



SANTA ANA GENERAL PLAN UPDATE



Final Recirculated Program Environmental Impact Report VOLUME I – Response to Comments

State Clearinghouse #2020029087

October 2021

Volume I



Prepared for: City of Santa Ana

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- Appendix G-b Paleontological Existing Conditions Technical Report
- Appendix H-a Infrastructure Technical Report for Hydrology, Sewer, Water, and Water Quality
- Appendix H-b Water Supply & Demand Technical Report
- Appendix I-a Noise Existing Condition Report
- Appendix I-b Noise Monitoring and Modeling Data
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1. Introduction

1.1 BACKGROUND

This document is the Final PEIR to the Recirculated Draft Program Environmental Impact Report (PEIR) for the City of Santa Ana's General Plan Update (GPU). The following sections summarize the background of the environmental review for the proposed GPU and the context and requirements for a Recirculated Draft and Recirculated Final PEIRs.

1.1.1 Project Background

The original Draft PEIR was distributed for the required 45-day public review between August 3, 2020, and September 16, 2020. The review period was subsequently extended until October 6, 2020. The Final PEIR (November 2020) was prepared and the Planning Commission held a public hearing on the proposed GPU on November 9, 2020. The Draft PEIR and Final PEIR, including all report appendices, are posted on the City's website.

GPU policies and implementation measures were modified and supplemented to respond to concerns expressed by the public and agencies during the Draft PEIR public review period and during the Planning Commission public hearing held on November 9, 2020. The GPU modifications also reflect input received from an intensive, extended community outreach program conducted by the City between January and May 2021.

1.1.2 Recirculated Draft Program EIR

1.1.2.1 CONDITIONS FOR EIR RECIRCULATION

State CEQA Guidelines Section 15088.5 defines the circumstances under which a lead agency must recirculate an EIR. A lead agency is required to recirculate an EIR when significant new information is added to the EIR after public notice is given of the availability of the Draft EIR but before certification of the Final EIR. Such information can include changes in the project or environmental setting as well as additional data or other information. New information added to an EIR is not considered "significant" unless the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect (including a feasible project alternative) that the project's proponents have declined to implement

1.1.2.2 GPU DRAFT PEIR: REASONS FOR RECIRCULATION

At its November 9, 2020, public hearing, the Planning Commission voted not to certify the Final PEIR and continue work on the GPU to a future date to allow additional time for outreach to Santa Ana's environmental justice (EJ) communities. The City initiated an expanded outreach program focusing on environmental justice

1. Introduction

and specific community concerns raised in comments received on the draft GPU and the Draft PEIR and voiced during the Planning Commission public hearing. The decision was made to prepare a Recirculated Draft PEIR to:

- Conclude that the recreation-related impacts of the proposed GPU would result in a significant impact and to define a new project alternative to reduce these impacts.
- More thoroughly discuss and evaluate impacts related to environmental justice, including air quality, hazards, and recreation/open space.

1.1.2.3 OPTIONS FOR RECIRCULATION

Pursuant to CEQA Guidelines Section 15088.5, if the required revision is limited to a few chapters or portions of the EIR, the lead agency need only recirculate the chapters or portions that have been modified. A Recirculated EIR requires the same noticing and consultation as the original Draft EIR (CEQA Guidelines Sections 15086 and 15087).

CEQA allows two different ways to respond to comments on the Recirculated Draft EIR:

- 1) When an EIR is substantially revised and the entire document is recirculated, the lead agency may require reviewers to submit new comments and, in such cases, need not respond to those comments received during the earlier circulation period.
- 2) Or, when the EIR is only partly revised and the lead agency recirculates only the revised chapter or portions of the EIR, the lead agency may request that reviewers limit their comments to the revised chapters or portions of the recirculated EIR. The lead agency need only respond to (i) comments received during the initial circulation period that relate to chapters or portions of the document that were not revised and recirculated, and (ii) comments received during the recirculate to the chapter of the earlier EIR that were revised and recirculated.

1.2 FORMAT/CONTENTS OF THE RECIRCULATED FINAL PEIR

The City prepared the Recirculated Draft PEIR pursuant to Option (2) (see Section 1.1.2.3) and limited the revisions and public circulation to limited sections of the Draft PEIR. The Recirculated Draft PEIR was subject to the same public review requirements as the original Draft PEIR and is also subject to preparation of Response to Comments pursuant to CEQA Guidelines 15088 for preparation of a Final EIR.

The Draft Recirculated PEIR was circulated for public review between August 6, 2021 and September 20, 2021 and the Notice of Availability (NOA) for the Draft Recirculated PEIR included the following instructions to commenters on the document:

The City is implementing Option 2 with respect to comments received on this Recirculated Draft PEIR. Reviewers are directed to only submit comments on the revised EIR chapters included in the Recirculated Draft PEIR. The comments in the original Final

PEIR adequately address comments received on portions of the Draft PEIR that have not been recirculated. Comments received on sections of the Draft PEIR that have not been recirculated will not be addressed in the Final PEIR.

This Recirculated Final PEIR is organized as follows:

Volume I – Response to Comments

Section 1, Introduction. This section describes the CEQA processing background for the proposed project; conditions and requirements for EIR recirculations, and the format/content for this Recirculated Final PEIR.

Section 2, Response to Comments. This section provides a list of agencies and interested persons commenting on the Recirculated Draft PEIR; copies of comment letters received during the public review period, and individual responses to written comments. This section also summarizes and includes responses to oral comments received at the Planning Commission's September 13, 2021 Study Session on the proposed GPU and Recirculated Draft PEIR. To facilitate review of the responses, each comment letter has been reproduced and assigned a number (A-X through A-X for letters received from agencies and organizations, and R-X through R-X for letters received from residents). Individual comments have been numbered for each letter and the letter is followed by responses with references to the corresponding comment number.

Volume II – Updated Draft PEIR

This volume consists of a complete version of the Draft EIR merging the original Draft PEIR with the updated sections of the Recirculated Draft PEIR and reflecting revisions made pursuant to response to comments to both of these Draft documents. Revisions/updates include 1) the revisions made in the original FEIR (as reflected in Chapter 3, *Revisions to the DEIR*, Final EIR, November 2020), 2) revisions in response to comments on the Recirculated Draft PEIR (November 2021), and updates, corrections and supplemental information as provided by the City of Santa Ana and described in the respective Response to Comments (2020 and 2021 FEIRs)

Volumes III and IV – Appendices to the Updated Draft PEIR

Volumes III and IV include all of the appendices as referenced in the Draft PEIR and Recirculated Draft PEIR, with updates as referenced in those documents.

1.4 CEQA REQUIREMENTS REGARDING COMMENTS AND RESPONSES

CEQA Guidelines Section 15204 (a) outlines parameters for submitting comments and reminds persons and public agencies that the focus of review and comment of DEIRs should be "on the sufficiency of the document in identifying and analyzing possible impacts on the environment and ways in which significant effects of the project might be avoided or mitigated. Comments are most helpful when they suggest additional specific alternatives or mitigation measures that would provide better ways to avoid or mitigate the significant environmental effects. At the same time, reviewers should be aware that the adequacy of an EIR is determined in terms of what is reasonably feasible. ...CEQA does not require a lead agency to conduct every test or perform all research, study, and experimentation recommended or demanded by commenters. When

1. Introduction

responding to comments, lead agencies need only respond to significant environmental issues and do not need to provide all information requested by reviewers, as long as a good faith effort at full disclosure is made in the EIR."

CEQA Guidelines Section 15204 (c) further advises, "Reviewers should explain the basis for their comments, and should submit data or references offering facts, reasonable assumptions based on facts, or expert opinion supported by facts in support of the comments. Pursuant to Section 15064, an effect shall not be considered significant in the absence of substantial evidence." Section 15204 (d) also states, "Each responsible agency and trustee agency shall focus its comments on environmental information germane to that agency's statutory responsibility." Section 15204 (e) states, "This section shall not be used to restrict the ability of reviewers to comment on the general adequacy of a document or of the lead agency to reject comments not focused as recommended by this section."

In accordance with CEQA, Public Resources Code Section 21092.5, copies of the written responses to public agencies will be forwarded to those agencies at least 10 days prior to certifying the environmental impact report. The responses will be forwarded with copies of this FEIR, as permitted by CEQA, and will conform to the legal standards established for response to comments on DEIRs.

Section 15088 of the CEQA Guidelines requires the Lead Agency (Insert Lead Agency) to evaluate comments on environmental issues received from public agencies and interested parties who reviewed the DEIR and prepare written responses. As noted in Section 1.2, the requirements outlined in Section 15088 also apply to recirculated draft EIRs. Section 1.2 also describes the approach taken for the GPU Recirculated Draft PEIR for response to comments: responses will only be provided for those comments received on the section of the Draft PEIR that were recirculated. Comments on the other sections are addressed in the November 2020 Final PEIR.

Comment letters and specific comments are given letters and numbers for reference purposes. Where sections of the DEIR are excerpted in this document, the sections are shown indented. Changes to the DEIR text are shown in <u>underlined text</u> for additions and strikeout for deletions. All of the changes are shown in Volume II of the Recirculated FEIR, which is a complete, updated version of the Draft PEIR (original and recirculated chapters).

Table 1 is a list of agencies and persons that submitted comments on the Recirculated Draft PEIR during the public review period. Table 2 summarizes the commenters and oral testimony from the September 13, 2021 Study Session.

Number Reference	Commenting Person/Agency	Date of Comment	Page No.
Agencies			
A1	City of Irvine	9/02/2021	2-5
A2	City of Tustin/Shute, Mihaly and Weinberger	9/20/2021	2-11
A3	City of Tustin, Public Works Department	9/20/2021	2-49
A4	Department of Transportation, State of California	9/20/2021	2-55
Organizations		-	
01	Cynthia Guerra, Rise Up Willowick	9/15/2021	2-61
02	Orange County Environmental Justice/Shute, Mihaly and Weinberger LLP	9/20/2021	2-97
O3	Madison Park Neighborhood Association/UCI Environmental Law Clinic	9/20/2021	2-157
04	Shute, Mihaly and Weinberger LLP on behalf of Rise Up Willowick	9/20/2021	2-175
Individuals			
11	Janella Simpson	9/6/2021	2-231
12	Diane Fradkin	9/07/2021	2-235
13	Nathaniel Greensides	9/12/2021	2-257
14	Greg Camphire	9/13/2021	2-263
15	Dale Helvig	9/20/2021	2-263

Table 1	Comments Received on the Recirculated Draft PEIR
	Comments Received on the Recirculated Dialt FLIR

	ments at the Planning Commission Study Session	
Organizations		-
Santiago Creek Greenway Alliance Pamela Galera	Requested that the City continue the Santiago Creek bike path and multipurpose trail from the I-5 to the Santa Ana River to address active transportation needs and recreation.	The City will not be including the extension of the Class I trail along Santiago Creek due to physical constraints and neighborhood concerns.
Rise Up Willowick Coalition Cynthia Guerra	Asked that the City's parkland standard of 2 acres/1,000 residents be increased to 3 acres/1,000 residents per the recommendation of the Quimby Act. Asked for stronger GPU policies to preserve open space and create new open space. Recommends the open space element be revised to make the no net loss implementation action a policy, and that this policy should apply to parkland as well as open space and should strengthen provisions of lost open space. The no net loss does not include parkland like Willowick. States there should be no net loss of open space in the city excluding land lost to development for 100 percent low-income housing. Any loss should be replaced by a ratio of at least 1:1 and the parkland dedication requirement should be increased. Asked that the parkland created by dedication be at least a ½ a mile distance from the associated development.	See response to Comment Letters O1 and O4
Orange County Environmental Justice Patricia Flores	Raised concerns with remediation of lead paint in houses and would like to see mitigation for remediation of lead paint-based homes so as not to exacerbate lead soil impacts. Noted that she will forward applicable studies to Melanie. Also asked that the GPU outline remediation efforts past 2022 and requests additional community engagement before the GPU can be approved since only 22 percent of the population was surveyed. Would like more roundtables with regards to lead contamination issues.	See response to Comment Letter O2
President of Madison Park Neighborhood Association Adolpho Sierra	Referred to a letter from the Attorney General (AG) received in October 2020 asking the City to implement SB 1000 within the GPU. He pointed out the southeast area of the City close to the I-55 by the railroad tracks includes 43 facilities that pollute the air daily. He noted water pollution concerns close to Dyer and the 55 that are not included in the GPU. Also brought up lead contamination in soils and recreational issues. He believes if the City is not mitigating these issues in the Recirculated Draft PEIR then additional issues would be created and impacts will persist for 25 years. He also asked that the recommendations from the Environmental Law Clinic at UCI and the SB 1000 recommendation from the AG letter be considered in the Recirculated Draft PEIR.	See response to Comment Letter 03
Delhi Neighborhood Association Erica Gonzalez	Concerned with construction on Main Street and would like to see parking addressed in the PEIR. She noted that the Warner Avenue widening project would have open space areas that could be future parks. She would also like to see more out-reach with a door-to-door effort for people who do not have access to the internet.	Parking is not an environmental impact considered under CEQA. This comment has been forwarded to decision- makers as part of this Final Recirculated PEIR. Public notification and EIR availability has complied with CEQA requirements for the GPU. The request for more door-to-door effort is not an environmental issue and the comment is

		forwarded to decision- makers.
Orange County Environmental Justice Community Coordinator Keila Villegas	Concerned with the lack of mitigation measures for lead in soil and lead based paints in the Recirculated Draft PEIR and would like to see more outreach.	See response to Comment Letter 02.
Individuals		-
Kyler/Kayla Asato	Asked whether the proposed streetcar was within the area marked on the lead contamination map (referenced in the Recirculated Draft PEIR hearing presentation) as being very highly contaminated with lead. Also asked whether the metrics from the lead contamination study with extensive press coverage was included in the Recirculated Draft PEIR. Mentioned the study showed that lead contamination in Santa Ana soils is 50 times higher than the state average.	The Cumulative Risk Index Scores for Lead in Soils is provided as Figure 5.8-1 of the Recirculated Draft PEIF and the future alignment of the OC Streetcar is shown in GPU Mobility Element Figure M-3 Master Plan of Transit. The alignment of the OC Streetcar does coincide with areas of high cumulative lead risk scores The commenter is likely referencing the following article: Social and Spatial distribution of soil lead concentration in the City of Santa Ana, California: Implication for Health Inequalities, Shahir Masri, et al, 743 Sci of the Total Env't, 2020. This study is the source for Figure 5.8-1 The study is also included in both the original Final PEIR (Attachment 1, Letter O6) and in this Recirculate Final PEIR (Ex. C, Letter O2)

Manny Escamilla	Highlighted that there are areas that are annexable to the City	These comments relate to
	(particularly a portion of the Santa Ana River up to 100 acres and the Riverview Golf Course) that can serve as future open space. Is also concerned with the change in language in the GPU from "achieve" to "trying to achieve" when it comes to the 2 acres/1,000 residents parkland standard.	the GPU and not the Recirculated Draft PEIR. Please see Letters O1 and O4 related to open space and GPU policy updates.
Johan Flores	Pointed out that his understanding from the Recirculated Draft PEIR presentation is that since the City cannot resolve the existing deficit in recreational facilities the City is accepting the fact that the GPU will make the situation worse. Is also asking for more community input. He would also like to hear about input from the school board and whether their input will be included in the GPU. The school board unanimously supported the communities environmental justice requests last November and they would like to see policies in place to alleviate impacts to disadvantage communities.	The GPU Draft PEIR and Recirculated Draft PEIR objectively disclose the existing recreational facility deficit in the City and potential impact of the proposed GPU. It makes the finding that the impact would be significant, but does not imply that the City 'accepts' the deficit. The purpose of CEQA is to disclose information for use by decision-makers to mak informed decisions. The Notice of Availability for both the Draft PEIR and the Recirculated Draft PEIR were forwarded to the Sana Ana Unified School District as well as surrounding school districts (Tustin, Orange and Garden Grove None of the districts provided comments on the EIRs.

2.1 RESPONSE TO COMMENTS

This section includes all comment letters received on the Recirculated Draft PEIR. Following each comment letter are the City's responses to each comment.

1

LETTER A1 – City of Irvine (3 page[s])

	cityo	firvine.or
webandy	City of Irvine, 1 Civic Center Plaza, P.O. Box 19575, Irvine, California 92623-9575 949	724-600
	A1	
Septen	nber 2, 2021	
	Sent via USPS a email: <u>newgeneralplan@santa-ana.</u> and <u>MMcCann@santa-ana.</u>	org
City of P.O. B	e McCann, Principal Planner Santa Ana Planning and Building Agency OX 1988 (M-20) Ana, CA 92702	
Subjec	t: Comment Letter for NOA for Recirculated Draft Program EIR for the Santa Ana General Plan Update (SCH No. 2020029087)	
Dear M	ls. McCann:	
analysi 2045 (e	Irvine staff reviewed the Recirculated Draft Program EIR (PEIR) as a supplement s to the original Draft PEIR for the proposed comprehensive General Plan Update excludes the 6 th Cycle Housing Element update) also known as Santa Ana's in City Beyond: A Shared Vision" General Plan.	
•	circulated Draft PEIR addresses the following changes: Reflect changes in the environmental setting; Reflect updates made to the GPU policies and implementation actions; Concludes that the recreation-related impacts of the proposed GPU would rest in a significant impact and to define a new project alternative to reduce these impacts (i.e., reduced park demand); and More thoroughly discusses and evaluates impacts related to environmental justice, including air quality/health risk, hazards, and recreation/open space.	ilt Inti
	on the review of the Recirculated Draft PEIR, staff would like to provide the ng comments:	
	Table 5.2-11 on Page 5.2-70: Revise last line item description from "Existing Lan Uses Total" to "Proposed Land Uses Total."	d A1
<u>Appen</u>	dix K - Traffic Impact Study Comments:	I
	Page K-98, Segment #84 Dyer Road from Pullman to Street to Red Hill: The tra study identified City of Santa Ana 23% fair share contribution towards D Widening. The widening segment should extend to the SR-55 NB Ramps. A	yer A1

Ms. Melanie McCann September 2, 2021 Page 2 of 3 to the ultimate geometry should be provided and coordinated with the City of Irvine. The last sentence under this bullet item should be revised to "...the City of Santa A1-2 Ana will provide a fair-share contribution of 23% for the future widening of Dyer cont'd (Red Hill to the SR-55 NB Ramps). 3. Page K-99 INT 100- Red Hill Avenue and Alton Parkway: Table 8-4 shows two different percentages, 21% for AM and 34.7% PM. The fair share contribution A1-3 should be based on the higher percentage. Therefore, this bullet item should identify City of Santa Ana's 34.7% fair share contribution towards Red Hill/Alton intersection improvements. 4. Page K-98 INT 105-Von Karman and Barranca: Table 8-4 shows 14.1% (PM) fair A1-4 share contribution. Update this bullet item to identify City of Santa Ana's 14.1% fair share contribution towards Von Karman/Barranca intersection improvements. 5. Table 8-5: The proposed mitigations did not bring the intersections to No Project Conditions. Per City of Irvine adopted Traffic Study Guidelines, a project that causes an impact will be required to mitigate the intersection, at a minimum, back A1-5 to the baseline (i.e., No Project) condition. The proposed mitigations for Intersection #100 at Red Hill/Alton (PM) and Intersection #105 at Von Karman/Barranca (PM) do not mitigate the intersections back to No Project Condition. Additional improvements must be identified to address the LOS impact. 6. The City of Santa Ana has a number of fair share contributions to address level of service impacts in the City of Irvine. Please contact Lisa Thai, Supervising A1-6 Transportation Analyst, at Ithai@cityofirvine.org to initiate discussion regarding fair share funding agreement. Thank you for the opportunity to review and comment on the proposed project. Please add us to the project notification distribution lists (email and USPS) especially public A1-7 meetings/adoption hearings and approval notifications. Staff appreciates the opportunity to review any further information regarding this project as the planning process proceeds. If you have any questions, please contact Senior Planner Melissa Chao at 949-724-6395 or at mchao@cityofirvine.org. Sincerely, Marika Poynter **Principal Planner**

	Melanie McCann
Se	otember 2, 2021
Pa	ge 3 of 3
ec:	Kerwin Lau, Manager of Planning Services
	Sun-Sun Murillo, Project Development Administrator
	Lisa Thai, Supervising Transportation Analyst Steve Sherwood, Assistant City Engineer
	Stan Ng, Associate Engineer
	Melissa Chao, Senior Planner

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A1. Response to Comments from City of Irvine, dated September 2, 2021.

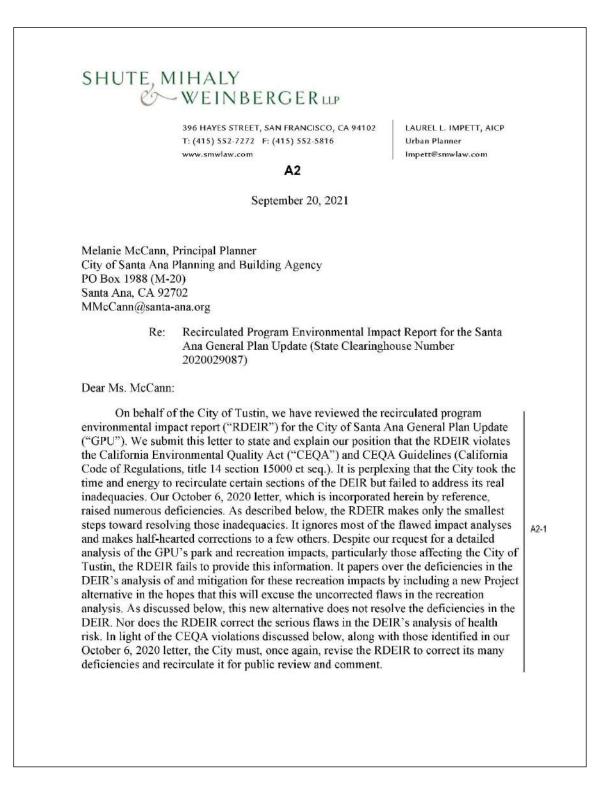
- Intro This paragraph is an introduction to the balance of the letter and summarizes the contents of the Recirculated Draft PEIR. No further response is needed.
- A1-1 The mis-labeling of the Proposed Land Uses Total in Recirculated Draft PEIR Table 5.2-11 has been corrected and is included in Volume II, *Updated Draft PEIR*.
- A1-2 This comment relates to the traffic study for the GPU as included as Appendix K of the Recirculated Draft PEIR. The comment requests specific transportation improvements and requests clarification of fair share payments by the City of Santa Ana. Note that IBI's traffic impact study (TIA) includes a comprehensive analysis of the potential impact of buildout of the GPU on the level of service (LOS) of 105 area intersections (including several intersections in adjacent cities) and 60 roadway segments. The results of this LOS analysis, however, are not reproduced or summarized in this EIR section because, pursuant to SB 743-passed in September 2013 and incorporated into updated CEQA Guidelines approved in December 2018-LOS and auto delay are no longer metrics to evaluate transportation impacts under CEQA. The updated guidelines codify the switch from LOS to vehicle miles traveled (VMT) as the metric for transportation analysis. VMT refers to the amount and distance of automobile travel attributable to a project. Although the LOS analysis in the TIA is not used to evaluate environmental impacts, the analysis supports the GPU and associated transportation standards of service in the circulation mobility element.

The recommendations provided in this comment will be forwarded to decision-makers as part of this Final Recirculated PEIR. No further response is required.

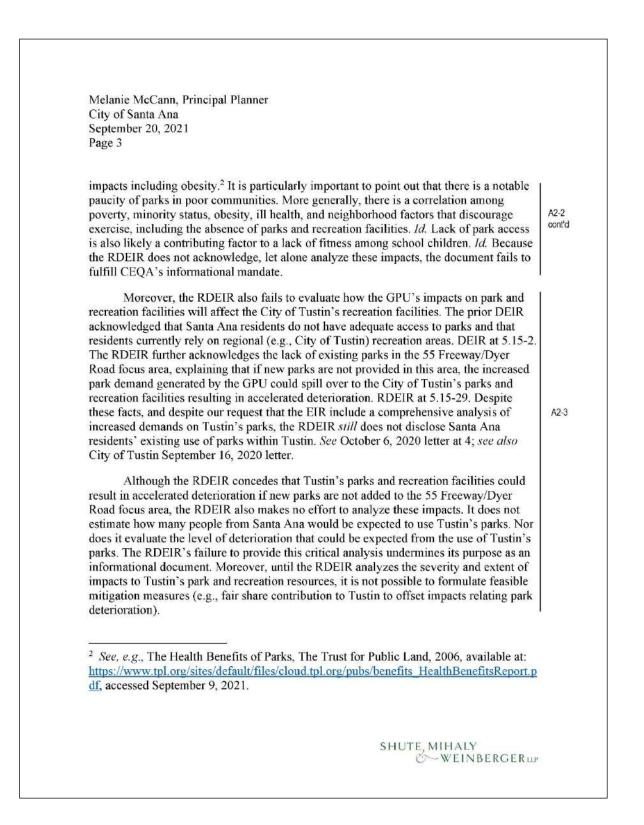
- A1-3 See Response A1-2.
- A1-4 See Response A1-2.
- A1-5 See Response A1-2.
- A1-6 See Response A1-2.
- A1-7 The comment requests that the City of Irvine be included on notification lists and receive notices of public hearings. The City of Irvine is included on the distribution list for project updates and hearings.

