30000	3773784.60000	0.08146	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379282.40000	3773784.60000	0.08006	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379291.50000	3773784.60000	0.07893	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379300.60000	3773784.60000	0.07791	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379309.70000	3773784.60000	0.07708	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379318.80000	3773784.60000	0.07708	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379327.90000	3773784.60000	0.07959	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379337.00000	3773784.60000	0.08556	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379346.10000	3773784.60000	0.09021	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379355.20000	3773784.60000	0.09171	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379364.30000	3773784.60000	0.09282	109.20	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379373.40000	3773784.60000	0.09368	109.50	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379382.50000	3773784.60000	0.09409	109.80	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379391.60000	3773784.60000	0.09417	110.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379400.70000	3773784.60000	0.09426	110.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379409.80000	3773784.60000	0.09427	110.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379418.90000	3773784.60000	0.09423	110.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379236.90000	3773777.00000	0.10334	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379246.00000	3773777.00000	0.07935	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379255.10000	3773777.00000	0.07190	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379264.20000	3773777.00000	0.06826	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT02I

379273.30000	3773777.00000	0.06609	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379282.40000	3773777.00000	0.06462	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379291.50000	3773777.00000	0.06353	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379300.60000	3773777.00000	0.06275	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379309.70000	3773777.00000	0.06239	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379318.80000	3773777.00000	0.06287	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379327.90000	3773777.00000	0.06464	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379337.00000	3773777.00000	0.06721	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379346.10000	3773777.00000	0.06886	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379355.20000	3773777.00000	0.06937	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379364.30000	3773777.00000	0.06957	109.20	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379373.40000	3773777.00000	0.06972	109.50	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379382.50000	3773777.00000	0.06979	109.80	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379391.60000	3773777.00000	0.06973	110.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379400.70000	3773777.00000	0.06973	110.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379409.80000	3773777.00000	0.06969	110.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379418.90000	3773777.00000	0.06962	110.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379236.90000	3773769.40000	0.09372	108.70	108.70	0.00	ANNUAL	ALL	00000005	25PQT02I
379246.00000	3773769.40000	0.06980	108.70	108.70	0.00	ANNUAL	ALL	00000005	25PQT02I
379255.10000	3773769.40000	0.06222	108.70	108.70	0.00	ANNUAL	ALL	00000005	25PQT02I
379264.20000	3773769.40000	0.05849	108.70	108.70	0.00	ANNUAL	ALL	00000005	25PQT02I
379273.30000	3773769.40000	0.05625	108.80	108.80	0.00	ANNUAL	ALL	00000005	25PQT02I
379282.40000	3773769.40000	0.05478	108.90	108.90	0.00	ANNUAL	ALL	00000005	25PQT02I
379291.50000	3773769.40000	0.05381	108.90	108.90	0.00	ANNUAL	ALL	00000005	25PQT02I
379300.60000	3773769.40000	0.05325	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379309.70000	3773769.40000	0.05318	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379318.80000	3773769.40000	0.05374	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379327.90000	3773769.40000	0.05488	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379337.00000	3773769.40000	0.05607	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379346.10000	3773769.40000	0.05669	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379355.20000	3773769.40000	0.05677	109.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379364.30000	3773769.40000	0.05663	109.10	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379373.40000	3773769.40000	0.05644	109.40	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379382.50000	3773769.40000	0.05626	109.60	347.00	0.00	ANNUAL	ALL	00000	

379391.60000	3773754.20000	0.04165	109.30	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379400.70000	3773754.20000	0.04132	109.50	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379409.80000	3773754.20000	0.04097	109.80	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379418.90000	3773754.20000	0.04066	110.00	347.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379236.90000	3773746.60000	0.07673	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379246.00000	3773746.60000	0.05448	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379255.10000	3773746.60000	0.04695	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379264.20000	3773746.60000	0.04323	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379273.30000	3773746.60000	0.04112	108.10	108.10	0.00	ANNUAL	ALL	00000005	25PQT02I
379282.40000	3773746.60000	0.03992	108.40	108.40	0.00	ANNUAL	ALL	00000005	25PQT02I
379291.50000	3773746.60000	0.03939	108.70	108.70	0.00	ANNUAL	ALL	00000005	25PQT02I
379300.60000	3773746.60000	0.03942	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379309.70000	3773746.60000	0.03987	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379318.80000	3773746.60000	0.04049	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379327.90000	3773746.60000	0.04095	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379337.00000	3773746.60000	0.04102	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379346.10000	3773746.60000	0.04069	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379355.20000	3773746.60000	0.04008	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379364.30000	3773746.60000	0.03938	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379373.40000	3773746.60000	0.03871	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379382.50000	3773746.60000	0.03812	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379391.60000	3773746.60000	0.03762	109.10	109.10	0.00	ANNUAL	ALL	00000005	25PQT02I
379400.70000	3773746.60000	0.03720	109.40	109.40	0.00	ANNUAL	ALL	00000005	25PQT02I
379409.80000	3773746.60000	0.03680	109.70	109.70	0.00	ANNUAL	ALL	00000005	25PQT02I
379418.90000	3773746.60000	0.03640	110.00	110.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379236.90000	3773739.00000	0.07381	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379246.00000	3773739.00000	0.05169	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379255.10000	3773739.00000	0.04419	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379264.20000	3773739.00000	0.04052	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379273.30000	3773739.00000	0.03850	108.10	108.10	0.00	ANNUAL	ALL	00000005	25PQT02I
379282.40000	3773739.00000	0.03744	108.30	108.30	0.00	ANNUAL	ALL	00000005	25PQT02I
379291.50000	3773739.00000	0.03711	108.60	108.60	0.00	ANNUAL	ALL	00000005	25PQT02I
379300.60000	3773739.00000	0.03740	108.70	108.70	0.00	ANNUAL	ALL	00000005	25PQT02I
379309.70000	3773739.00000	0.03810	108.70	108.70	0.00	ANNUAL	ALL	00000	

379318.80000	3773723.80000	0.03912	108.20	108.20	0.00	ANNUAL	ALL	00000005	25PQT021
379327.90000	3773723.80000	0.03984	108.20	108.20	0.00	ANNUAL	ALL	00000005	25PQT021
379337.00000	3773723.80000	0.03943	108.40	108.40	0.00	ANNUAL	ALL	00000005	25PQT021
379346.10000	3773723.80000	0.03819	108.70	108.70	0.00	ANNUAL	ALL	00000005	25PQT021
379355.20000	3773723.80000	0.03662	108.90	108.90	0.00	ANNUAL	ALL	00000005	25PQT021
379364.30000	3773723.80000	0.03511	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT021
379373.40000	3773723.80000	0.03381	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT021
379382.50000	3773723.80000	0.03271	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT021
379391.60000	3773723.80000	0.03178	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT021
379400.70000	3773723.80000	0.03098	109.10	109.10	0.00	ANNUAL	ALL	00000005	25PQT021
379409.80000	3773723.80000	0.03029	109.20	109.20	0.00	ANNUAL	ALL	00000005	25PQT021
379418.90000	3773723.80000	0.02969	109.20	109.20	0.00	ANNUAL	ALL	00000005	25PQT021
379236.90000	3773716.20000	0.06813	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT021
379246.00000	3773716.20000	0.04654	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT021
379255.10000	3773716.20000	0.03928	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT021
379264.20000	3773716.20000	0.03592	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT021
379273.30000	3773716.20000	0.03433	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT021
379282.40000	3773716.20000	0.03395	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT021
379291.50000	3773716.20000	0.03469	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT021
379300.60000	3773716.20000	0.03654	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT021
379309.70000	3773716.20000	0.03914	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT021
379318.80000	3773716.20000	0.04148	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT021
379327.90000	3773716.20000	0.04244	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT021
379337.00000	3773716.20000	0.04169	108.30	108.30	0.00	ANNUAL	ALL	00000005	25PQT021
379346.10000	3773716.20000	0.03982	108.60	108.60	0.00	ANNUAL	ALL	00000005	25PQT021
379355.20000	3773716.20000	0.03762	108.90	108.90	0.00	ANNUAL	ALL	00000005	25PQT021
379364.30000	3773716.20000	0.03559	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT021
379373.40000	3773716.20000	0.03387	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT021
379382.50000	3773716.20000	0.03243	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT021
379391.60000	3773716.20000	0.03123	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT021
379400.70000	3773716.20000	0.03021	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT021
379409.80000	3773716.20000	0.02933	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT021
379418.90000	3773716.20000	0.02858	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT021
379236.90000	3773708.60000	0.06692	108.00	108.00	0.00	ANNUAL	ALL	00000	

379246.00000	3773693.40000	0.04430	108.00	108.00	0.00	ANNUAL	ALL	000000005	25PQT02I
379255.10000	3773693.40000	0.03753	108.00	108.00	0.00	ANNUAL	ALL	000000005	25PQT02I
379264.20000	3773693.40000	0.03486	108.00	108.00	0.00	ANNUAL	ALL	000000005	25PQT02I
379273.30000	3773693.40000	0.03439	108.00	108.00	0.00	ANNUAL	ALL	000000005	25PQT02I
379282.40000	3773693.40000	0.03599	108.00	108.00	0.00	ANNUAL	ALL	000000005	25PQT02I
379291.50000	3773693.40000	0.04063	108.00	108.00	0.00	ANNUAL	ALL	000000005	25PQT02I
379300.60000	3773693.40000	0.05035	108.00	108.00	0.00	ANNUAL	ALL	000000005	25PQT02I
379309.70000	3773693.40000	0.06592	108.00	108.00	0.00	ANNUAL	ALL	000000005	25PQT02I
379318.80000	3773693.40000	0.08025	108.00	108.00	0.00	ANNUAL	ALL	000000005	25PQT02I
379327.90000	3773693.40000	0.07921	108.00	108.00	0.00	ANNUAL	ALL	000000005	25PQT02I
379337.00000	3773693.40000	0.07010	108.10	108.10	0.00	ANNUAL	ALL	000000005	25PQT02I
379346.10000	3773693.40000	0.05903	108.10	108.10	0.00	ANNUAL	ALL	000000005	25PQT02I
379355.20000	3773693.40000	0.04983	108.20	108.20	0.00	ANNUAL	ALL	000000005	25PQT02I
379364.30000	3773693.40000	0.04303	108.40	108.40	0.00	ANNUAL	ALL	000000005	25PQT02I
379373.40000	3773693.40000	0.03807	108.60	108.60	0.00	ANNUAL	ALL	000000005	25PQT02I
379382.50000	3773693.40000	0.03441	108.80	108.80	0.00	ANNUAL	ALL	000000005	25PQT02I
379391.60000	3773693.40000	0.03163	109.00	109.00	0.00	ANNUAL	ALL	000000005	25PQT02I
379400.70000	3773693.40000	0.02949	109.00	109.00	0.00	ANNUAL	ALL	000000005	25PQT02I
379409.80000	3773693.40000	0.02780	109.00	109.00	0.00	ANNUAL	ALL	000000005	25PQT02I
379418.90000	3773693.40000	0.02644	109.00	109.00	0.00	ANNUAL	ALL	000000005	25PQT02I
379236.90000	3773685.80000	0.06431	107.90	107.90	0.00	ANNUAL	ALL	000000005	25PQT02I
379246.00000	3773685.80000	0.04398	108.00	108.00	0.00	ANNUAL	ALL	000000005	25PQT02I
379255.10000	3773685.80000	0.03744	108.00	108.00	0.00	ANNUAL	ALL	000000005	25PQT02I
379264.20000	3773685.80000	0.03513	108.00	108.00	0.00	ANNUAL	ALL	000000005	25PQT02I
379273.30000	3773685.80000	0.03534	108.00	108.00	0.00	ANNUAL	ALL	000000005	25PQT02I
379282.40000	3773685.80000	0.03835	108.00	108.00	0.00	ANNUAL	ALL	000000005	25PQT02I
379291.50000	3773685.80000	0.04684	108.00	108.00	0.00	ANNUAL	ALL	000000005	25PQT02I
379300.60000	3773685.80000	0.06712	108.00	108.00	0.00	ANNUAL	ALL	000000005	25PQT02I
379309.70000	3773685.80000	0.10788	108.00	108.00	0.00	ANNUAL	ALL	000000005	25PQT02I
379318.80000	3773685.80000	0.02105	108.00	108.00	0.00	ANNUAL	ALL	000000005	25PQT02I
379327.90000	3773685.80000	0.12729	108.00	108.00	0.00	ANNUAL	ALL	000000005	25PQT02I
379337.00000	3773685.80000	0.09711	108.00	108.00	0.00	ANNUAL	ALL	000000005	25PQT02I
379346.10000	3773685.80000	0.07271	108.00	108.00	0.00	ANNUAL	ALL	000000005	25PQT02I
379355.20000	3773685.80000	0.05668	108.00	108.00					

379364.30000	3773670.60000	0.04764	108.10	108.10	0.00	ANNUAL	ALL	00000005	25PQT02I
379373.40000	3773670.60000	0.03866	108.20	108.20	0.00	ANNUAL	ALL	00000005	25PQT02I
379382.50000	3773670.60000	0.03304	108.40	108.40	0.00	ANNUAL	ALL	00000005	25PQT02I
379391.60000	3773670.60000	0.02928	108.50	108.50	0.00	ANNUAL	ALL	00000005	25PQT02I
379400.70000	3773670.60000	0.02662	108.70	108.70	0.00	ANNUAL	ALL	00000005	25PQT02I
379409.80000	3773670.60000	0.02467	108.80	108.80	0.00	ANNUAL	ALL	00000005	25PQT02I
379418.90000	3773670.60000	0.02317	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379236.90000	3773663.00000	0.06094	107.20	107.20	0.00	ANNUAL	ALL	00000005	25PQT02I
379246.00000	3773663.00000	0.04326	107.20	107.20	0.00	ANNUAL	ALL	00000005	25PQT02I
379255.10000	3773663.00000	0.03771	107.20	107.20	0.00	ANNUAL	ALL	00000005	25PQT02I
379264.20000	3773663.00000	0.03662	107.20	107.20	0.00	ANNUAL	ALL	00000005	25PQT02I
379273.30000	3773663.00000	0.03915	107.30	107.30	0.00	ANNUAL	ALL	00000005	25PQT02I
379282.40000	3773663.00000	0.04762	107.60	107.60	0.00	ANNUAL	ALL	00000005	25PQT02I
379291.50000	3773663.00000	0.07168	107.80	107.80	0.00	ANNUAL	ALL	00000005	25PQT02I
379300.60000	3773663.00000	0.02063	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379309.70000	3773663.00000	0.01985	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379318.80000	3773663.00000	0.01922	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379327.90000	3773663.00000	0.01870	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379337.00000	3773663.00000	0.01826	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379346.10000	3773663.00000	0.09321	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379355.20000	3773663.00000	0.05860	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379364.30000	3773663.00000	0.04355	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379373.40000	3773663.00000	0.03539	108.10	108.10	0.00	ANNUAL	ALL	00000005	25PQT02I
379382.50000	3773663.00000	0.03037	108.20	108.20	0.00	ANNUAL	ALL	00000005	25PQT02I
379391.60000	3773663.00000	0.02705	108.30	108.30	0.00	ANNUAL	ALL	00000005	25PQT02I
379400.70000	3773663.00000	0.02470	108.50	108.50	0.00	ANNUAL	ALL	00000005	25PQT02I
379409.80000	3773663.00000	0.02297	108.80	108.80	0.00	ANNUAL	ALL	00000005	25PQT02I
379418.90000	3773663.00000	0.02166	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379236.90000	3773655.40000	0.06000	107.00	107.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379246.00000	3773655.40000	0.04296	107.00	107.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379255.10000	3773655.40000	0.03762	107.00	107.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379264.20000	3773655.40000	0.03670	107.00	107.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379273.30000	3773655.40000	0.03949	107.10	107.10	0.00	ANNUAL	ALL	00000005	25PQT02I
379282.40000	3773655.40000	0.04804	107.40	107.40	0.00	ANNUAL	ALL	00000005	25PQT02I
379291.50000	3773655.40000	0.06935	107.70	107.70	0.00	ANNUAL	ALL	00000005	25PQT02I
379300.60000	3773655.40000	0.02019	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379309.70000	3773655.40000	0.01941	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379318.80000	3773655.40000	0.01877	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379327.90000	3773655.40000	0.01824	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379337.00000	3773655.40000	0.01778	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379346.10000	3773655.40000	0.07370	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379355.20000	3773655.40000	0.04877	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379364.30000	3773655.40000	0.03743	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379373.40000	3773655.40000	0.03112	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379382.50000	3773655.40000	0.02719	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379391.60000	3773655.40000	0.02453	108.10	108.10	0.00	ANNUAL	ALL	00000005	25PQT02I
379400.70000	3773655.40000	0.02264	108.40	108.40	0.00	ANNUAL	ALL	00000005	25PQT02I
379409.80000	3773655.40000	0.02123	108.70	108.70	0.00	ANNUAL	ALL	00000005	25PQT02I
379418.90000	3773655.40000	0.02014	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379236.90000	3773647.80000	0.05962	107.00	107.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379246.00000	3773647.80000	0.04270	107.00	107.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379255.10000	3773647.80000	0.03738	107.00	107.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379264.20000	3773647.80000	0.03646	107.00	107.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379273.30000	3773647.80000	0.03905	107.10	107.10	0.00	ANNUAL	ALL	00000005	25PQT02I
379282.40000	3773647.80000	0.04641	107.30	107.30	0.00	ANNUAL	ALL	00000005	25PQT02I
379291.50000	3773647.80000	0.06187	107.50	107.50	0.00	ANNUAL	ALL	00000005	25PQT02I
379300.60000	3773647.80000	0.09111	107.70	107.70	0.00	ANNUAL	ALL	00000005	25PQT02I
379309.70000	3773647.80000	0.01904	107.80	107.80	0.00	ANNUAL	ALL	00000005	25PQT02I
379318.80000	3773647.80000	0.01838	107.90	107.90	0.00	ANNUAL	ALL	00000005	25PQT02I
379327.90000	3773647.80000	0.01783	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379337.00000	3773647.80000	0.09125	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379346.10000	3773647.80000	0.05253	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379355.20000	3773647.80000	0.03848	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379364.30000	3773647.80000	0.03126	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379373.40000	3773647.80000	0.02694	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379382.50000	3773647.80000	0.02412	108.00	108.00	0.00	ANNUAL	ALL	00000005	25PQT02I
379391.60000	3773647.80000	0.02215	108.10	108.10	0.00	ANNUAL	ALL	00000005	25PQT02I
379400.70000	3773647.80000	0.02071	108.40	108.40	0.00	ANNUAL	ALL	00000005	25PQT02I
379409.80000	3773647.80000	0.01961	108.70	108.70	0.00	ANNUAL	ALL	00000005	25PQT02I
379418.90000	3773647.80000	0.01875	109.00	109.00	0.00	ANNUAL	ALL	00000005	25PQT02I
378701.50000	3773634.90000	0.01081	105.91	105.91	0.00	ANNUAL	ALL	00000005	
378482.50000	3773427.50000	0.00467	102.00	102.00	0.00	ANNUAL	ALL	00000005	
378622.80000	3773348.80000	0.00566	101.00	101.00	0.00	ANNUAL	ALL	00000005	
378899.10000	3773999.00000	0.00802	113.40	238.00	0.00	ANNUAL	ALL	00000005	

* AERMOD (21112): 5420 Sunset Boulevard Project -

10/02/21

* AERMET (16216):

13:15:52

* MODELING OPTIONS USED: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

* PLOT FILE OF ANNUAL VALUES AVERAGED ACROSS 5 YEARS FOR SOURCE GROUP: HDTS
* FOR A TOTAL OF 445 RECEPTORS.

* FORMAT: (A,IX,3(IX,F13.5),3(IX,F8.2),2X,A6,2X,A8,2X,I8.8,2X,A8)

* X Y AVERAGE CONC ZELEV ZHILL ZFLAG AVE GRP NUM YRS NET ID

379236.90000	3773799.80000	0.19486	109.00	109.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379246.00000	3773799.80000	0.17428	109.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379255.10000	3773799.80000	0.16937	109.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379264.20000	3773799.80000	0.16718	109.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379273.30000	3773799.80000	0.16574	109.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379282.40000	3773799.80000	0.16455	109.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379291.50000	3773799.80000	0.16336	109.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379300.60000	3773799.80000	0.16196	109.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379309.70000	3773799.80000	0.15999	109.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379318.80000	3773799.80000	0.15695	109.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379327.90000	3773799.80000	0.15392	109.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379337.00000	3773799.80000	0.18390	109.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379346.10000	3773799.80000	0.35212	109.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379355.20000	3773799.80000	0.38694	109.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379364.30000	3773799.80000	0.39444	109.20	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379373.40000	3773799.80000	0.38732	109.50	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379382.50000	3773799.80000	0.37089	109.80	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379391.60000	3773799.80000	0.35697	110.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379400.70000	3773799.80000	0.35694	110.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379409.80000	3773799.80000	0.35687	110.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379418.90000	3773799.80000	0.35677	110.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379236.90000	3773792.20000	0.13903	109.00	109.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379246.00000	3773792.20000	0.11612	109.00	109.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379255.10000	3773792.20000	0.10958	109.00	109.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379264.20000	3773792.20000	0.10672	109.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379273.30000	3773792.20000	0.10507	109.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379282.40000	3773792.20000	0.10390	109.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379291.50000	3773792.20000	0.10287	109.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379300.60000	3773792.20000	0.10174	109.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379309.70000	3773792.20000	0.10038	109.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379318.80000	3773792.20000	0.09922	109.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379327.90000	3773792.20000	0.10139	109.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379337.00000	3773792.20000	0.11648	109.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379346.10000	3773792.20000	0.13421	109.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379355.20000	3773792.20000	0.13970	109.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379364.30000	3773792.20000	0.14374	109.20	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379373.40000	3773792.20000	0.14565	109.50	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379382.50000	3773792.20000	0.14601	109.80	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379391.60000	3773792.20000	0.14578	110.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379400.70000	3773792.20000	0.14593	110.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379409.80000	3773792.20000	0.14595	110.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379418.90000	3773792.20000	0.14594	110.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379236.90000	3773784.60000	0.11388	109.00	109.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379246.00000	3773784.60000	0.09030	109.00	109.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379255.10000	3773784.60000	0.08318	109.00	109.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379264.20000	3773784.60000	0.07985	109.00	109.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379273.30000	3773784.60000	0.07793	109.00	109.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379282.40000	3773784.60000	0.07663	109.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379291.50000	3773784.60000	0.07559	109.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379300.60000	3773784.60000	0.07466	109.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379309.70000	3773784.60000	0.07392	109.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379318.80000	3773784.60000	0.07401	109.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379327.90000	3773784.60000	0.07660	109.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379337.00000	3773784.60000	0.08265	109.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379346.10000	3773784.60000	0.08737	109.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379355.20000	3773784.60000	0.08894	109.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379364.30000	3773784.60000	0.09011	109.20	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379373.40000	3773784.60000	0.09105	109.50	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379382.50000	3773784.60000	0.09153	109.80	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379391.60000	3773784.60000	0.09167	110.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379400.70000	3773784.60000	0.09181	110.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379409.80000	3773784.60000	0.09187	110.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379418.90000	3773784.60000	0.09187	110.00	347.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379236.90000	3773777.00000	0.09938	109.00	109.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379246.00000	3773777.00000	0.07550	109.00	109.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379255.10000	3773777.00000	0.06814	109.00	109.00	0.00	ANNUAL	HDTS	00000005	25PQT02I
379264.20000	3773777.00000	0.06461	109.00	109.00	0.00	ANNUAL	HDTS	00000005	25PQT02I

379273.30000	3773777.00000	0.06253	109.00	109.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379282.40000	3773777.00000	0.06116	109.00	109.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379291.50000	3773777.00000	0.06017	109.00	109.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379300.60000	3773777.00000	0.05948	109.00	109.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379309.70000	3773777.00000	0.05920	109.00	347.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379318.80000	3773777.00000	0.05976	109.00	347.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379327.90000	3773777.00000	0.06162	109.00	347.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379337.00000	3773777.00000	0.06427	109.00	347.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379346.10000	3773777.00000	0.06599	109.00	347.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379355.20000	3773777.00000	0.06657	109.00	347.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379364.30000	3773777.00000	0.06685	109.20	347.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379373.40000	3773777.00000	0.06707	109.50	347.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379382.50000	3773777.00000	0.06721	109.80	347.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379391.60000	3773777.00000	0.06721	110.00	347.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379400.70000	3773777.00000	0.06726	110.00	347.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379409.80000	3773777.00000	0.06727	110.00	347.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379418.90000	3773777.00000	0.06725	110.00	347.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379236.90000	3773769.40000	0.08971	108.70	108.70	0.00	ANNUAL	HDTs	00000005	25PQT021
379246.00000	3773769.40000	0.06590	108.70	108.70	0.00	ANNUAL	HDTs	00000005	25PQT021
379255.10000	3773769.40000	0.05842	108.70	108.70	0.00	ANNUAL	HDTs	00000005	25PQT021
379264.20000	3773769.40000	0.05480	108.70	108.70	0.00	ANNUAL	HDTs	00000005	25PQT021
379273.30000	3773769.40000	0.05266	108.80	108.80	0.00	ANNUAL	HDTs	00000005	25PQT021
379282.40000	3773769.40000	0.05129	108.90	108.90	0.00	ANNUAL	HDTs	00000005	25PQT021
379291.50000	3773769.40000	0.05041	108.90	108.90	0.00	ANNUAL	HDTs	00000005	25PQT021
379300.60000	3773769.40000	0.04995	109.00	109.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379309.70000	3773769.40000	0.04997	109.00	109.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379318.80000	3773769.40000	0.05061	109.00	109.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379327.90000	3773769.40000	0.05183	109.00	347.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379337.00000	3773769.40000	0.05310	109.00	347.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379346.10000	3773769.40000	0.05379	109.00	347.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379355.20000	3773769.40000	0.05395	109.00	347.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379364.30000	3773769.40000	0.05388	109.10	347.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379373.40000	3773769.40000	0.05376	109.40	347.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379382.50000	3773769.40000	0.05365	109.60	347.00					

379391.60000	3773754.20000	0.03903	109.30	347.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379400.70000	3773754.20000	0.03876	109.50	347.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379409.80000	3773754.20000	0.03848	109.80	347.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379418.90000	3773754.20000	0.03822	110.00	347.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379236.90000	3773746.60000	0.07257	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379246.00000	3773746.60000	0.05043	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379255.10000	3773746.60000	0.04300	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379264.20000	3773746.60000	0.03939	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379273.30000	3773746.60000	0.03738	108.10	108.10	0.00	ANNUAL	HDTs	00000005	25PQT021
379282.40000	3773746.60000	0.03629	108.40	108.40	0.00	ANNUAL	HDTs	00000005	25PQT021
379291.50000	3773746.60000	0.03587	108.70	108.70	0.00	ANNUAL	HDTs	00000005	25PQT021
379300.60000	3773746.60000	0.03600	109.00	109.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379309.70000	3773746.60000	0.03655	109.00	109.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379318.80000	3773746.60000	0.03726	109.00	109.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379327.90000	3773746.60000	0.03780	109.00	109.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379337.00000	3773746.60000	0.03796	109.00	109.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379346.10000	3773746.60000	0.03770	109.00	109.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379355.20000	3773746.60000	0.03717	109.00	109.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379364.30000	3773746.60000	0.03654	109.00	109.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379373.40000	3773746.60000	0.03593	109.00	109.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379382.50000	3773746.60000	0.03540	109.00	109.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379391.60000	3773746.60000	0.03497	109.10	109.10	0.00	ANNUAL	HDTs	00000005	25PQT021
379400.70000	3773746.60000	0.03461	109.40	109.40	0.00	ANNUAL	HDTs	00000005	25PQT021
379409.80000	3773746.60000	0.03427	109.70	109.70	0.00	ANNUAL	HDTs	00000005	25PQT021
379418.90000	3773746.60000	0.03393	110.00	110.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379236.90000	3773739.00000	0.06958	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379246.00000	3773739.00000	0.04758	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379255.10000	3773739.00000	0.04018	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379264.20000	3773739.00000	0.03662	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379273.30000	3773739.00000	0.03471	108.10	108.10	0.00	ANNUAL	HDTs	00000005	25PQT021
379282.40000	3773739.00000	0.03376	108.30	108.30	0.00	ANNUAL	HDTs	00000005	25PQT021
379291.50000	3773739.00000	0.03354	108.60	108.60	0.00	ANNUAL	HDTs	00000005	25PQT021
379300.60000	3773739.00000	0.03393	108.70	108.70	0.00	ANNUAL	HDTs	00000005	25PQT021
379309.70000	3773739.00000	0.03473	108.70	108.70					

379318.80000	3773723.80000	0.03573	108.20	108.20	0.00	ANNUAL	HDTs	00000005	25PQT021
379327.90000	3773723.80000	0.03654	108.20	108.20	0.00	ANNUAL	HDTs	00000005	25PQT021
379337.00000	3773723.80000	0.03622	108.40	108.40	0.00	ANNUAL	HDTs	00000005	25PQT021
379346.10000	3773723.80000	0.03507	108.70	108.70	0.00	ANNUAL	HDTs	00000005	25PQT021
379355.20000	3773723.80000	0.03359	108.90	108.90	0.00	ANNUAL	HDTs	00000005	25PQT021
379364.30000	3773723.80000	0.03216	109.00	109.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379373.40000	3773723.80000	0.03092	109.00	109.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379382.50000	3773723.80000	0.02989	109.00	109.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379391.60000	3773723.80000	0.02902	109.00	109.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379400.70000	3773723.80000	0.02828	109.10	109.10	0.00	ANNUAL	HDTs	00000005	25PQT021
379409.80000	3773723.80000	0.02765	109.20	109.20	0.00	ANNUAL	HDTs	00000005	25PQT021
379418.90000	3773723.80000	0.02709	109.20	109.20	0.00	ANNUAL	HDTs	00000005	25PQT021
379236.90000	3773716.20000	0.06367	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379246.00000	3773716.20000	0.04220	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379255.10000	3773716.20000	0.03506	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379264.20000	3773716.20000	0.03182	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379273.30000	3773716.20000	0.03035	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379282.40000	3773716.20000	0.03008	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379291.50000	3773716.20000	0.03093	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379300.60000	3773716.20000	0.03289	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379309.70000	3773716.20000	0.03558	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379318.80000	3773716.20000	0.03802	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379327.90000	3773716.20000	0.03908	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379337.00000	3773716.20000	0.03843	108.30	108.30	0.00	ANNUAL	HDTs	00000005	25PQT021
379346.10000	3773716.20000	0.03665	108.60	108.60	0.00	ANNUAL	HDTs	00000005	25PQT021
379355.20000	3773716.20000	0.03454	108.90	108.90	0.00	ANNUAL	HDTs	00000005	25PQT021
379364.30000	3773716.20000	0.03259	109.00	109.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379373.40000	3773716.20000	0.03094	109.00	109.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379382.50000	3773716.20000	0.02957	109.00	109.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379391.60000	3773716.20000	0.02843	109.00	109.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379400.70000	3773716.20000	0.02746	109.00	109.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379409.80000	3773716.20000	0.02664	109.00	109.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379418.90000	3773716.20000	0.02593	109.00	109.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379236.90000	3773708.60000	0.06237	108.00	108.00					