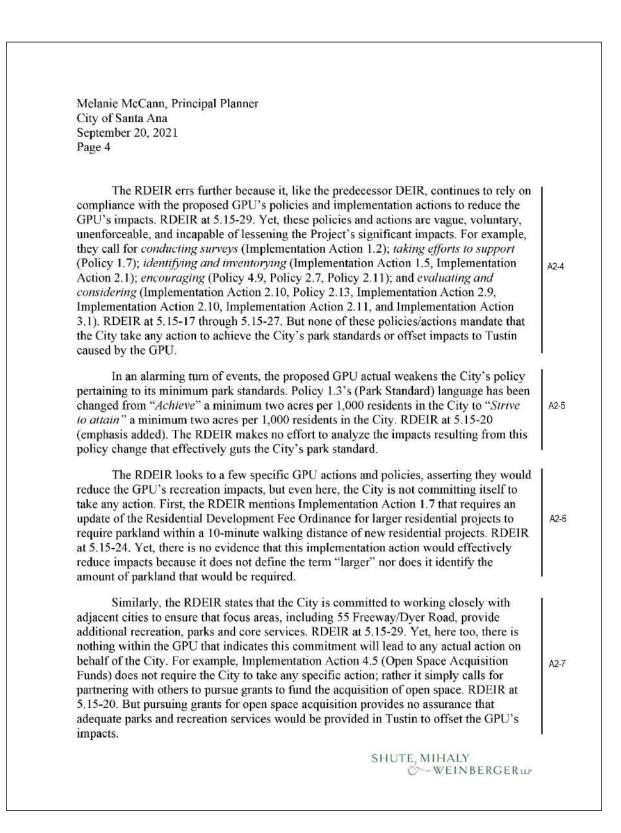
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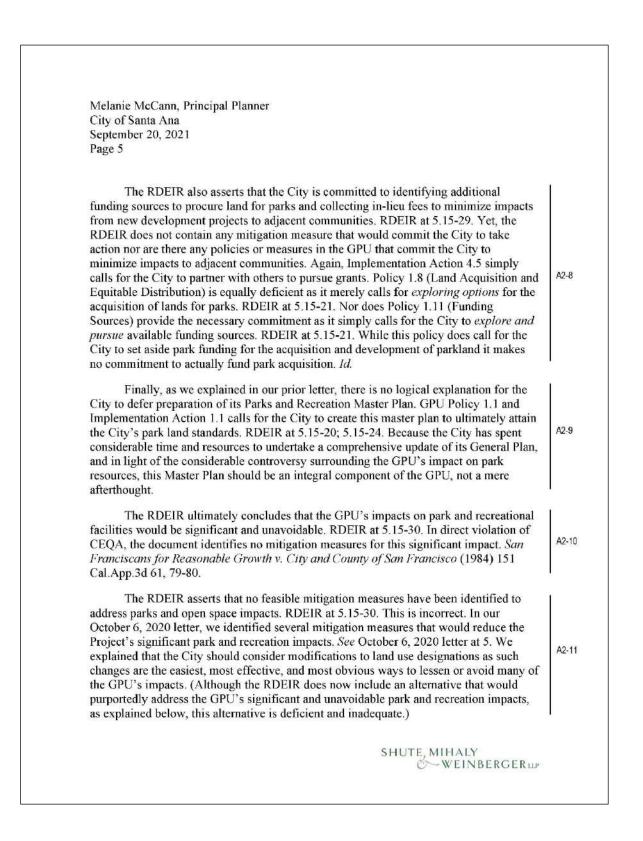
LETTER A2 – City of Tustin/Shute, Mihaly and Weinberger (13 page[s])



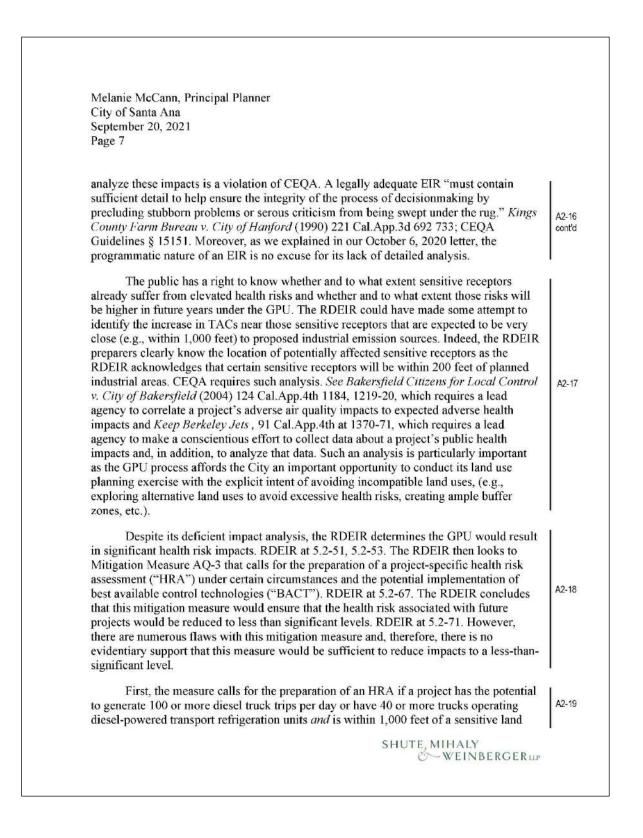




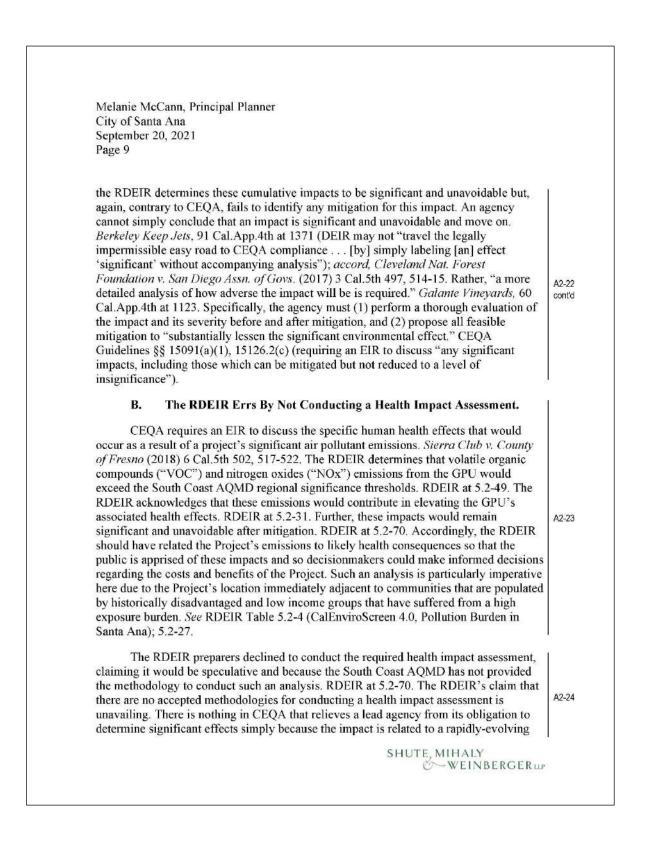


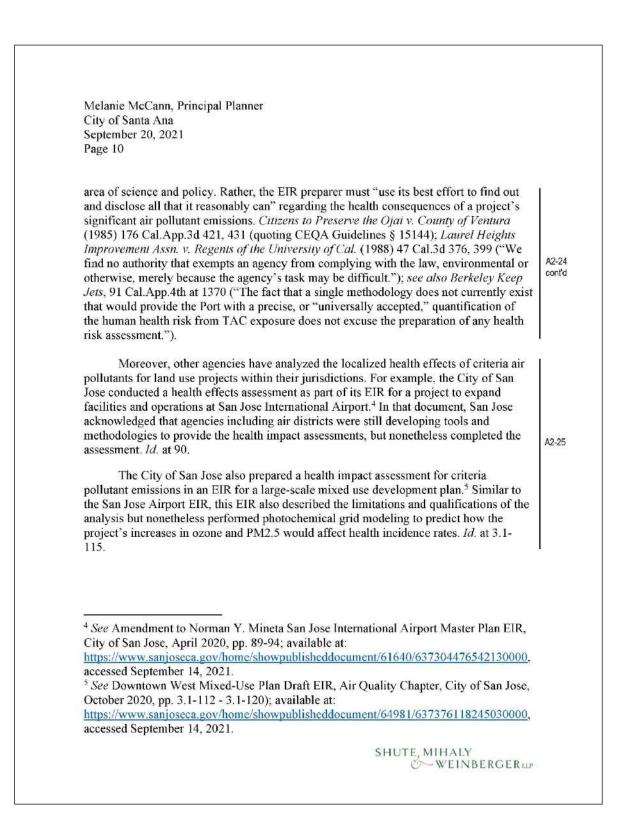


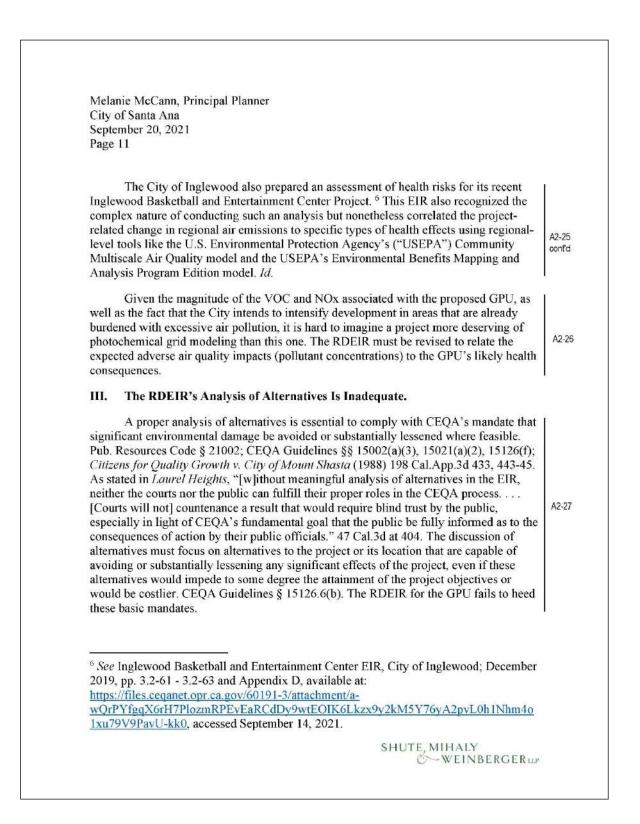
City of Sa	McCann, Principal Planner anta Ana er 20, 2021	
redesigna park and	e further explained that the City could identify potential locations for parks and te land uses now as part of this GPU to facilitate the eventual development of recreation facilities. Indeed, if the City prepared its Park Master Plan as part of land use planning process, it could identify opportunities and sites for park tent now.	A2
ensure the Freeway/ implement mechanis	e also stated that the City should identify a specific funding mechanism to at park development keeps pace with population growth, especially in the 55 Dyer Road Focus Area. As we explained above, the policies and itation actions included in the proposed GPU do not provide a specific funding m to ensure that Tustin's parks and recreation facilities are not adversely by the GPU.	A2
City cont deteriorat	nally, we requested that the EIR include a mitigation measure requiring that the ribute fair share funding to Tustin so that Tustin is able to avoid physical ion of its recreational facilities from overuse caused by the GPU. The RDEIR valuate <i>any</i> of these feasible mitigation measures.	A2
	ne RDEIR Fails to Adequately Analyze or Mitigate the GPU's Air Quality pacts.	ł
А.	The RDEIR Fails to Resolve the Deficiencies in the DEIR's Analysis of Health Risks.	
manufact expected industrial dry clean acknowle the City a at 5.2-52. significar	the RDEIR acknowledges that various industrial and commercial processes (e.g., uring, dry cleaning) allowed under the proposed land use plan would be to release toxic air contaminants ("TACs"). DEIR at 5.2-51. In addition, land uses, such as chemical processing facilities, chrome-plating facilities, and ers could also generate substantial emissions. <i>Id.</i> The RDEIR further edges that industrial areas are proximate to residential areas in several areas of and that certain of these areas are within 200 feet of sensitive receptors. RDEIR Despite acknowledging the potential for sensitive receptors to be exposed to a att increase in TACs as a result of the GPU, the RDEIR does not analyze how is from these industrial sources could impact nearby receptors.	A2-
	The RDEIR dismisses the obligation to conduct this analysis claiming that until velopment projects are proposed, emissions and concentrations cannot be ed or modeled. Although the RDEIR correctly concludes that such undefined would be potentially significant (at 5.2-52), the failure to make any attempt to	A2-
determine		1

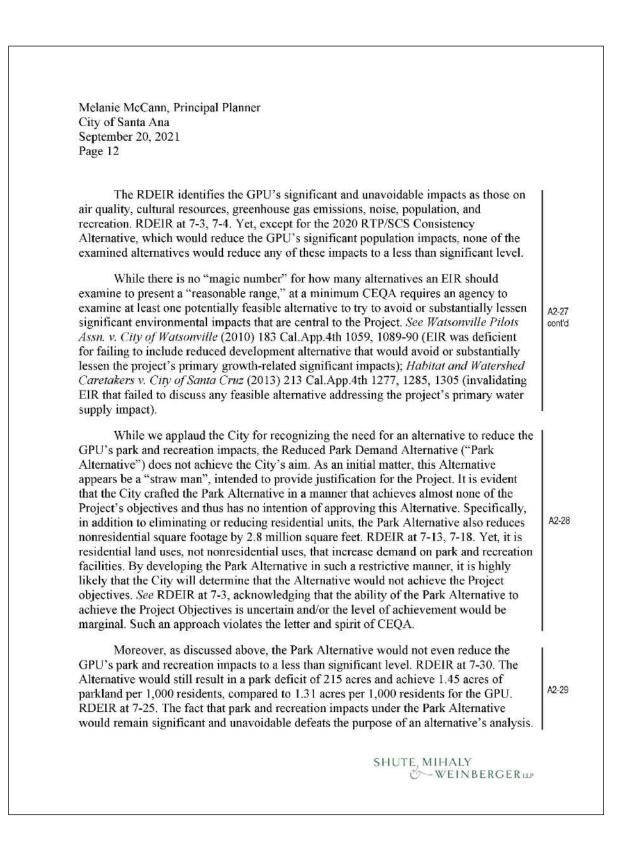












Melanie McCann, Principal Planner City of Santa Ana September 20, 2021 Page 13 In sum, the EIR's failure to consider feasible alternatives that reduce the Project's environmental impacts renders the document inadequate under CEQA. See, e.g., San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus (1994) 27 Cal.App.4th 713, 735-39. This critical omission makes the EIR of little utility to the public and A2-30 decisionmakers, who are left with no reasonable, less damaging option for development within the City. IV. The RDEIR Must Be Recirculated. Under California law, the present RDEIR cannot properly form the basis of a final EIR. CEQA and the CEQA Guidelines describe the circumstances that require recirculation of a draft EIR. Such circumstances include: (1) the addition of significant new information to the EIR after public notice is given of the availability of the DEIR but before certification, or (2) the draft EIR is so "fundamentally and basically inadequate A2-31 and conclusory in nature that meaningful public review and comment were precluded." CEQA Guidelines § 15088.5. Here, both circumstances apply. Decisionmakers and the public cannot possibly assess the GPU's impacts, or even its feasibility, through the present RDEIR, which contains numerous errors. In order to resolve these issues, the City must again revise and recirculate the RDEIR. Very truly yours, SHUTE, MIHALY & WEINBERGER LLP Jaune Hompett Laurel L. Impett, AICP, Urban Planner Matt West, City Manager CC: Nicole Bernard, Assistant City Manager Doug Stack, PW/Engineering Director Chad Clanton, Parks and Rec Director Irma Huitron, Assistant Director - Planning Scott Reekstin, Principal Planner Krys Saldivar, Public Works Manager 1414120.5 SHUTE, MIHALY -WEINBERGER LLP

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A2. Response to Comments from Shute, Mihaly and Weinberger on behalf of City of Tustin, dated September 20, 2021.

- A2-1 This comment is an introduction to the forthcoming comments in the letter. No response is required. In addition, the commenter's prior letter of October 6, 2020, which was addressed in the original Final PEIR, is incorporated by reference in this letter.
- A2-2 The commenter cites *Berkeley Keep Jets Over the Bay Committee v. Board of Port Com'rs* (2001) 91 Cal.App.4th 1344, *Galante Vineyards v. Monterey Peninsula Water Management Dist.* (1997) 60 Cal.App.4th 1109, and *Santiago County Water Dist. v. County of Orange* (1981) 118 Cal.App.3d 818, for the contention that the Recirculated Draft PEIR does not analyze the impacts of the City's parkland deficiency. These cases, however, all involved EIRs that omitted an integral component of a proposed project from the project description, and therefore the EIR failed to disclose the actual impacts of the project. Here, the EIR does not suffer from the same deficiencies. To the contrary, Section 5.15.4 of the Recirculated Draft PEIR evaluates the project's potential impacts on existing park and recreation facilities. As acknowledged in the Recirculated Draft PEIR, the projected increase in population from the General Plan Update (GPU) will lead to additional demands on parks and recreational facilities. The increased demand on the existing parks will result in physical deterioration of these resources and further exacerbate existing park deficiencies.

This additional demand will be met by park and recreational amenities developed and maintained by the City as well as private parks and recreational facilities owned and maintained by homeowner associations. The City's ability to plan and implement future parks and recreational facilities is tied to funding availability. Future development will also be required to dedicate land or pay in-lieu impact fees per the municipal code and the Quimby Act, which will fund future park acquisition and development to assist the city's parkland standard of 2 acres per 1,000 residents. The GPU requires new residential development to meet this standard, which would improve the ratio of parkland per resident. The Recirculated Draft PEIR also adds new GPU policies and implementation actions to address the impacts that the lack of parks and recreation will have on underserved communities—such as Community Element Policy 1.5, Land Use Element Policy 1.3, and Open Space Element Policies 1.4, 1.8, and 1.9 (see Section 5.15.3.2 of Recirculated Draft PEIR). Thus, this impact was properly analyzed in the Recirculated Draft PEIR.

To address this commenter's concern regarding the potential impact of development within the 55 Freeway/Dyer Road focus area, the City has added the following Mitigation Measure:

REC-01 The City shall monitor new residential development within the 55 Freeway/Dyer Road focus area. Development proposals for projects including 100 or more residential units shall be required to prepare a

public park utilization study to evaluate the project's potential impacts on existing public parks within a one half (1/2) mile radius to the focus area. The evaluation shall include the population increase due to the project and the potential for the new resident population to impact existing public parks within the radius. Each study shall also consider the cumulative development as in the 55 Freeway/Dyer Road area and the potential for a cumulative impact on existing public parks within the radius.

If the study determines that the project, or it's incremental cumulative impacts would result in a significant impact (substantial physical deterioration or substantial acceleration of deterioration) to existing public parks, the project shall be required to mitigate this impact. Measures to mitigate the significant impact may include, but are not limited to land dedication and fair-share contribution to acquire new or to enhance existing public parks within the radius. Mitigation shall be completed prior to issuance of occupancy permits.

Additionally, as included in Volume II, *Updated Draft PEIR* and in updated Appendix B-a, the City has supplemented/revised the following GPU Open Space policies and implementation actions:

POLICY OS-1.2 PARKS AND RECREATION SYSTEM* Provide and support a comprehensive and integrated network of parks, recreation facilities, trails and open space that is diverse, with a variety of active and passive recreational opportunities.

POLICY OS-1.3 PARK STANDARD* Establish and maintain public parks, open space and recreation requirements for new residential and nonresidential development to provide sufficient park and recreational opportunities for Santa Ana residents and visitors. Strive to Attain a minimum of two acres of land per 1,000 persons residing within the City of Santa Ana.

POLICY OS 1.4 PARK DISTRIBUTION Ensure the City residents have access to public or private parks, recreation facilities, or trails in the City of Santa Ana, within 10-minute walking and biking distance of home. Prioritize provision, programs, and partnerships in park deficient an environmental justice areas.

OS IA 1.7 Action Public parkland requirements for residential projects. Update the Residential Development Fee Ordinance for Residential Projects to require public parkland within a 10-minute walking distance with the City limits of the new residential projects. Allow developers a reduction in on-site open space by giving credits for the provision of park land for public use. Establish a process and program to incentivize publicly accessible open space through the coordination between two or more residential projects (of any size) to create public parkland and open space, such as exploring housing density bonus option.

OS IA 1.16 Acquisitions to meet Park Standard: Using the Park Master Plan as guidance, identify and acquire property within the City for park and open space use which will focus on bringing the park and recreation system to 2 acres of land per 1000 residents with a plan to keep pace with future urban growth.

The commenter cites an article from the National Recreation and Park Association which states that the typical park and recreation agency offers 9.9 acres of parkland per 1,000 residents. However, as the article acknowledges, the information in the article is not to be used as a benchmark because there is not a single set of standards for parks and recreation. Each community's needs and physical conditions are unique, and no single standard would be feasible or realistic. The City has discretion in setting its own goal of two acres of parkland per 1,000 residents, which the Recirculated Draft PEIR properly relies upon.

The commenter also includes a link to "The Health Benefits of Parks: The Trust for Public Land." This article discusses the importance of having access to parks, playgrounds, greenways, trails, and community open spaces to help keep Americans fit and healthy. CEQA does not require the Recirculated Draft PEIR to analyze the correlation of parks and public health. Regardless, the proposed GPU similarly includes policies and implementation actions that encourage more access to parkland to promote the health and wellness of the public—such as Policy 1.11 (Program Incentives), Policy 2.2 (Healthy Parks and Public Spaces), Policy 2.6 (Connections to Nature), Implementation Action 1.5 (Alternative Facilities), Implementation Action 1.6 (Program Accessibility), and Implementation Action 3.7 (Public Health and Wellness Collaboration Summit). (See Recirculated Draft PEIR, pp. 5.15-18 through 5.15-26.)

A2-3 As noted by the commenter, the Draft PEIR acknowledges the lack of existing parks in the 55 Freeway/Dyer Road focus area and concludes that if new parks are not provided in this area, increased park demand could result in spillover demand to surrounding areas. As this demand will occur incrementally over time and because other development and related park mitigation will also be occurring throughout the City, it is not possible to quantify this impact at this time. The City, therefore, has added Mitigation Measures REC-01 (see Response A2-2) to require the City to monitor development and to require a park utilization study for larger projects in the 55 Freeway/Dryer Road focus area and to mitigate potential impacts.

The City appreciates the commenter's concern and will continue to work with the City of Tustin in preparing its Parks and Recreation Master Plan, as stated in the Recirculated Draft PEIR (p. 5.15-29).

Pursuant to its outreach from January through May 2021, the City has added numerous GPU policies and Implementation Actions to address the existing park deficiencies and to minimize the adverse impact of GPU implementation to parks and open space (see Section 5.15.3 of RDEIR and updates included in Appendix B-a). These policies and

implementation actions address park master planning, distribution of parks, serving disadvantaged communities, timing for park development, facility maintenance, and community input and partnerships.

- A2-4 To the extent the commenter is stating that the proposed GPU's policies and implementation action cannot reduce the GPU's impacts because they are vague, voluntary, unenforceable, and incapable of lessening the project impacts, the comment misses the point. The GPU policies and implementation actions are not mitigation measures but are a part of the GPU; they are not being adopted as mitigation measures to reduce project impacts. As the Recirculated Draft PEIR explains, these policies will help the City achieve its long-term planning and growth goals, and the implementation actions related to each goal or policy will ensure successful monitoring of progress as a community (RDEIR, pp. 1-9 through 1-10). As included in Response A2-2, the City has refined GPU open space policies as well as added a CEQA mitigation measure to address the potential GPU recreational/parks impact on surrounding areas.
- A2-5 As included in Response A2-2, GPU Policy 1.3, Park Standard, has been revised as follows:

POLICY OS-1.3 PARK STANDARD* Establish and maintain public parks, open space and recreation requirements for new residential and nonresidential development to provide sufficient park and recreational opportunities for Santa Ana residents and visitors. Strive to Attain a minimum of two acres of land per 1,000 persons residing within the City of Santa Ana.

- A2-6 Please refer to Response A2-2. OS Implementation Action 1.7 has been revised to eliminate the word "larger." This provision would apply to all residential projects. The commenter also states that Implementation Action 1.7 cannot reduce the GPU's impacts because it does not identify the amount of parkland that would be required. However, Implementation Action 1.7 is a part of the GPU and is not a mitigation measure created to reduce project impacts. As the Recirculated Draft PEIR explains, these policies will help the City achieve its long-term planning and growth goals, and the implementation actions related to each goal or policy will ensure successful monitoring of progress as a community (RDEIR, pp. 1-9 through 1-10).
- A2-7 Contrary to the commenter's suggestion that the GPU's policies and implementation actions are deficient because they will not lead to any actual action on behalf of the City, these are a part of the GPU and are not being adopted as mitigation measures to reduce project impacts. As the Recirculated Draft PEIR explains, these policies will help the City achieve its long-term planning and growth goals, and the implementation actions related to each goal or policy will ensure successful monitoring of progress as a community (RDEIR, pp. 1-9 through 1-10). Accordingly, the policies and implementation actions—such as Implementation Action 4.5 (Open Space Acquisition Funds)—appropriately identify a plan for the City in implementing its proposed GPU.

A2-8 An EIR must only describe feasible mitigation measures that could minimize the project's significant adverse effects (State CEQA Guidelines § 15126.4(a)(1)). An EIR may decline to propose a mitigation measure that would not effectively address a significant impact. (*Napa Citizens for Honest Gov't v. Napa County Bd. of Supervisors* (2001) 91 Cal.App.4th 342, 365.) An EIR need not identify and discuss mitigation measures that are infeasible. (*Clover Valley Found. v. City of Rocklin* (2011) 197 Cal.App.4th 200, 245.) As analyzed in the Recirculated Draft PEIR, there are no feasible mitigation measures to reduce the significant and unavoidable recreation impacts (RDEIR, p. 5.15-30).

In response to the comment that Implementation Action 4.5 and Policy 1.11 (Funding Sources) do not commit the City to minimize recreation impacts, these policies and implementation actions are not mitigation measures adopted to reduce project impacts. These are designed as part of the GPU to help the City achieve its long-term planning and growth goals. Thus, these policies and implementation actions are geared toward minimizing impacts to neighboring communities.

- A2-9 As explained in the DEIR, the City will be preparing its Parks and Recreation Master Plan and is committed to working with cities adjacent to the GPU's Focus Areas to ensure that the Dyer/55 Focus Area and other growth areas of the City provide additional recreation, parks, and core services essential in making complete communities (DEIR, p. 5.15-16). This Parks and Recreation Master Plan is not identified as a mitigation measure in the DEIR, and therefore, to the extent that the City proposes to work on this plan as an implementation action in the future, it is not subject to the same rules prohibiting improper deferral of mitigation measures under CEQA.
- A2-10 An EIR must only describe feasible mitigation measures that could minimize the project's significant adverse effects (State CEQA Guidelines § 15126.4(a)(1)). An EIR may decline to propose a mitigation measure that would not effectively address a significant impact. (*Napa Citizens for Honest Gov't v. Napa County Bd. of Supervisors* (2001) 91 Cal.App.4th 342, 365.) An EIR need not identify and discuss mitigation measures that are infeasible. (*Clover Valley Found. v. City of Rocklin* (2011) 197 Cal.App.4th 200, 245.) As described in Response A2-2, the City has added Mitigation Measure REC-01 to reduced park-related impacts of the proposed GPU.

The commenter also cites to San Franciscans for Reasonable Growth v. City and County of San Francisco (1984) 151 Cal.App.3d 61, 79–80, where the court held that the environmental review should have embraced the cumulative impact of similar projects under environmental review even though the approval and construction of the project was not certain, and therefore the EIR undermined any effort to provide adequate mitigation measures. This case is not applicable here, where the Recirculated Draft PEIR appropriately determined that the park and recreation impacts are significant and unavoidable.

A2-11 Public Resources Code Section 21002 states:

The Legislature finds and declares that it is the policy of the state that public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects, and that the procedures required by this division are intended to assist public agencies in systematically identifying both the significant effects of proposed projects and the feasible alternatives or feasible mitigation measures which will avoid or substantially lessen such significant effects. The Legislature further finds and declares that in the event specific economic, social, or other conditions make infeasible such project alternatives or such mitigation measures, individual projects may be approved in spite of one or more significant effects thereof.

The Recirculated Draft PEIR determined that impacts related to parks and recreation would be significant and unavoidable and, in accordance with Public Resources Code Section 21081(b) and CEQA Guidelines Section 15093, the City will be required to adopt a Statement of Overriding Considerations if the project is approved by the City Council.

State CEQA Guidelines Section 15370 defines "mitigation" as including: a) avoiding the impact altogether by not taking a certain action or parts of an action; b) minimizing impacts by limiting the degree or magnitude of the action and its implementation; c) rectifying the impact by repairing, rehabilitating, or restoring the impacted environment; d) reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; e) compensating for the impact by replacing or providing substitute resources or environments. Where potentially significant impacts are identified, the Recirculated Draft PEIR proposes and describes mitigation measures designed to minimize, reduce, or avoid each identified potentially significant impact whenever it is feasible to do so (Pub. Resources Code § 21002.1(b); State CEQA Guidelines § 15126.4).

While mitigation measures may be imposed that require changes to the project, mitigation measures do not alter the description of the project or the actual project analyzed. Rather, the purpose of the Draft EIR is to fully disclose the environmental impacts of the project as proposed, then to provide mitigation, if possible, to reduce or eliminate the impacts. Where there are impacts that cannot be avoided, the Draft EIR identifies the impact and the reasons why the project is being proposed, notwithstanding the impact (CEQA Guidelines § 15126.2(b)). Appropriately, the Draft EIR focuses on mitigation measures that are feasible, practical, and effective. (*Napa Citizens for Honest Govt. v. Napa County Bd. Of Supervisors* (2001) 91 Cal.App.4th 342, 365.) As described in Response A2-2, the City has added Mitigation Measure REC-01 to reduce the park-related impacts of the GPU.

The comment recommends that the City modify land use designations to lessen and avoid the proposed GPU's impacts. As acknowledged in the comment, the Recirculated Draft

PEIR includes evaluation of the Reduced Park Demand Alternative, which modifies land use and reduces residential growth by eliminating and reducing certain residential land uses and intensities. As described in the Recirculated Draft PEIR, although this alternative would reduce recreation impacts, impacts would remain significant and unavoidable given the lack of available land for new parks (RDEIR, p. 7-30).