379246.00000	3773693.40000	0.03967	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379255.10000	3773693.40000	0.03304	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379264.20000	3773693.40000	0.03050	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379273.30000	3773693.40000	0.03016	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379282.40000	3773693.40000	0.03188	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379291.50000	3773693.40000	0.03664	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379300.60000	3773693.40000	0.04648	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379309.70000	3773693.40000	0.06216	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379318.80000	3773693.40000	0.07660	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379327.90000	3773693.40000	0.07567	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379337.00000	3773693.40000	0.06665	108.10	108.10	0.00	ANNUAL	HDTs	00000005	25PQT021
379346.10000	3773693.40000	0.05568	108.10	108.10	0.00	ANNUAL	HDTs	00000005	25PQT021
379355.20000	3773693.40000	0.04657	108.20	108.20	0.00	ANNUAL	HDTs	00000005	25PQT021
379364.30000	3773693.40000	0.03985	108.40	108.40	0.00	ANNUAL	HDTs	00000005	25PQT021
379373.40000	3773693.40000	0.03498	108.60	108.60	0.00	ANNUAL	HDTs	00000005	25PQT021
379382.50000	3773693.40000	0.03139	108.80	108.80	0.00	ANNUAL	HDTs	00000005	25PQT021
379391.60000	3773693.40000	0.02869	109.00	109.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379400.70000	3773693.40000	0.02661	109.00	109.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379409.80000	3773693.40000	0.02498	109.00	109.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379418.90000	3773693.40000	0.02367	109.00	109.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379236.90000	3773685.80000	0.05942	107.90	107.90	0.00	ANNUAL	HDTs	00000005	25PQT021
379246.00000	3773685.80000	0.03924	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379255.10000	3773685.80000	0.03285	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379264.20000	3773685.80000	0.03067	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379273.30000	3773685.80000	0.03101	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379282.40000	3773685.80000	0.03416	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379291.50000	3773685.80000	0.04277	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379300.60000	3773685.80000	0.06317	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379309.70000	3773685.80000	0.10405	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379318.80000	3773685.80000	0.01732	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379327.90000	3773685.80000	0.12368	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379337.00000	3773685.80000	0.09359	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379346.10000	3773685.80000	0.06928	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT021
379355.20000	3773685.80000	0.05334	108.00	108.00					

379364.30000	3773670.60000	0.04426	108.10	108.10	0.00	ANNUAL	HDTs	00000005	25PQT02I
379373.40000	3773670.60000	0.03536	108.20	108.20	0.00	ANNUAL	HDTs	00000005	25PQT02I
379382.50000	3773670.60000	0.02984	108.40	108.40	0.00	ANNUAL	HDTs	00000005	25PQT02I
379391.60000	3773670.60000	0.02615	108.50	108.50	0.00	ANNUAL	HDTs	00000005	25PQT02I
379400.70000	3773670.60000	0.02357	108.70	108.70	0.00	ANNUAL	HDTs	00000005	25PQT02I
379409.80000	3773670.60000	0.02168	108.80	108.80	0.00	ANNUAL	HDTs	00000005	25PQT02I
379418.90000	3773670.60000	0.02025	109.00	109.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
379236.90000	3773663.00000	0.05563	107.20	107.20	0.00	ANNUAL	HDTs	00000005	25PQT02I
379246.00000	3773663.00000	0.03811	107.20	107.20	0.00	ANNUAL	HDTs	00000005	25PQT02I
379255.10000	3773663.00000	0.03272	107.20	107.20	0.00	ANNUAL	HDTs	00000005	25PQT02I
379264.20000	3773663.00000	0.03178	107.20	107.20	0.00	ANNUAL	HDTs	00000005	25PQT02I
379273.30000	3773663.00000	0.03447	107.30	107.30	0.00	ANNUAL	HDTs	00000005	25PQT02I
379282.40000	3773663.00000	0.04310	107.60	107.60	0.00	ANNUAL	HDTs	00000005	25PQT02I
379291.50000	3773663.00000	0.06731	107.80	107.80	0.00	ANNUAL	HDTs	00000005	25PQT02I
379300.60000	3773663.00000	0.01640	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
379309.70000	3773663.00000	0.01575	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
379318.80000	3773663.00000	0.01525	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
379327.90000	3773663.00000	0.01484	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
379337.00000	3773663.00000	0.01451	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
379346.10000	3773663.00000	0.08957	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
379355.20000	3773663.00000	0.05505	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
379364.30000	3773663.00000	0.04010	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
379373.40000	3773663.00000	0.03203	108.10	108.10	0.00	ANNUAL	HDTs	00000005	25PQT02I
379382.50000	3773663.00000	0.02709	108.20	108.20	0.00	ANNUAL	HDTs	00000005	25PQT02I
379391.60000	3773663.00000	0.02384	108.30	108.30	0.00	ANNUAL	HDTs	00000005	25PQT02I
379400.70000	3773663.00000	0.02158	108.50	108.50	0.00	ANNUAL	HDTs	00000005	25PQT02I
379409.80000	3773663.00000	0.01992	108.80	108.80	0.00	ANNUAL	HDTs	00000005	25PQT02I
379418.90000	3773663.00000	0.01868	109.00	109.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
379236.90000	3773655.40000	0.05452	107.00	107.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
379246.00000	3773655.40000	0.03766	107.00	107.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
379255.10000	3773655.40000	0.03248	107.00	107.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
379264.20000	3773655.40000	0.03173	107.00	107.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
379273.30000	3773655.40000	0.03468	107.10	107.10	0.00	ANNUAL	HDTs	00000005	25PQT02I
379282.40000	3773655.40000	0.04339	107.40	107.40	0.00	ANNUAL	HDTs	00000005	25PQT02I
379291.50000	3773655.40000	0.06486	107.70	107.70	0.00	ANNUAL	HDTs	00000005	25PQT02I
379300.60000	3773655.40000	0.01586	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
379309.70000	3773655.40000	0.01521	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
379318.80000	3773655.40000	0.01470	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
379327.90000	3773655.40000	0.01429	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
379337.00000	3773655.40000	0.01395	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
379346.10000	3773655.40000	0.06998	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
379355.20000	3773655.40000	0.04514	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
379364.30000	3773655.40000	0.03390	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
379373.40000	3773655.40000	0.02768	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
379382.50000	3773655.40000	0.02383	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
379391.60000	3773655.40000	0.02125	108.10	108.10	0.00	ANNUAL	HDTs	00000005	25PQT02I
379400.70000	3773655.40000	0.01944	108.40	108.40	0.00	ANNUAL	HDTs	00000005	25PQT02I
379409.80000	3773655.40000	0.01811	108.70	108.70	0.00	ANNUAL	HDTs	00000005	25PQT02I
379418.90000	3773655.40000	0.01710	109.00	109.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
379236.90000	3773647.80000	0.05398	107.00	107.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
379246.00000	3773647.80000	0.03724	107.00	107.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
379255.10000	3773647.80000	0.03210	107.00	107.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
379264.20000	3773647.80000	0.03135	107.00	107.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
379273.30000	3773647.80000	0.03410	107.10	107.10	0.00	ANNUAL	HDTs	00000005	25PQT02I
379282.40000	3773647.80000	0.04164	107.30	107.30	0.00	ANNUAL	HDTs	00000005	25PQT02I
379291.50000	3773647.80000	0.05726	107.50	107.50	0.00	ANNUAL	HDTs	00000005	25PQT02I
379300.60000	3773647.80000	0.08665	107.70	107.70	0.00	ANNUAL	HDTs	00000005	25PQT02I
379309.70000	3773647.80000	0.01472	107.80	107.80	0.00	ANNUAL	HDTs	00000005	25PQT02I
379318.80000	3773647.80000	0.01421	107.90	107.90	0.00	ANNUAL	HDTs	00000005	25PQT02I
379327.90000	3773647.80000	0.01379	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
379337.00000	3773647.80000	0.08733	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
379346.10000	3773647.80000	0.04873	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
379355.20000	3773647.80000	0.03477	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
379364.30000	3773647.80000	0.02765	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
379373.40000	3773647.80000	0.02343	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
379382.50000	3773647.80000	0.02069	108.00	108.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
379391.60000	3773647.80000	0.01881	108.10	108.10	0.00	ANNUAL	HDTs	00000005	25PQT02I
379400.70000	3773647.80000	0.01745	108.40	108.40	0.00	ANNUAL	HDTs	00000005	25PQT02I
379409.80000	3773647.80000	0.01643	108.70	108.70	0.00	ANNUAL	HDTs	00000005	25PQT02I
379418.90000	3773647.80000	0.01564	109.00	109.00	0.00	ANNUAL	HDTs	00000005	25PQT02I
378701.50000	3773634.90000	0.00615	105.91	105.91	0.00	ANNUAL	HDTs	00000005	
378482.50000	3773427.50000	0.00201	102.00	102.00	0.00	ANNUAL	HDTs	00000005	
378622.80000	3773348.80000	0.00286	101.00	101.00	0.00	ANNUAL	HDTs	00000005	
378899.10000	3773999.00000	0.00374	113.40	238.00	0.00	ANNUAL	HDTs	00000005	

* AERMOD (21112): 5420 Sunset Boulevard Project -

10/02/21

* AERMET (16216):

13:15:52

* MODELING OPTIONS USED: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL ADJ_U*

* PLOT FILE OF ANNUAL VALUES AVERAGED ACROSS 5 YEARS FOR SOURCE GROUP: FREEWAY
* FOR A TOTAL OF 445 RECEPTORS.

* FORMAT: (A,1X,3(1X,F13.5),3(1X,F8.2),2X,A6,2X,A8,2X,I8.8,2X,A8)

* X Y AVERAGE CONC ZELEV ZHILL ZFLAG AVE GRP NUM YRS NET ID

X	Y	AVERAGE CONC	ZELEV	ZHILL	ZFLAG	AVE	GRP	NUM YRS	NET ID
379236.90000	3773799.80000	0.00272	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379246.00000	3773799.80000	0.00264	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379255.10000	3773799.80000	0.00257	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379264.20000	3773799.80000	0.00250	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379273.30000	3773799.80000	0.00243	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379282.40000	3773799.80000	0.00235	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379291.50000	3773799.80000	0.00228	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379300.60000	3773799.80000	0.00221	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379309.70000	3773799.80000	0.00215	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379318.80000	3773799.80000	0.00208	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379327.90000	3773799.80000	0.00202	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379337.00000	3773799.80000	0.00195	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379346.10000	3773799.80000	0.00190	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379355.20000	3773799.80000	0.00184	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379364.30000	3773799.80000	0.00178	109.20	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379373.40000	3773799.80000	0.00172	109.50	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379382.50000	3773799.80000	0.00166	109.80	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379391.60000	3773799.80000	0.00161	110.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379400.70000	3773799.80000	0.00156	110.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379409.80000	3773799.80000	0.00152	110.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379418.90000	3773799.80000	0.00148	110.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379236.90000	3773792.20000	0.00278	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379246.00000	3773792.20000	0.00271	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379255.10000	3773792.20000	0.00263	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379264.20000	3773792.20000	0.00256	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379273.30000	3773792.20000	0.00248	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379282.40000	3773792.20000	0.00241	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379291.50000	3773792.20000	0.00234	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379300.60000	3773792.20000	0.00226	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379309.70000	3773792.20000	0.00219	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379318.80000	3773792.20000	0.00213	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379327.90000	3773792.20000	0.00206	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379337.00000	3773792.20000	0.00200	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379346.10000	3773792.20000	0.00194	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379355.20000	3773792.20000	0.00188	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379364.30000	3773792.20000	0.00182	109.20	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379373.40000	3773792.20000	0.00176	109.50	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379382.50000	3773792.20000	0.00170	109.80	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379391.60000	3773792.20000	0.00164	110.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379400.70000	3773792.20000	0.00160	110.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379409.80000	3773792.20000	0.00155	110.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379418.90000	3773792.20000	0.00151	110.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379236.90000	3773784.60000	0.00285	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379246.00000	3773784.60000	0.00278	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379255.10000	3773784.60000	0.00270	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379264.20000	3773784.60000	0.00262	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379273.30000	3773784.60000	0.00254	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379282.40000	3773784.60000	0.00247	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379291.50000	3773784.60000	0.00239	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379300.60000	3773784.60000	0.00232	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379309.70000	3773784.60000	0.00225	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379318.80000	3773784.60000	0.00218	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379327.90000	3773784.60000	0.00211	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379337.00000	3773784.60000	0.00204	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379346.10000	3773784.60000	0.00198	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379355.20000	3773784.60000	0.00192	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379364.30000	3773784.60000	0.00186	109.20	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379373.40000	3773784.60000	0.00179	109.50	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379382.50000	3773784.60000	0.00173	109.80	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379391.60000	3773784.60000	0.00168	110.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379400.70000	3773784.60000	0.00163	110.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379409.80000	3773784.60000	0.00159	110.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379418.90000	3773784.60000	0.00155	110.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379236.90000	3773777.00000	0.00293	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379246.00000	3773777.00000	0.00285	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379255.10000	3773777.00000	0.00277	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379264.20000	3773777.00000	0.00269	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I

379273.30000	3773777.00000	0.00261	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379282.40000	3773777.00000	0.00253	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379291.50000	3773777.00000	0.00245	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379300.60000	3773777.00000	0.00237	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379309.70000	3773777.00000	0.00230	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379318.80000	3773777.00000	0.00223	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379327.90000	3773777.00000	0.00216	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379337.00000	3773777.00000	0.00209	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379346.10000	3773777.00000	0.00202	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379355.20000	3773777.00000	0.00196	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379364.30000	3773777.00000	0.00190	109.20	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379373.40000	3773777.00000	0.00183	109.50	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379382.50000	3773777.00000	0.00177	109.80	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379391.60000	3773777.00000	0.00172	110.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379400.70000	3773777.00000	0.00167	110.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379409.80000	3773777.00000	0.00162	110.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379418.90000	3773777.00000	0.00158	110.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379236.90000	3773769.40000	0.00301	108.70	108.70	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379246.00000	3773769.40000	0.00293	108.70	108.70	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379255.10000	3773769.40000	0.00284	108.70	108.70	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379264.20000	3773769.40000	0.00276	108.70	108.70	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379273.30000	3773769.40000	0.00268	108.80	108.80	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379282.40000	3773769.40000	0.00259	108.90	108.90	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379291.50000	3773769.40000	0.00251	108.90	108.90	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379300.60000	3773769.40000	0.00243	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379309.70000	3773769.40000	0.00235	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379318.80000	3773769.40000	0.00228	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379327.90000	3773769.40000	0.00221	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379337.00000	3773769.40000	0.00214	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379346.10000	3773769.40000	0.00207	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379355.20000	3773769.40000	0.00201	109.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379364.30000	3773769.40000	0.00195	109.10	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379373.40000	3773769.40000	0.00188	109.40	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379382.50000	3773769.40000</								