See Responses to Comments A2-28 and A2-29 regarding the adequacy of the Reduced Park Demand Alternative.

- A2-12 The recommendation to identify potential future park locations and redesignating land uses would be part of the GPU and not the environmental analysis under CEQA. Similarly, the phasing and preparation of the Park and Recreation Master Plan relative to the GPU is not a CEQA issue. Please see Response A2-11 regarding the Recirculated Draft PEIR inclusion of the Reduced Park Demand Alternative evaluated to less and avoid the GPU's impacts on parks and open space.
- A2-13 An EIR must describe feasible measures that could minimize the project's significant adverse impacts (State CEQA Guidelines § 15126.4(a)(1)) but it need not identify and discuss mitigation measures that are infeasible. "Nothing in CEQA requires an EIR to explain why certain mitigation measures are infeasible." (*Clover Valley Found. v. City of Rocklin* (2011) 197 Cal.App.4th 200, 245.) Nor must an EIR analyze in detail mitigation measures it concludes are infeasible. (*Cherry Valley Pass Acres & Neighbors v. City of Beaumont* (2010) 190 Cal.App.4th 316, 351.) If specific economic, social, or other conditions make mitigation measures infeasible, individual projects may be approved in spite of one or more significant effects (Pub. Resources Code § 21002).

The comment suggests that the City identify a specific funding mechanism to ensure that park development keeps pace with population growth. As discussed in the Recirculated Draft PEIR, there are multiple sources of funding to assist the City achieve its parkland standard of two acres per 1,000 residents. For example, the proposed GPU will add policies and implementation actions that will identify different funding sources, including nontraditional funding sources, to develop and maintain existing and new parks. (See e.g., Policy 1.11 (Funding Sources) on p. 5.15-21 of Recirculated Draft PEIR.) In addition, the Quimby Act already establishes a funding mechanism for parkland acquisition for all local jurisdictions, and future development in the city will be required to dedicate land or pay in-lieu impact fees (RDEIR, p. 5.15-28). Moreover, parks and recreational improvements will also be funded by grants and CDBG funds (RDEIR, p. 5.15-28).

There are no feasible or practical mitigation measures available to reduce recreationrelated impacts to less than significant levels. However, identification of this programlevel impact does not preclude the finding of less than significant impacts for subsequent projects analyzed at the project level.

- A2-14 See Response to Comments A2-2 and A2-3 regarding the impacts on Tustin's park and recreation facilities.
- A2-15 The commenter cites that the Recirculated Draft PEIR identifies that various industrial and commercial processes (i.e., stationary emissions) generate toxic air contaminants (TAC). The analysis in Recirculated Draft PEIR Section 5.2 is consistent with the South Coast AQMD CEQA Guidelines for program-level impact evaluation.

First, quantifying emissions associated with new industrial and commercial processes would be speculative. The GPU allows many land uses under the Industrial land use designation, and manufacturing is only one of the land uses allowed. Until an application for a new business is submitted to the City, it would be speculative to estimate what type of emissions would be generated and in what quantities. The DEIR analysis of these impacts is qualitative, not quantitative, because the specifics of these new facilities (where they would be built, what industrial and commercial processes would be implemented, emissions sources and quantities, etc.) are simply unknown at this time. See, e.g., CEQA Guidelines § 15064.7(a), significance threshold can be qualitative or quantitative; § 15142, EIR shall consider "qualitative as well as quantitative factors"; *Ebbetts Pass Forest Watch v. California Dept. of Forestry & Fire Protection* (2008) 43 Cal.4th 936, 954, CEQA analysis may include a general discussion where detailed, site-specific analysis would be speculative and require an analysis of specific acts that cannot reasonably be foreseen. Without these specifics, it is not possible to quantify what impacts would be from, for example, long-term stationary sources of emissions.

The Recirculated Draft PEIR analyzes impacts for the GPU, which is a long-range planning document and therefore lacks sufficient detail on specific development projects that would potentially be developed in the future (e.g., type, location, and sizing of potential sources of TACs). There is insufficient information available at this level of analysis to conduct a reasonable or scientifically valid analysis of TACs. Specific development projects in the city that have the potential to generate potentially significant risks associated with the release of TACs are required to undergo an analysis of their potential health risks associated with TACs based upon the specific details of each individual project. Overall, because there are no specific development projects identified or approved under the GPU and the location and exact nature of future development projects are unknown, determining health risk at this time is speculative.

Second, even if it were not speculative, the City of Santa Ana is not responsible for stationary emissions. Stationary emissions generated by industrial and stationary sources are at the sole discretion of the South Coast Air Quality Management District (South Coast AQMD). When new manufacturing land uses are proposed, the engineering design and review of the new equipment would be conducted by the South Coast AQMD. For stationary sources that are directly regulated by South Coast AQMD, South Coast AQMD requires a health risk assessment (HRA) to ensure that impacts are minimized. Under New

Source Review (South Coast AQMD Regulation XIII), any permit that has a net increase in emissions is required to apply Best Available Control Technology (equivalent to federal Lowest Achievable Emission Rate). It is only through this permitting process that the amount of emissions can be determined. That is why for a General Plan, which is programmatic in nature, it is speculative to conduct the analysis requested by the commenter, and the Recirculated Draft PEIR makes a general conclusion of potentially significant.

A2-16 See response to Comment A2-15. The Recirculated Draft PEIR analysis of these impacts is qualitative, not quantitative, because the specifics of these new facilities are simply unknown at this time (location, processes involved, emissions sources and quantities, etc.). See, e.g., CEQA Guidelines § 15064.7(a), significance threshold can be qualitative or quantitative; § 15142, EIR shall consider "qualitative as well as quantitative factors"; *Ebbetts Pass Forest Watch v. California Dept. of Forestry & Fire Protection* (2008) 43 Cal.4th 936, 954, CEQA analysis may include a general discussion where detailed, site-specific analysis would be speculative and require an analysis of specific acts that cannot reasonably be foreseen. Without these specifics, it is not possible to quantify impacts. The Recirculated Draft PEIR includes Mitigation Measure AQ-3 to ensure that industrial projects with mobile/area sources of emissions (i.e., warehouses) also prepare an HRA and include measures to ensure that risk does not exceed the thresholds of South Coast AQMD.

Furthermore, no new heavy industrial growth is anticipated as a result of buildout of the GPU. Though the GPU forecasts an increase in industrial land uses, this is mainly a result of redevelopment in areas proposed to be designated Industrial Flex. The Industrial Flex zone is being introduced in areas already designated for industrial land uses as a means of providing a buffer between existing industrial areas and existing residential areas (i.e., transition use). The intent of the Industrial/Flex zone is to allow for cleaner industrial and commercial uses, professional office, and creative live-work spaces. This proposed zone would not expand industrial areas in the city but would improve the air quality compatibility between existing areas in the city that are adjacent to industrial areas.

The comment cites *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 733, for the contention that a legally adequate EIR must contain sufficient detail to ensure the integrity of the decision-making process. However, the City believes that the Recirculated Draft PEIR, on a programmatic, general-plan level, adequately analyzes potential health risks. Moreover, in *Kings County Farm Bureau*, the court opined that the alternatives discussion in an EIR must thoroughly assess all reasonable alternatives and produce sufficient information to "permit a reasonable choice of alternatives" (*Kings County Farm Bureau* at 733), which is not applicable in this context.

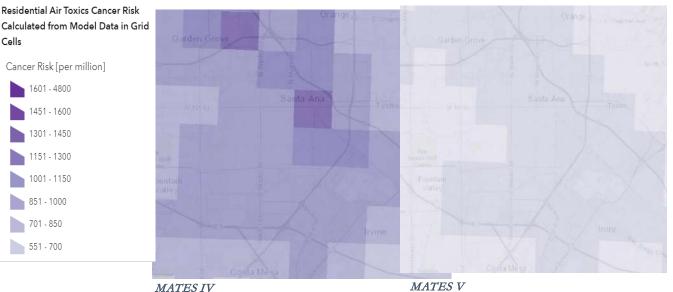
A2-17 See response to Comment A2-15. The commenter cites *Bakersfield Citizens for Local Control* v. City of Bakersfield (2004) 124 Cal.App.4th 1184, but that case is inapplicable here. That case concerned a specific retail shopping center, but the Recirculated Draft PEIR is for a

Citywide, long-range planning document that does not have details for future development projects (e.g., type, location, sizing of potential sources of TACs). The DEIR analysis of these impacts is qualitative, not quantitative, because the specifics of these new facilities are simply unknown at this time (where they would be built, what industrial and commercial processes would be implemented, emissions sources and quantities, etc.). See, e.g., CEQA Guidelines § 15064.7(a), significance threshold can be qualitative or quantitative; § 15142, EIR shall consider "qualitative as well as quantitative factors"; *Ebbetts Pass Forest Watch v. California Dept. of Forestry & Fire Protection* (2008) 43 Cal.4th 936, 954, CEQA analysis may include a general discussion where detailed, site-specific analysis would be speculative and require an analysis of specific acts that cannot reasonably be foreseen. Without these specifics, it is not possible to quantify impacts, such as from long-term stationary sources of emissions.

In Keep Berkeley Jets Over the Bay Com. v. Board of Port Comrs. (2001) 91 Cal.App.4th 1344 (a case the commenter cites), the court found that the agency failed to analyze the impacts of TACs because the EIR simply concluded that, because there was no "approved, standardized protocol" for assessing such a risk, the EIR could not evaluate the significance of the impact. Unlike Keep Berkeley Jets, the Recirculated Draft PEIR does qualitatively analyze the impacts of TACs on sensitive receptors and concludes that impacts would be potentially significant. The Recirculated Draft PEIR engages in a qualitative analysis of TAC health risk by analyzing the development and operation of new land uses under the GPU that could generate new sources of TACs in the city from stationary and mobile sources (RDEIR, pp. 5.2-50 through 5.2-53).

Specific development projects in the city that have the potential to generate potentially significant health risks associated with the release of TACs are required to undergo an analysis of those risks based upon the specific details of each individual project. Overall, because there are no specific development projects identified or approved under the GPU and the locations and exact nature of such projects are unknown, determining health risk at this time is speculative.

The South Coast AQMD recently released the results of the fifth Multiple Air Toxic Exposure Study (MATES V), which found that since the last MATES IV Study in 2012, health risk in Orange County has decreased by 53 percent.¹ Though new industrial and commercial facilities may generate new sources of TACs in Santa Ana, health risks in the city would not be exacerbated because risk in the whole air basin is decreasing substantially as a result of emissions regulations enacted by the U.S Environmental Protection Agency (EPA), the California Air Resources Board (CARB), and South Coast AQMD. Moreover, the GPU policies identified below seek to avoid incompatible uses and minimize health risk to sensitive receptors.



Because determining health risk at this time is speculative, analyzing an alternative land use scenario that would avoid excessive health risks is infeasible, and such an alternative would not meet project objectives (State CEQA Guidelines § 15126.6(c); RDEIR, pp. 3-1 through 3-2.)

The GPU includes several policies to reduce potential impacts:

Policy CN-1.5 Sensitive Receptor Decisions. Consider potential impacts of stationary and non-stationary emission sources on existing and proposed sensitive uses and opportunities to minimize health and safety risks. Develop and adopt new

Cells

Source: ESRI, 2021

¹ South Coast Air Quality Management District. 2021, August. Multiple Air Toxic Exposure Study V (MATES V). http://www.aqmd.gov/home/air-quality/air-quality-studies/health-studies/mates-v

regulations on the siting of facilities that might significantly increase pollution near sensitive receptors within environmental justice area boundaries.

- Policy CN-1.15 Community Emissions Reduction. Collaborate with the South Coast Air Quality Management District and local stakeholders in advance of designation as a priority community for air monitoring and reduction, and implement measures and strategies identified in other air monitoring and emissions reduction plans that are applicable to and feasible for Santa Ana.
- Policy CN-1.16 Indirect Source Rules. Support the development of regional legislation such as the drayage truck rule, advanced clean truck route, and heavy-duty low NOx rule by the South Coast Air Quality Management District.
- A2-18 Section 5.2, Air Quality, in the Recirculated Draft PEIR requires implementation of Mitigation Measure AQ-3 to reduce project-level impacts of TACs. Mitigation Measure AQ-3 ensures that new industrial/warehouse development evaluates mobile-source emissions of TACs and minimizes risk below the South Coast AQMD threshold (i.e., 10 in a million cancer risk and 1 hazard index). It also requires preparation of an HRA in accordance with policies and procedures of the State Office of Environmental Health Hazard Assessment and South Coast AQMD. An HRA is required when a project generates more than 100 truck trips and is within 1,000 feet of a sensitive use, consistent with the 2005 CARB Air Quality and Land Use Handbook: A Community Health Perspective (CARB Handbook). Facilities that generate fewer than 100 trucks or are farther than 1,000 feet from sensitive land uses would not generate concentrations of diesel particulate matter (DPM) emissions with the potential to exceed the 10 in a million threshold. And as noted in response to Comment A2-17, DPM emission rates from heavy trucks have decreased substantially since the 2005 CARB Handbook was prepared. As a result, the threshold of 100 trucks and 1,000 feet distance is a conservative buffer distance for requiring HRAs.

At the request of the commenter, Mitigation Measure AQ-3 will clarify that this protocol requires consideration of both mobile and stationary sources as part of the HRA impact analysis and will specifically identify the South Coast AQMD threshold values. Additions are shown in <u>underlined text below</u>. This update is included in Volume II, *Updated Draft PEIR*

AQ-3 Prior to discretionary approval by the City of Santa Ana, project applicants for new industrial or warehousing development projects that 1) have the potential to generate 100 or more diesel truck trips per day or have 40 or more trucks with operating diesel-powered transport refrigeration units, and 2) are within 1,000 feet of a sensitive land use (e.g., residential, schools, hospitals, or nursing homes), as measured from the property line of the project to the property line of the nearest

sensitive use, shall submit a health risk assessment (HRA) to the City of Santa Ana for review and approval. The HRA shall be prepared in accordance with policies and procedures of the State Office of Environmental Health Hazard Assessment and the South Coast Air Quality Management District and shall include all applicable stationary and mobile/area source emissions generated by the proposed project at the project site. If the HRA shows that the incremental cancer risk and/or noncancer hazard index exceed the respective thresholds, as established by the South Coast AQMD at the time a project is considered (i.e., 10 in one million cancer risk and 1 hazard index), the project applicant will be required to identify and demonstrate that best available control technologies for toxics (T-BACTs), including appropriate enforcement mechanisms, are capable of reducing potential cancer and noncancer risks to an acceptable level. T-BACTs may include, but are not limited to, restricting idling on-site, electrifying warehousing docks to reduce diesel particulate matter, or requiring use of newer equipment and/or vehicles. T-BACTs identified in the HRA shall be identified as mitigation measures in the environmental document and/or incorporated into the site plan.

It should be noted that although individual projects will be mitigated to below the South Coast AQMD threshold of 10 in a million cancer risk, cumulative impacts would remain significant and unavoidable.

A2-19 See response to Comment A2-18. The threshold of 1,000 feet in distance is a conservative buffer distance for requiring HRAs for warehouse project. Mitigation Measure AQ-3 does not include specific requirements for industrial and commercial process emissions because these facilities would be required to prepare an HRA as part of the South Coast AQMD New Source Review/Title V permit process (see response to Comment A2-15). For stationary sources that are directly regulated by South Coast AQMD, South Coast AQMD requires an HRA to ensure that impacts are minimized. Under New Source Review (South Coast AQMD Regulation XIII), any permit that has a net increase in emissions is required to apply Best Available Control Technology (equivalent to federal Lowest Achievable Emission Rate).

Thus, the intent of Mitigation Measure AQ-3 is to capture projects, like warehouse projects, that may not generate stationary source emissions but would generate DPM emissions. This ensures that the City considers potential health risk impacts to existing and planned sensitive receptors during discretionary review. Mitigation Measure AQ-3 also requires that the HRA consider stationary sources of emissions. No additional mitigation measures were incorporated into the Recirculated Draft PEIR for industrial and commercial processing TACs because there are existing regulations that require an HRA

for these facilities, and the South Coast AQMD permit process ensures less than significant project-level impacts from these sources.

- A2-20 See response to Comment A2-19. Pursuant to the CEQA Guidelines Section 15126.4(a)(1)(B), mitigation measures may specify performance standards for mitigating a significant impact when it is impractical or infeasible to specify the specific details of mitigation during the EIR review process, provided the lead agency commits to implement the mitigation, adopts the specified performance standard, and identifies the types of actions that may achieve compliance with the performance standard. In this case, the nature or extent of mitigation that may be required depends on what is proposed. Mitigation Measure AQ-3 lays out clear performance standards in the event that health risk exceeds the South Coast AQMD thresholds of 10 in one million and 1 hazard index. At the request of the commenter, Mitigation Measure AQ-3 will specifically identify the South Coast AQMD threshold values of 10 in one million cancer risk and 1 hazard index (see Volume II, *Updated Draft PEIR*). Mitigation Measure AQ-3 is not improper deferral and is enforceable by the City of Santa Ana.
- A2-21 See also responses to Comments A2-18 through A2-20. The commenter recommends mitigation to avoid siting sensitive land uses within the buffer distances identified in the 2005 CARB Handbook. Impacts of the environment on a project are not CEQA impacts (*California Building Industry Association v. Bay Area Air Quality Management District* (2015) 62 Cal.4th 369, Case No. S213478). The General Plan includes specific policies and implementation measures that align with the 2005 CARB handbook:
 - Policy LU-3.11 Air Pollution Buffers. Promote landscaping and other buffers to separate existing sensitive uses from rail lines, heavy industrial facilities, and other emissions sources. As feasible, apply more substantial buffers within environmental justice area boundaries.
 - Implementation Measure 3.2 Measure Design guidelines and standards. Update the zoning code's development and operational standards for industrial zones to address incompatibility with adjacent uses, including minimum distance requirements to buffer heavy industrial uses from sensitive receptors. Conduct a study to evaluate and establish appropriate minimum distances and landscape buffers between polluting industrial uses from sensitive receptors such as residences, schools, day care, and public facilities.

It should be noted that since the 2005 CARB Handbook was circulated, the California Building Code (Title 24), Part 6 (California Building and Energy Efficiency Standards) and Part 11 (California Green Building Standards Code [CALGreen]) have been updated to require enhanced filtration for multifamily residential buildings.

A2-22 See responses to Comments A2-15 through A2-21. The analysis of the proposed project in Section 5.2, *Air Quality*, of the Recirculated Draft PEIR is the analysis of the project's cumulative contribution to regional air quality impacts in the South Coast Air Basin (SoCAB). Similar to greenhouse gas (GHG) emissions impacts, no single project has the potential to cause the SoCAB to be in nonattainment. As a result, the Recirculated Draft PEIR evaluates the cumulative contribution of the proposed project to impacts in the SoCAB. South Coast AQMD has similarly stated this.

As identified in response to Comment A2-15, it is speculative to quantify TAC and cancer risk from stationary sources. The Recirculated Draft PEIR does not simply label these indirect impacts as significant without an accompanying analytical analysis. Section 5.2, *Air Quality*, includes an analysis and discussion of how the impact conclusion was reached.

The Recirculated Draft PEIR conservatively identifies that any increase in TACs generated within the city would cumulatively contribute to health risk impacts in the SoCAB (RDEIR, p. 5.2-70.). Though the GPU includes policies to reduce exposure of sensitive receptors to pollution, emissions cannot be determined or modeled until specific development projects are proposed. In other words, for this type of evaluation, project-specific information is needed to determine whether or not emissions from a project in the city exceed 10 in a million cancer risk. At this programmatic level of analysis, this information is speculative; therefore, the Recirculated Draft PEIR conservatively calls impacts significant.

An EIR must describe feasible measures that could minimize the project's significant adverse impacts (State CEQA Guidelines, § 15126.4(a)(1)) but need not identify and discuss mitigation measures that are infeasible. "Nothing in CEQA requires an EIR to explain why certain mitigation measures are infeasible" (*Clover Valley Found. v. City of Rocklin* (2011) 197 Cal.App.4th 200, 245). Nor must an EIR analyze in detail mitigation measures it concludes are infeasible (*Cherry Valley Pass Acres & Neighbors v. City of Beaumont* (2010) 190 Cal.App.4th 316, 351). If specific economic, social, or other conditions make such mitigation measures infeasible, individual projects may be approved in spite of one or more significant effects (Pub. Resources Code § 21002).

The comment states that the Recirculated Draft PEIR fails to identify any mitigation. However, Mitigation Measure AQ-3 would ensure that mobile sources of TACs not covered under South Coast AQMD permits are considered during subsequent project-level environmental review by the City. Individual development projects would be required to achieve the incremental risk thresholds established by South Coast AQMD, and TACs would be less than significant. But because the GPU would generate TACs that could contribute to elevated levels in the air basin, individual projects would nonetheless contribute to the higher levels of risk in the SoCAB, and the GPU's cumulative contribution to health risk is significant and unavoidable (RDEIR, p. 5.2-71).

There are no feasible or practical mitigation measures available to reduce the cumulative health-related impacts to less than significant levels. However, identification of this program-level impact does not preclude the finding of less than significant impacts for subsequent projects analyzed at the project level.

A2-23 The analysis in Recirculated Draft PEIR Section 5.2 is consistent with the South Coast AQMD CEQA Guidelines for program-level impact evaluation. The Recirculated Draft PEIR quantifies the increase in criteria air pollutants emissions in the city. However, at a programmatic level analysis, it is not feasible to quantify the increase in TACs from stationary sources associated with a general plan or meaningfully correlate how regional criteria air pollutant emissions above the South Coast AQMD significance thresholds correlate with basinwide health impacts (see pages 5.2-26 through 5.2-31).

To determine cancer and noncancer health risk, the location, velocity of emissions, meteorology and topography of the area, and locations of receptors are equally important as model parameters as the quantity of TAC emissions. The white papers in Appendix D of the Original Final PEIR, "Assessing Regional Criteria Pollutant Emissions Impacts Under CEQA in Light of the Friant Ranch Ruling" and "We Can Model Regional Emissions, But Are the Results Meaningful for CEQA" describe several of the challenges of quantifying local effects—particularly health risks—for large-scale, regional projects, and these are applicable to both criteria air pollutants and TACs. Similarly, the two amicus briefs filed by the air districts on the Friant Ranch case (see Appendix E of the Original Final PEIR) describe two positions regarding CEQA requirements, modeling feasibility, variables, and reliability of results for determining specific health risks associated with criteria air pollutants. The discussions also include the distinction between criteria air pollutant emissions and TACs with respect to health risks. Additionally, the South Coast AQMD's Significance Thresholds and Monitoring demonstrate the infeasibility based on the current guidance/methodologies. The following summarizes major points about the infeasibility of assessing health risks of criteria air pollutant emissions and TACs associated with implementation of a general plan.

Air Quality Districts' Criteria Air Pollutant Significance Thresholds and Modeling

To achieve and maintain air quality standards, the South Coast AQMD has established numerical emission indicators of significance for regional and localized air quality impacts for both construction and operational phases of a local plan or project. The South Coast AQMD has established the thresholds based on "scientific and factual data that is contained in the federal and state Clean Air Acts" and recommends "that these thresholds be used by lead agencies in making a determination of significance." The numerical emission indicators are based on the recognition that the air basin is a distinct geographic area with a critical air pollution problem for which ambient air quality standards have been promulgated to protect public health. The thresholds represent the maximum emissions from a plan or project that are expected not to cause or contribute to an exceedance of

the most stringent applicable national or state ambient air quality standard. By analyzing the plan's emissions against the thresholds, an EIR assesses whether these emissions directly contribute to any regional or local exceedances of the applicable ambient air quality standards and exposure levels.

South Coast AQMD currently does not have methodologies that would provide the City with a consistent, reliable, and meaningful analysis to correlate specific health impacts that may result from a proposed project's mass emissions.²

For criteria air pollutants, exceedance of the regional significance thresholds cannot be used to correlate a project to quantifiable health impacts unless emissions are sufficiently high to use a regional model. South Coast AQMD has not provided methodology to assess the specific correlation between mass emissions generated and their effect on health (see Appendix E of the Original Draft PEIR San Joaquin Valley Air Pollution Control District's amicus brief, and South Coast AQMD's amicus brief).

Ozone concentrations depend on a variety of complex factors, including the presence of sunlight and precursor pollutants, natural topography, nearby structures that cause building downwash, atmospheric stability, and wind patterns. Secondary formation of particulate matter (PM) and ozone can occur far from sources as a result of regional transport due to wind and topography (e.g., low-level jet stream). Photochemical modeling depends on all emission sources in the entire domain (i.e., modeling grid). Low resolution and spatial averaging produce "noise" and modeling errors that usually exceed individual source contributions. Because of the complexities of predicting ground-level ozone concentrations in relation to the National Ambient Air Quality Standards (AAQS) and California AAQS, it is not possible to link health risks to the magnitude of emissions exceeding the significance thresholds.

Current models used in CEQA air quality analyses are designed to estimate potential project construction and operation emissions for defined projects. The estimated emissions are compared to significance thresholds, which are keyed to reducing emissions to levels that will not interfere with the region's ability to attain the health-based standards. This serves to protect public health in the overall region, but there is currently no CEQA methodology to determine the impact of emissions (e.g., pounds per day) on future concentration levels (e.g., parts per million or micrograms per cubic meter) in specific

² In April 2019, the Sacramento Metropolitan Air Quality Management District (SMAQMD) published an Interim Recommendation on implementing *Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502 ("*Friant Ranch*") in the review and analysis of proposed projects under CEQA in Sacramento County. Consistent with the expert opinions submitted to the court in Friant Ranch by the San Joaquin Valley Air Pollution Control District (SJVAPCD) and South Coast AQMD, the SMAQMD guidance confirms the absence of an acceptable or reliable quantitative methodology that would correlate the expected criteria air pollutant emissions of projects to likely health consequences for people from project-generated criteria air pollutant emissions. The SMAQMD guidance explains that while it is in the process of developing a methodology to assess these impacts, lead agencies should follow the Friant Court's advice to explain in meaningful detail why this analysis is not yet feasible. Since this interim memorandum SMAQMD has provided methodology to address health impacts. However, a similar analysis is not available for projects within the South Coast AQMD region.

geographic areas. CEQA thresholds, therefore, are not specifically tied to potential health outcomes in the region.

Stationary Source Impacts

Regional emissions are divided into two major source categories: stationary and mobile sources. The GPU provides a land use plan that designates land uses for employmentgenerating uses, including Industrial and Industrial Flex. These broad categories cover a wide variety of potential uses. For a programmatic environmental document, it is speculative to determine the exact nature of and location of stationary sources within these employment-generating categories. Therefore, it is not possible to determine what types of TACs would be generated on an individual site. Additionally, because the exact nature of the future industrial uses is speculative for this programmatic assessment, the quantity of toxic air contaminants generated by the proposed project is also unknown. Thus, for programmatic, general-plan-level assessments, it is not feasible to conduct regional dispersion modeling to determine the incremental contribution of risks associated with land use changes.

New stationary, industrial sources near environmental justice (EJ) communities would be minimal. Furthermore, no new heavy industrial growth is anticipated with buildout of the GPU. Though the GPU forecasts an increase in industrial land uses, this is mainly a result of redevelopment in areas proposed to be designated Industrial Flex. As identified in the GPU, the Industrial Flex zone is being introduced in areas already designated for industrial land uses to provide a buffer between existing industrial areas and existing residential areas (i.e., transition use). The intent of the Industrial Flex zone is to allow for cleaner industrial and commercial uses, professional office, and creative live-work spaces. This proposed zone would not expand industrial areas in the city and would improve the air quality compatibility for existing areas in the city that are adjacent to industrial areas.

Missing Health Risk Assessment Parameters

The Draft PEIR air quality analysis of mobile emissions was based on EMFAC2017. Modeling in the Recirculated Draft PEIR captures the total increase in criteria air pollutant emissions, including PM_{2.5}, within the entire city. Individual roadway segments were not modeled because modeling available for the Recirculated Draft PEIR and used for air quality and greenhouse gas emissions modeling is aggregated VMT. It does not discern between vehicle miles traveled on freeways, major arterials, and other local roadways. For accurate modeling, it is necessary to have data regarding the sources and types of criteria air pollutants and TACs, location of emission points, velocity of emissions, the meteorology and topography of the area, and the location of receptors (worker and residence). So, although exhaust PM_{2.5} identified in the EIR may be a good surrogate to estimate the quantity of TACs from on-road vehicle travel citywide, emissions quantity

alone does not include all the necessary modeling parameters to ascertain whether or not TAC emissions generated would result in a cancer or noncancer health risk.

Decrease in Emissions from Existing Conditions (Table 5.2-11)

As the lead agency, the City defined the existing baseline conditions consistently as the existing physical conditions. However, vehicle emission factors will substantially decrease in future years; therefore, in order to provide a "normalized" comparison of the proposed project to existing conditions, the Recirculated Draft PEIR uses the existing (baseline) land use conditions with future emission factors to compare impacts of the proposed project. However, as shown in Table 5.2-11, the results indicate that emissions of NOx, CO, SO₂, PM₁₀, and PM_{2.5} (including transportation sector PM_{2.5}) would decrease from existing conditions. Only VOC emissions would exceed the South Coast AQMD thresholds. As identified above, exhaust PM_{2.5} is good surrogate to estimate health risk. As a result, health risks associated with the proposed project would also decrease over the long-term buildout of the General Plan Update. Therefore, modeling of health impacts was not conducted for the proposed project.

Summary

The CEQA document must provide an analysis that is understandable for decision making and public disclosure. Regional-scale modeling may provide a technical method for this type of analysis, but it does not necessarily provide a meaningful way to connect the magnitude of a project's criteria pollutant emissions to health effects without speculation. Additionally, this type of analysis is not feasible at a general plan level because the location of emissions sources and quantity of emissions are not known.

- A2-24 See response to Comment A2-23. The DEIR analysis of health impacts is qualitative, not quantitative, because the specifics of these new facilities (where they would be built, what industrial and commercial processes would be implemented, emissions sources and quantities, etc.) is simply unknown at this time. See, e.g., CEQA Guidelines, § 15064.7(a) (significance threshold can be qualitative or quantitative); § 15142 (EIR shall consider "qualitative as well as quantitative factors"); *Ebbetts Pass Forest Watch v. California Dept. of Forestry & Fire Protection (2008) 43 Cal.4th 936, 954* (CEQA analysis may include a general discussion where detailed, site-specific analysis would be speculative and require an analysis of specific acts that cannot reasonably be foreseen). Without these specifics, it is not possible to quantify impacts, such as what the long-term stationary sources emissions would be.
- A2-25 See response to Comment A2-23. The Recirculated Draft PEIR did not say that there are insufficient modeling tools to conduct a health impact analysis (HIA). The Recirculated Draft PEIR said that it would be speculative to conduct such an analysis because there is insufficient information on emissions sources and location to do so. Though other land use projects have conducted HIAs, this is because they had specific, project-level details

that made such analysis possible. These projects had a near-term buildout compared to a General Plan, which is analyzed over a long-term horizon. Additionally, these project specifically state that the current version of the EPA's BenMAP-CE model only has health impact functions associated with ozone and PM_{2.5}; therefore, a quantitative HIA is not possible for other criteria pollutants. An HIA does not conclude whether the predicted health effects are significant for CEQA purposes; rather, the predicted health effects are just additional information. However, even for projects that have conducted an HIA, the analysis ultimately concluded that the numeric data from the HIA did not provide meaningful information to the public or decision-makers because of the quantification and model limitations.

For regional pollutants, it is difficult to trace a particular project's criteria air pollutant emissions to a specific health effect. Moreover, the modeled results may be misleading because the margin of error in such modeling is large enough that, even if the modeled results report a given health effect, the model is sufficiently imprecise that the actual effect may differ from the reported results; that is, the modeled results suggest precision, when in fact available models cannot be that precise on a project level. (Inglewood Basketball and Entertainment Center Environmental Impact Report)

Moreover, as described in response to Comment A2-23, Recirculated Draft PEIR Table 5.2-11 indicates that emissions of NOx, CO, SO₂, PM_{10} , and $PM_{2.5}$ (including transportation sector $PM_{2.5}$) would decrease from existing conditions. Only VOC emissions, primarily from consumer product use, would exceed the South Coast AQMD thresholds.

As identified above, exhaust PM_{2.5} is good surrogate to estimate health risk. As a result, health risks associated with the proposed project would also decrease over the long-term buildout of the General Plan Update.

- A2-26 See responses to Comments A2-23 through A2-25.
- A2-27 An EIR must focus on alternatives that can avoid or substantially lessen one or more of the project's significant environmental impacts (State CEQA Guidelines, §§ 15126.6(a) to (b)).

State CEQA Guidelines Section 15126(f) describes that the range of alternatives evaluated in an EIR only includes alternatives needed to permit a reasoned choice and foster informed decision making. EIRs do not need to consider every conceivable alternative to a project, and there is no ironclad rule governing the nature or scope of alternatives other than the rule of reason. The City of Santa Ana, as the lead agency, selected four project alternatives that met the parameters identified by CEQA for alternatives. These alternatives include a reduced intensity alternative, a 2020 RTP/SCS consistency

alternative, a no project/current General Plan alternative, and a reduced park demand alternative.

Contrary to the commenter's assertion, CEQA does not require that the alternatives reduce a significant and unavoidable impact to less than significant. Instead, as stated above, CEQA requires that the alternatives avoid or *substantially lessen* one or more of the project's significant impacts. It is typical that alternatives developed for General Plan PEIRs are unable to reduce air quality, greenhouse gases, cultural, and noise impacts to less than significant. The scale of anticipated growth 20 year buildout of most cities and counties is almost inevitably going to result in significant impacts regardless of general plan policies, programs and EIR mitigation measures. Note for example, that the No Project alternative (existing General Plan) for the City of Santa Ana would not reduce any significant impacts of the proposed GPU to less than significant. The only Recirculated Draft PEIR alternative determined to eliminate a significant, unavoidable impact (population) is the RTP/SCS Consistency Alternative). To accomplish this, the alternative would be required to place a cap on development of existing entitlements within the Specific Plan/Special Zoning areas.

Table 7-9 of the Recirculated Draft PEIR shows how each of the selected alternatives substantially lessens one or more impacts of the project. As noted above and as the commenter acknowledges, the 2020 RTP/SCS consistency alternative reduces the population and housing impact from significant and unavoidable to less than significant.

Simply because some of the alternatives will not completely reduce significant and unavoidable impacts to less than significant does not mean that the discussion of alternatives is inadequate. Thus, the alternatives analysis in the EIR conforms to CEQA requirements, and additional alternatives are not required to be evaluated.

A2-28 The Reduced Park Demand alternative was strategically developed based on the detailed analysis of existing park and recreation facilities and their geographic relationship with proposed residential uses. It is not a "straw man." As analyzed in the Recirculated Draft PEIR, the City of Santa is park deficient under existing conditions and buildout of the existing General Plan and the proposed GPU could exacerbate this condition. The Reduced Park Demand substantially reduces residential uses (a reduction of 11,225 units, a 47 percent overall in the Focus Areas) to reduce demand and the resultant impact on parks and on open space. For the 55 Freeway/Dyer Road and South Bristol Street focus areas, the housing reduction would be from areas characterized as more than 1/2 mile from park facilities. The reduction in non-residential square footage (2.8 M SF) would also indirectly reduce park demand (due to the extent that new jobs indirectly results in population increase and also that employees/customers may also use recreation facilities). The reduction in non-residential uses for this alternative, however, was included to balance land use. Note in Recirculated Draft PEIR Table 7-3, that the Reduced Park Demand Alternative results in a jobs-to-housing ratio of 2.4, the highest of the project alternatives.

This represents a very 'jobs rich' scenario in comparison to a jobs: housing ratio of approximately 1.5 that is often cited as ideal.

- A2-29 Please refer to Response A2-27 regarding whether project alternatives are required to eliminate significant impacts of the GPU as proposed. The City of Santa Ana was unable to identify a project alternative what would achieve the majority of project objectives that could eliminate the significant Recreation impact. Note that although the commenter asserts that such an alternative should have been evaluated, an alternative that could potentially meet these parameters has not been suggested.
- A2-30 See response to Comment A2-27 through A2-29..
- A2-31 The commenter asserts that two stated circumstances for recirculation of the Recirculated Draft PEIR apply: 1) the addition of significant new information to the EIR after public notice is given of the availability of the DEIR but before certification, or 2) the DEIR is so "fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded." The commenter says that both circumstances apply here. The City of Santa Ana disagrees that the Recirculated Draft PEIR is inadequate or deprives the public of meaningful review of the proposed GPU. Moreover, there is no new substantial information in this Final Recirculated PEIR. The City contends that, pursuant to CEQA Guidelines Section 15088.5 (b) "[r]ecirculation is not required where the new information added to the EIR merely clarifies or amplifies or makes insignificant modifications to an adequate EIR."

Responses throughout this Final Recirculated EIR provide clarification and support the conclusions in the Recirculated Draft PEIR. For the reasons outlined below and in the Final EIR, revision of the Recirculated Draft PEIR, does not constitute substantial new information and does not include conditions warranting recirculation of the RDEIR.

State CEQA Guidelines Section 15088.5 sets forth the circumstances under which a lead agency must recirculate an EIR. A lead agency is required to recirculate an EIR when significant new information is added to the EIR after public notice is given of the availability of the Draft EIR but before certification of the Final EIR. Such information can include changes in the project or environmental setting as well as additional data or other information. New information added to an EIR is not considered "significant" unless the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect (including a feasible project alternative) that the project's proponents have declined to implement. As defined in State CEQA Guidelines Section 15088.5(a), significant new information requiring recirculation is that which shows any of the following:

1. A new significant environmental impact would result from the project or from a new mitigation measure proposed to be implemented.

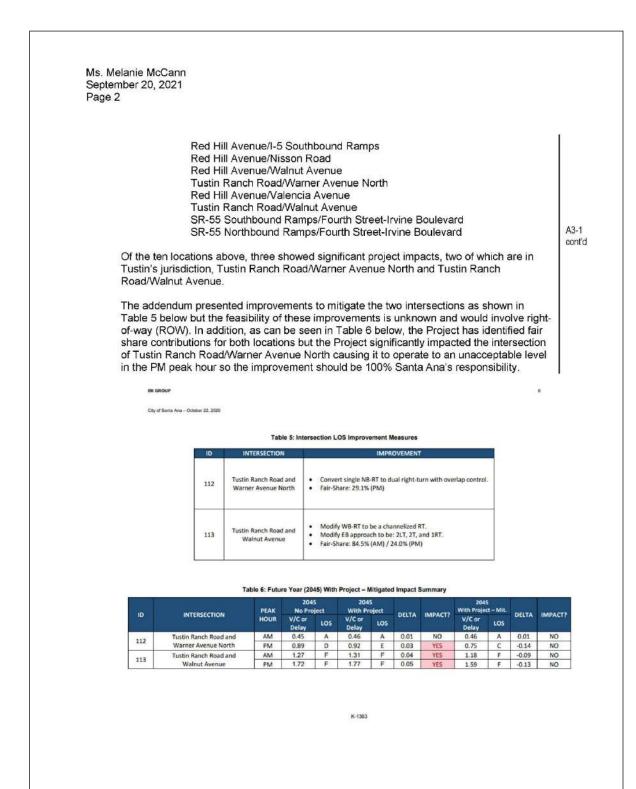
- 2. A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance.
- 3. A feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the environmental impacts of the project, but the project's proponents decline to adopt it.
- 4. The draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded.

The Recirculated Draft PEIR adequately analyzes the environmental effects of the GPU, and its conclusions are supported by substantial evidence in the record. None of the conditions requiring recirculation listed in State CEQA Guidelines Section 15088.5 have been met, and recirculation of the Recirculated Draft PEIR is not required. None of the revisions that have been made to the Recirculated Draft PEIR indicate new significant impacts or a substantial increase in the severity of an environmental impact identified in the Recirculated Draft PEIR, and none of the revisions identify a feasible project alternative or mitigation measure that is considerably different from those in the Recirculated Draft PEIR and would lessen the environmental impacts of the GPU. Furthermore, no new information brought forward supports that the Recirculated Draft PEIR is so fundamentally flawed that it precludes meaningful public review. Because none of the CEQA criteria for recirculation have been met, recirculation of the Recirculated Draft PEIR is not warranted. As stated in State CEQA Guidelines Section 15088.5(b), "recirculation is not required where the new information added to the EIR merely clarifies or amplifies or makes insignificant modifications in an adequate EIR." Therefore, the Recirculated Draft PEIR does not need to be recirculated.

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LETTER A3- City of Tustin, Public Works Department (3 page[s])

	rtment of Public Works las S. Stack, P.E. tor
	A3
Septer	nber 20, 2021
City of PO Bo Santa	e McCann, Principal Planner Santa Ana Planning and Building Agency x 1988 (M-20) Ana, CA 92702 ann@santa-ana.org ct: Santa Ana General Plan Update Traffic Impact Study and Addendum (October 2020)
Dear N	/is. McCann:
traffic : most c	ity of Tustin Public Works Department Traffic Engineering Section has reviewed the updated study and addendum dated October 2020. While the report and addendum have addressed of our traffic comments, the City of Tustin continues to have concerns that are based or us comments or are new based on Santa Ana's responses.
1)	As previously requested, a land use summary and corresponding trip generation comparison for current and proposed General Plan (i.e., the Project) conditions particularly for the so-called 55 Freeway/Dyer Road Focus Area would allow us to determine the extent of traffic changes on Tustin's roadway network due to the magnitude of the changes for the Proposed "Project" development. Without this information, the validity of the peak hour and average daily traffic (ADT) data and level of traffic impacts presented in the traffic study and addendum cannot accurately be verified.
2)	While the basis of the traffic data is a concern as stated above, we do have a comment on the current traffic study presented for the Project. The traffic study identified one intersection in the City of Tustin significantly impacted by the Project, Red Hill Avenue at Warner Avenue, that required mitigation. The improvement, a second left-turn for eastbound Warner Avenue, was reported with a fair share percentage. We do not agree with this finding as it was the proposed Project that caused the intersection to operate from acceptable to unacceptable level of service. Therefore it is 100% Santa Ana's responsibility and not a fair share as shown in the report.
3)	An October 22, 2020 addendum to the traffic study was prepared that expanded the study area as requested by Tustin and OCTA to include the following intersections:
	Red Hill Avenue/El Camino Real



Ms. Melanie McCann September 20, 2021 Page 3 4) Although not in Tustin's jurisdiction, the addendum showed a significant impact at SR-55 A3-1 Southbound Ramps/Fourth Street-Irvine Boulevard intersection during the AM peak hour but cont'd no mitigation was presented. Because of the proximity to Tustin-maintained intersections, this ramp intersection is still of interest to the City of Tustin and mitigation should be provided for the project impact. Should you have any questions regarding our comments, please do not hesitate to contact me at (714) 573-3172 or ksaldivar@tustinca.org. Regards, KSaldin Krys Saldivar Public Works Manager - Traffic/Transportation CC: Douglas S. Stack, P.E., Director of Public Works/City Engineer Justina Willkom, Director of Community Development Ken Nishikawa, P.E., Deputy Director of Public Works/Engineering Irma Huitron, Assistant Director of Community Development - Planning Scott Reekstin, Principal Planner

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A3. Response to Comments from City of Tustin, Public Works Department, dated September 20, 2021.

A3-1 This comment relates to the traffic study for the GPU as included as Appendix K of the Recirculated Draft PEIR. The comment requests specific transportation improvements and requests clarification of mitigation measures and fair share payments by the City of Santa Ana. Note that IBI's traffic impact study (TIA) includes a comprehensive analysis of the potential impact of buildout of the GPU on the level of service (LOS) of 105 area intersections (including several intersections in adjacent cities) and 60 roadway segments. The results of this LOS analysis, however, are not reproduced or summarized in this EIR section because, pursuant to SB 743-passed in September 2013 and incorporated into updated CEQA Guidelines approved in December 2018-LOS and auto delay are no longer metrics to evaluate transportation impacts under CEQA. The updated guidelines codify the switch from LOS to vehicle miles traveled (VMT) as the metric for transportation analysis. VMT refers to the amount and distance of automobile travel attributable to a project. Although the LOS analysis in the TIA is not used to evaluate environmental impacts, the analysis supports the GPU and associated transportation standards of service in the circulation mobility element.

The recommendations provided in this comment will be forwarded to decision-makers as part of this Final Recirculated PEIR. No further response is required.

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LETTER A4 – Department of Transportation, State of California (3 page[s])

	NT OF TRANSPORTATION		ASTERNA L
DISTRICT 12			
SANTA ANA, C	JRTH STREET, SUITE 100		
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FAX (657) 328-	6522		
TTY 711 www.dot.ca.c	gov/caltrans-near-me/district12		
Septe	ember 20, 2021		
Ms. N	Melanie McCann		File: IGR/CEQA
Senic	or Planner		SCH#: 2020029087
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	Regional Housing Needs Assessment (RHNA) allocation per the California Department of Housing & Community Development (HCD).	A4- con
4.	Any pedestrian facility enhancements from future housing development projects that are within Caltrans' Right of Way will need to comply with Caltrans Design Information Bulletin (DIB) 82-06. The aforementioned DIB can be found here: <u>https://dot.ca.gov/-/media/dot-media/programs/design/documents/dib82-06-a11y.pdf</u> . Coordinate with Caltrans to regarding infrastructure improvements encroaching on Caltrans facilities.	A4-
5.	Caltrans commends the City of Santa Ana on the current transit services efforts. We encourage the City to continue coordination with the Orange County Transportation Authority (OCTA) for opportunities to enhance multimodal strategies, including bus rapid transit and micro-transit mobility, and for future improvements in transit amenities to better serve the nearby SARTC and transit connectivity.	A4-
6.	Caltrans supports the City of Santa Anas efforts of improving and expanding their bicycle facilities. Connecting the City's bicycle facilities to regional networks such as the OC Loops promotes the use of Active transportation. Please coordinate with Caltrans regarding any bicycle facilities that encroach upon Caltrans facilities.	A4-
7.	Consider providing a discussion about bicycle facilities and amenities such as secure storage/parking facilities, showers, and wayfinding signage. These promote the use of Active Transportation.	A4-
Encro	achment Permit	
8.	Any project work proposed in the vicinity of the State Right-of-Way (ROW) would require an encroachment permit and all environmental concerns must be adequately addressed. If the environmental documentation for the project does not meet Caltrans's requirements for work done within State ROW, additional documentation would be required before approval of the encroachment permit. Please coordinate with Caltrans to meet requirements for any work within or near State ROW. For specific details for Encroachment Permits procedure, please refer to the Caltrans's Encroachment Permits Manual at: <u>http://www.dot.ca.gov/hg/traffops/developserv/permits/</u>	A4

September 20, 2021 Page 3 Please continue to keep us informed of this project and any future developments that could potentially impact State transportation facilities. If you have any questions or need to contact us, please do not hesitate to contact Jude Miranda at (657) 328-66229 or Jude.Miranda@dot.ca.gov Sincerely,

City of Santa Ana

SCOTT SHELLEY Branch Chief, Regional-IGR-Transit Planning Caltrans, District 12

"Provide a safe and reliable transportation network that serves all people and respects the environment"

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A4. Response to Comments from Department of Transportation, State of California, dated September 20, 2021.

- Intro The commenter describes the mission of the California Department of Transportation (Caltrans) which is to provide a safe and reliable transportation system that serves all people and respects the environment. The commenter notes that regional access to the project area is provided by Interstate 5 (I-5), State Route 22 (SR 22), and SR 55. No further response required.
- A4-1 This comment is regarding the proposed General Plan Update and does not provide a specific comment regarding the Recirculated Draft PEIR. The comment will be forwarded to decision makers for consideration.
- A4-2 This comment describes Caltrans' commitment to enhancing the safety on the transportation network and pursuing meaningful collaboration with their partners. Comment noted.
- A4-3 This comment is regarding Caltrans' support of the City's evaluation of potential opportunity sites for affordable housing. Comment noted.
- A4-4 This comment is regarding the need for future pedestrian facilities within Caltrans' right of way to abide by the requirements of Caltrans' Design Information Bulletin and does not provide a specific comment regarding the Recirculated Draft PEIR. The comment will be forwarded to decision makers for consideration.
- A4-5 This comment commends the City on its current transit service efforts and encourages its continued collaboration with the Orange County Transportation Authority. Comment noted.
- A4-6 This comment states that Caltrans' supports the City in its efforts to improve and expand their bicycles facilities. Comment noted.
- A4-7 This comment is regarding the proposed General Plan Update and does not provide a specific comment regarding the Recirculated Draft PEIR. The comment will be forwarded to decision makers for consideration.
- A4-8 Comment acknowledged. Any project work proposed in the vicinity of the State Rightof-Way would acquire an encroachment permit from Caltrans and would address environmental concerns per Caltrans's Encroachment Permits Manual and the requirements of CEQA.

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LETTER O1 – Cynthia Guerra, Rise Up Willowick (33 page[s])

RISEUP			
	September 15, 2021		
<u>Via Email</u>			
City of Santa Ana Pl	anning Commission		
20 Civic Center Plaz Santa Ana, CA 9270			
c/o Commission Sec SBernal@santa-ana.			
Re:	Santa Ana General Plan Update Open Space Element		
Dear Commissioners			
August 2021 draft G the Update's Open S on an earlier draft of Exhibit B, and a Nov	owick appreciates the opportunity to comment on the City of Santa Ana's eneral Plan Update ("the Update"). A memo to the Planning Commission on pace Element is attached as Exhibit A. ¹ We previously submitted comments the Update in an October 6, 2020 letter to City planning staff, attached as rember 9, 2020 letter to the Planning Commission, attached as Exhibit C. ents remain relevant to the draft Update and are hereby incorporated by		
avoid loss of parklan and requiring private revising these measu However, the Open S	and implementation actions in the Update's Open Space Element seek to d and create new public parkland, prioritizing currently underserved areas e developments to create public open space. We commend the City for res in response to public comments received on the previous draft Update. Space Element still falls short in several respects.	0	
sufficient to meet the residents in other con to three acres of park and under the Update	antly, the City's standard of two acres of parks per 1,000 residents is not e needs of City residents and is much less than the ratio of parkland to mparable jurisdictions. The City should increase its park standard from two cland per 1,000 residents. The City does not meet its current, low standard, e the total "parkland deficiency" is projected to increase further, from 118.14 is at build-out unless the City develops new parks. RDPEIR at 5.15-28. In		
Program Environme Act, which is addres	o not discuss the adequacy of the Update's accompanying Recirculated Draft ntal Impact Report ("RDPEIR") under the California Environmental Quality sed in a separate letter to City planning staff submitted on behalf of Rise Up Mihaly & Weinberger LLP.		

	this parkland deficiency and meet the needs of City residents, the City needs
more ambitious p	policies to facilitate parkland creation.
per 1,000 resider	should increase the Open Space Element's park standard to a ratio of three acres its, and should amend the Municipal Code to reflect this standard. In addition, as tached memo, we urge the City to revise the Open Space Element to:
	e the terms "parks," "parkland," "open space," "park deficient area" and nental justice area,"
	the "no net loss" policy to open space as well as to parkland and strengthen s on replacement of lost open space,
	se parkland dedication requirements for new development projects in order to City's enhanced park standard,
	d parkland dedication requirements to a broader range of market-rate nent projects,
	te that parkland created by dedication be located within a half-mile walking of the associated development, and
	le more specific incentive mechanisms to create new parkland, especially within cient and environmental justice areas.
actions that woul	hed memo suggests language for General Plan policies and implementation d address each of these issues. We respectfully request that the City revise the nent to reflect these proposals. Thank you for your consideration.
	Very truly yours,
	Rise Up Willowick
	Croger
	Cynthia Guerra

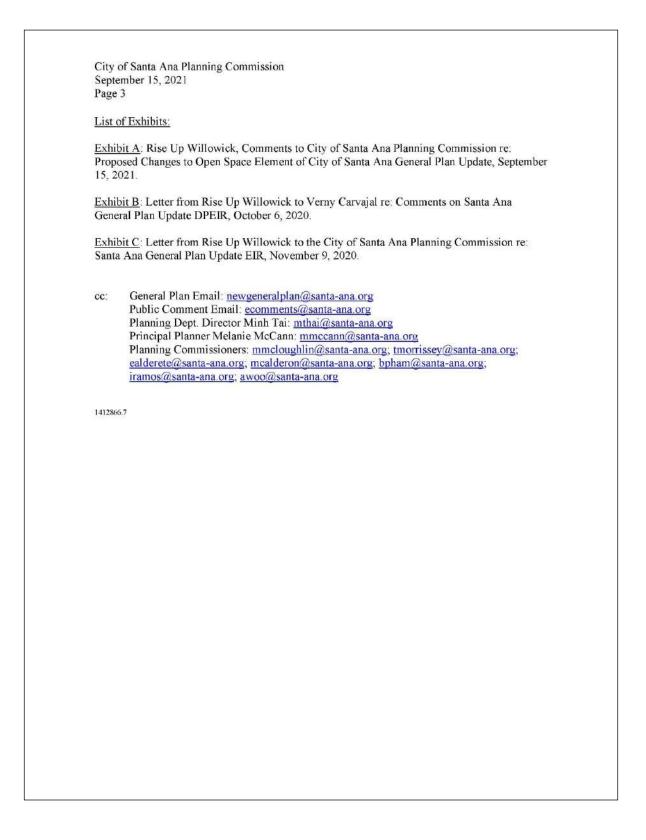


EXHIBIT A

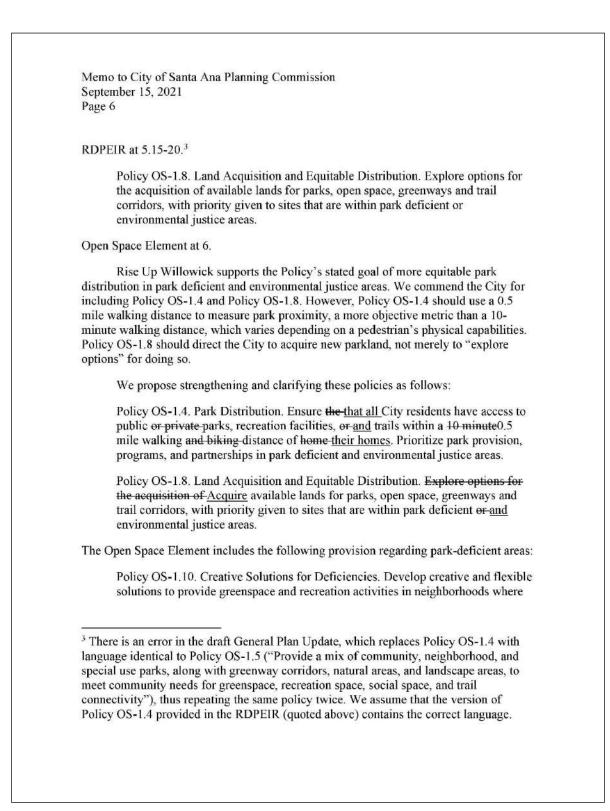
	O1 – Exhibit A
TO:	City of Santa Ana Planning Commission
FROM:	Rise Up Willowick
DATE:	September 15, 2021
RE:	Proposed Changes to Open Space Element of City of Santa Ana General Plan Update
	nentation actions involving parks and open space. These definitions are needed he scope and effects of those policies and actions. We propose modifying the e Element to define "parks" and "parkland" with reference to the Municipal
Open Spac Code's exi As mer	
Open Spac Code's exi As mea We follows: As para rese valu	he scope and effects of those policies and actions. We propose modifying the e Element to define "parks" and "parkland" with reference to the Municipal sting definition of "parks": used in the Open Space Element, "parks" and "parkland" have the same using as "parks" as defined in Municipal Code Section 31-1 (4).
Open Spac Code's exi As mea We follows: As par rese valu edu We	he scope and effects of those policies and actions. We propose modifying the e Element to define "parks" and "parkland" with reference to the Municipal sting definition of "parks": used in the Open Space Element, "parks" and "parkland" have the same ming as "parks" as defined in Municipal Code Section 31-1 (4). propose modifying the Open Space Element to define "open space" as used in the Open Space Element, "open space" means "any publicly-accessible cel or area of land or water, whether publicly or privately-owned, that is rved for the purpose of preserving natural resources, for the protection of uable environmental features, or for providing outdoor recreation or