379391.60000	3773754.20000	0.00186	109.30	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379400.70000	3773754.20000	0.00181	109.50	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379409.80000	3773754.20000	0.00175	109.80	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379418.90000	3773754.20000	0.00170	110.00	347.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379236.90000	3773746.60000	0.00329	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379246.00000	3773746.60000	0.00319	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379255.10000	3773746.60000	0.00310	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379264.20000	3773746.60000	0.00301	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379273.30000	3773746.60000	0.00291	108.10	108.10	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379282.40000	3773746.60000	0.00281	108.40	108.40	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379291.50000	3773746.60000	0.00272	108.70	108.70	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379300.60000	3773746.60000	0.00262	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379309.70000	3773746.60000	0.00254	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379318.80000	3773746.60000	0.00245	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379327.90000	3773746.60000	0.00238	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379337.00000	3773746.60000	0.00230	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379346.10000	3773746.60000	0.00223	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379355.20000	3773746.60000	0.00216	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379364.30000	3773746.60000	0.00209	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379373.40000	3773746.60000	0.00203	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379382.50000	3773746.60000	0.00197	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379391.60000	3773746.60000	0.00192	109.10	109.10	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379400.70000	3773746.60000	0.00185	109.40	109.40	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379409.80000	3773746.60000	0.00179	109.70	109.70	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379418.90000	3773746.60000	0.00174	110.00	110.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379236.90000	3773739.00000	0.00339	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379246.00000	3773739.00000	0.00329	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379255.10000	3773739.00000	0.00319	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379264.20000	3773739.00000	0.00309	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379273.30000	3773739.00000	0.00299	108.10	108.10	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379282.40000	3773739.00000	0.00289	108.30	108.30	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379291.50000	3773739.00000	0.00279	108.60	108.60	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379300.60000	3773739.00000	0.00270	108.70	108.70	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379309.70000	3773739.00000</								

379318.80000	3773723.80000	0.00268	108.20	108.20	0.00	ANNUAL	FREEWAY	00000005	25PQT021
379327.90000	3773723.80000	0.00260	108.20	108.20	0.00	ANNUAL	FREEWAY	00000005	25PQT021
379337.00000	3773723.80000	0.00251	108.40	108.40	0.00	ANNUAL	FREEWAY	00000005	25PQT021
379346.10000	3773723.80000	0.00242	108.70	108.70	0.00	ANNUAL	FREEWAY	00000005	25PQT021
379355.20000	3773723.80000	0.00234	108.90	108.90	0.00	ANNUAL	FREEWAY	00000005	25PQT021
379364.30000	3773723.80000	0.00226	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT021
379373.40000	3773723.80000	0.00219	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT021
379382.50000	3773723.80000	0.00213	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT021
379391.60000	3773723.80000	0.00207	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT021
379400.70000	3773723.80000	0.00201	109.10	109.10	0.00	ANNUAL	FREEWAY	00000005	25PQT021
379409.80000	3773723.80000	0.00195	109.20	109.20	0.00	ANNUAL	FREEWAY	00000005	25PQT021
379418.90000	3773723.80000	0.00190	109.20	109.20	0.00	ANNUAL	FREEWAY	00000005	25PQT021
379236.90000	3773716.20000	0.00371	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT021
379246.00000	3773716.20000	0.00360	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT021
379255.10000	3773716.20000	0.00349	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT021
379264.20000	3773716.20000	0.00338	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT021
379273.30000	3773716.20000	0.00327	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT021
379282.40000	3773716.20000	0.00316	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT021
379291.50000	3773716.20000	0.00306	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT021
379300.60000	3773716.20000	0.00296	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT021
379309.70000	3773716.20000	0.00286	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT021
379318.80000	3773716.20000	0.00277	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT021
379327.90000	3773716.20000	0.00268	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT021
379337.00000	3773716.20000	0.00258	108.30	108.30	0.00	ANNUAL	FREEWAY	00000005	25PQT021
379346.10000	3773716.20000	0.00249	108.60	108.60	0.00	ANNUAL	FREEWAY	00000005	25PQT021
379355.20000	3773716.20000	0.00240	108.90	108.90	0.00	ANNUAL	FREEWAY	00000005	25PQT021
379364.30000	3773716.20000	0.00232	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT021
379373.40000	3773716.20000	0.00225	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT021
379382.50000	3773716.20000	0.00219	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT021
379391.60000	3773716.20000	0.00212	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT021
379400.70000	3773716.20000	0.00207	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT021
379409.80000	3773716.20000	0.00201	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT021
379418.90000	3773716.20000	0.00196	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT021
379236.90000	3773708.60000</								

379246.00000	3773693.40000	0.00397	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379255.10000	3773693.40000	0.00384	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379264.20000	3773693.40000	0.00371	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379273.30000	3773693.40000	0.00359	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379282.40000	3773693.40000	0.00346	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379291.50000	3773693.40000	0.00335	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379300.60000	3773693.40000	0.00323	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379309.70000	3773693.40000	0.00312	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379318.80000	3773693.40000	0.00302	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379327.90000	3773693.40000	0.00292	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379337.00000	3773693.40000	0.00282	108.10	108.10	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379346.10000	3773693.40000	0.00273	108.10	108.10	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379355.20000	3773693.40000	0.00264	108.20	108.20	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379364.30000	3773693.40000	0.00255	108.40	108.40	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379373.40000	3773693.40000	0.00246	108.60	108.60	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379382.50000	3773693.40000	0.00238	108.80	108.80	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379391.60000	3773693.40000	0.00230	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379400.70000	3773693.40000	0.00224	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379409.80000	3773693.40000	0.00218	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379418.90000	3773693.40000	0.00212	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379236.90000	3773685.80000	0.00424	107.90	107.90	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379246.00000	3773685.80000	0.00410	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379255.10000	3773685.80000	0.00397	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379264.20000	3773685.80000	0.00383	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379273.30000	3773685.80000	0.00370	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379282.40000	3773685.80000	0.00357	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379291.50000	3773685.80000	0.00345	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379300.60000	3773685.80000	0.00333	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379309.70000	3773685.80000	0.00322	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379318.80000	3773685.80000	0.00311	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379327.90000	3773685.80000	0.00300	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379337.00000	3773685.80000	0.00290	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379346.10000	3773685.80000	0.00281	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379355.20000	3773685.80000</								

379364.30000	3773670.60000	0.00279	108.10	108.10	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379373.40000	3773670.60000	0.00270	108.20	108.20	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379382.50000	3773670.60000	0.00261	108.40	108.40	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379391.60000	3773670.60000	0.00253	108.50	108.50	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379400.70000	3773670.60000	0.00245	108.70	108.70	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379409.80000	3773670.60000	0.00237	108.80	108.80	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379418.90000	3773670.60000	0.00230	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379236.90000	3773663.00000	0.00474	107.20	107.20	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379246.00000	3773663.00000	0.00458	107.20	107.20	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379255.10000	3773663.00000	0.00442	107.20	107.20	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379264.20000	3773663.00000	0.00426	107.20	107.20	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379273.30000	3773663.00000	0.00411	107.30	107.30	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379282.40000	3773663.00000	0.00395	107.60	107.60	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379291.50000	3773663.00000	0.00380	107.80	107.80	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379300.60000	3773663.00000	0.00366	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379309.70000	3773663.00000	0.00353	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379318.80000	3773663.00000	0.00340	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379327.90000	3773663.00000	0.00329	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379337.00000	3773663.00000	0.00317	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379346.10000	3773663.00000	0.00307	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379355.20000	3773663.00000	0.00297	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379364.30000	3773663.00000	0.00287	108.00	108.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379373.40000	3773663.00000	0.00278	108.10	108.10	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379382.50000	3773663.00000	0.00269	108.20	108.20	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379391.60000	3773663.00000	0.00261	108.30	108.30	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379400.70000	3773663.00000	0.00252	108.50	108.50	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379409.80000	3773663.00000	0.00244	108.80	108.80	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379418.90000	3773663.00000	0.00237	109.00	109.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379236.90000	3773655.40000	0.00492	107.00	107.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379246.00000	3773655.40000	0.00475	107.00	107.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379255.10000	3773655.40000	0.00458	107.00	107.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379264.20000	3773655.40000	0.00442	107.00	107.00	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379273.30000	3773655.40000	0.00426	107.10	107.10	0.00	ANNUAL	FREEWAY	00000005	25PQT02I
379282.40000	3773655.40000</								

** AERMAP - VERSION 18081

09/30/21

** 14:35:56

** 5420 Sunset Boulevard Project -

** Update to Include Source Terms (Heavy Duty Trucks) From Project

** A total of 1 DEM files were used

** A total of 445 receptors were processed

** No user-specified DOMAIN; all available data used

** ANCHORXY 0 0 0 0 11 3

** TERRHGTs EXTRACT

RE ELEVUNIT METERS

RE GRIDCART 25PQT02I STA

RE GRIDCART 25PQT02I XYINC 379236.9 21 9.1 3773799.8 21 -7.6

GRIDCART 25PQT02I ELEV	1	109.0	109.0	109.0	109.0	109.0	109.0
GRIDCART 25PQT02I ELEV	1	109.0	109.0	109.0	109.0	109.0	109.0
GRIDCART 25PQT02I ELEV	1	109.0	109.0	109.2	109.5	109.8	110.0
GRIDCART 25PQT02I ELEV	1	110.0	110.0	110.0			
GRIDCART 25PQT02I ELEV	2	109.0	109.0	109.0	109.0	109.0	109.0
GRIDCART 25PQT02I ELEV	2	109.0	109.0	109.0	109.0	109.0	109.0
GRIDCART 25PQT02I ELEV	2	109.0	109.0	109.2	109.5	109.8	110.0
GRIDCART 25PQT02I ELEV	2	110.0	110.0	110.0			
GRIDCART 25PQT02I ELEV	3	109.0	109.0	109.0	109.0	109.0	109.0
GRIDCART 25PQT02I ELEV	3	109.0	109.0	109.0	109.0	109.0	109.0
GRIDCART 25PQT02I ELEV	3	109.0	109.0	109.2	109.5	109.8	110.0
GRIDCART 25PQT02I ELEV	3	110.0	110.0	110.0			
GRIDCART 25PQT02I ELEV	4	109.0	109.0	109.0	109.0	109.0	109.0
GRIDCART 25PQT02I ELEV	4	109.0	109.0	109.0	109.0	109.0	109.0
GRIDCART 25PQT02I ELEV	4	109.0	109.0	109.2	109.5	109.8	110.0
GRIDCART 25PQT02I ELEV	4	110.0	110.0	110.0			
GRIDCART 25PQT02I ELEV	5	108.7	108.7	108.7	108.7	108.8	108.9
GRIDCART 25PQT02I ELEV	5	108.9	109.0	109.0	109.0	109.0	109.0
GRIDCART 25PQT02I ELEV	5	109.0	109.0	109.1	109.4	109.6	109.8
GRIDCART 25PQT02I ELEV	5	109.8	109.9	110.0			
GRIDCART 25PQT02I ELEV	6	108.5	108.5	108.5	108.5	108.6	108.7
GRIDCART 25PQT02I ELEV	6	108.9	109.0	109.0	109.0	109.0	109.0
GRIDCART 25PQT02I ELEV	6	109.0	109.0	109.1	109.2	109.4	109.5
GRIDCART 25PQT02I ELEV	6	109.7	109.8	110.0			
GRIDCART 25PQT02I ELEV	7	108.2	108.2	108.2	108.2	108.4	108.6
GRIDCART 25PQT02I ELEV	7	108.8	109.0	109.0	109.0	109.0	109.0
GRIDCART 25PQT02I ELEV	7	109.0	109.0	109.0	109.1	109.2	109.3
GRIDCART 25PQT02I ELEV	7	109.5	109.8	110.0			
GRIDCART 25PQT02I ELEV	8	108.0	108.0	108.0	108.0	108.1	108.4
GRIDCART 25PQT02I ELEV	8	108.7	109.0	109.0	109.0	109.0	109.0
GRIDCART 25PQT02I ELEV	8	109.0	109.0	109.0	109.0	109.0	109.1
GRIDCART 25PQT02I ELEV	8	109.4	109.7	110.0			
GRIDCART 25PQT02I ELEV	9	108.0	108.0	108.0	108.0	108.1	108.3
GRIDCART 25PQT02I ELEV	9	108.6	108.7	108.7	108.7	108.7	108.8
GRIDCART 25PQT02I ELEV	9	108.9	109.0	109.0	109.0	109.0	109.1
GRIDCART 25PQT02I ELEV	9	109.3	109.5	109.7			
GRIDCART 25PQT02I ELEV	10	108.0	108.0	108.0	108.0	108.1	108.2
GRIDCART 25PQT02I ELEV	10	108.4	108.5	108.5	108.5	108.5	108.6
GRIDCART 25PQT02I ELEV	10	108.8	108.9	109.0	109.0	109.0	109.0
GRIDCART 25PQT02I ELEV	10	109.2	109.3	109.5			

GRIDCART 25PQT02I ELEV	11	108.0	108.0	108.0	108.0	108.0	108.1
GRIDCART 25PQT02I ELEV	11	108.2	108.2	108.2	108.2	108.2	108.4
GRIDCART 25PQT02I ELEV	11	108.7	108.9	109.0	109.0	109.0	109.0
GRIDCART 25PQT02I ELEV	11	109.1	109.2	109.2			
GRIDCART 25PQT02I ELEV	12	108.0	108.0	108.0	108.0	108.0	108.0
GRIDCART 25PQT02I ELEV	12	108.0	108.0	108.0	108.0	108.0	108.3
GRIDCART 25PQT02I ELEV	12	108.6	108.9	109.0	109.0	109.0	109.0
GRIDCART 25PQT02I ELEV	12	109.0	109.0	109.0			
GRIDCART 25PQT02I ELEV	13	108.0	108.0	108.0	108.0	108.0	108.0
GRIDCART 25PQT02I ELEV	13	108.0	108.0	108.0	108.0	108.0	108.2
GRIDCART 25PQT02I ELEV	13	108.4	108.6	108.8	108.9	108.9	109.0
GRIDCART 25PQT02I ELEV	13	109.0	109.0	109.0			
GRIDCART 25PQT02I ELEV	14	108.0	108.0	108.0	108.0	108.0	108.0
GRIDCART 25PQT02I ELEV	14	108.0	108.0	108.0	108.0	108.0	108.1
GRIDCART 25PQT02I ELEV	14	108.3	108.4	108.6	108.7	108.9	109.0
GRIDCART 25PQT02I ELEV	14	109.0	109.0	109.0			
GRIDCART 25PQT02I ELEV	15	107.9	108.0	108.0	108.0	108.0	108.0
GRIDCART 25PQT02I ELEV	15	108.0	108.0	108.0	108.0	108.0	108.1
GRIDCART 25PQT02I ELEV	15	108.1	108.2	108.4	108.6	108.8	109.0
GRIDCART 25PQT02I ELEV	15	109.0	109.0	109.0			
GRIDCART 25PQT02I ELEV	16	107.9	108.0	108.0	108.0	108.0	108.0
GRIDCART 25PQT02I ELEV	16	108.0	108.0	108.0	108.0	108.0	108.0
GRIDCART 25PQT02I ELEV	16	108.0	108.0	108.2	108.5	108.8	109.0
GRIDCART 25PQT02I ELEV	16	109.0	109.0	109.0			
GRIDCART 25PQT02I ELEV	17	107.7	107.7	107.7	107.7	107.8	107.8
GRIDCART 25PQT02I ELEV	17	107.9	108.0	108.0	108.0	108.0	108.0
GRIDCART 25PQT02I ELEV	17	108.0	108.0	108.1	108.3	108.6	108.7
GRIDCART 25PQT02I ELEV	17	108.8	108.9	109.0			
GRIDCART 25PQT02I ELEV	18	107.4	107.5	107.5	107.5	107.5	107.7
GRIDCART 25PQT02I ELEV	18	107.9	108.0	108.0	108.0	108.0	108.0
GRIDCART 25PQT02I ELEV	18	108.0	108.0	108.1	108.2	108.4	108.5
GRIDCART 25PQT02I ELEV	18	108.7	108.8	109.0			
GRIDCART 25PQT02I ELEV	19	107.2	107.2	107.2	107.2	107.3	107.6
GRIDCART 25PQT02I ELEV	19	107.8	108.0	108.0	108.0	108.0	108.0
GRIDCART 25PQT02I ELEV	19	108.0	108.0	108.0	108.1	108.2	108.3
GRIDCART 25PQT02I ELEV	19	108.5	108.8	109.0			
GRIDCART 25PQT02I ELEV	20	107.0	107.0	107.0	107.0	107.1	107.4
GRIDCART 25PQT02I ELEV	20	107.7	108.0	108.0	108.0	108.0	108.0
GRIDCART 25PQT02I ELEV	20	108.0	108.0	108.0	108.0	108.0	108.1
GRIDCART 25PQT02I ELEV	20	108.4	108.7	109.0			
GRIDCART 25PQT02I ELEV	21	107.0	107.0	107.0	107.0	107.1	107.3
GRIDCART 25PQT02I ELEV	21	107.5	107.7	107.8	107.9	108.0	108.0
GRIDCART 25PQT02I ELEV	21	108.0	108.0	108.0	108.0	108.0	108.1
GRIDCART 25PQT02I ELEV	21	108.4	108.7	109.0			
GRIDCART 25PQT02I HILL	1	109.0	347.0	347.0	347.0	347.0	347.0
GRIDCART 25PQT02I HILL	1	347.0	347.0	347.0	347.0	347.0	347.0
GRIDCART 25PQT02I HILL	1	347.0	347.0	347.0	347.0	347.0	347.0
GRIDCART 25PQT02I HILL	1	347.0	347.0	347.0			
GRIDCART 25PQT02I HILL	2	109.0	109.0	109.0	347.0	347.0	347.0
GRIDCART 25PQT02I HILL	2	347.0	347.0	347.0	347.0	347.0	347.0
GRIDCART 25PQT02I HILL	2	347.0	347.0	347.0	347.0	347.0	347.0
GRIDCART 25PQT02I HILL	2	347.0	347.0	347.0			
GRIDCART 25PQT02I HILL	3	109.0	109.0	109.0	109.0	109.0	347.0
GRIDCART 25PQT02I HILL	3	347.0	347.0	347.0	347.0	347.0	347.0