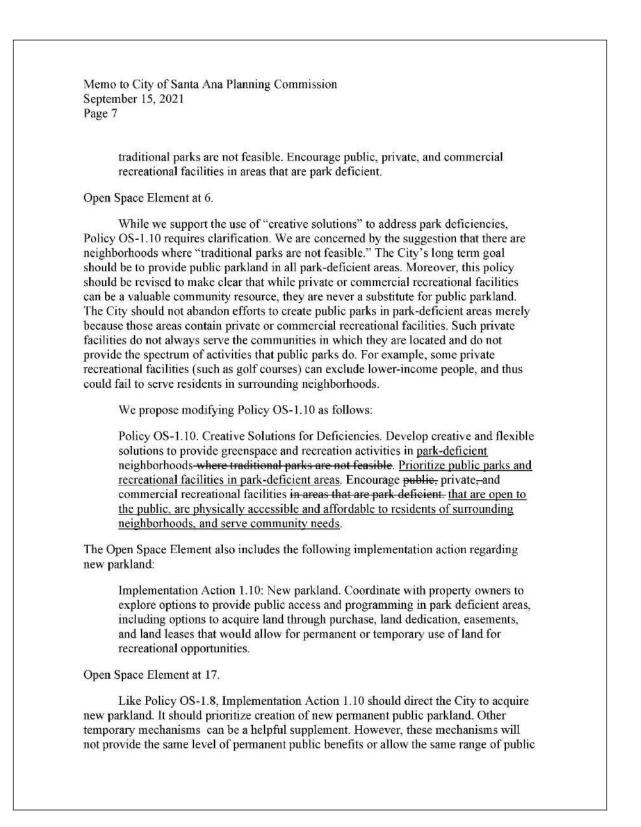
	As used in the Open Space Element, "park deficient area" means "a geographic area which is located more than 0.25 miles from the nearest public park of 5 acres or less and more than 0.5 miles from the nearest public park larger than 5 acres as measured along the shortest available pedestrian route."
	This is a modified version of the definition used in the August 2021 Recirculated the Program Environmental Impact Report (RDPEIR) for the General Plan Update. PEIR at 5.15-12, 5.15-13. ¹
area	We propose modifying the Open Space Element to define "environmental justice" as follows:
	As used in the Open Space Element, "environmental justice area" means "a disadvantaged community as defined by Government Code Section 65302(h)(4)(A), i.e. a low-income area that is disproportionately affected by environmental pollution and other hazards that can lead to negative health effects, exposure, or environmental degradation, or an area identified by the California Environmental Protection Agency pursuant to Section 39711 of the Health and Safety Code."
6530 Prot com Hea	This definition of "environmental justice area" is consistent with the RDPEIR, ch references SB 1000's definition of "disadvantaged community." Gov. Code § 02(h)(4)(A); RDPEIR at 4.15-4.16, 5.15-12, 5.15-15. The California Environmental ection Agency has identified 23 census tracts in Santa Ana as environmental justice munities because they have received a California Communities Environmental lth Screening (CalEnviroScreen) composite score greater than 75 percent. RDPEIR 19, 4-15.
2.	Proposed Addition of "No Net Loss of Open Space" Policy in General Plan Update
Elen	We propose the addition of a "no net loss of open space" policy in the Open Space nent:
	Policy OS-1.14: No Net Loss of Open Space. There shall be no net loss of Open Space in the city, excluding any acreage of a golf course that is redeveloped solely for 100% below-market rate housing. Any Open Space lost due to development shall be replaced at a ratio of at least 1:1.

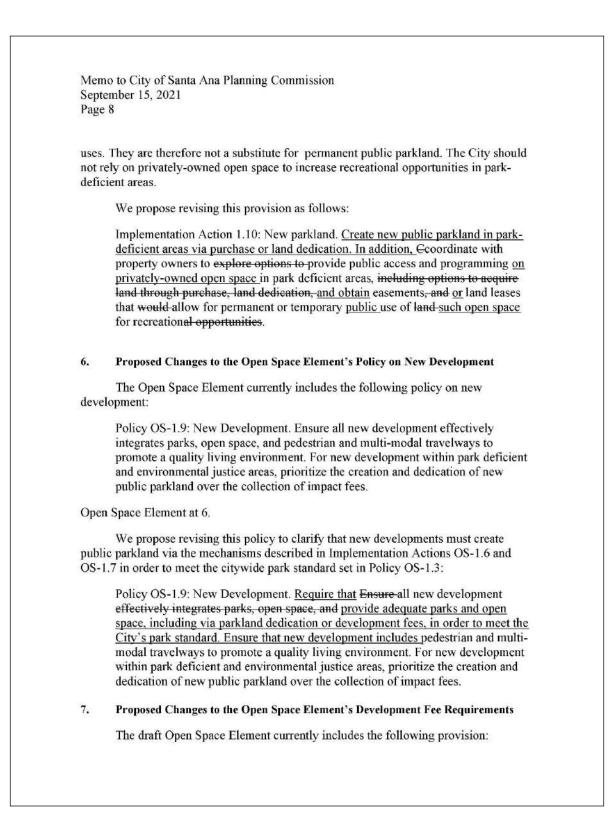
Memo to City of Santa Ana Planning Commission September 15, 2021 Page 3 Although the Open Space Element already includes a "no net loss of parkland" implementation action (discussed below), the "no net loss" concept is so important and fundamental that it should be articulated as a policy as well. Moreover, given the shortage of both parks and open space in the City, this policy should apply to all open space, not merely to parkland. The City already has a "parkland deficiency" of 118.14 acres, which is expected to increase to 299.48 acres under the Update unless new parks are built. RDPEIR at 5.15-28. Non-park open space provides an important supplemental recreational resource, and can potentially be developed into parkland in the future. The City cannot afford to lose any of its existing parkland or open space acreage. Proposed Changes to the Update's "No Net Loss" Implementation Action 3. The draft Open Space Element currently includes this provision: Implementation Action [OS-]1.4: No-net-loss of parkland. Establish land use provisions in the Municipal Code that prevent a net loss of public parkland in the city. Require at least a 1:1 replacement if there is any loss of public parkland due to public or private development. City of Santa Ana Draft General Plan Update, Open Space Element, at 16. The City proposes to enact the no-net-loss ordinance in 2022; the City's Parks, Recreation and Community Services Agency (PRCSA) would be responsible. We commend the City for including this "no net loss" implementation action in the Update. However, as explained above, this provision should apply to all open space, not only to parkland. The implementation action should specify that net loss of open space will be avoided by prohibiting development that causes such a net loss. Moreover, the provision should clarify that replacement parks and open space must be located within 0.5 miles of the lost parks and open space, to ensure that the replacements serve the same communities. Finally, the implementation action should require that development of replacement parks and open space occur before the closure of the lost parks or open space. This will ensure that there is not a lag or "gap" in time where communities lose park or open space access if the replacement process is delayed. We propose modifying Open Space Element Implementation Action OS-1.4 to read as follows: Implementation Action OS-1.4: No Net Loss of parkland Open Space. Establish land use provisions in the Municipal Code that prevent-prohibit development that causes a net loss of public parkland Open Space in the city, including City parks as well as other public and private land designated as Open Space under the General Plan or the zoning code, but excluding any acreage of a golf course that is

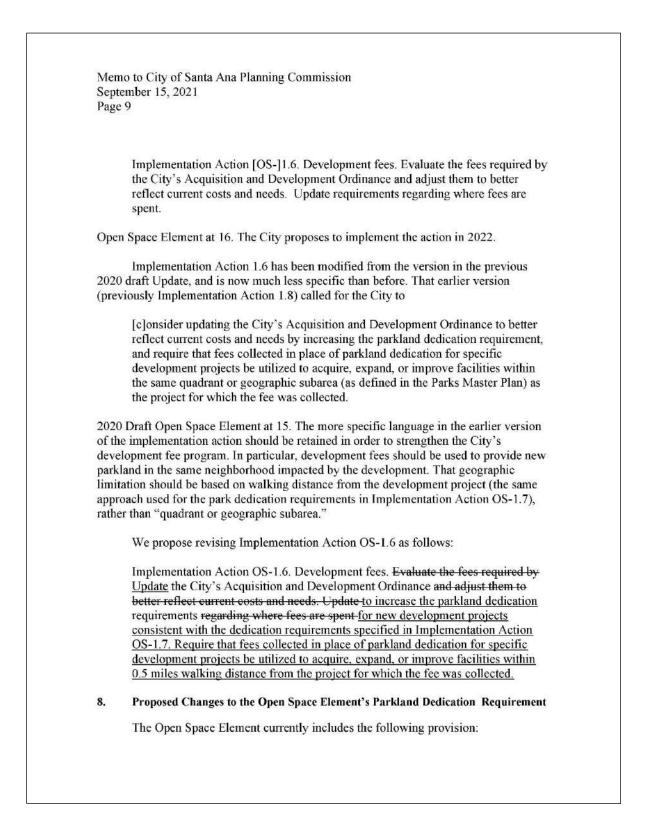
	no to City of Santa Ana Planning Commission ember 15, 2021 e 4
	redeveloped solely for 100% below-market rate housing. Require that any loss of Open Space be replaced at a ratio of at least a-1:1 replacement if there is any loss of public parkland due to public or private development., that loss of public parks be replaced by new public parks, and that replacement Open Space (including public parks) be located within 0.5 miles walking distance from the lost Open Space. Require that a plan for replacement, including specific location of replacement land, be approved before or as part of approval of any project that would change the use of existing parks or Open Space. Require that development of replacement parks or Open Space occur prior to the closure or redevelopment of the lost parks or Open Space.
4.	Proposed Changes to the Open Space Element's "Park Standard"
	The draft Open Space Element currently includes this "park standard" policy:
	Policy OS-1.3: Park Standard. Establish and maintain public open space and recreation requirements for new residential and nonresidential development to provide sufficient opportunities for Santa Ana residents and visitors. Strive to attain a minimum of two acres of park land per 1,000 residents in the City.
to-re prov and	of Santa Ana Draft General Plan Update, Open Space Element, at 5. This parkland- esident standard is already reflected in Municipal Code Section 35-108(a), which ides that "[d]evelopment of parks within the city will require the construction of park recreation facilities sufficient to provide two (2) acres of such facilities per one sand (1,000) population in the city."
"par	The August 2021 RDPEIR for the General Plan Update acknowledges that the currently does not meet this per-resident standard, and under the Update the total kland deficiency" is projected to increase further, from 118.14 acres to 299.48 acres tild-out unless additional parks are provided. RDPEIR at 5.15-28.
othe typic whil acres	The City's standard of two acres of parks per 1,000 residents is not sufficient to t the needs of City residents and is much less than the ratio of parkland to residents in r jurisdictions. According to the National Recreation and Park Association, the cal jurisdiction has a median of 9.9 of acres of parkland for every 1,0000 residents, e jurisdictions of more than 250,000 people (like Santa Ana) have a median of 10.9 s of parkland per 1,000 residents. ² Nationally, the bottom quartile of jurisdictions 250,000 people have a median of 5.3 acres of parkland per 1,000 residents.
	tional Recreation and Park Association, NRPA Agency Performance Review 8

 ratio of two acres per 1,000 people (2020 Draft Open Space Element at 5; Final Environmental Impact Report at 2-17), the new draft merely says the City will "strive to attaim" that standard. Open Space Element at 5. Given the importance of addressing the City's park deficiency, the policy's language should be mandatory. We therefore propose revising Policy OS-1.3 to read as follows: Policy OS-1.3: Park Standard. Establish and maintain public open space and recreation requirements for new residential and nonresidential development to provide sufficient opportunities for Santa Ana residents and visitors. Strive to attain The City shall achieve a minimum citywide park ratio of two-three acres of park land-per 1,000 residents in the City. For new residential development in Focus Areas, the City shall prioritize the creation and dedication of new public parkland over the collection of impact fees. We also propose that the Update include an additional implementation action calling for the City to amend the Municipal Code to reflect this standard: Implementation Action OS-1.16. Park Standard. Amend Municipal Code Chapter 35, Article IV to require that the City achieve a minimum citywide park ratio of three acres per 1,000 residents. 5. Proposed Changes to the Open Space Element's Policies on Parkland Creation and Distribution The Open Space Element currently includes the following policies relating to		no to City of Santa Ana Planning Commission ember 15, 2021 5
 2020 draft Update. While the previous draft policy called for the City to "achieve" a park ratio of two acres per 1,000 people (2020 Draft Open Space Element at 5; Final Environmental Impact Report at 2-17), the new draft merely says the City will "strive to attain" that standard. Open Space Element at 5. Given the importance of addressing the City's park deficiency, the policy's language should be mandatory. We therefore propose revising Policy OS-1.3 to read as follows: Policy OS-1.3: Park Standard. Establish and maintain public open space and recreation requirements for new residential and nonresidential development to provide sufficient opportunities for Santa Ana residents and visitors. Strive to attain The City shall achieve a minimum citywide park ratio of two-three acres of park land-per 1,000 residents in the City. For new residential development in Focus Areas, the City shall prioritize the creation and dedication of new public parkland over the collection of impact fees. We also propose that the Update include an additional implementation action calling for the City to require that the City achieve a minimum citywide park ratio of the City to require that the City achieve a minimum citywide park ratio of three acres per 1,000 residents. 5. Proposed Changes to the Open Space Element's Policies on Parkland Creation and Distribution 	dedi	Government Code section 66477, which allows cities to require that subdivisions cate parkland sufficient to provide up to three acres of park area per 1,000
 Policy OS-1.3: Park Standard. Establish and maintain public open space and recreation requirements for new residential and nonresidential development to provide sufficient opportunities for Santa Ana residents and visitors. Strive to attain-The City shall achieve a minimum citywide park ratio of two-three acres of park land-per 1,000 residents-in the City. For new residential development in Focus Areas, the City shall prioritize the creation and dedication of new public parkland over the collection of impact fees. We also propose that the Update include an additional implementation action calling for the City to amend the Municipal Code to reflect this standard: Implementation Action OS-1.16. Park Standard. Amend Municipal Code Chapter 35, Article IV to require that the City achieve a minimum citywide park ratio of three acres per 1,000 residents. 5. Proposed Changes to the Open Space Element's Policies on Parkland Creation and Distribution The Open Space Element currently includes the following policies relating to 	ratio Envi attai	0 draft Update. While the previous draft policy called for the City to "achieve" a park of two acres per 1,000 people (2020 Draft Open Space Element at 5; Final ronmental Impact Report at 2-17), the new draft merely says the City will "strive to n" that standard. Open Space Element at 5. Given the importance of addressing the
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Distribution The Open Space Element currently includes the following policies relating to		35, Article IV to require that the City achieve a minimum citywide park ratio of
	5.	
	park	
Policy OS-1.4. Park Distribution. Ensure the City residents have access to public or private parks, recreation facilities, or trails within a 10 minute walking and biking distance of home. Prioritize park provision, programs, and partnerships in park deficient an[d] environmental justice areas.		or private parks, recreation facilities, or trails within a 10 minute walking and biking distance of home. Prioritize park provision, programs, and partnerships in









Sep	mo to City of Santa Ana Planning Commission tember 15, 2021 e 10
	Implementation Action [OS-]1.7. Public parkland requirements for larger residential projects. Update the Residential Development Fee Ordinance for Larger Residential Projects to require public parkland within a 10-minute walking distance of the new residential projects. Consider allowing developers a reduction in on-site open space by giving credits for park development or the provision of private park land. Incentivize the creation of public parks that exceed City requirements, especially within park deficient and environmental justice areas. Establish incentives for coordination between two or more residential projects (of any size) to create larger and/or more centralized public park space, such as exploring housing density bonus options for the provision of open space as a public benefit and leverage Residential Development fee to partner with developers to create public open space.
Ope	en Space Element at 17. The City proposes to implement the action in 2022.
	Implementation Action 1.7 has been modified extensively from the version uded in the previous 2020 draft Update, with many of the specifics have been deleted earlier version (formerly Implementation Action 1.15) provided:
	Implementation Action 1.15. Public parkland requirements for larger residential projects. Amend the Residential Development Fee in the Municipal Code (Chapte 35, Article IV) to reflect requirements for Larger Residential Projects (100+ units, residential only or mixed-use) to facilitate the creation two acres of new public parkland within a 10-minute walking radius of the new residential project. Establish provisions that allow the Larger Residential Projects to reduce all onsite private and common open space requirements by 50 percent if new public parkland is immediately adjacent to or on the residential project property. Work with property owners and new development projects within the Focus Areas to identify options (e.g., 100 percent reduction of onsite private and public open space requirements) that would incentivize the creation of public park areas that are more than the minimum and/or if a location can expand park access for an adjoining underserved neighborhood and/or environmental justice area. Establish incentives for coordination between two or more residential projects (of any size) to create larger and/or more centralized public park space.
mu	0 Draft Open Space Element at 16. The new draft weakens the Update by replacing ch of the action's detail with general statements. The more detailed version should be ored, with further changes as outlined below.
	The Santa Ana Municipal Code already requires that subdivision map approvals

Memo to City of Santa Ana Planning Commission September 15, 2021 Page 11 provide two acres of park area per 1,000 people residing in the subdivision. The Quimby Act, Government Code section 66477, authorizes more than that, allowing cities to require that subdivisions dedicate parkland sufficient to provide up to three acres of park area per 1,000 subdivision residents. We propose modifying Implementation Action OS-1.7 to use all the authority the Quimby Act gives the City. It should require that subdivision dedications of parkland be sufficient to achieve a standard of three acres of parkland per 1,000 residents. In addition, we suggest modifying Action OS-1.7 to require that new ≥ 80% market-rate, nonsubdivision developments of 100 or more units dedicate three acres of new public parkland, and that \geq 80% market-rate non-subdivision developments of 50 to 99 units dedicate two acres of public parkland. These changes will help to address the City's parkland deficit, meet the General Plan's parkland standard, and promote equitable park access. We also suggest changing the limit on the location of dedicated parkland from a "10-minute walking radius" of the development, a subjective measure that varies depending on a pedestrian's physical capabilities, to a 0.5-mile walking radius, a more objective metric. The revised Implementation Action would read as follows: Implementation Action OS-1.7. Public parklands requirements for larger residential projects. Update the Residential Development Fee Ordinance for Larger Residential Projects to require public parkland within a 10-minute walking distance of the new residential projects. Amend Municipal Code Chapter 34, Article VIII to require that subdivision map approvals for residential subdivisions of more than 50 parcels dedicate parkland sufficient to provide three acres of park area per 1,000 people residing in the subdivision, consistent with Policy OS-1.3. Amend Municipal Code Chapter 35, Article IV to require that projects including 100+ residential units that are 80 percent market-rate or more and do not require a subdivision dedicate three acres of new public parkland concurrent with the completion of and within a 0.5-mile walking radius of the new residential project, and to require non-subdivision projects of 50 to 99 residential units that are 80 percent market-rate or more to dedicate two acres of public parkland concurrent with the completion of and within a 0.5 mile walking radius of the project. Consider allowing developers a reduction in on site open space by giving credits for park development or the provision of private park land. Establish provisions that allow these projects to reduce all onsite private and common open space requirements by 50 percent if new public parkland is provided within a 0.5-mile walking radius and by 80 percent if the new public parkland is immediately adjacent to or on the residential project property. To the greatest extent possible, parkland created via this dedication process shall be located in park-deficient neighborhoods and environmental justice areas. Incentivize the creation of public

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> parks that exceed City requirements, especially within park deficient and environmental justice areas. Establish incentives for coordination between two or more residential project (of any size) to create larger and/or more centralized public park space, such as a housing density bonus for the provision of open space as a public benefit and leveraging of Residential Development fees to partner with developers to create public open space.

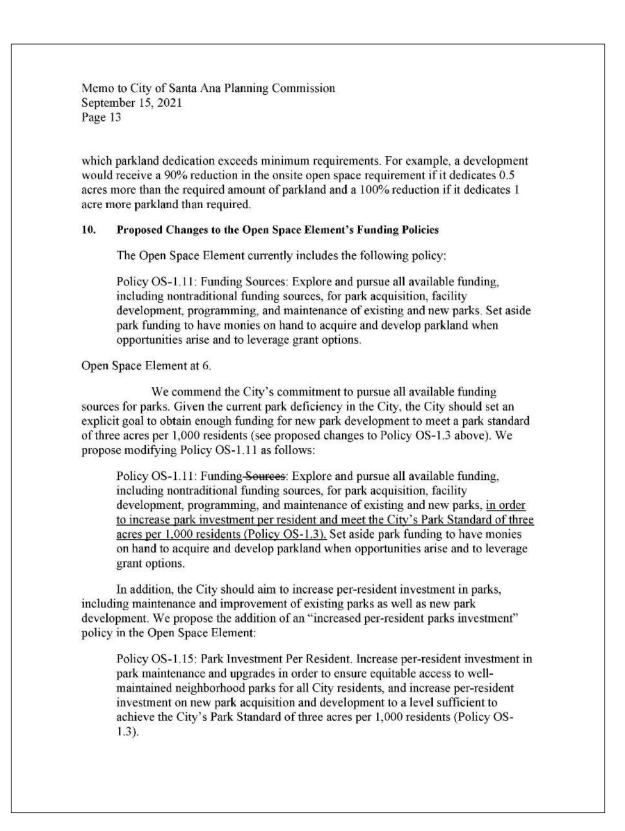
9. Clarification of the Open Space Element's Incentives for Parkland Creation

The new draft Open Space Element deletes an implementation action included in the previous 2020 draft (Implementation Action OS-1.16), which indicated that the City should "[d]evelop an incentives program that encourages private development and public agencies to provide park and recreation facilities beyond the minimum requirements."

Similarly, Implementation Action OS-1.7 now calls for the City to "[i]ncentivize the creation of public parks that exceed City requirements, especially within park deficient and environmental justice areas" and to "[e]stablish incentives for coordination between two or more residential projects (of any size) to create larger and/or more centralized public park space, such as exploring housing density bonus options for the provision of open space as a public benefit and leverag[ing] Residential Development fee[s] to partner with developers to create public open space." The Open Space Element should describe these incentives in greater detail.

As suggested by Action OS-1.7, the City could provide a density bonus to development projects that exceed public parkland dedication requirements. This would be similar to the density bonuses provided to projects containing below-market-rate units under Government Code section 65915 (codified in Santa Ana Municipal Code Chapter 41, Article XVI.I). The density bonus could be provided on a sliding scale: development projects which exceed minimum parkland dedication by a greater amount would receive a larger bonus. The size of the maximum density bonus for additional parkland dedication should be no greater than the 25% maximum density bonus for below-market-rate units under the City's existing density bonus ordinance. Santa Ana Municipal Code § 41-1604(a). However, development projects which include below-market-rate units and dedicate more parkland than required should be eligible to receive *both* the parkland density bonus and the affordable housing density bonus. Use of one bonus should not preclude or limit the use of the other.

In the previous draft of the Open Space Element, Implementation Action 1.15 suggested a "100 percent reduction of onsite private and public open space requirements" if a development dedicates public park areas that exceed the minimum dedication requirement. 2020 Draft Open Space Element at 16. The City should consider a revised version of this incentive: reductions of onsite open space should reflect the amount by

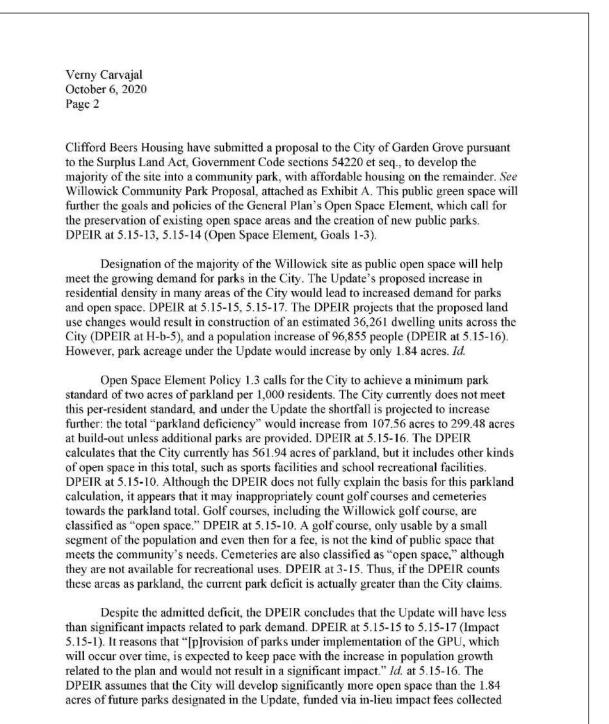


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EXHIBIT B

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T: (415	YES STREET, SAN FRANCISCO, CA 94102) 552-7272 F: (415) 552-5816 nwlaw.com	GABRIEL M.B. ROSS Attorney Ross@smwlaw.com
	October 6, 2020	
Verny Carvajal Principal Planner City of Santa Ana Planning Agency 20 Civic Center Plaza P.O. Box 1988 (M-20) Santa Ana, CA 92702	g and Building	
	nents on Santa Ana General Plan U inghouse No. 2020020987	pdate DPEIR.
Dear Mr. Carvajal:		
Santa Ana General Plan Uj Environmental Impact Rep Santa Ana, including the V Environmental Quality Ac that the DPEIR thoroughly in the following comments site as open space, (2) prov undermining the Housing I "HOO"), and (3) revise the	Up Willowick, I write to provide comp date ("the Update") and its accomp port ("the DPEIR"). The Update wil Villowick Golf Course site, for man t ("CEQA"), Public Resources Cod r assess the Update and its environm s, we urge the City to (1) continue to vide for more affordable housing un Element and the City's Housing Op e DPEIR to fully analyze the Update displacement and environmental just	panying Draft Program l guide the development of y years, and the California e § 21000 et seq., requires mental impacts. As set forth o designate the Willowick der the Update and avoid portunity Ordinance (the e's environmental impacts,
I. The bulk of the W	illowick site should continue to be	designated as open space.
Area, one of the focus area The Willowick site is curre maintain that designation. designation until and unles	f Course site lies within the West Sa as slated for new development under ently designated as open space, and DPEIR at D-6 to D-8. Rise Up Will as there is a proposal for developing rust for Public Land, the California	r the Update. DPEIR at 4-6. the Update proposes to owick supports this part of the site with



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Verny Carvajal October 6, 2020 Page 3

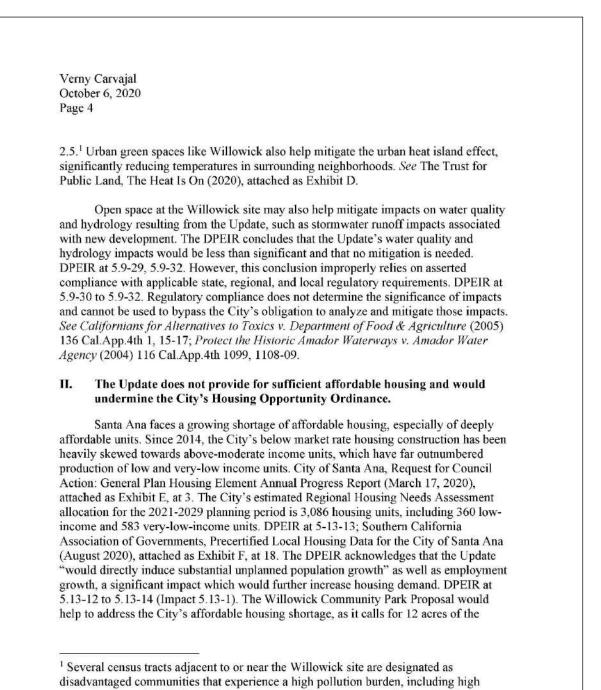
from private developers, among other sources. *Id.* However, the DPEIR fails to provide any evidence that funding will be sufficient to reduce the City's parkland deficiency such that impacts would be less than significant. The DPEIR also asserts that the City's park shortage would be reduced by "private parks and recreational facilities owned and maintained by homeowner associations." *Id.* The DPEIR fails to note that many private recreational facilities, like rooftop parks, are not open to the public and will do nothing to improve park access for most of the City, especially lower-income residents. The DPEIR's unsupported conclusions and its failure to identify mitigation measures are invalid under CEQA.

In order to achieve the City's park standard and accommodate the needs of tens of thousands of new City residents, additional park space is urgently needed, and the 102acre Willowick site can help meet this need. The Willowick Community Park proposal calls for 90 acres to be set aside for public parkland, with the remaining 12 acres to be developed as affordable housing. *See* Willowick Community Park Proposal at 17, 30. In addition to serving growing citywide demand for parks, real recreational open space at the Willowick site will also help meet the existing needs of nearby residents who currently lack adequate access to green spaces in their neighborhoods. There are an estimated 8,500 people living within a 10-minute walk of the Willowick site who currently lack access to a nearby public park. *See* Willowick Community Park Proposal at 26.

Preserving most of the Willowick site as open space will also help to mitigate environmental impacts associated with other aspects of the Update. The DPEIR indicates that the proposed increases in intensity of development and population growth under the Update are projected to generate significant impacts on air quality and greenhouse gas emissions. DPEIR at 1-13, 1-25 (Table 1-4). Urban green spaces improve air quality and mitigate climate change, as trees remove air pollutants and greenhouse gases from the air. *See* David J. Nowak and Gordon M. Heisler, National Recreation and Parks Association, Air Quality Effects of Urban Trees and Parks (2010), attached as Exhibit B; Erica Gies, The Trust for Public Land, The Health Benefits of Parks (2006), attached as Exhibit C, at 13. Thus, maintaining Willowick as green space can mitigate air quality and climate impacts.

Willowick's role in air quality mitigation is especially important because neighborhoods adjacent to the site have high levels of certain air pollutants, including PM

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concentrations of PM 2.5 and high occurrences of asthma and cardiovascular diseases. See CalEnviroScreen 3.0, https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-30.



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Willowick site to be developed into approximately 270 affordable housing units. See Willowick Community Park Proposal at 30.

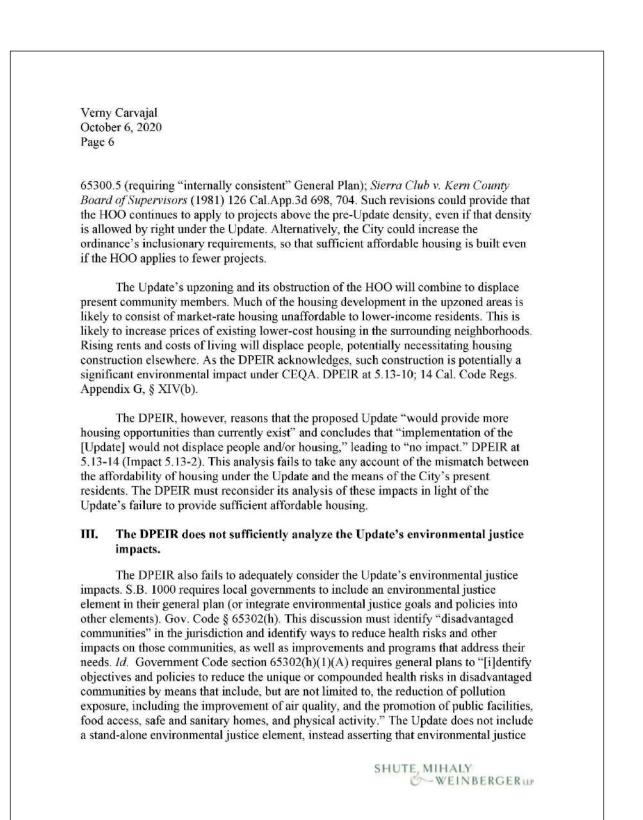
The Willowick development by itself would not be sufficient to meet the City's affordable housing needs—the Update must provide for increased affordable housing development citywide. However, the Update fails to provide for sufficient housing at the affordability levels the City needs, and its upzonings would instead undermine the effectiveness of the city's Housing Opportunity Ordinance. The Update would increase residential density limits in many areas of Santa Ana. It would modify land use designations in five Focus Areas (South Main Street Focus Area, Grand Avenue & 17th Street, West Santa Ana Boulevard, 55 Freeway & Dyer Road, and South Bristol Street), re-designating portions of those areas for more intensive development and increasing the allowable dwellings per acre and floor-area ratio for residential construction in those areas. DPEIR at 1-6, 1-7, H-a-7. The Update would also add a "Corridor Residential" land use designation, which would allow higher density residential development in additional areas. DPEIR at 3-52. These upzonings will facilitate increased housing construction, but would also undermine the HOO's inclusionary housing requirements.

The HOO requires developers to construct affordable units or pay a fee when the number of residential units in a new development exceeds the density permitted by applicable zoning. Santa Ana Muni. Code § 41-1902. Development projects are not subject to the HOO's inclusionary requirements if they do not exceed established density limits under the zoning for the site. *Id.*

Because the Update would increase density limits in many areas of the City and allow more by-right development, fewer developments will need to seek City approval for additional density. In many, if not most, cases the HOO's inclusionary requirements will be triggered less often. As a result, the HOO will apply to fewer projects. Developers will build fewer affordable units and pay less into the City's inclusionary housing fund. By reducing the effectiveness of the HOO, the Update would also undermine General Plan Housing Element Policy 2.6, which provides that "pursuant to the Housing Opportunity Ordinance," the City must "require eligible rental and ownership housing projects to include at least 15 percent of the housing units as affordable for lower and moderate-income households." DPEIR at 5.10-17.

The Update will thus create an internal inconsistency within the General Plan, as the increased by-right densities will impede achievement of the Housing Element's goal. To avoid this illegal inconsistency, the City must, within or simultaneous with the Update, revise the HOO to ensure sufficient affordable housing production. Gov. Code §





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issues will be incorporated throughout the Update. DPEIR at 3-17. The Update includes several draft goals and policies which refer to equity and environmental justice (*See* DPEIR at B-a-2, B-a-5, B-a-19, B-a-20, B-a-25, B-a-39, B-a-41, B-a-43, B-a-44).

Despite the Update's inclusion of these policies, the DPEIR makes no attempt to analyze the Update's environmental justice impacts on disadvantaged communities. CEQA requires an evaluation of the Update's significant environmental effects and consistency with applicable General Plan policies. 14 Cal. Code Regs §§15126.2(a), 15125(d). The Update includes goals and policies that seek to promote environmental justice by addressing air pollution, hazardous waste exposure, and other impacts on disadvantaged communities. See, e.g., DPEIR at B-a-25 (Policy CN-1.5; air pollution and environmental justice), B-a-39 (Policy S-2.6; hazardous materials and environmental justice), B-a-43 (Policy LU-3.9; polluting land uses and environmental justice). The DPEIR should consider whether other aspects of the Update would have significant environmental impacts on disadvantaged communities,² and whether those elements would impede the Update's environmental justice goals and policies, creating an internal inconsistency within the General Plan. See Gov. Code § 65300.5 (requiring "internally consistent" General Plan); Sierra Club v. Kern County Board of Supervisors (1981) 126 Cal.App.3d 698, 704. The DPEIR should comprehensively analyze environmental justice impacts, including air quality and pollution exposure in disadvantaged communities as well as access to public facilities such as parks and access to healthy food.

As part of its environmental justice analysis, the DPEIR should consider whether the Update may result in conflicts between industrial or commercial uses and proposed housing in corridors that the Update has designated for upzoning. It should particularly analyze any resulting impacts on disadvantaged communities. For example, air pollutant emissions from light industrial uses may affect air quality in the areas designated for increased residential density, potentially increasing residents' exposure to air pollution. Notably, four of the five "focus areas" designated for residential upzoning under the Update also include land designated for industrial uses. DPEIR at 1-6. This would potentially cause an disproportionate adverse impact on disadvantaged communities. Moreover, the effect of the Update policies promoting such development would cause harms contrary to Update policies on environmental justice- an internal inconsistency.

² The CEQA guidelines make clear that "economic and social effects of a physical change may be used to determine that the physical change is a significant effect on the environment" and that "[i]f the physical change causes adverse economic or social effects on people, those adverse effects may be used as a factor in determining whether the physical change is significant." 14 Cal. Code Regs. § 15064(e); *see also id.* §15382.

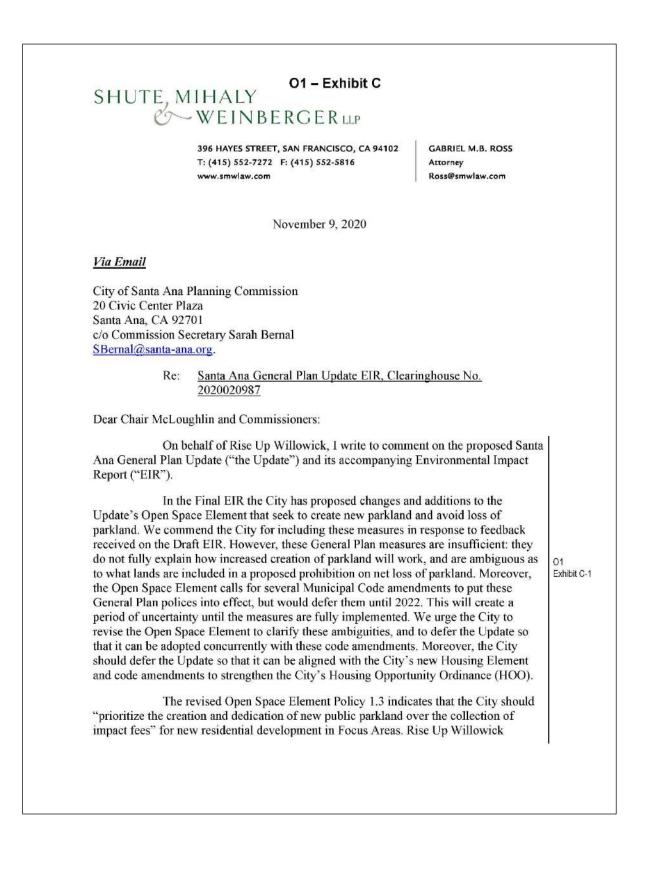


Verny Carvajal October 6, 2020 Page 8 Similarly, he Update proposes a new "Industrial/Flex" land use designation in these areas, which will promote "large-scale office industrial flex spaces, multi-level corporate offices, and research and development uses." DPEIR at 3-18. The DPEIR must consider the potential impacts of these newly-designated industrial areas on existing residents in nearby housing. IV. Conclusion As currently proposed, the Update does not provide for sufficient open space or affordable housing, and would undermine the City's Housing Opportunity Ordinance. As set forth above, Rise Up Willowick urges the City to (1) continue to designate the Willowick site as open space until and unless there is a proposal for developing part of it with affordable housing, (2) provide for more affordable housing in order to avoid undermining the HOO and causing an internal inconsistency within the General Plan, and (3) revise the DPEIR to fully analyze the Update's impacts on displacement and environmental justice. Rise Up Willowick respectfully requests that the City revise the Update to address these issues, revise the DPEIR, and recirculate both for public comment. Very truly yours, SHUTE, MIHALY & WEINBERGER LLP Gabriel M.B. Ross List of Exhibits: Exhibit A: Trust for Public Land, Coastal Conservancy, and Clifford Beers Housing, Willowick Community Park Proposal (August 2020) Exhibit B: David J. Nowak and Gordon M. Heisler, National Recreation and Parks Association, Air Quality Effects of Urban Trees and Parks (2010)

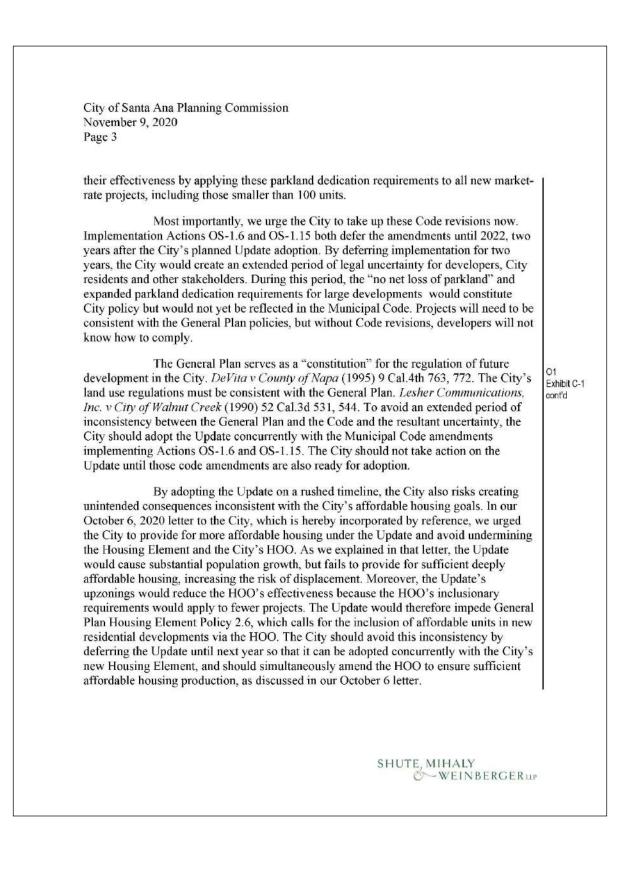


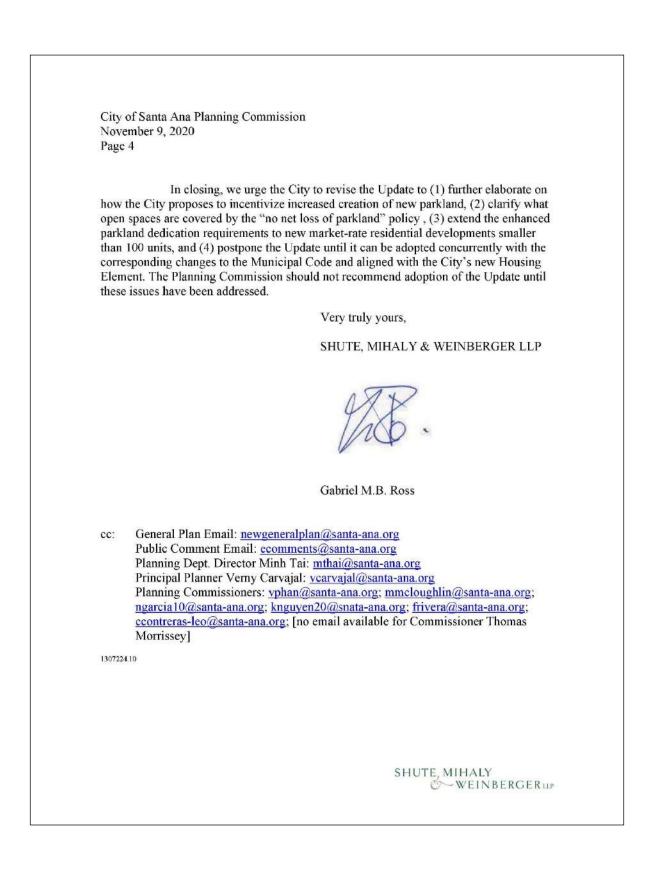
Verny Carvajal October 6, 2020 Page 9
Exhibit C: Erica Gies, The Trust for Public Land, The Health Benefits of Parks (2006)
Exhibit D: The Trust for Public Land, The Heat Is On (2020)
Exhibit E: City of Santa Ana, Request for Council Action: General Plan Housing Element Annual Progress Report (March 17, 2020)
Exhibit F: Southern California Association of Governments, Precertified Local Housing Data for the City of Santa Ana (August 2020)
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EXHIBIT C









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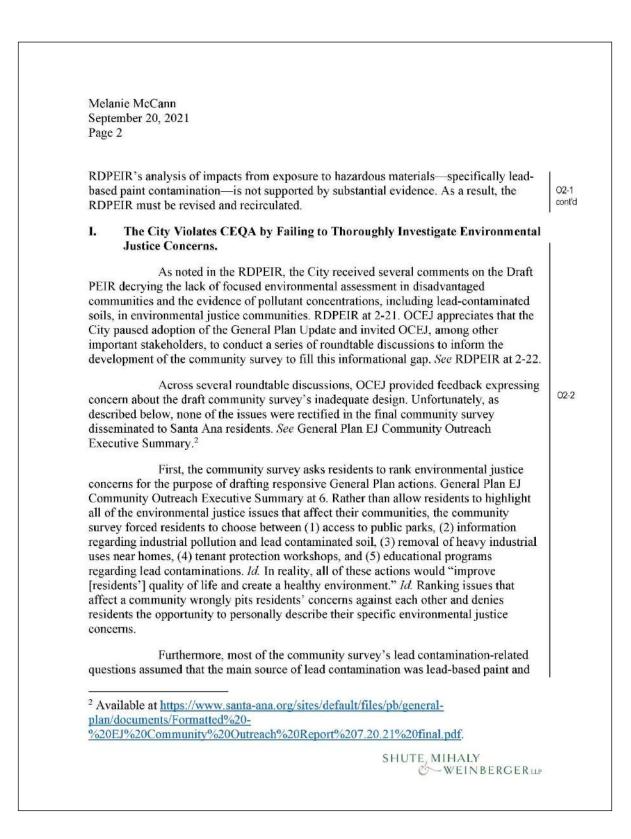
O1. Response to Comments from Cynthia Guerra, Rise Up Willowick, dated September 15, 2021.

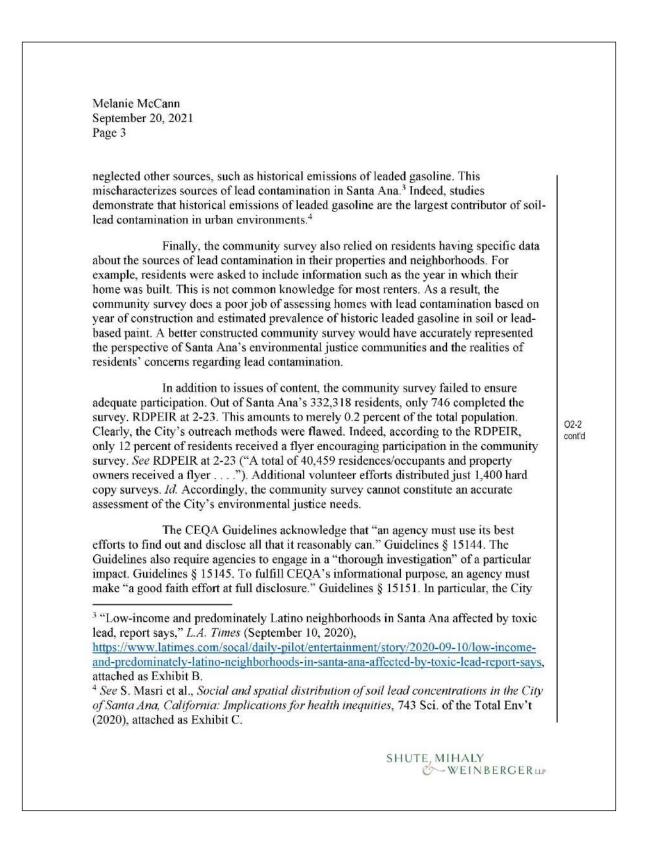
- O1-1 The commenter identifies issues with the adequacy of the policies and implementation actions in the GPU's Open Space Element, but does not reference specific concerns related to environmental impacts that could result from implementation of the project or analysis in the Recirculated Draft PEIR. However, the comment will be passed along to City decision makers as part of this Final Recirculated PEIR. No further response is required or provided.
- O1-ExA Exhibit A to this letter is a memorandum: "Proposed Changes and Additions to the Open Space Element of the City of Santa Ana's August 2021 General Plan Update." The memorandum recommends specific changes to several Open Space Element policies in the proposed GPU. It does not reference specific comments or raise concerns regarding the analysis in the EIR. This memorandum has been forwarded to decision-makers as part of this Final Recirculated PEIR.
- O1-ExB Exhibit B to this letter is an October 6, 2020, letter providing comments on the 2020 Draft PEIR for the General Plan Update on behalf of Rise Up Willowick from Shute, Mihaly, and Weinberger, LLC. The responses to these comments are in the November 2020 Final PEIR for the GPU, which is provided on the City of Santa Ana's website: http://download.placeworks.com/SNT/Volume_I_FEIR.pdf.
- O1- ExC Exhibit C to this letter is a November 9, 2020, letter providing comments on the General Plan Update and Draft PEIR on behalf of Rise Up Willowick from Shute, Mihaly, and Weinberger, LLC. This letter is dated the day of the Planning Commission's Public Hearing on the 2020 versions of GPU and Draft PEIR. It was submitted after the public review period and comment deadline for the 2020 Draft PEIR (September 16, 2020) and does not include comments on the Recirculated Draft PEIR. Although the Letter O1 notes that the comments in this letter are incorporated by reference, the letter of November 9, 2020, is focused on proposed General Plan Update polices and the schedule for the GPU relative to the Housing Element and Municipal Code update. Comments are not specific to the EIR or, in particular, to the Recirculated Draft PEIR, and therefore responses are not required in this Final Recirculated PEIR. The comments are forwarded to decision-makers as part of this Final Recirculated PEIR.

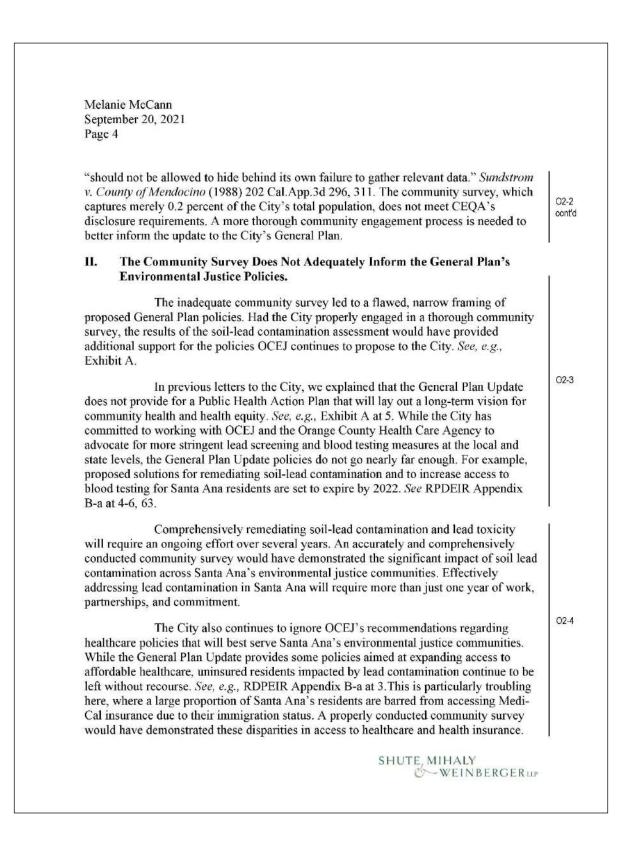
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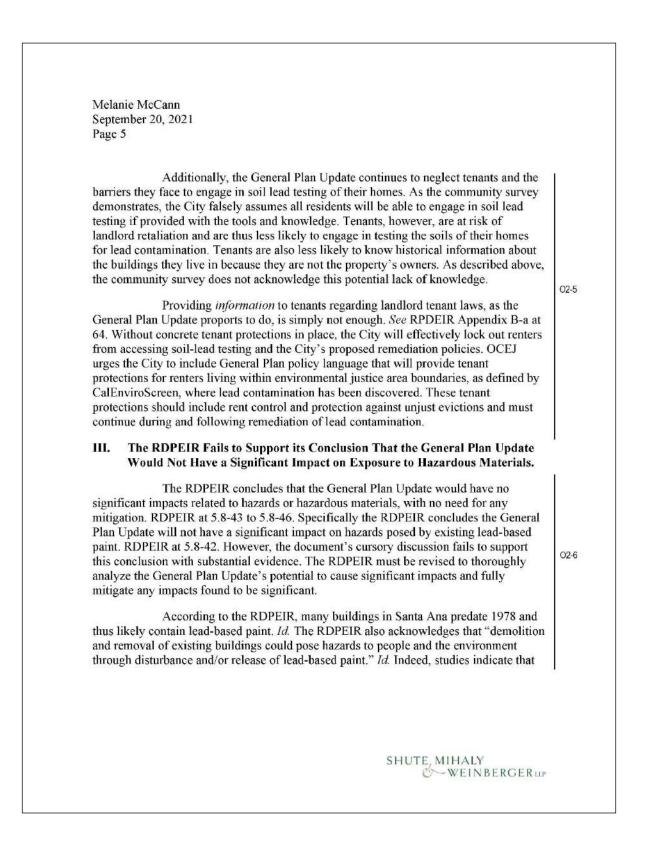
LETTER O2 - Shute, Mihaly and Weinberger on behalf of Orange County Environmental Justice (56 page[s])

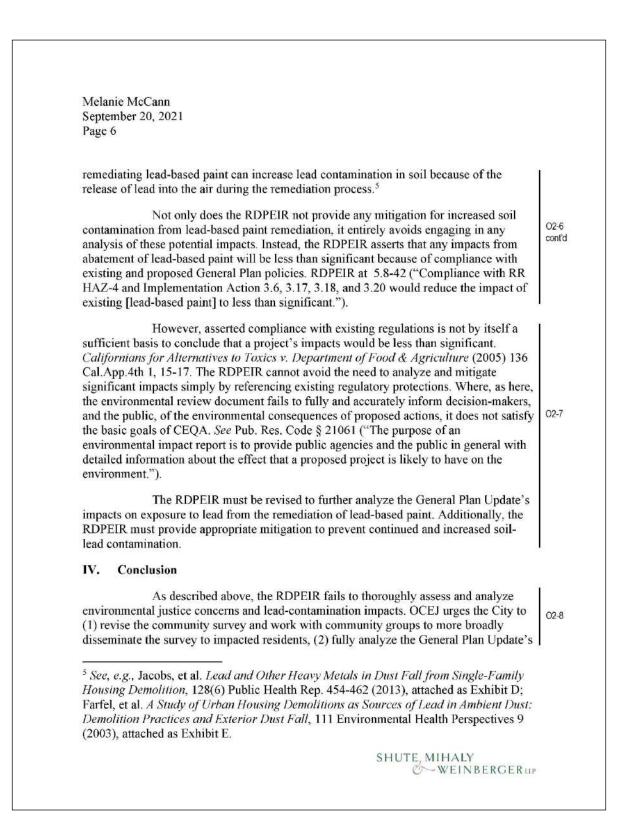
	396 HAYES STREET, SAN FRANCISCO, CA 94 T: (415) 552-7272 F: (415) 552-5816 www.smwlaw.com	102 KATRINA A. TOMAS Attorney ktomas@smwlaw.com
	September 20, 2021	
Via Electronic	Mail Only	
PO Box 1988 () Santa Ana, CA mmccann@san	er na Planning Division M-20) 92702	
R	e: <u>Comments on Santa Ana General Pla</u> <u>Program Environmental Impact Repo</u>	
Dear Ms. McCa	nn:	
provide comme accompanying b Shute, Mihaly & an earlier draft Commission, at	n behalf of Orange County Environmental nts on the August 2021 Santa Ana Genera Recirculated Draft Program Environmenta & Weinberger, LLP previously submitted c of the General Plan Update in a November tached as Exhibit A. These earlier comme pdate and RDPEIR and are hereby incorpo	1 Plan Update and its 1 Impact Report ("RDPEIR"). omments on behalf of OCEJ on r 9, 2020 letter to the Planning nts remain relevant to the
Code section 21 Plan Update's e impacts to envir RDPEIR's mea community eng Lack of adequa	he California Environmental Quality Act (100 et seq., ¹ requires that the RDPEIR thor environmental impacts and mitigate signifi ronmental justice communities as a result gre attempts at an investigation through th agement survey ("community survey") are te information regarding environmental ju ty framed and insufficient General Plan U	"CEQA"), Public Resources roughly evaluate the General cant impacts. This includes of soil lead contamination. The e environmental justice e inadequate in several respects. stice impacts and concerns have