GRIDCART 25PQT02I HILL	3	347.0	347.0	347.0	347.0	347.0	347.0
GRIDCART 25PQT02I HILL	3	347.0	347.0	347.0			
GRIDCART 25PQT02I HILL	4	109.0	109.0	109.0	109.0	109.0	109.0
GRIDCART 25PQT02I HILL	4	109.0	109.0	347.0	347.0	347.0	347.0
GRIDCART 25PQT02I HILL	4	347.0	347.0	347.0	347.0	347.0	347.0
GRIDCART 25PQT02I HILL	4	347.0	347.0	347.0			
GRIDCART 25PQT02I HILL	5	108.7	108.7	108.7	108.7	108.8	108.9
GRIDCART 25PQT02I HILL	5	108.9	109.0	109.0	109.0	347.0	347.0
GRIDCART 25PQT02I HILL	5	347.0	347.0	347.0	347.0	347.0	347.0
GRIDCART 25PQT02I HILL	5	347.0	347.0	347.0			
GRIDCART 25PQT02I HILL	6	108.5	108.5	108.5	108.5	108.6	108.7
GRIDCART 25PQT02I HILL	6	108.9	109.0	109.0	109.0	109.0	109.0
GRIDCART 25PQT02I HILL	6	109.0	347.0	347.0	347.0	347.0	347.0
GRIDCART 25PQT02I HILL	6	347.0	347.0	347.0			
GRIDCART 25PQT02I HILL	7	108.2	108.2	108.2	108.2	108.4	108.6
GRIDCART 25PQT02I HILL	7	108.8	109.0	109.0	109.0	109.0	109.0
GRIDCART 25PQT02I HILL	7	109.0	109.0	109.0	109.1	347.0	347.0
GRIDCART 25PQT02I HILL	7	347.0	347.0	347.0			
GRIDCART 25PQT02I HILL	8	108.0	108.0	108.0	108.0	108.1	108.4
GRIDCART 25PQT02I HILL	8	108.7	109.0	109.0	109.0	109.0	109.0
GRIDCART 25PQT02I HILL	8	109.0	109.0	109.0	109.0	109.0	109.1
GRIDCART 25PQT02I HILL	8	109.4	109.7	110.0			
GRIDCART 25PQT02I HILL	9	108.0	108.0	108.0	108.0	108.1	108.3
GRIDCART 25PQT02I HILL	9	108.6	108.7	108.7	108.7	108.7	108.8
GRIDCART 25PQT02I HILL	9	108.9	109.0	109.0	109.0	109.0	109.1
GRIDCART 25PQT02I HILL	9	109.3	109.5	109.7			
GRIDCART 25PQT02I HILL	10	108.0	108.0	108.0	108.0	108.1	108.2
GRIDCART 25PQT02I HILL	10	108.4	108.5	108.5	108.5	108.5	108.6
GRIDCART 25PQT02I HILL	10	108.8	108.9	109.0	109.0	109.0	109.0
GRIDCART 25PQT02I HILL	10	109.2	109.3	109.5			
GRIDCART 25PQT02I HILL	11	108.0	108.0	108.0	108.0	108.0	108.1
GRIDCART 25PQT02I HILL	11	108.2	108.2	108.2	108.2	108.2	108.4
GRIDCART 25PQT02I HILL	11	108.7	108.9	109.0	109.0	109.0	109.0
GRIDCART 25PQT02I HILL	11	109.1	109.2	109.2			
GRIDCART 25PQT02I HILL	12	108.0	108.0	108.0	108.0	108.0	108.0
GRIDCART 25PQT02I HILL	12	108.0	108.0	108.0	108.0	108.0	108.3
GRIDCART 25PQT02I HILL	12	108.6	108.9	109.0	109.0	109.0	109.0
GRIDCART 25PQT02I HILL	12	109.0	109.0	109.0			
GRIDCART 25PQT02I HILL	13	108.0	108.0	108.0	108.0	108.0	108.0
GRIDCART 25PQT02I HILL	13	108.0	108.0	108.0	108.0	108.0	108.2
GRIDCART 25PQT02I HILL	13	108.4	108.6	108.8	108.9	108.9	109.0
GRIDCART 25PQT02I HILL	13	109.0	109.0	109.0			
GRIDCART 25PQT02I HILL	14	108.0	108.0	108.0	108.0	108.0	108.0
GRIDCART 25PQT02I HILL	14	108.0	108.0	108.0	108.0	108.0	108.1
GRIDCART 25PQT02I HILL	14	108.3	108.4	108.6	108.7	108.9	109.0
GRIDCART 25PQT02I HILL	14	109.0	109.0	109.0			
GRIDCART 25PQT02I HILL	15	107.9	108.0	108.0	108.0	108.0	108.0
GRIDCART 25PQT02I HILL	15	108.0	108.0	108.0	108.0	108.0	108.1
GRIDCART 25PQT02I HILL	15	108.1	108.2	108.4	108.6	108.8	109.0
GRIDCART 25PQT02I HILL	15	109.0	109.0	109.0			
GRIDCART 25PQT02I HILL	16	107.9	108.0	108.0	108.0	108.0	108.0
GRIDCART 25PQT02I HILL	16	108.0	108.0	108.0	108.0	108.0	108.0
GRIDCART 25PQT02I HILL	16	108.0	108.0	108.2	108.5	108.8	109.0
GRIDCART 25PQT02I HILL	16	109.0	109.0	109.0			

GRIDCART 25PQT02I HILL	17	107.7	107.7	107.7	107.7	107.8	107.8
GRIDCART 25PQT02I HILL	17	107.9	108.0	108.0	108.0	108.0	108.0
GRIDCART 25PQT02I HILL	17	108.0	108.0	108.1	108.3	108.6	108.7
GRIDCART 25PQT02I HILL	17	108.8	108.9	109.0			
GRIDCART 25PQT02I HILL	18	107.4	107.5	107.5	107.5	107.5	107.7
GRIDCART 25PQT02I HILL	18	107.9	108.0	108.0	108.0	108.0	108.0
GRIDCART 25PQT02I HILL	18	108.0	108.0	108.1	108.2	108.4	108.5
GRIDCART 25PQT02I HILL	18	108.7	108.8	109.0			
GRIDCART 25PQT02I HILL	19	107.2	107.2	107.2	107.2	107.3	107.6
GRIDCART 25PQT02I HILL	19	107.8	108.0	108.0	108.0	108.0	108.0
GRIDCART 25PQT02I HILL	19	108.0	108.0	108.0	108.1	108.2	108.3
GRIDCART 25PQT02I HILL	19	108.5	108.8	109.0			
GRIDCART 25PQT02I HILL	20	107.0	107.0	107.0	107.0	107.1	107.4
GRIDCART 25PQT02I HILL	20	107.7	108.0	108.0	108.0	108.0	108.0
GRIDCART 25PQT02I HILL	20	108.0	108.0	108.0	108.0	108.0	108.1
GRIDCART 25PQT02I HILL	20	108.4	108.7	109.0			
GRIDCART 25PQT02I HILL	21	107.0	107.0	107.0	107.0	107.1	107.3
GRIDCART 25PQT02I HILL	21	107.5	107.7	107.8	107.9	108.0	108.0
GRIDCART 25PQT02I HILL	21	108.0	108.0	108.0	108.0	108.0	108.1
GRIDCART 25PQT02I HILL	21	108.4	108.7	109.0			

RE GRIDCART 25PQT02I END

DISCCART	378701.50	3773634.90	105.91	105.91
DISCCART	378482.50	3773427.50	102.00	102.00
DISCCART	378622.80	3773348.80	101.00	101.00
DISCCART	378899.10	3773999.00	113.40	238.00

Attachment C: Health Risk Analysis Outputs

GLCs loaded successfully

Pollutants loaded successfully

RISK SCENARIO SETTINGS

Receptor Type: Resident

Scenario: All

Calculation Method: Derived

EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: -0.25

Total Exposure Duration: 30

Exposure Duration Bin Distribution

3rd Trimester Bin: 0.25

0<2 Years Bin: 2

2<9 Years Bin: 0

2<16 Years Bin: 14

16<30 Years Bin: 14

16 to 70 Years Bin: 0

PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True

Soil: False

Dermal: False

Mother's milk: False

Water: False

Fish: False

Homegrown crops: False

Beef: False

Dairy: False

Pig: False

Chicken: False

Egg: False

INHALATION

Daily breathing rate: LongTerm24HR

Worker Adjustment Factors

Worker adjustment factors enabled: NO

Fraction at time at home

3rd Trimester to 16 years: OFF

16 years to 70 years: OFF

TIER 2 SETTINGS

Tier2 not used.

Calculating cancer risk

Cancer risk saved to: C:\Users\jclar\OneDrive\Desktop\Clark and Associates\Project 125 - ABJC - 5420 Sunset Blvd\Comments\max community riskCancerRisk.csv

Calculating chronic risk

Chronic risk saved to: C:\Users\jclar\OneDrive\Desktop\Clark and Associates\Project 125 - ABJC - 5420 Sunset Blvd\Comments\max community riskNCChronicRisk.csv

Calculating acute risk

Acute risk saved to: C:\Users\jclar\OneDrive\Desktop\Clark and Associates\Project 125 - ABJC - 5420 Sunset Blvd\Comments\max community riskNCAcuteRisk.csv

HRA ran successfully

GLCs loaded successfully

Pollutants loaded successfully

RISK SCENARIO SETTINGS

Receptor Type: Resident

Scenario: All

Calculation Method: Derived

EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: 4

Total Exposure Duration: 7

Exposure Duration Bin Distribution

3rd Trimester Bin: 0

0<2 Years Bin: 0

2<9 Years Bin: 5

2<16 Years Bin: 2

16<30 Years Bin: 0

16 to 70 Years Bin: 0

PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True

Soil: False

Dermal: False

Mother's milk: False

Water: False

Fish: False

Homegrown crops: False

Beef: False

Dairy: False

Pig: False

Chicken: False

Egg: False

INHALATION

Daily breathing rate: LongTerm24HR

Worker Adjustment Factors

Worker adjustment factors enabled: NO

Fraction at time at home

3rd Trimester to 16 years: OFF

16 years to 70 years: OFF

TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.

Tier2 - What was changed: ED or start age changed|

Calculating cancer risk

Cancer risk saved to: C:\Users\jclar\OneDrive\Desktop\Clark and Associates\Project 125 - ABJC - 5420 Sunset Blvd\Comments\max grant elementary schoolCancerRisk.csv

Calculating chronic risk

Chronic risk saved to: C:\Users\jclar\OneDrive\Desktop\Clark and Associates\Project 125 - ABJC - 5420 Sunset Blvd\Comments\max grant elementary schoolNCChronicRisk.csv

Calculating acute risk

Acute risk saved to: C:\Users\jclar\OneDrive\Desktop\Clark and Associates\Project 125 - ABJC - 5420 Sunset Blvd\Comments\max grant elementary schoolNCAcuteRisk.csv

HRA ran successfully

GLCs loaded successfully

Pollutants loaded successfully

RISK SCENARIO SETTINGS

Receptor Type: Resident

Scenario: All

Calculation Method: Derived

EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: 12

Total Exposure Duration: 4

Exposure Duration Bin Distribution

3rd Trimester Bin: 0

0<2 Years Bin: 0

2<9 Years Bin: 0

2<16 Years Bin: 4

16<30 Years Bin: 0

16 to 70 Years Bin: 0

PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True

Soil: False

Dermal: False

Mother's milk: False

Water: False

Fish: False

Homegrown crops: False

Beef: False

Dairy: False

Pig: False

Chicken: False

Egg: False

INHALATION

Daily breathing rate: LongTerm24HR

Worker Adjustment Factors

Worker adjustment factors enabled: NO

Fraction at time at home

3rd Trimester to 16 years: OFF

16 years to 70 years: OFF

TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.

Tier2 - What was changed: ED or start age changed|

Calculating cancer risk

Cancer risk saved to: C:\Users\jclar\OneDrive\Desktop\Clark and Associates\Project 125 - ABJC - 5420 Sunset Blvd\Comments\max high schoolCancerRisk.csv

Calculating chronic risk

Chronic risk saved to: C:\Users\jclar\OneDrive\Desktop\Clark and Associates\Project 125 - ABJC - 5420 Sunset Blvd\Comments\max high schoolNCChronicRisk.csv

Calculating acute risk

Acute risk saved to: C:\Users\jclar\OneDrive\Desktop\Clark and Associates\Project 125 - ABJC - 5420 Sunset Blvd\Comments\max high schoolNCAcuteRisk.csv

HRA ran successfully

GLCs loaded successfully

Pollutants loaded successfully

RISK SCENARIO SETTINGS

Receptor Type: Resident

Scenario: All

Calculation Method: Derived

EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: 11

Total Exposure Duration: 2

Exposure Duration Bin Distribution

3rd Trimester Bin: 0

0<2 Years Bin: 0

2<9 Years Bin: 0

2<16 Years Bin: 2

16<30 Years Bin: 0

16 to 70 Years Bin: 0

PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True

Soil: False

Dermal: False

Mother's milk: False

Water: False

Fish: False

Homegrown crops: False

Beef: False

Dairy: False

Pig: False

Chicken: False

Egg: False

INHALATION

Daily breathing rate: LongTerm24HR

Worker Adjustment Factors

Worker adjustment factors enabled: NO

Fraction at time at home

3rd Trimester to 16 years: OFF

16 years to 70 years: OFF

TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.