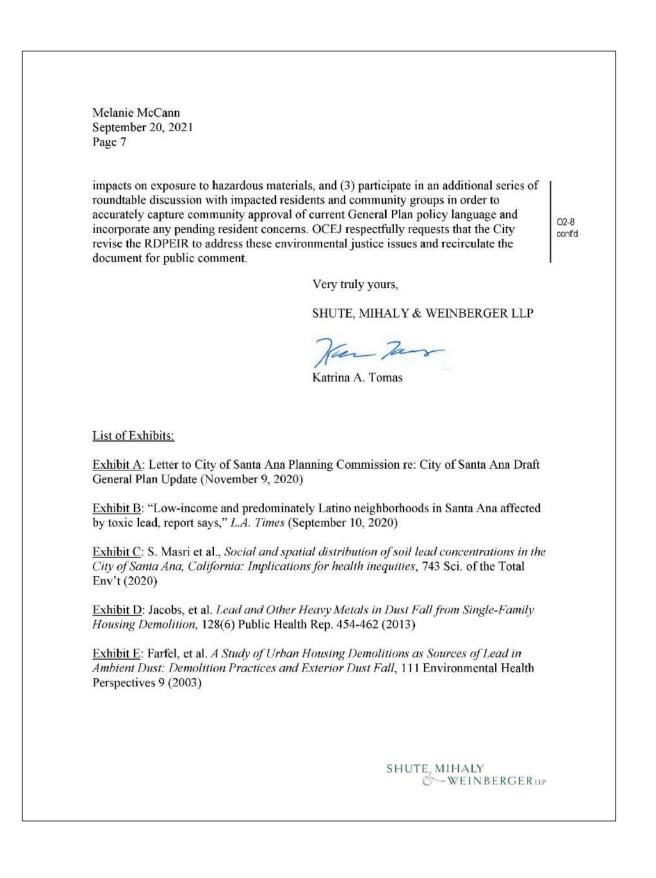




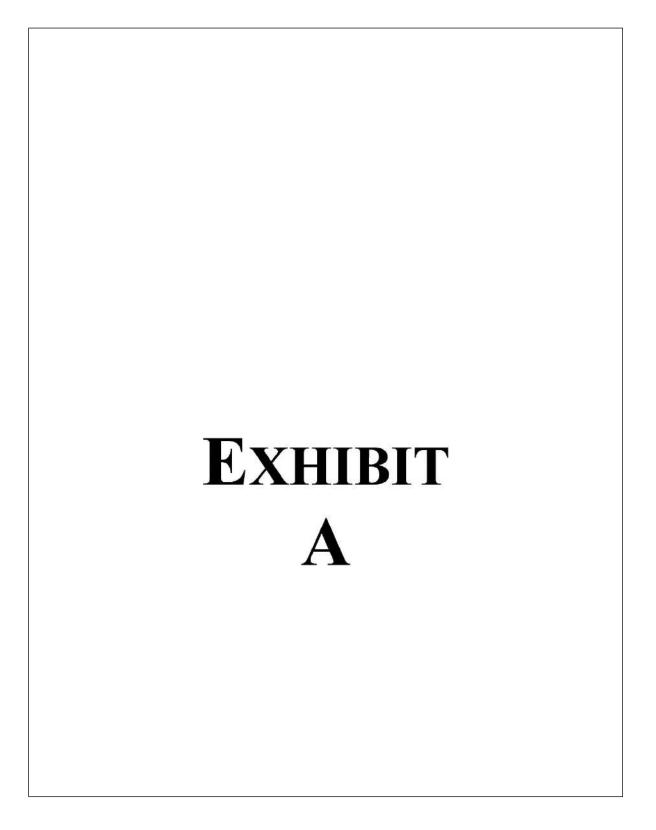


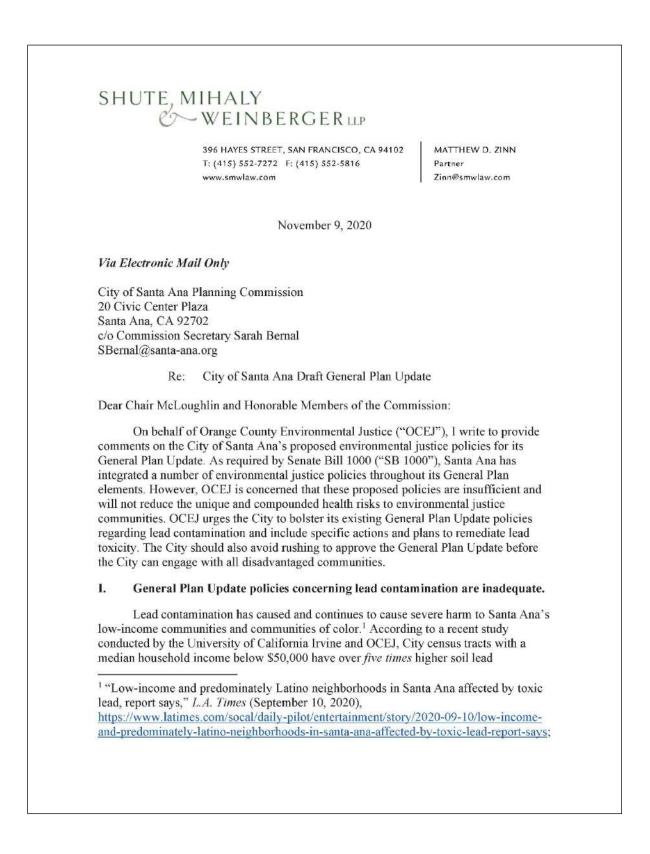


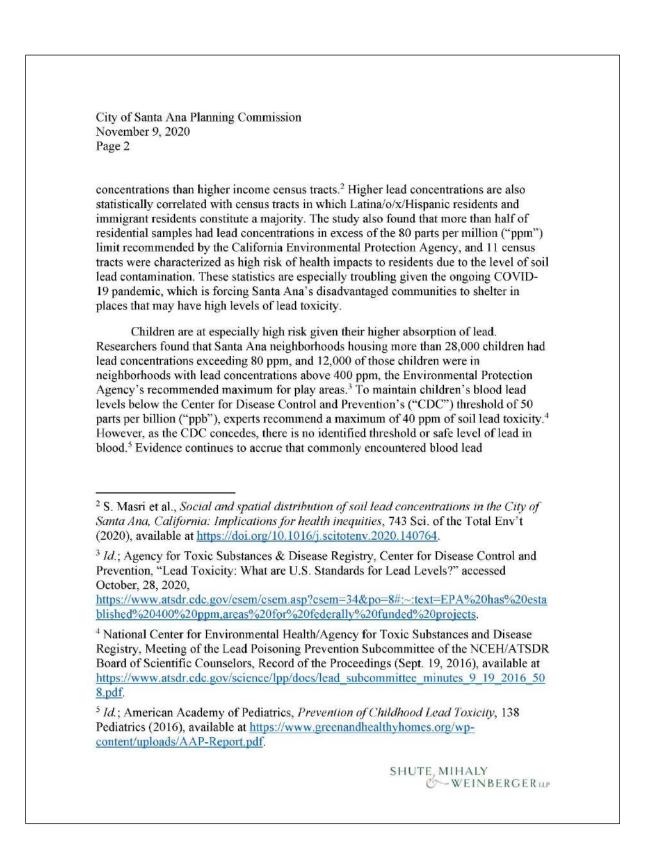


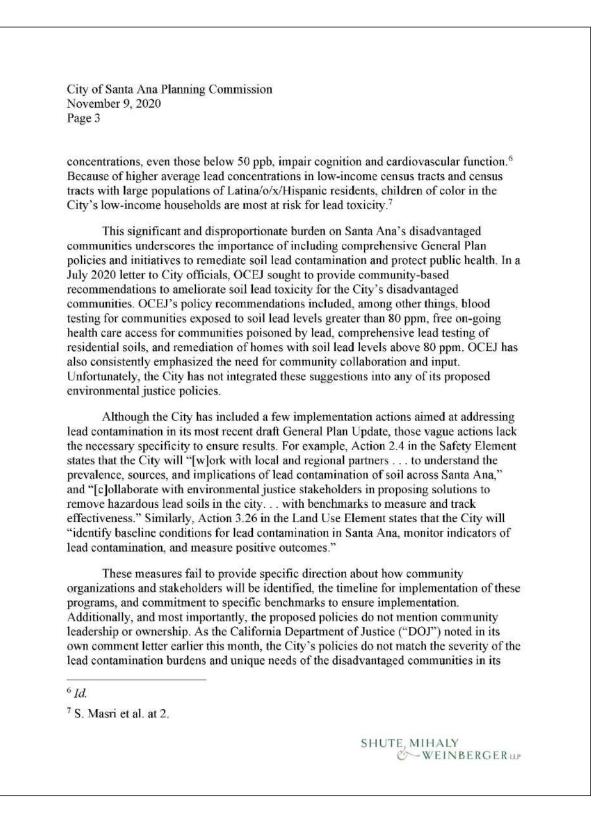


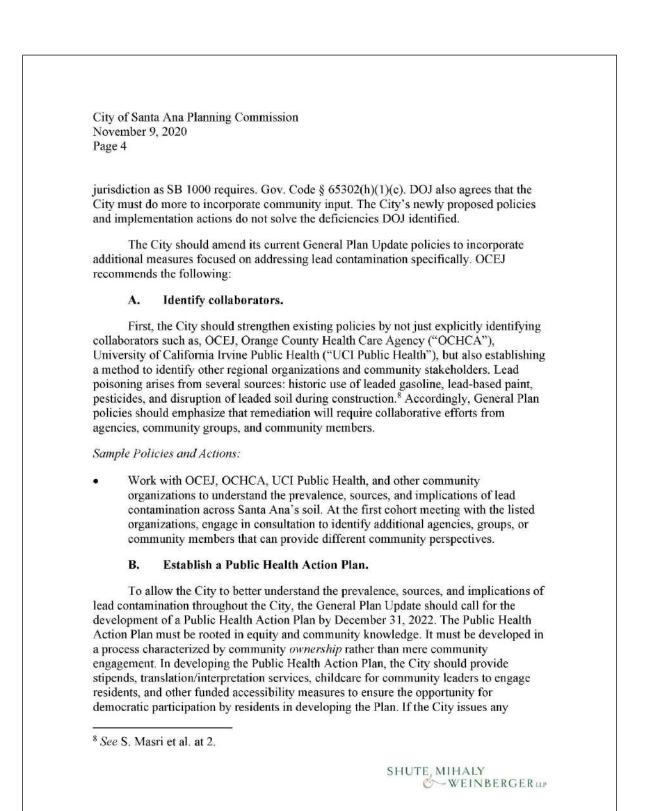
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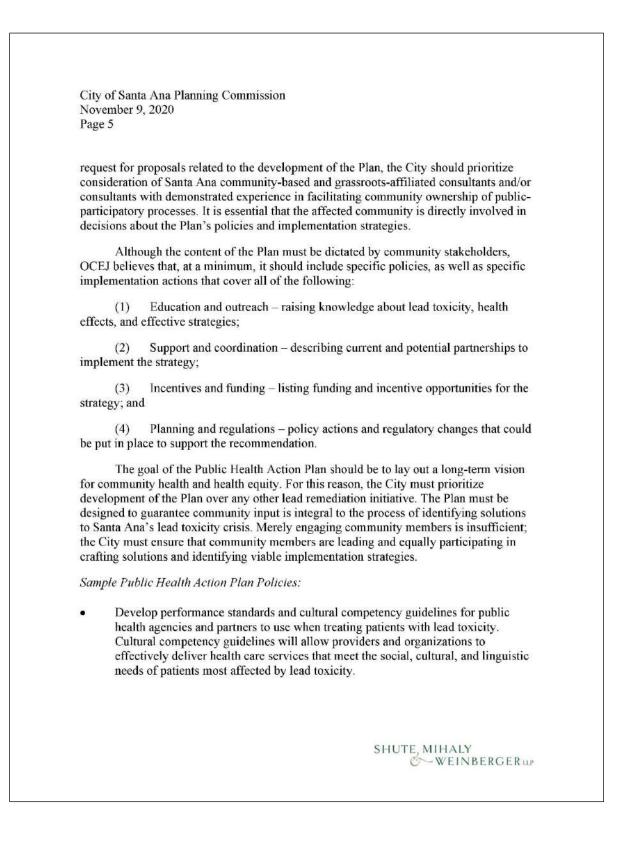


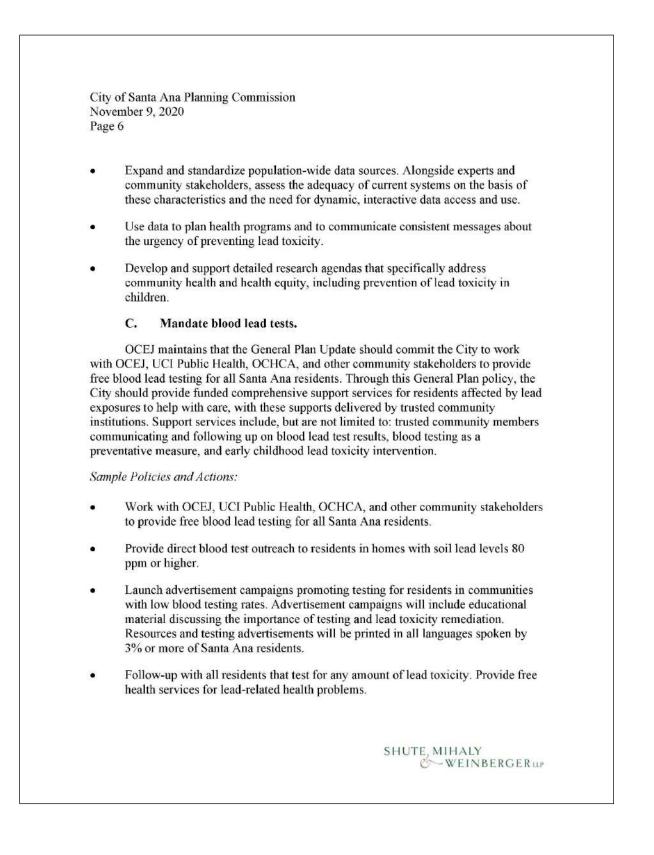


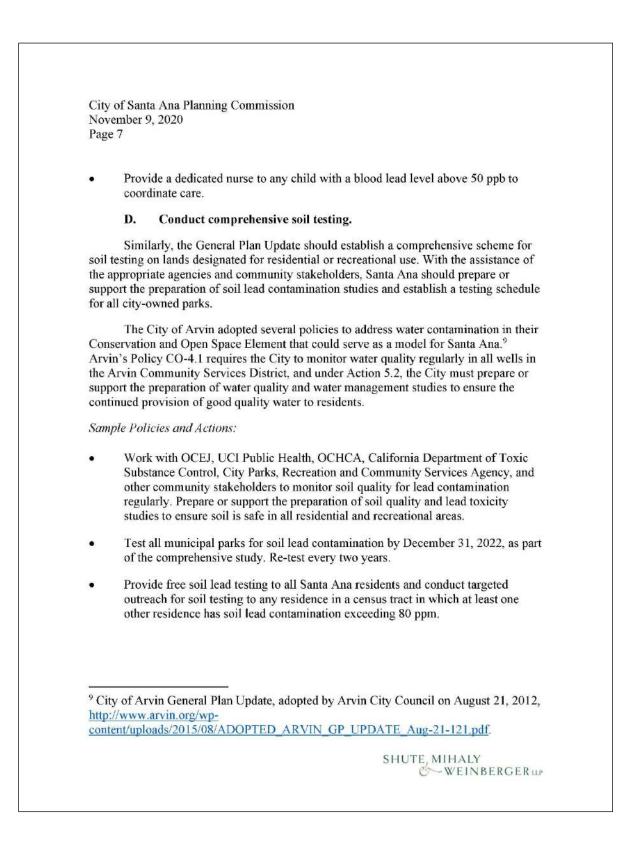


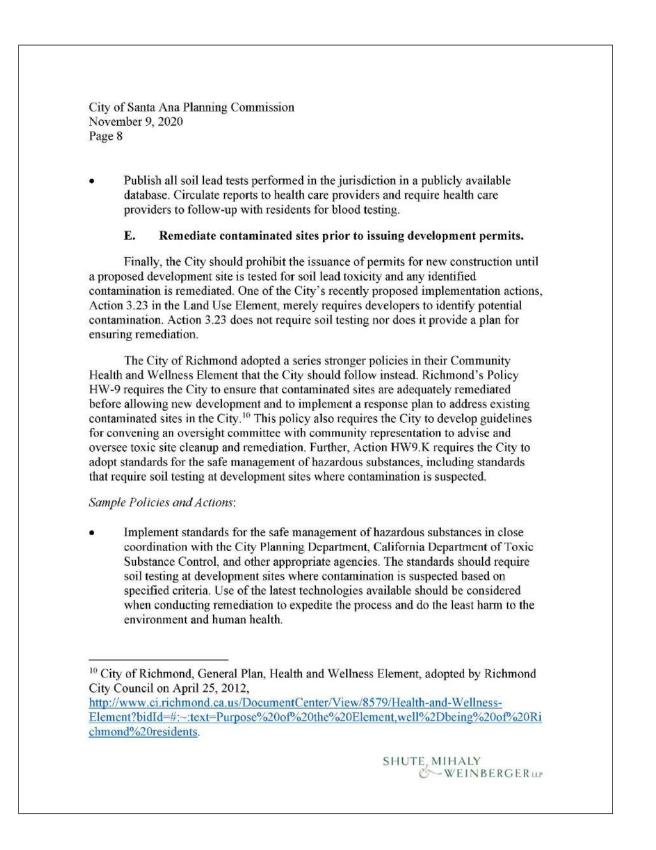












City of Santa Ana Planning Commission November 9, 2020 Page 9

 Require property owners to test proposed development sites for soil lead toxicity and comply with state and federal requirements for site remediation as a condition for approving redevelopment on contaminated sites. Seek state and federal funds to implement the necessary level of clean-up.

* * *

OCEJ urges Santa Ana to follow SB 1000's mandate to "prioritize improvements and programs that address the needs of disadvantaged communities" by creating General Plan policies and actions that will lead to remediation of lead pollution and amelioration of its serious health consequences. Gov. Code § 65302(h)(1)(b)-(c). Santa Ana's proposed policy goals and actions do not go far enough to meet the burden of lead toxicity that the City's disadvantaged communities are forced to endure.

II. Santa Ana's expedited General Plan Update timeline is concerning.

Santa Ana released a Draft Environmental Impact Report and draft General Plan Update in August 2020. Subsequently, the City released a second draft of the General Plan Update on September 28, 2020. City staff anticipates the hearing process for the General Plan and the Final Environmental Impact Report to begin in early November 2020, with adoption set to occur only weeks later. This estimated timeline is unrealistic. Community engagement is the backbone of SB 1000, and an accelerated timeline cannot fully allow for the meaningful community engagement with environmental justice communities that the law requires. *See* Gov. Code § 65302(h)(1)(b).

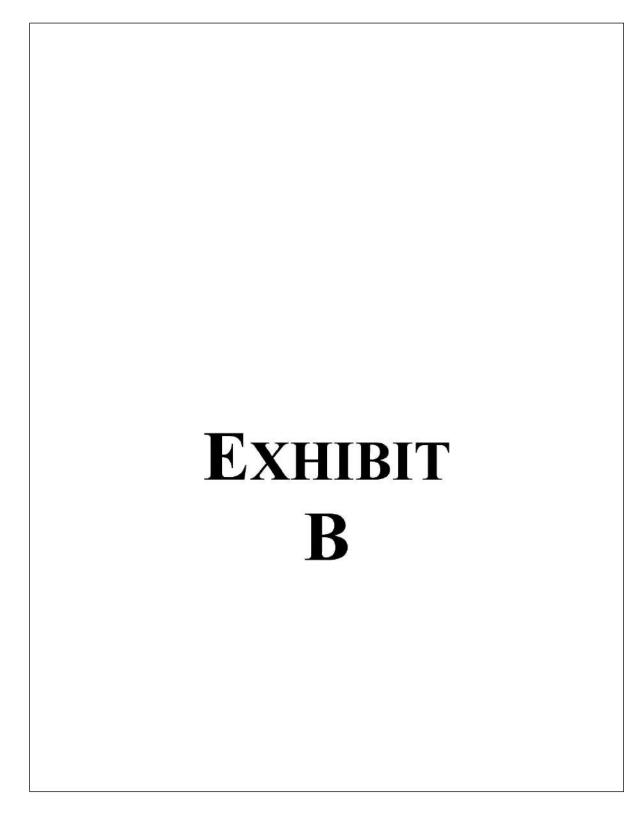
Moreover, the speed with which the City is attempting to respond to General Plan Update comments raises concerns about the thoroughness and adequacy of the review process. An agency's review and response to public comments is a time-consuming endeavor, and rushing the process runs the risk of failing to incorporate valid community input. OCEJ urges the City not to push forward with a General Plan Update before the City can meaningfully engage with its disadvantaged communities and adequately respond to community comments.

III. Conclusion

Santa Ana's proposed environmental justice policies do not sufficiently identify, address, and remedy existing lead contamination affecting low-income communities of color in Santa Ana. The City should amend its draft General Plan Update to include the policies discussed above to ensure that the City implements a successful plan to ameliorate lead toxicity.



City of Santa Ana Planning Commission November 9, 2020 Page 10 Very truly yours, SHUTE, MIHALY & WEINBERGER LLP Matthew D. Zinn Katrina A. Tomas Verny Carvajal, Principal Planner cc: Enrique Valencia, OCEJ Rica Garcia, California Department of Justice Shahir Masri, UCI Public Health Michael Logue, UCI Public Health Jun Wu, UCI Public Health Alana LeBrón, Department of Chicano/Latino Studies, University of California Irvine Abigail Reyes, Community Resilience, University of California Irvine Lisa Rudloff, Santa Ana Parks, Recreation and Community Services 1303484.7 SHUTE, MIHALY -WEINBERGER LLP





9/19/21, 10:24 AM Low-income and predominately Latino neighborhoods in Santa Ana affected by toxic lead, report says - Los Angeles Times

There are potentially unhealthy levels of lead in low-income and predominately Latino neighborhoods in Santa Ana, a new report finds.

Local organization Orange County Environmental Justice partnered with UC Irvine and other community members over the last three years for the study.

The coalition analyzed more than 1,500 soil samples from more than 500 locations, finding that the samples ranged from 11.4 to 2,687 parts per million, with an average soil sample of 123.1 ppm.

The California Office of Environmental Health Hazard Assessment considers anything above 80 ppm in a residential area as hazardous to health. About half of the soil samples exceeded the California safety recommendation.

"This is of the utmost urgency," said Enrique Valencia, project director of Orange County Environmental Justice. "We are sheltering in places that may have high levels of lead toxicity. We are doing everything out of our homes, so we are confined to places that may be contaminated, and that's especially concerning for our children ... This is a toxin that is dangerous to humans at any age. We can't afford to ignore the science anymore."

In analyzing how lead disproportionately affects lower-income communities, the researchers found that there was an inverse correlation between income levels and the presence of lead in the community. Soil samples collected in neighborhoods with median household incomes below \$50,000 had 440% higher lead levels than communities with a median household income of \$100,000, and 70% higher lead concentrations when compared to neighborhoods with median household incomes between \$50,000 and \$100,000.



TIMESOC

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The report also found that thousands of children in Santa Ana are particularly at risk.

The researchers found that neighborhoods housing more than 28,000 children had maximum lead concentrations exceeding 80 ppm, and 12,000 of those children were in neighborhoods with lead concentrations above 400 ppm, the Environmental Protection Agency's recommendation for play areas.

Children who are exposed to lead can develop a number of neurological issues, including smaller brain volume, lower working memory and processing speed, more limited perceptual reasoning, poor school performance and asthma, the study says.

Adults who are exposed to high levels of lead can suffer cardiovascular issues, renal problems, osteoporosis and cognitive deficiencies.

"We have not had any recent contact with the researchers, but we will review the report," Santa Ana spokesman Paul Eakins said when reached for comment. "The health and well-being of Santa Ana residents is of utmost importance. The city is currently in the process of a draft General Plan update that includes an Environmental Justice Policy Framework that lists among its priorities reducing the community's exposure to pollution."

Valencia said they have tried to offer their help to the city but have not received a reply.