Tier2 - What was changed: ED or start age changed|

Calculating cancer risk

Cancer risk saved to: C:\Users\jclar\OneDrive\Desktop\Clark and Associates\Project 125 - ABJC - 5420 Sunset Blvd\Comments\max le conte middle schoolCancerRisk.csv

Calculating chronic risk

Chronic risk saved to: C:\Users\jclar\OneDrive\Desktop\Clark and Associates\Project 125 - ABJC - 5420 Sunset Blvd\Comments\max le conte middle schoolNCChronicRisk.csv

Calculating acute risk

Acute risk saved to: C:\Users\jclar\OneDrive\Desktop\Clark and Associates\Project 125 - ABJC - 5420 Sunset Blvd\Comments\max le conte middle schoolNCAcuteRisk.csv

HRA ran successfully

GLCs loaded successfully

Pollutants loaded successfully

RISK SCENARIO SETTINGS

Receptor Type: Resident

Scenario: All

Calculation Method: Derived

EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: -0.25

Total Exposure Duration: 30

Exposure Duration Bin Distribution

3rd Trimester Bin: 0.25

0<2 Years Bin: 2

2<9 Years Bin: 0

2<16 Years Bin: 14

16<30 Years Bin: 14

16 to 70 Years Bin: 0

PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True

Soil: False

Dermal: False

Mother's milk: False

Water: False

Fish: False

Homegrown crops: False

Beef: False

Dairy: False

Pig: False

Chicken: False

Egg: False

INHALATION

Daily breathing rate: LongTerm24HR

Worker Adjustment Factors

Worker adjustment factors enabled: NO

Fraction at time at home

3rd Trimester to 16 years: OFF

16 years to 70 years: OFF

TIER 2 SETTINGS

Tier2 not used.

Calculating cancer risk

Cancer risk saved to: C:\Users\jclar\OneDrive\Desktop\Clark and Associates\Project 125 - ABJC - 5420 Sunset Blvd\Comments\max site riskCancerRisk.csv

Calculating chronic risk

Chronic risk saved to: C:\Users\jclar\OneDrive\Desktop\Clark and Associates\Project 125 - ABJC - 5420 Sunset Blvd\Comments\max site riskNCChronicRisk.csv

Calculating acute risk

Acute risk saved to: C:\Users\jclar\OneDrive\Desktop\Clark and Associates\Project 125 - ABJC - 5420 Sunset Blvd\Comments\max site riskNCAcuteRisk.csv

HRA ran successfully

EXHIBIT B

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Of Counsel

MARC D. JOSEPH
DANIEL L. CARDOZO

August 20, 2021

*Not admitted in California.
Licensed in Colorado.

Via Email and U.S. Mail

Vince Bertoni, Director of Planning
City Planning Department
City of Los Angeles
200 N. Spring St., Suite 525
Los Angeles, CA 90012
Email: vince.bertoni@lacity.org

Holly L. Wolcott, City Clerk
Office of the City Clerk
200 N. Spring Street
City Hall - Room 360
Los Angeles, CA 90012
Email: CityClerk@lacity.org

Via Email Only

Polonia Majas, Planner
Email: polonia.majas@lacity.org

Re: Request for Immediate Access to All Documents Referenced in the Draft Environmental Impact Report for 5420 Sunset Project (Case No. ENV-2017-1084-EIR)

Dear Mr. Bertoni, Ms. Wolcott, and Ms. Majas,

We are writing on behalf of Coalition for Responsible Equitable Economic Development ("CREED LA") to request ***immediate access*** to any and all documents referenced, incorporated by reference, or relied upon in the Draft Environmental Impact Report ("DEIR") prepared for the 5420 Sunset Project (Case No. ENV-2017-1084-EIR) ("Project"), proposed by 5420 Sunset Boulevard LP, LLC ("Applicant"). This request excludes any documents that are currently available by URL link in the "References" sections of the DEIR.

The Project proposes the development of four six-story mixed-use buildings across 882,250 square feet. The Project consists of 735 multi-family residential units, as well as residential lobbies and leasing offices, pools, spas, and recreational facilities, and up to 95,000 square feet of commercial uses, including market/retail and restaurant uses. The Project also proposes approximately 96,800 square feet of open space including landscaped courtyards, a public plaza, and landscaped paseos,

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August 20, 2021
Page 2

as well as 1,419 parking spaces in two subterranean parking levels and one at-grade parking level, and 548 bicycle parking spaces. The Project site is located at 5420 Sunset Boulevard, in the City of Los Angeles.

Our request for ***immediate access*** to all documents referenced in the DEIR is made pursuant to the California Environmental Quality Act (“CEQA”), which requires that all documents referenced, incorporated by reference, and relied upon in an environmental review document be made available to the public for the entire comment period.¹ I will be contacting you to arrange for the review/duplication/transmission of the requested records soon. In the interim, if you have any questions or concerns regarding this request, my contact information is:

U.S. Mail

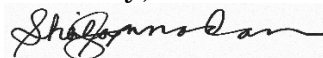
Sheila Sannadan
Adams Broadwell Joseph & Cardozo
601 Gateway Boulevard, Suite 1000
South San Francisco, CA 94080-7037

Email

ssannadan@adamsbroadwell.com

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

¹ See Public Resources Code § 21092(b)(1) (stating that “all documents referenced in the draft environmental impact report” shall be made “available for review”); 14 Cal. Code Reg. § 15087(c)(5) (stating that all documents incorporated by reference in the EIR . . . shall be readily accessible to the public”); see also *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 442, as modified (Apr. 18, 2007) (EIR must transparently incorporate and describe the reference materials relied on in its analysis); *Santiago County Water District v. County of Orange* (1981) 118 Cal.App.3rd 818, 831 (“[W]hatever is required to be considered in an EIR must be in that formal report. . .”), internal citations omitted.

L5451-001acp

EXHIBIT C

Lorrie J. LeLe

From: Sheila M. Sannadan
Sent: Tuesday, September 28, 2021 11:09 AM
To: polonia.majas@lacity.org
Cc: vince.bertoni@lacity.org; beatrice.pacheco@lacity.org; william.lamborn@lacity.org; lourdes.sanchez@lacity.org; Aidan P. Marshall
Subject: 5420 Sunset Project - AERMOD files (native format)

Good Morning Ms. Majas,

We are requesting *immediate access* to files from the DEIR's AERMOD dispersion model analysis for the 5420 Sunset Project. Specifically, we request access to the unlocked, underlying AERMOD files in their native format. These unlocked files are necessary for us to validate the findings in the DEIR's Health Risk Assessment. Our request is made pursuant to Pub. Resources Code § 21092(b)(1), which requires that "all documents referenced" and "all documents incorporated by reference" in an environmental review document shall be "readily accessible to the public during the lead agency's normal working hours" during the entire public comment period. On August 20, 2021, we requested that the City provide immediate access to any and all documents referenced or relied upon in the DEIR prepared for the Project. In response, the City provided us access to a physical case file in the City's planning department office. This file was missing the aforementioned AERMOD files.

Given the shortness of time before the current comment deadline on the DEIR, please send us the files via email as soon as possible.

Thank you for your assistance.

Regards,
Sheila

Sheila Sannadan
Legal Assistant
Adams Broadwell Joseph & Cardozo
601 Gateway Boulevard, Suite 1000
South San Francisco, CA 94080
Phone (650) 589-1660
Fax (650) 589-5062
ssannadan@adamsbroadwell.com

EXHIBIT D

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AIDAN P. MARSHALL
TARA C. MESSING

Of Counsel

MARC D. JOSEPH
DANIEL L. CARDOZO

September 30, 2021

*Not admitted in California.
Licensed in Colorado.

VIA EMAIL AND U.S. MAIL

Polonia Majas, Planner
City of Los Angeles
Department of City Planning
221 N. Figueroa St., Suite 1350
Los Angeles, CA. 90012
Email: polonia.majas@lacity.org

VIA EMAIL ONLY

Planning Records Management
Department
Email: planning.recordsmgmt@lacity.org

Vince Bertoni, Director of Planning
Email: vince.bertoni@lacity.org

Beatrice Pacheco, Chief Clerk
Los Angeles City Planning
Records Management
Email: beatrice.pacheco@lacity.org

VIA ONLINE PRA PORTAL

<https://clerk.lacity.org/contact-us/RecordsRequest>

**Re: Request to Extend the Public Review and Comment Period for
the Draft Environmental Impact Report for 5420 Sunset Project
(Case No. ENV-2017-1084-EIR).**

Dear Ms. Majas and Planning Records Management Department:

On behalf of Coalition for Responsible Equitable Economic Development Los Angeles ("CREED LA"), we respectfully request that the City of Los Angeles ("City") extend the public review and comment period for the Draft Environmental Impact Report ("DEIR") prepared for the 5420 Sunset Project (Case No. ENV-2017-1084-EIR), proposed by 5420 Sunset Boulevard LP, LLC ("Applicant") due to the City's

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failure to provide timely access to documents referenced in the DEIR to the public for the entire comment period.

The California Environmental Quality Act (“CEQA”) and the CEQA Guidelines require that “all documents referenced” and “all documents incorporated by reference” in an environmental review document shall be “readily accessible to the public during the lead agency’s normal working hours” during the entire public comment period.¹ On August 20, 2021, we requested that the City provide immediate access to any and all documents referenced or relied upon in the DEIR prepared for the Project.² On August 30, 2021, the City informed us that the documents referenced in the Draft EIR are contained on a CD in a physical case file in the City’s planning department office.

After copying and reviewing the contents of this CD, we learned that it did not contain critical reference documents. Specifically, the City failed to provide access to files from the DEIR’s AERMOD dispersion model analysis. Access to the unlocked, underlying AERMOD files in their native format is necessary for the public to validate the findings in the DEIR’s Health Risk Assessment. As soon as we became aware these files were missing from the City’s production of documents, we emailed the City requesting immediate access to the files.³ As of the time of this letter, we have not received a response from the City regarding this request.

The courts have held that the failure to provide even a few pages of a CEQA document for a portion of the review and comment period invalidates the entire CEQA process, and that such a failure must be remedied by permitting additional public comment.⁴ It is also well settled that a CEQA document may not rely on hidden studies or documents that are not provided to the public.⁵ By failing to make all documents referenced and incorporated by reference in the DEIR “readily

¹ Pub. Resources Code § 21092(b)(1); 14 C.C.R. § 15072(g)(4); see *Ultramar v. South Coast Air Quality Man. Dist.* (1993) 17 Cal.App.4th 689, 699.

² **Exhibit A:** Letter from Adams, Broadwell, Joseph & Cardozo (“ABJC”) to the City of Los Angeles re: Request for Immediate Access to All Documents Referenced in the Draft Environmental Impact Report for 5420 Sunset Project (Case No. ENV-2017-1084-EIR) (August 20, 2021).

³ **Exhibit B:** Email from Sheila M. Sannadan, ABJC, to Polonia Majas, City of Los Angeles, re: 5420 Sunset Project - AERMOD files (native format) (September 28, 2021).

⁴ *Ultramar*, 17 Cal.App.4th at 699.

⁵ *Santiago Cty. Water Dist. v. Cty. of Orange* (1981) 118 Cal.App.3d 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.”).

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available” during the current comment period, the City is violating the clear procedural mandates of CEQA to the detriment of CREED LA and other members of the public who wish to meaningfully review and comment on the DEIR.

Without access to all of the relevant documents relied upon and incorporated by reference by the City in its preparation of the DEIR during the entire public comment period, CREED LA and other members of the public are precluded from having this meaningful opportunity to review the DEIR. In particular, the public is unable to evaluate the accuracy of the analyses contained in the DEIR and the significance of any impacts the Project may or may not have on the environment.

Accordingly, we request that:

- 1) The City immediately provide us with access to the unlocked, underlying files from the DEIR’s AERMOD dispersion model analysis in their native format, files from all other technical analyses in their native formats, as well any other documents referenced in the DEIR not included in the previous production of documents.
- 2) The City extend the public review and comment period for the DEIR by at least 30 days from the date on which the City releases these 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 Friday, October 1, 2021.

Sincerely,



Aidan P. Marshall

APM:acp

Attachments

L5451-004acp

EXHIBIT A

ADAMS BROADWELL JOSEPH & CARDOZO

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KEVIN T. CARMICHAEL
CHRISTINA M. CARO
JAVIER J. CASTRO
THOMAS A. ENSLOW
KELILAH D. FEDERMAN
ANDREW J. GRAF
TANYA A. GULESSERIAN
KENDRA D. HARTMANN*
DARIEN K. KEY
RACHAEL E. KOSS
AIDAN P. MARSHALL

Of Counsel

MARC D. JOSEPH
DANIEL L. CARDOZO

August 20, 2021

*Not admitted in California.
Licensed in Colorado.

Via Email and U.S. Mail

Vince Bertoni, Director of Planning
City Planning Department
City of Los Angeles
200 N. Spring St., Suite 525
Los Angeles, CA 90012
Email: vince.bertoni@lacity.org

Holly L. Wolcott, City Clerk
Office of the City Clerk
200 N. Spring Street
City Hall - Room 360
Los Angeles, CA 90012
Email: CityClerk@lacity.org

Via Email Only

Polonia Majas, Planner
Email: polonia.majas@lacity.org

Re: Request for Immediate Access to All Documents Referenced in the Draft Environmental Impact Report for 5420 Sunset Project (Case No. ENV-2017-1084-EIR)

Dear Mr. Bertoni, Ms. Wolcott, and Ms. Majas,

We are writing on behalf of Coalition for Responsible Equitable Economic Development ("CREED LA") to request ***immediate access*** to any and all documents referenced, incorporated by reference, or relied upon in the Draft Environmental Impact Report ("DEIR") prepared for the 5420 Sunset Project (Case No. ENV-2017-1084-EIR) ("Project"), proposed by 5420 Sunset Boulevard LP, LLC ("Applicant"). This request excludes any documents that are currently available by URL link in the "References" sections of the DEIR.

The Project proposes the development of four six-story mixed-use buildings across 882,250 square feet. The Project consists of 735 multi-family residential units, as well as residential lobbies and leasing offices, pools, spas, and recreational facilities, and up to 95,000 square feet of commercial uses, including market/retail and restaurant uses. The Project also proposes approximately 96,800 square feet of open space including landscaped courtyards, a public plaza, and landscaped paseos,

L5451-001acp

August 20, 2021
Page 2

as well as 1,419 parking spaces in two subterranean parking levels and one at-grade parking level, and 548 bicycle parking spaces. The Project site is located at 5420 Sunset Boulevard, in the City of Los Angeles.

Our request for ***immediate access*** to all documents referenced in the DEIR is made pursuant to the California Environmental Quality Act (“CEQA”), which requires that all documents referenced, incorporated by reference, and relied upon in an environmental review document be made available to the public for the entire comment period.¹ I will be contacting you to arrange for the review/duplication/transmission of the requested records soon. In the interim, if you have any questions or concerns regarding this request, my contact information is:

U.S. Mail

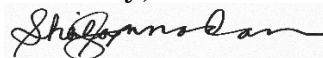
Sheila Sannadan
Adams Broadwell Joseph & Cardozo
601 Gateway Boulevard, Suite 1000
South San Francisco, CA 94080-7037

Email

ssannadan@adamsbroadwell.com

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

¹ See Public Resources Code § 21092(b)(1) (stating that “all documents referenced in the draft environmental impact report” shall be made “available for review”); 14 Cal. Code Reg. § 15087(c)(5) (stating that all documents incorporated by reference in the EIR . . . shall be readily accessible to the public”); see also *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 442, as modified (Apr. 18, 2007) (EIR must transparently incorporate and describe the reference materials relied on in its analysis); *Santiago County Water District v. County of Orange* (1981) 118 Cal.App.3rd 818, 831 (“[W]hatever is required to be considered in an EIR must be in that formal report. . .”), internal citations omitted.

EXHIBIT B

Alisha C. Pember

From: Sheila M. Sannadan
Sent: Tuesday, September 28, 2021 11:09 AM
To: polonia.majas@lacity.org
Cc: vince.bertoni@lacity.org; beatrice.pacheco@lacity.org; william.lamborn@lacity.org; lourdes.sanchez@lacity.org; Aidan P. Marshall
Subject: 5420 Sunset Project - AERMOD files (native format)

Good Morning Ms. Majas,

We are requesting *immediate access* to files from the DEIR's AERMOD dispersion model analysis for the 5420 Sunset Project. Specifically, we request access to the unlocked, underlying AERMOD files in their native format. These unlocked files are necessary for us to validate the findings in the DEIR's Health Risk Assessment. Our request is made pursuant to Pub. Resources Code § 21092(b)(1), which requires that "all documents referenced" and "all documents incorporated by reference" in an environmental review document shall be "readily accessible to the public during the lead agency's normal working hours" during the entire public comment period. On August 20, 2021, we requested that the City provide immediate access to any and all documents referenced or relied upon in the DEIR prepared for the Project. In response, the City provided us access to a physical case file in the City's planning department office. This file was missing the aforementioned AERMOD files.

Given the shortness of time before the current comment deadline on the DEIR, please send us the files via email as soon as possible.

Thank you for your assistance.

Regards,
Sheila

Sheila Sannadan
Legal Assistant
Adams Broadwell Joseph & Cardozo
601 Gateway Boulevard, Suite 1000
South San Francisco, CA 94080
Phone (650) 589-1660
Fax (650) 589-5062
ssannadan@adamsbroadwell.com

EXHIBIT E

Lorrie J. LeLe

From: William Lamborn <william.lamborn@lacity.org>
Sent: Monday, October 4, 2021 9:40 AM
To: Alisha C. Pember
Cc: Christina Caro; Aidan P. Marshall; Milena Zasadzien; Polonia Majas
Subject: Re: Request to extend the public review and comment period ENV-2017-1084-EIR

Hello Alisha,

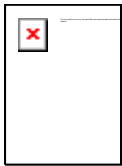
Thank you for your email. The modeling output data and the assumptions underlying the Health Risk Assessment (HRA) are all included within the HRA itself, in Appendix G of the Draft EIR, which has been available throughout the duration of the public comment period.

Please see direct link below:

https://planning.lacity.org/eir/5420_Sunset_Project/deir/files/App_G.pdf

Regards,

--



William Lamborn

Pronouns: He, His, Him

City Planner

Los Angeles City Planning

221 N. Figueroa St., Room 1350

Los Angeles, CA 90012

T: (213) 847-3637 | Planning4LA.org



Comment re: Draft Environmental Impact Report for the 5420 Sunset Project (ENV 2017-1084-EIR)

2 messages

Amalia Bowley Fuentes <amalia@lozeaudrury.com>

Tue, Sep 21, 2021 at 2:39 PM

To: polonia.majas@lacity.org

Cc: Richard Drury <richard@lozeaudrury.com>, Molly Greene <molly@lozeaudrury.com>

Dear Ms. Majas,

On behalf of the Supporters Alliance for Environmental Responsibility ("SAFER"), attached please find comments on the Draft Environmental Impact Report for the 5420 Sunset Project (ENV-2017-1084-EIR).

Thank you for your assistance. If you could please confirm receipt of this e-mail and the attached comments it would be appreciated. Thank you for considering these comments.

Sincerely,

Amalia Bowley Fuentes
Legal Fellow
Lozeau | Drury LLP
1939 Harrison Street, Suite 150
Oakland, CA 94612
amalia@lozeaudrury.com

Confidentiality Notice: This message and any attachment(s) may contain privileged or confidential information. Unauthorized interception, review, use or disclosure is prohibited by law. If you received this transmission in error, please notify the sender by reply e-mail and delete the message and any attachments. Thank you.



2021.09.21 DEIR Comment for 5420 Sunset Project - final.pdf

175K

Polonia Majas <polonia.majas@lacity.org>

Tue, Sep 21, 2021 at 2:48 PM

To: Amalia Bowley Fuentes <amalia@lozeaudrury.com>

Good afternoon,

I received your email September 21, 2021 email along with the attachement.

Respectfully,

[Quoted text hidden]

--



Polonia Majas

Planning Assistant

Los Angeles City Planning

221 N. Figueroa St., Suite 1350

Los Angeles, CA 90012

T: (213) 847-3625 | Planning4LA.org





T 510.836.4200
F 510.836.4205

1939 Harrison Street, Ste. 150
Oakland, CA 94612

www.lozeaudrury.com
richard@lozeaudrury.com

Via Email

September 21, 2021

Polonia Majas, Planning Assistant
Department of City Planning
City of Los Angeles
221 N. Figueroa Street, Suite 1350
Los Angeles, CA 90012
polonia.majas@lacity.org

Re: Comment on Draft Environmental Impact Report, 5420 Sunset Project (ENV-2017-1084-EIR)

Dear Ms. Majas:

I am writing on behalf of Supporters Alliance For Environmental Responsibility ("SAFER") regarding the Draft Environmental Impact Report ("DEIR") prepared for the 5420 Sunset Project (ENV-2017-1084-EIR), including all actions related or referring to the proposed development of a mixed-use project consisting of 735 multi-family residential units and up to 95,000 square feet of neighborhood-serving commercial uses, provided within four buildings up to six stories tall, with 1,419 vehicle parking spaces provided within two subterranean parking levels and one at-grade parking level.

After reviewing the DEIR, we conclude that the DEIR fails as an informational document and fails to impose all feasible mitigation measures to reduce the Project's impacts. SAFER requests that the Department of City Planning address these shortcomings in a revised draft environmental impact report ("RDEIR") and recirculate the RDEIR prior to considering approvals for the Project.

We reserve the right to supplement these comments during review of the Final EIR for the Project and at public hearings concerning the Project. *Galante Vineyards v. Monterey Peninsula Water Management Dist.*, 60 Cal. App. 4th 1109, 1121 (1997).

Sincerely,

A handwritten signature in blue ink, appearing to read "Richard Drury", is written over a light blue rectangular background.

Richard Drury



Polonia Majas <polonia.majas@lacity.org>

SWRCC - [City of Los Angeles, 5420 Sunset] - PRA and Notice List Request

1 message

Brandon Young <brandon@mitshtsailaw.com>

Mon, Oct 4, 2021 at 3:34 PM

To: beatrice.pacheco@lacity.org, polonia.majas@lacity.org

Cc: Mitchell Tsai <mitch@mitshtsailaw.com>, Mary Linares <mary@mitshtsailaw.com>, Cindy Pain <cindy@mitshtsailaw.com>

Dear Ms. Pacheco and Ms. Majas,

Please see the attached Public Records Act and Notice List Request on the above referenced Project and confirm receipt of this email and its attachment.

Thank you,

Brandon Young

Office Manager

Mitchell M. Tsai, Attorney At Law

139 South Hudson Avenue, Suite 200

Pasadena, CA 91101

Office: (626) 381-9248

Fax: (626) 389-5414

Email: brandon@mitshtsailaw.com

Website: <http://www.mitshtsailaw.com>

*** Our Office Has Recently Moved. Please Note New Mailing Address ****

CONFIDENTIALITY NOTICE: This e-mail transmission, and any documents, files or previous e-mail messages accompanying it, may contain confidential information that is legally privileged. If you are not the intended recipient, or a person responsible for delivering it to the intended recipient, you are hereby notified that any disclosure, copying, distribution or use of any of the information contained in or attached to this message is STRICTLY PROHIBITED and may violate applicable laws including the Electronic Communications Privacy Act. If you have received this transmission in error, please immediately notify us by reply e-mail at mitch@mitshtsailaw.com or by telephone at (626) 381-9248 and destroy the original transmission and its attachments without reading them or saving them to disk. Thank you.



20211004_5420Sunset_PRARequest_Signed.pdf

274K

Ph: (626) 381-9248
Fx: (626) 389-5414
Em: info@mitschtsailaw.com



139 South Hudson Avenue
Suite 200
Pasadena, California 91101

VIA ELECTRONIC MAIL

October 4, 2021

Beatrice Pacheco
Chief Clerk
Los Angeles City Planning Records Management
221 N. Figueroa Street, Suite 1450
Los Angeles, CA 90012
Em: beatrice.pacheco@lacity.org

Polonia Majas
Planning Assistant
City of Los Angeles
221 N. Figueroa Street, Suite 1350
Los Angeles, CA 90012
Em: polonia.majas@lacity.org

**RE: Public Records Act and Mailing List Request Regarding 5420
Sunset Boulevard Project (SCH#: 2017061075).**

Dear Beatrice Pacheco and Polonia Majas,

On behalf of Southwest Regional Council of Carpenters (“**SWRCC**” or “**Southwest Carpenters**”) and its members, this Office requests that the City of Los Angeles (“**City**”) provide any and all information referring or related to the 5420 Sunset Boulevard Project (SCH#: 2017061075) (“**Project**”) pursuant to the California Public Records Act (“**PRA**”), Cal. Government (“**Gov’t**”) Code §§ 6250–6270 (collectively “**PRA Request**”).

Moreover, SWRCC requests that City provide notice for any and all notices referring or related to the Project issued under the California Environmental Quality Act (“**CEQA**”), Cal Public Resources Code (“**PRC**”) § 21000 *et seq.*, and the California Planning and Zoning Law (“**Planning and Zoning Law**”), Cal. Gov’t Code §§ 65000–65010. California Public Resources Code Sections 21092.2, and 21167(f) and

Government Code Section 65092 require agencies to mail such notices to any person who has filed a written request for them with the clerk of the agency's governing body.

The Southwest Regional Council of Carpenters is a labor union representing more than 50,000 union carpenters in six states, including California, and has a strong interest in well-ordered land use planning and addressing the environmental impacts of development projects, such as the Project.

I. PUBLIC RECORDS ACT REQUEST.

Southwest Carpenters is requesting any and all information referring or related to the Project.

The Public Records Act defines the term "public record" broadly as "any writing containing information relating to the conduct of the public's business . . . regardless of physical form and characteristics." Gov't Code § 6252(d). "Records" includes all communications relating to public business regardless of physical form or characteristics, including but not limited to any writing, picture, sound, or symbol, whether paper, magnetic, electronic, text, other media, or written verification of any oral communication. Included in this request are any references in any appointment calendars and applications, phone records, or text records. These "records" are to include, but are not limited to correspondences, e-mails, reports, letters, memorandums, and communications by any employee or elected official of the City of Los Angeles concerning the Project.

Please include in your response to this request the following examples of "records," as well as any similar physical or electronic forms of communication: any form of writing such as correspondence, electronic mail records ("email"), legal and factual memoranda, facsimiles, photographs, maps, videotapes, film, data, reports, notes, audiotapes, or drawings. Cal. Government Code § 6252(g) (defining a writing to including "any record thereby created, regardless of the manner in which the record has been stored"). Responsive correspondence should include, inter alia, emails, text messages, or any other form of communication regardless of whether they were sent or received on public or privately-owned electronic devices "relating to the conduct of the public's business." Cal. Government Code § 6252(e); *Citizens for Ceres v. Super. Ct.* ("Ceres") (2013) 217 Cal. App. 4th 889, 909; *Citizens for Open Gov't v. City of Lodi* ("Lodi") (2012) 205 Cal.App.4th 296, 307, 311; *City of San Jose v. Superior Court* (2017) 2 Cal. 5th

608, 625 (finding that a public employee or officer's "writings about public business are not excluded" from the California Public Records Act "simply because they have been sent, received, or stored in a personal account.") .

This Office requests any and all information referring or related to the Project, including but not limited to:

- (1) All Project application materials;
- (2) All staff reports and related documents prepared by the City with respect to its compliance with the substantive and procedural requirements of the California Environmental Quality Act, Public Resources Code § 21000 et seq., and the CEQA Guidelines, title 14, California Code of Regulations, § 15000 et seq. (collectively "CEQA") and with respect to the action on the Project;
- (3) All staff reports and related documents prepared by the City and written testimony or documents submitted by any person relevant to any findings or statement of overriding considerations adopted by the agency pursuant to CEQA;
- (4) Any transcript or minutes of the proceedings at which the decision making body of the City heard testimony on, or considered any environmental document on, the Project, and any transcript or minutes of proceedings before any advisory body to the public agency that were presented to the decision making body prior to action on the environmental documents or on the Project;
- (5) All notices issued by the City to comply with CEQA or with any other law governing the processing and approval of the Project;
- (6) All written comments received in response to, or in connection with, environmental documents prepared for the Project, including responses to the notice of preparation;
- (7) All written evidence or correspondence submitted to, or transferred from, the City with respect to compliance with CEQA or with respect to the Project;

- (8) Any proposed decisions or findings submitted to the decision making body of the City by its staff, or the Project proponent, Project opponents, or other persons;
- (9) The documentation of the final City decision and approvals, including the final environmental impact report, mitigated negative declaration, negative declaration, or notice of exemption, and all documents, in addition to those referenced in paragraph (3), cited or relied on in the findings or in a statement of overriding considerations adopted pursuant to CEQA;
- (10) Any other written materials relevant to the public agency's compliance with CEQA or to its decision on the merits of the Project, including the initial study, any drafts of any environmental document, or portions thereof, that have been released for public review, and copies of studies or other documents relied upon in any environmental document prepared for the Project and either made available to the public during the public review period or included in the City 's files on the Project, and all internal agency communications, including staff notes and memoranda related to the Project or to compliance with CEQA; and
- (11) The full written record before any inferior administrative decision making body whose decision was appealed to a superior administrative decision making body prior to the filing of any litigation.

Please respond within 10 days from the date you receive this request as to whether this request specifies identifiable records not exempt from disclosure under the PRA or otherwise privileged or confidential, and are therefore subject to disclosure. This Office understands that this time may be extended up to 14 days for unusual circumstances as provided by Cal. Government Code § 6253(c), and that we will be notified of any extension and the reasons justifying it.

We request that you provide all documents in electronic format and waive any and all fees associated with this Request. SWRCC is a community-based organization. Please

notify and obtain express approval from this Office before incurring any duplication costs.

If any of the above requested documents are available online, please provide us with the URL web address at which the documents may be downloaded. If any of the requested documents are retained by the City of Los Angeles in electronic computer-readable format such as PDF (portable document format), please provide us with pdf copies of the documents via email, or inform us of the location at which we can copy these documents electronically.

In preparing your response, please bear in mind that you have an obligation under Government Code section 6253.1 to (1) identify all records and information responsive to our request or the purpose of our request; (2) describe the information technology and physical location in which the records exist; and (3) provide suggestions for overcoming any practical basis for denying access to the records or information sought.

In responding to this request, please bear in mind that any exemptions from disclosure you may believe to be applicable are to be narrowly construed. *Marken v. Santa Monica-Malibu Unif. Sch. Dist.* (2012) 202 Cal. App. 4th 1250,1262; and may be further narrowed or eliminated by the adoption of Proposition 59, which amended article I, section 3(b)(2) of the California Constitution to direct that any “statute ... or other authority ... [that] limits the right of access” to “information concerning the conduct of the people’s business” must be “narrowly construed.”

As for any records that you nonetheless decline to produce on the grounds of an exemption, please bear in mind that the case law under the Public Records Act imposes a duty on you to distinguish between the exempt and the non-exempt portion of any such records, and to attempt in good faith to redact the exempt portion and to disclose the balance of such documents.

Please bear in mind further that should you choose to withhold any document from disclosure, you have a duty under Government Code section 6255, subd. (a) to “justify withholding any record by demonstrating that the record in question is exempt under express provisions” of the Public Records Act or that “the public interest served by not disclosing the record clearly outweighs the public interest served by disclosure of the record.”

Finally, please note that you must retain and not destroy any and all records, notwithstanding any local record retention or document destruction policies. As the Court noted in *Golden Door Properties, LLC v. Superior Court of San Diego County* (2020) 53 Cal.App.5th 733 that a public agency “must retain ‘[a]ll written evidence or correspondence submitted to, or transferred from’ . . . with respect to” CEQA compliance or “with respect to the project.”

II. NOTICE LIST REQUEST.

We also ask that you put this Office on its notice list for any and all notices issued under the CEQA and the Planning and Zoning Law.

In particular, we request that the City of Los Angeles send by mail or electronic mail notice of any and all actions or hearings related to activities undertaken, authorized, approved, permitted, licensed, or certified by the City and any of its subdivision for the Project, or supported, in whole or in part, through permits, contracts, grants, subsidies, loans, or other forms of approvals, actions or assistance, including but not limited to the following:

- Notices of any public hearing held in connection with the Project; as well as
- Any and all notices prepared pursuant to CEQA, including but not limited to:
- Notices of determination that an Environmental Impact Report (“EIR”) or supplemental EIR is required for a project, prepared pursuant to Public Resources Code Section 21080.4;
- Notices of availability of an EIR or a negative declaration for a project prepared pursuant to Public Resources Code Section 21152 and Section 15087 of Title 14 of the California Code of Regulations;
- Notices of approval or determination to carry out a project, prepared pursuant to Public Resources Code Section 21152 or any other provision of law;

- Notice of approval or certification of any EIR or negative declaration prepared pursuant to Public Resources Code Section 21152 or any other provision of law;
- Notice of exemption from CEQA prepared pursuant to Public Resources Code section 21152 or any other provision of law; and
- Notice of any Final EIR prepared pursuant to CEQA.

This Office is requesting notices of any approvals or public hearings under CEQA and the California Planning and Zoning Law. This request is filed pursuant to California Public Resources Code Sections 21092.2, and 21167(f) and Government Code Section 65092 requiring agencies to mail such notices to any person who has filed a written request for them with the clerk of the agency's governing body.

Please send notice by regular and electronic mail to:

Mitchell M. Tsai, Attorney At Law
139 South Hudson Avenue
Suite 200
Pasadena, California 91101
Em: mitch@mitchtsailaw.com
Em: mary@mitchtsailaw.com
Em: brandon@mitchtsailaw.com
Em: cindy@mitchtsailaw.com
Em: info@mitchtsailaw.com

We look forward to working with you. If you have any questions or concerns, please do not hesitate to contact our Office.

Sincerely,



Mitchell M. Tsai
Attorneys for Southwest Regional Council
of Carpenters



Polonia Majas <polonia.majas@lacity.org>

5420 Sunset Project, ENV-2017-1084-EIR, Comments on EIR from UN4LA

1 message

cmaddren@gmail.com <cmaddren@gmail.com>

Mon, Oct 4, 2021 at 1:00 AM

To: polonia.majas@lacity.org

Cc: info@un4la.com

Dear Ms. Majas,

United Neighborhoods for Los Angeles would like to submit the attached comments on the EIR for the project referenced above.

Could you please send a brief e-mail to confirm that you received these comments?

Thanks,

Casey Maddren

United Neighborhoods for [Los Angeles](#)



5420 Sunset EIR Comments from UN4LA 2109 FINAL.pdf

593K



United Neighborhoods for Los Angeles

www.un4la.com

UN4LA Board

Casey Maddren, President

Cherilyn Smith, Treasurer

Richard Platkin, Secretary

Annie Gagen

Jack Humphreville

Kim Lamorie

Gina Thornburg

October 3, 2021

Polonia Majas

City of Los Angeles, Department of City Planning

221 N. Figueroa Street, Suite 1350

Los Angeles, CA 90012

Via E-Mail: polonia.majas@lacity.org

Re: 5420 Sunset Boulevard, ENV-2017-1084-EIR
ZA-2017-1083-MCUP-SPP-RDP-SPR
EIR Comments

Dear Ms. Majas,

United Neighborhoods for Los Angeles (UN4LA) is a community group formed to foster better planning and better government within the County of Los Angeles, and all cities and unincorporated areas contained within the County's borders. UN4LA's primary areas of focus are planning, development, the environment and budget/finance.

UN4LA has reviewed the DEIR for the 5420 Sunset project, and we believe the project will have significant impacts with regard to Air Quality, Public Services/Police, and Utilities/Solid Waste. Please see our detailed comments below.

Sincerely,
Casey Maddren, President
United Neighborhoods for Los Angeles

5420 Sunset Boulevard

Case Number: ENV-2017-1084-EIR

EIR Comments from UN4LA

AIR QUALITY

The EIR claims that the Project is consistent with the City's Air Quality Element, but in fact, the City has consistently failed to meet the goals and objectives of this Element of the General Plan. The City has assumed for years that simply building high-density projects near transit would reduce vehicle trips and associated emissions. In reality, the City has made no effort to actually assess vehicle miles travelled (VMT) and associated emissions, including greenhouse gas (GHG) emissions. The fact is that, in spite of the approval of thousands of new residential units near transit over the past decade, transit ridership has declined steadily since 2014. At the same time, per capita vehicle ownership has risen. See the following report from the UCLA Institute of Transportation Studies for details.

Falling Transit Ridership, UCLA Institute of Transportation Studies, January 2018
https://scag.ca.gov/sites/main/files/file-attachments/its_scag_transit_ridership.pdf

GREENHOUSE GAS EMISSIONS

We are puzzled by a number of seeming inconsistencies in Appendix B, Air Quality & GHG Emissions. Under the section entitled Sunset and Western - Project Operations (2026), we have compared tables 4.2 through 4.4, and can not reconcile what appear to be conflicting calculations. Starting with the first...

Table 4.2 Trip Summary Information

Apartments High Rise
Enclosed Parking with Elevator
Regional Shopping Center
Supermarket
User Defined Commercial
User Defined Residential

All values for the first four categories are zero, and it appears that all trip summary information has been assigned to User Defined Commercial and User Defined Residential.

However, when we look at the next table...

Table 4.3 Trip Type Information

... we see that it contains values in all categories. This seems to conflict with Table 4.2.

Furthermore, when we look at the following table....

Table 4.4 Fleet Mix

... we find that, not only does it contain values in all categories, but all values in each category appear to be equal. We don't understand how all values in each category can be equal, and would appreciate an explanation of the methodology used to arrive at these numbers. We would also appreciate an explanation of the fact that the values for the first four categories in Table 4.2 are given as zero, while the following tables contain values which seem to indicate impacts from vehicular activity.

PUBLIC SERVICES - POLICE

On page 7 under LAPD Crime Statistics, the EIR says:

Table IV.H.2-1 on page IV.H.2-8 shows a comparison of the Hollywood Division and Citywide data regarding crimes reported by the LAPD based on only residential populations. As shown therein, based on the most recent complete year data made available from LAPD for the year 2019, approximately 6,816 crimes were reported within the Hollywood Division¹⁴ and 108,895 crimes were reported citywide. Based on the residential service population of the Hollywood Community Police Station, approximately 41.31 crimes per 1,000 residents (0.0207 crime per capita) were reported in the Hollywood Division and 27.09 crimes per 1,000 residents (0.0271 crime per capita) were experienced Citywide.

Interestingly, the EIR correctly calculates that the Hollywood Division has 41.31 crimes per 1,000 residents, but immediately after states that this amounts to a per capita crime rate of 0.0207 per capita. The EIR goes on to compare this to a Citywide crime rate of 0.0271 per capita. This gives the misleading impression that crime in the Hollywood area is much lower than Citywide. The EIR must be corrected to say that the per capita crime rate in Hollywood Division is 0.0413, to show that the crime rate in Hollywood is actually far higher than the Citywide average.

The Project proposes 735 new residential units. The US Census estimates that the average Los Angeles household contains 2.8 persons. This means that the Project could bring over 2,000 new residents to the area covered by the Hollywood Division. Since the Hollywood Division serves approximately 165,000 residents, this means that the Project could result in an increase of well over 1% in the population served by Hollywood Division. Given the fact that the crime rate in the area is already well above the Citywide average, it is questionable whether the Project can be adequately served by existing law enforcement services.

The EIR also states:

Based on the number of sworn officers staffing the Hollywood Community Police Station (381 sworn officers), the 2019 ratio of crimes per officer was 17.9 crimes per officer.²⁰ In comparison, the citywide (10,033 sworn officers) ratio is 10.85 crimes per officer.²¹ Thus, the Hollywood Division has a higher crime-per-officer ratio when compared to the City as a whole.

It is clear that with a rate of 17.9 crimes per officer as opposed to 10.85 crimes per officer, Hollywood has a much higher rate of crime per officer than the Citywide average. Again, we must ask if police services are adequate to serve the proposed Project.

UTILITIES – SOLID WASTE

It is disturbing that the EIR has relegated the discussion of solid waste to Chapter VI, Other CEQA Considerations. The City has failed miserably to comply with State law with regard to recycling, and some of the statements in the EIR regarding compliance with existing law have no basis in fact. For instance, the EIR says:

The Project would generate a net increase of approximately 9,096 net pounds of solid waste more per day. Projected out annually, this would result in approximately 1,660 tons per year of solid waste. However, it is noted that the estimated solid waste is conservative because the waste generation factors used do not account for recycling or other waste diversion measures, such as compliance with AB 341, which requires California commercial enterprises and public entities that generate 4 or more cubic yards per week of waste, and multi-family housing with five or more units, to adopt recycling practices, or implementation of the City's upcoming Zero Waste LA franchising system, which is expected to result in a reduction of landfill disposal Citywide with a goal of reaching a Citywide recycling rate of 90 percent by the year 2025. [Emphasis added.]

The Zero Waste Franchising System, AKA RecyclA, has been in effect for years now. It is currently diverting less than 25% of the City's solid waste to recycling. The following statistics are from a response by LASAN to Public Records Act request:

Residential	2019	2020
Disposed	1,175,115	1,378,659
Recycled (green + blue)	460,868	393,668

Commercial	2,019	2,020
Disposed	1,599,231	1,365,014
Incinerated	1,795	3,222
Recycled (green + blue)	129,424	145,567

Total	2,019	2,020
Disposed	2,774,346	2,743,673
Incinerated	1,795	3,222
Recycled (green + blue)	590,292	539,235

Due to a statewide recycling crisis, markets for recyclable materials have collapsed, and there is no realistic path for the City of LA to meet AB 939's requirement of diverting 50% of solid waste to recycling.

California faces recycling crisis after China tightens rules, ABC News, December 2018
<https://abc7news.com/chinese-recycling-ban-china-recology-berkeley-ecology-center/4832542/>

The Statewide Commission on Recycling Markets and Curbside Recycling recently issued a report that estimates that California is nowhere near meeting goals for solid waste reductions under AB 341. See page 10 for the following assessment:

In 2012, the California Legislature declared under AB 341 (Chesbro) that it is the policy goal of the state that not less than 75% of solid waste generated be source reduced, recycled, or composted by the year 2020, and annually thereafter. The graphs that follow demonstrate that while California's communities have made great strides in recycling in some respects over the years, a 75% recovery rate will not be achieved in 2020. In fact, CalRecycle projects California's recovery rate in 2020 to be about half of that, closer to 37%. [Emphasis added.]

Statewide Commission on Recycling Markets and Curbside Recycling, December 2020
<https://drive.google.com/drive/folders/17URSudubsoX4qV0qH3KciSWZhV595o5>

The EIR states that, pursuant to AB 341, the Project will adopt recycling practices, but does not list a single one, and provides no data on what percentage of solid waste might be recycled.

The City will argue that this is not an issue, since adequate capacity exists to send all the Project's solid waste to landfill. However, landfills generate significant amounts of greenhouse gasses, and the EIR does not accurately assess greenhouse gas emissions from the Project under this scenario.

Basic Information about Landfill Gas from US EPA
<https://www.epa.gov/lmop/basic-information-about-landfill-gas>

In Appendix B, Air Quality & Greenhouse Gas Emissions, Table 8.2, Waste by Land Use, shows that the Project's unmitigated output of CO₂e would be 379.4694 MT/yr. Under the same heading, it claims that the mitigated CO₂e output would be 89.5548 MT/yr, in other words, about 25% of unmitigated emissions. This assumes a rate of diversion to recycling of about 75%. These figures do not match up with reality. The statistics cited above from LASAN show that, in fact, only about 20% of solid waste collected in the City of LA is diverted to recycling. Therefore, the EIR fails by a large margin to adequately assess GHG emissions from solid waste.



Polonia Majas <polonia.majas@lacity.org>

ENV-2017-1084-EIR Public Comment

1 message

Rudraj Koppikar <rudraj.koppikar@gmail.com>

Sat, Aug 21, 2021 at 2:21 AM

To: "polonia.majas@lacity.org" <polonia.majas@lacity.org>

I support the initiative, but would be concerned about lane closures and the adverse affect they tend to have-- Such as when Metro renovations earlier this summer closed lanes on Western north of Sunset, which caused traffic to back up all the way to Western & Franklin on certain days.



Polonia Majas <polonia.majas@lacity.org>

Project name 5420 Sunset ; ENV-2017-1084-EIR

1 message

Joseph Lazovsky <yjmm22@gmail.com>

Fri, Aug 20, 2021 at 7:50 PM

To: polonia.majas@lacity.org

Hi Polonia, I own a few properties in the neighborhood of the above mentioned development. I really applaud for upcoming projects, but have this concern:

1, Traffic : Is the project to be required with highway dedication? I think that size of project should have at least 2 lanes on each side (Sunset, Western) to be dedicated.

2, Proposed use : Existing market is being demolished and the neighborhood will be in need for replacement with other supermarket at least in size of demolished one.

I don't know if your agency has jurisdiction about our above mentioned concerns, if not, could you please direct me to proper agencies so I can properly address those above?

Thank you. Joseph. Phone: 323 384 6565

email: yjmm22@gmail.com



Polonia Majas <polonia.majas@lacity.org>

Comment on DEIR for 5420 Sunset Project

1 message

Allison Mannos <allison.mannos@gmail.com>

Sat, Aug 28, 2021 at 5:47 PM

To: polonia.majas@lacity.org

Cc: councilmember.ofarrell@lacity.org

Good afternoon,

My name is Allison Mannos, and I am a homeowner and resident in the East Hollywood area that the 5420 project is planned within. I am writing to make public comment on the project DEIR. I'm concerned about the project's impact on displacement of low-income renters in our community.

The project website didn't list the number of affordable/TOC incentive affordable units the developer would provide, and the developer's staff or contractor who called me a year ago also didn't seem to have that information. While I am a homeowner, I was a renter for almost a decade in this neighborhood prior, and there have been a great deal of housing developments greenlit by the City that seem aimed at driving displacement along the Western Avenue corridor.

By approving market rate, even luxury housing in a predominantly low-income, immigrant neighborhood without requirements for greater numbers of affordable units, the City is further exacerbating the housing affordability and homelessness crisis.

My request is that the City Planning staff and Planning Commission do not advance this project without securing greater low-income units included in the project.

Thank you,
Allison Mannos
[1554 N Hobart Blvd. #6](#)
[Los Angeles, CA 90027](#)



Polonia Majas <polonia.majas@lacity.org>

5420 Sunset Project - ENV-2017-1084-EIR - Comment Expiration Question

1 message

Jessica Bispels <jbispels@ssjlaw.com>

Thu, Oct 7, 2021 at 4:00 PM

To: polonia.majas@lacity.org

Cc: Stephen Jamieson <sjamieson@ssjlaw.com>, Jenna Spivey <jspivey@ssjlaw.com>, Janet Jin <jjin@ssjlaw.com>

Hello,

My name is Jessica Bispels. I am emailing regarding the EIR referenced in the subject line of this email. I understand the comment period is over, and would like to know if any comments were received, and if so, what they are.

If this information can be found on the city website, do you mind directing me to the correct location?

Thank you!

--

Jessica Bispels
Land Use Specialist

SOLOMON, SALTSMAN & JAMIESON

A Partnership of Corporations and Individuals

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