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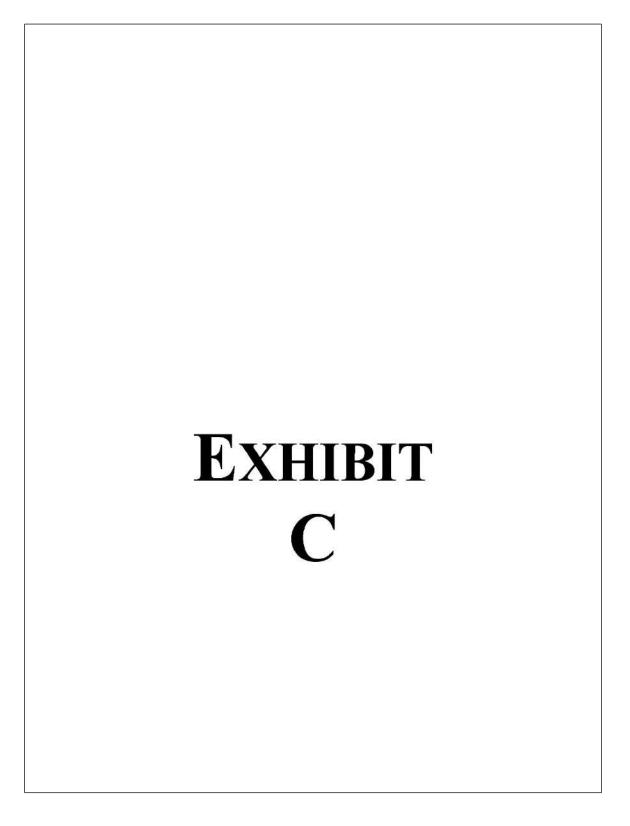
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"Vou know mu cone	e is that there's a hesitancy to work on this issue," Valencia said.	"Even though up know that Think Deserves has
	he issue since 2017. Even then the city hasn't hadn't really steppe	
been investigating th	te issue since 2017. Even then the city hash t hadh t really steppe	ed up to address the issue.
"I think it's a matter	of this City Council's priorities. From what we've seen, they are	n't prioritizing the issues that are impacting the
most vulnerable com		
most vunerable con	intenties,	
The researchers star	ted in 2017, when Valencia joined forces with the Santa Ana-bas	sed community group Jóvenes Cultivando Cambios
	UC Irvine assistant professor of public health and Chicano/Lati	er an even
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The impetus was <u>a d</u>	letailed investigation of the lead crisis in Santa Ana by former Th	iinkProgress investigative reporter Yvette Cabrera.
For the investigative	series, Cabrera found hazardous lead levels after testing more t	han 1,000 soil samples from homes and other
public areas around	Santa Ana.	
Valencia's coalition o	decided to expand on her work.	
"We see this as part of	of the process of building a movement," LeBron said in an earlie	er interview. "Our goal is a lead-free Santa Ana."
LeBron said lead like	ely found its way into soil from historically leaded gasoline and r	paint.
Valencia said the gro	oup recently got a grant from the California EPA to do additional	I testing to determine the sources of the lead.
The federal governm	nent banned consumer uses of lead-containing paint in 1978. But	t. LeBron said census data shows the majority of
	were built prior to that ban.	· · · · · · · · · · · · · · · · · · ·
"Compared to the re	st of the county, Santa Ana housing stock is significantly older a	nd much more likely to have lead paint," LeBron
said.		
LoBron caid noomru	neighborhoods can be more at risk for a number of reasons, inclu	uding that recidents may not have access to the
resources to remedia		uting that residents may not have access to the
resources to remedia	tte tite issue.	
"Communities of col	or and low-income residents get funneled into housing markets	that are not maintained or remediated," LeBron
said.	an a	
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	for the Daily Pilot. Before joining the Daily Pilot in September 2016, he was a for City News Service, a Southern California-based news service. Brazil earned	
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 ^b Department of Chicané/atino Studies, University of Orange County Environmental Justice, Santa Ana, CA ^d Jövenes Cultivando Cambios, Santa Ana, CA 82705, Li ^c Community Resilfence, University of Cabfornia, Forine Department of Research & Evaluation, Katers Perman ^g Center for Occupational and Environmental Health, U 	92705, USA SA 1, CA 92097, USA ente Southern California, Pasadena, CA 91101, USA
HIGHLIGHTS	GRAPHICAL ABSTRACT
 Lead exposure is a problem that disproportionately impacts communities of color and low income. Assessed the distribution of soil Pb levels and related social vulnerabilities in Santa Ana, CA. Soil Pb varied by landuse, with residential and roadway areas showing the highest concentrations. Soil Pb concentrations were higher in socioeconomically disadvantaged Census tracts. Over 50% of residential samples had Pb levels above California EPA recommendations. 	Virulation Virulation Virulation
ARTICLE INFO	A B S T R A C T
Article history: Received 19 May 2020 Received in revised form 30 June 2020 Accepted 3 July 2020 Available online 6 July 2020	Background: Lead (Pb) exposure is a problem that disproportionately impacts low-income communities an communities of color. We applied a community-based participatory research approach to assess the distributio of soil Pb concentrations and related social vulnerabilities across Census tracts in Santa Ana, CA. <i>Methods</i> : Soil Pb samples (n — 1528) were collected by the <i>plo-NO! Santa Ana! Lead-Free Santa Ana!</i> partnershi in 2018 across Santa Ana, CA, at a high spatial resolution and measured using XRF analysis. Pb concentration were mapped and spatial interpolation was conducted to generate a continuous smoothed map of soil Pb concert
Editor: Filip M.C. Tack Keywords:	trations across the city. American Community Survey data was used to examine Pb across Census tracts based o social and economic factors, and to allow for the development of a Cumulative Risk Index to identify areas at hig
Urban soil Pb exposure Environmental justice Chtildren	risk of health impacts. <i>Resulte:</i> Soil Pb concentrations varied by landuse type and socioeconomic factors. Census tracts with a media household income below \$50,000 had over five times higher soil Pb concentrations than high-income Censu tracts. Soil samples collected in tertiles with the highest percent children, residents without health insurance
 Corresponding author. Correspondence to: J. Wu, Center for Decupation <i>E-mail addresses:</i> massis@uci.edu (S. Masti), jum ¹Fist authors with equal contribution. 	aal and Environmental Health, University of California, Irvine 92617, CA, USA. wo⊕ucLedu (J. Wu).

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Environmental hazards Risk assessment S. Masri et al. / Science of the Total Environment 743 (2020) 140764

renter-occupied housing units, and lowest percent college educated residents had 90.0%, 96.1%, 75.2%, and 87.0% higher Pb concentrations on average, respectively, compared to their counterparts. Overall, 52.7% of residential samples had Pb concentrations in excess of the 80 ppm California EPA recommendation, and 11 Census tracts were characterized as high risk according to our Cumulative Risk Index.

Discussion: This study underscores the need for precautionary measures relating to disturbances of the soil, particularly for areas where children play outside, given children's higher absorption of lead. It also informs environmental justice initiatives and identifies vulnerable subpopulations at greater risk of Pb exposure, thus warranting community-driven recommendations for policies and initiatives to remediate soil Pb and protect public health and health equity.

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1. Introduction

Exposure to lead (Pb), a neurotoxicant, is associated with an array of adverse educational, health, and socioeconomic outcomes (LeBrón et al., 2019a, 2019b; Markowitz and Rosner, 2013). Moreover, communities of color, low-income communities, and residents of urban areas are disproportionately affected by Pb exposures (Jones et al., 2009; Mielke et al., 1983; Rothenberg et al., 1996).

The health and health equity implications of Pb exposure are many. For example, evidence links exposure to Pb during childhood with adverse neurological and cognitive outcomes, including smaller brain volume, lower working memory and processing speed, and more limited perceptual reasoning (Canfield et al., 2003; Grandjean and Landrigan, 2014: Lanphear et al., 2005; Reuben et al., 2017); poor school attendance and academic performance (Aizer et al. 2018; Zhang et al., 2013); asthma (Boskabady et al., 2018; Pugh Smith and Nriagu, 2011; Wang et al., 2017; Wu et al., 2018); and engagement with carceral systems (Needleman et al., 2002; Nevin, 2007). Furthermore, previous studies have found positive associations between lead and pregnancy complications including gestational hypertension and pre-eclampsia (Kennedy et al., 2012; Poropat et al., 2018). Maternal eclampsia risk was found to increase dose-responsively to neighborhood soil Pb levels, with women being four times more likely to develop eclampsia in areas with high levels of soil Pb relative to areas with low levels of soil Pb (Zahran et al., 2014). Even relatively low prenatal Pb exposures as assessed by maternal blood or cord blood are also associated with adverse birth outcomes including low birthweight, preterm birth, smaller head circumference, and smaller crown-heel length (Taylor et al., 2015; Xie et al., 2013). Pb exposures throughout the life course - including, for example, during childhood and adulthood - also affects the health of older adults, with implications for cardiovascular risk (Navas-Acien et al., 2007; Vig and Hu, 2000), renal problems (Vig and Hu, 2000), osteoporosis (Alswat, 2017), and reduced cognitive functioning later in life (Reuben et al., 2017; Shih et al., 2006; Weuve et al., 2009).

Pb exposures are unequally distributed in the US population. Blood Pb levels are a common indicator of recent Pb exposures in children (Centers for Disease Control and Prevention, n.d.). The percent of children one to five years of age with blood lead levels above 5 µg/dL has declined in the early 21st century (Centers for Disease Control and Prevention, n.d.; Wheeler and Brown, 2013). Yet, Black (Jones et al., 2009) and Latina/ox/(Jones et al., 2009: Rothenberg et al., 1996) children and children of low-income households (Jones et al., 2009) consistently have elevated blood lead levels relative to their counterparts that are non-Latino white and are from higher income households.

This evidence has led to policies to prevent the sales of lead-based paint and leaded gasoline in the U.S. (Hanna-Attisha, 2018; Markowitz and Rosner, 2013) and to the development of national, state, and local Childhood Lead Poisoning Prevention programs (Centers for Disease Control and Prevention, n.d.). Despite these policies, individuals, households, and communities continue to be

exposed to lead, including through the legacies of past lead-based products as well as contemporary Pb exposures (Hanna-Attisha, 2018; Markowitz and Rosner, 2013). Pathways of Pb exposure include lead paint in older homes and other buildings through lead chips in building and house dust (Jacobs et al., 2002; Rabinowitz et al., 1985), lead-contaminated water systems (Hanna-Attisha et al., 2016), lead in other consumer products (e.g., food systems), Pb exposures in workplace settings (e.g., metal smelting) (Grigoryan et al., 2016), and lead in soil (Laidlaw et al., 2016; Mielke et al., 2016; Wu et al., 2010), which may have originated from lead-based paint, historical gasoline, or other sources. However, environmental assessments indicate ongoing environmental Pb exposures despite the removal of lead from many consumer products (Hanna-Attisha et al., 2016; LeBrón et al., 2019a, 2019b). Importantly, numerous studies show Pb and the resuspension of soil Pb to be strongly associated with blood Pb levels in children (Maisonet et al., 1997: Mielke et al., 2007; Weitzman et al., 1993; Zahran et al., 2013).

In community settings, lead in the soil is a persistent exposure source due in part to limited disturbances of soil and limited degradation of lead. While a robust evidence base indicates that no level of Pb exposure is safe for young children (LeBrón et al., 2019a, 2019b), the Environmental Protection Agency (EPA) indicates a limit of soil Pb levels of 400 ppm (ppm) in areas where children play, and 1200 ppm in other uncovered areas (U.S. Environmental Protection Agency, 2001). However, in an effort to minimize Pb exposure for children, the California EPA's Office of Environmental Health Hazard Assessment advises that areas where children play have soil Pb levels at or below 80 ppm (Carlisle, 2009).

The study described below builds upon a robust history of community-academic partnerships in environmental health research (Israel et al., 2012). Our community-academic partnership, (Plo-NO! Santa Anal Lead-Free Santa Anal, formed in response to community concerns about soil Pb identified by an investigative report (Cabrera, 2017). The research questions that guided these analyses extend the body of research regarding the spatial distribution of soil Pb by examining cumulative social and environmental exposures. Extending studies of cumulative social vulnerabilities and risk of exposure to air pollution (Morello-Frosch et al., 2011; Sadd et al., 2011; Schulz et al., 2017) to the study of risk of exposure to soil Pb, this study focuses on the following questions: (1) given susceptibility to long-term health effects of lead exposure for children, is a younger age composition at the Census tract level associated with higher soil Pb levels? (2) is residential socioeconomic status at the Census tract level associated with soil Pb concentrations? (3) are residential racial/ethnic characteristics at the Census tract level associated with soil Pb concentrations? and (4) do multiple social and economic vulnerabilities at the Census tract level cumulate to render communities particularly vulnerable to soil Pb? Based on community knowledge elicited through ongoing discussions among our community-academic partnership and review of the literature, we hypothesized that Census tracts with a higher fraction of children. households of lower SES and those with a higher proportion of residents who identify as Latina/o/x/Hispanic, immigrant, or limited English

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proficiency will have higher soil Pb concentrations; and that social and economic vulnerabilities to soil Pb exposure will be correlated with one another and with soil Pb concentrations.

2. Materials and methods

This study was conducted as part of the ¡Plo-NO! Santa Ana! Lead-Free Santa Anal community-academic partnership that has been working together since 2017 to equitably bring together community and academic partners to understand and address environmental injustices and their implications for health equity and social, economic, and political well-being in Santa Ana, CA (LeBrón et al., 2019a, 2019b). Partners include Orange County Environmental Justice; Jóvenes Cultivando Cambios, a youth-led cooperative; and a subset of faculty and staff at the University of California, Irvine. Our partnership emerged following an investigative report by Cabrera (2017), which indicated that several areas in Santa Ana - a predominantly Latina/o/x, immigrant, and lowincome community (American Community Survey, 2016a, 2016b) had soil Pb levels three to ten times higher than the EPA's cut-point for lead toxicity (400 ppm) (U.S. Environmental Protection Agency, 2001). Santa Ana children are 64% more likely to have elevated blood lead levels relative to children across California (California Department of Public Health, 2012a, 2012b). This investigative report activated community-driven questions about the prevalence of Pb and other toxicants in Santa Ana, the distribution of these toxicants, and connections between Pb exposures and adverse social, economic, and health outcomes for residents of Santa Ana, CA. These discussions catalyzed the formation of our community-academic partnership, and the study described below. The University of California, Irvine Institutional Review Board classified this study as exempt, Data for the analyses described below are drawn from soil samples collected by our trained personnel and from the U.S. Census Bureau's American Community Survey.

2.1. Study region

Santa Ana is a densely populated city located in southern California in the southwestern region of the United States. It is the administrative center of Orange County, which is the sixth most populate ocunty in the U.S. With a total population of approximately 337,716 residents, Santa Ana spans an area of 70.6 km² and includes 61 Census tracts (The City of Santa Ana, 2020). In terms of population, Santa Ana ranks the second largest city in Orange County, and is the eleventh largest city in the state (The City of Santa Ana, 2020). The majority of Santa Ana residents identify as Latina/o/x (77.3%), followed by Asian (11.4%) and white (9.4%), with a relatively high proportion (45.2%) of residents being immigrants (U.S. Census Bureau, 2020). As 67019, the city includes 78,563 housing units and has a median household income of \$65,313 (2018 dollars) (The City of Santa Ana, 2020).

Potential sources of soil Pb contamination in Santa Ana include both historic and present-day emissions. Prior to its incremental phaseout beginning in 1986, and its subsequent ban from on-road use by EPA in 1996, leaded gasoline and therefore vehicle traffic represented a major source of lead emissions in the United States (Newell and Rogers, 2003). While leaded gasoline has not been entirely eliminated in the U.S., it's use is limited to small piston engine aircraft, marine vessels, farm equipment, and other off-road vehicles (Kessler, 2013). Since Santa Ana is bordered by three major freeways, including the interstate 5 and 405 freeways and state routes 22 and 55, as well as the John Wayne Airport, the city is particularly vulnerable to legacy contamination from on- and off-road vehicle-related lead emissions. Santa Ana is also an industrial center with over 26,432 companies, including many metal-related industries (i.e. metal fabrication, metal cutting, metal processing) {U.S. Census Bureau, 2018). Thus, historic and present-day point-source emissions represent potential contributors. In the U.S., lead paint was historically used on many houses and other buildings. Disturbances of these painted surfaces through building renovations. demolitions, and weathering over time is therefore another likely contributor to soil Pb in the city (Rabinowitz et al., 1985). In Santa Ana an estimated 81% of housing units were constructed before 1980, whereas the U.S. federal government did not ban the sale of lead paint until just two years prior (1978) (U.S. Census Bureau, 2017). Lastly, given the city's history of agriculture, prior applications of lead arsenate pesticides represent another avenue through which lead may have entered the soil.

2.2. Field sampling

Soil samples were collected in Summer-Fall 2018 across seven landuse types: arterial roads, schools, parks, gardens, industrial areas, business areas, and residential units. Because most schools, businesses, and industrial sites were not directly accessible for this study, samples were collected immediately adjacent to their boundaries (e.g. roadside near school). When feasible, at least six residential units across each Census tract in Santa Ana, CA, were sampled. Landuse type and the location of each sample point using global positioning system (CPS) coordinate was recorded by on-site field teams who were trained by the field coordinator.

Following methods by Wu et al. (2010), at each sampling location field teams selected an area that was unobstructed by physical barriers. When possible, a three-foot radius area was then marked, and soil samples from five points (central point and 4 separate points that were three feet from the center of the square) were obtained after removing 1 cm of soil (including vegetation cover). If it was not possible to achieve a three-foot radius, at residential units, samples were drawn from near the dripline of the home, and at least two locations in the yard (e.g., front, back, side). Four to five samples were drawn from each garden. Samples were then air dried and sieved with brass screen (#50 mesh, twice; #100 mesh once), yielding fine soil dust samples to characterize Pb exposures for which young children are most vulnerable (Stalcup, 2016). Soil samples were collected from 560 locations throughout Santa Ana, CA with 1528 soil samples to yield a high spatial resolution. Additionally, in order to establish a baseline soil Pb level, eight soil samples were collected outside of Santa Ana in nearby state and regional parks in Orange County that could be considered relatively pristine and unaffected by major local anthropogenic lead sources (i.e. traffic, industry, buildings).

2.3. Soil analysis

Samples were analyzed via XRF instrumentation (SPECTRO XEPOS HE Benchtop XRF Spectrometer), a well-established and recognized method for identifying the total lead levels, as well as the levels of other commonly measured metals in soil samples (Maliki et al., 2017). The machine used in this study operates under optimal temperature conditions of 20–25 °C and undergoes routine multi-channel analysis calibration using standard reference materials at the start of each week, with global calibration taking place every six months. Each soil sample in this study was scanned five times by the XRF machine to ensure reproducibility and stability of measurements, showing a low average absolute measurement error of 1.0% across all Pb samples. To further confirm quality laboratory analysis, a subgroup of samples (n = 18) was subjected to XRF analysis a second time (five more scans), yielding an excellent correlation (r = 1.0).

2.4. Landuse

For this analysis, park and garden samples were treated as a single landuse type called "park," while industrial area and business area samples were treated as a single landuse type called "industrial." This was done because these landuse types were considered similar enough in nature to consolidate, and because their consolidation resulted in more meaningful sample sizes. Thus, there were five landuse types in

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total used for this analysis including: arterial roadways, schools, parks, industrial areas, and residential units. In three cases, samples were described to be a mix of two landuse types. Categorizing these samples into a single landuse type therefore required further discretion. In only one of these cases would a different classification have meaningfully impacted the average lead concentration for a landuse type. This was the case for a mixed school-roadway sample, where a high lead concentration of 314.0 ppm would have resulted in a significant increase in the average lead concentration for school samples due to the small school sample size (n = 10) and low concentration of school samples. Instead, the categorization of this sample within the roadway category (n = 76) had a negligible impact ($\pm 1\%$) on the average.

2.5, Demographics

We used 2010 Census data to obtain population counts for all Census tracts (n = 61) in Santa Ana, CA. The American Community Survey (ACS), conducted every year, was also used to obtain information about household income, race/ethnicity, education, insurance coverage, spoken languages, nativity, and age at the Census tract level. For the ACS, five-year averaged data from 2012 to 2016 (henceforth, 2016) was used since averages provide a more stable representation of community-level factors, and because 2016 was the most recent year for which geo-coded shapefiles were available in ArcCIS.

2.6. Analysis

Summary statistics for soil Pb samples were calculated across all samples, by landuse type, and for one group of samples collected outside of Santa Ana that represent baseline soil Pb. In order to visualize soil Pb concentrations spatially and estimate concentrations between sampling sites, we conducted simple kriging in ArcGIS.

To assess differences in soil Pb concentrations and demographic factors within Census tracts, demographic factors were first converted to percentages of the population in each Census tract for each indicator before constructing the vulnerability index described below. These indicators included: percent of residents who identified as Latina/o/x or Hispanic, immigrant non-native residents (henceforth, *inmigrants*), residents who reported speaking no or limited English, residents who did not have health insurance coverage, residents under five years of age, renter-occupied housing units, and residents with a college education or higher.

Once a percentage for a given demographic variable was calculated across each Census tract, that percentage could be assigned to all lead samples collected within that Census tract. Using these assigned percentages, we then determine the 33th and 66th percentiles for that specific demographic factor across all samples. This allowed us to separate soil Pb samples into tertiles depending on the demographic characteristic of the Census tracts within which each sample was collected. Using the prior example of percent Latina/o/x/Hispanic population, this would mean that we divided soil Pb samples into three approximately equal sized groups depending on whether those samples were collected in Census tracts with a percent Latina/o/x/Hispanic population that was relatively low (1st tertile), high (3th tertile), or in between (2nd tertile). Therefore, percentiles did not reflect citywide statistics, but rather sample-wide statistics. With a total soil sample size of n = 1528, samples sizes for each tertile were approximately $n = 510 \pm 20$. Statistical significance between sample means was assessed at the p = 0.05 cutoff. In addition to tertile analyses, we also conducted quartile analyses, the results of which are presented in the supplementary materials section.

2.6.1. Hazard index

To characterize the potential for Pb exposure via the soil, each Census tract was assigned a score ranging from 1 (low) to 4 (high) based on the quartile distribution of soil Pb concentration (4 = high lead). This score was then scaled to be equally weighted with the vulnerability index described below.

2.6.2. Vulnerability Index

To characterize social and economic vulnerability of communities within each Census tract to Pb exposure and heightened or more adverse responses to these exposures, we developed a vulnerability index (Schulz et al., 2017). This index took into account six social and economic factors that could place a community at an increased health risk due to Pb exposure, including: median household income, percent of housing units occupied by renters, percent of population under age five, percent of residents reporting speaking limited or no English, percent of residents without health insurance coverage, and percent of residents with a college education or higher. Values for each factor were calculated based on quartile distribution rankings, ranging from 1 (low risk) to 4 (high risk). Due to our interest in assessing whether cumulative risk was disproportionately elevated among Census tracts with higher proportions of people of color, our vulnerability index did not include "percent Latina/o/x/Hispanic population" as a factor in our ranking system. Since each Census tract was assigned a vulnerability score ranging from 1 to 4 across six different factors, each Census tract had a potential cumulative vulnerability score (sum of individual scores) that ranged from 6 to 24. This methodology is similar to that developed elsewhere (Morello-Frosch et al., 2011; Sadd et al., 2011; Schulz et al., 2017).

2.6.3. Cumulative Risk Index

To assess cumulative risk, a single aggregated index was derived as the sum of the equally-weighted Hazard Index and Vulnerability Index, and then scaled to range from 0 (low risk) to 1 (high risk). Risk scores were then projected onto a map at the Census tract level.

3. Results

3.1. Descriptive statistics

Fig. I presents boxplots, whiskers, and outliers for soil Pb samples categorized by landuse type. The lower and upper boundaries of each box indicate the interquartile range (IQR) of the sample, while the centerline and "X" symbol indicate the sample median and mean, respectively. The lower and upper whiskers indicate the minimum and maximum data points after excluding outliers as defined as Q_1 or $Q_3 \pm 1.5^{\circ}$ IQR. Such outliers are depicted as individual points. As shown in the figure, the sample means for each landuse type were all higher than their medians, suggesting that the distribution of lead soil samples was consistently skewed in the positive direction. This is also made apparent by the abundance of outliers above the mean. Residential landuse had the most outliers and areas proximal to schools had the fewest outliers. Residential and school landuse types also had the largest (n = 1173) and smallest (n = 10) sample sizes, respectively.

Table I presents summary statistics for all soil Pb samples and groups of samples categorized by landuse type, as well as the extent to which soil Pb standards were exceeded. The average Pb concentration (standard deviation) across all soil samples (n = 1528) was 123.1 ppm (181.3 ppm), with a median concentration of 77.8 ppm and range from 11.4 to 2687.0 ppm. The high standard deviation suggests a wide amount of variability, which is also reflected by the boxplots in Fig. I. By comparison, the average and standard deviation of Pb concentrations across our baseline soil samples (n = 8) was 30.3 ppm and 7.9 ppm, respectively (min: 21.8 ppm; max 42.5 ppm]. In terms of landuse type, roadway samples had the highest mean lead concentration 172.9 ppm), followed in order by residential (128.4 ppm), industrial (122.6 ppm), park (72.5 ppm), and school (37.9 ppm) samples. For the industrial landuse type, further distinguishing these samples into business (n = 4) and industrial (n = 85) landuse types did not have a meaningful impact on results (data not shown). The sum of samples

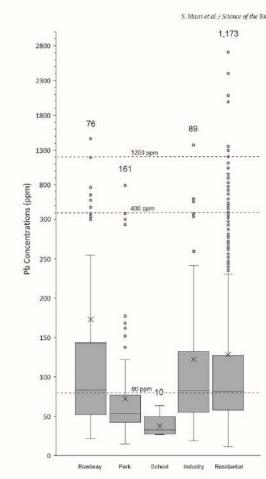


Fig. L Boxplots describing lead soil concentrations across samples collected by landuse types. The symbols "X" denote sample means while the overlying values indicate sample sizes. The California recommendation for play areas with children (80 ppm), and U.S. EPA standards for areas where children play (400 ppm) and other uncovered areas (1200 ppm) for soil Pb are presented as dotted lines.

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across all landuse types (n = 1509) does not add up to our total sample size (n = 1528) because there were 19 samples that were excluded from landuse analysis because their landuse information was not available.

Concentrations exceeding 80 ppm and 400 ppm, which represent the California EPA recommended safety level for soil Pb in areas where children play and the U.S. EPA standard for Pb in soil for play areas, respectively, were found across all landuse types except for samples collected near schools. The California recommendation was exceeded by 751 soil samples, and the EPA standard by 60 samples, accounting for approximately 48% and 4% of samples, respectively. The EPA standard for non-play area soil (1200 ppm) was exceeded by 10 soil samples, eight of which were found in residential areas that could serve as play areas for children. As a fraction of samples collected within a single landuse type, roadway and residential samples exceeded the 400 ppm EPA standard at the highest frequency (11.8% and 4% of samples, respectively), whereas the 1200 ppm standard was exceeded most frequently by samples collected in the roadway (1.3%) and industry (1.0%) landuse areas.

3.2. Social and spatial distribution of soil Pb

Fig. IIa-h presents average Pb concentrations across soil samples grouped into tertiles based on Census tract data for eight separate demographic characteristics. Fig. IIa presents average Pb concentrations (95% CI) of soil samples categorized according to the median household income of each sample's Census tract. Statistically significant differences (p < 0.05) in average Pb concentrations were observable across each income creasing income bracket. On average, soil samples collected in Census tracts with median household incomes below \$50,000 had \$40% higher Pb concentrations compared to samples collected in Census tracts where the median household income was greater than \$100,000, and between \$50,000 and \$100,000, respectively.

As shown in Fig. IIb, average Pb concentrations decreased as the proportion of college educated residents increased. In Fig. IIc–g, there was a consistent pattern of increasing Pb concentrations within Census tracts that had a higher proportion of: children under five years of age, residents without health insurance coverage, renter occupied housing units, Latina/o/x/Hispanic residents, immigrant residents, and residents speaking limited or no English. In nearly all cases, each tertile exhibited statistically higher (p < 0.05) average Pb concentrations than the previous. One exception was for Fig. IIe (percent renter-occupied), where differences were only statistically significant for the upper tertile (p < 0.05) relative to the low and middle tertiles. Additionally, for Fig. IIh (percent limited or non-English speaking), differences between the lowest two tertiles were not statistically significant. However, there was a statistically significant increase in average Pb concentrations for the upper tertile (p < 0.05) compared to the low and middle tertiles.

Table I

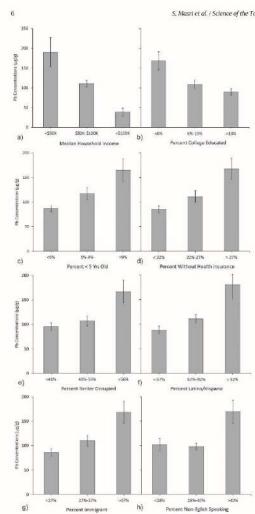
Summary statistics for soil Pb concentration	ppb) in Santa Ana, CA, according landuse type and the extent of regulatory	threshold exceedances.
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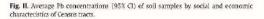
landuse	N	50th	Mean	S.D.	Min	Max	>80 ppm*		>400 ppm ^b		>1200 ppm ^c	
							N	¥	N	*	N	%
Industry	89	82.8	122.6	164.8	19.2	1371.0	46	51.7	3	3.4	1	1.1
Park	161	53.4	72.5	75.3	15.1	790.2	37	23.0	1	0.6	0	0.0
Residential	1173	81.7	128.4	187.9	11.4	2687.0	608	51.8	47	4.0	8	0.7
Roadway	76	83.6	172.9	251.1	21.8	1461.0	40	52.6	9	11.8	1	1.3
School	10	32.8	37.9	12.9	26.4	63.1	0	0	0	0	0	0
Baseline	8	28.9	30.3	7.9	21.8	42.5	0	0	0	0	0	0
Alld	1528	77.8	123.1	181.3	11.4	2687.0	737	48.2	60	3.9	10	0.7

California EPA safety recommendation for soil Pb in play areas.

^b U.S. EPA standard for soil Pb in play areas.
 ^c U.S. EPA standard for soil Pb in non-play areas.

^d Does not include baseline samples.





More specifically, soil samples collected in tertiles with the highest percent children, highest percent of people without health insurance coverage, highest percent of renter occupied housing units, and lowest percent of college educated residents had 90.0%, 96.1%, 75.2%, and 87.0% higher Pb concentrations on average relative to those from the lowest tertile, respectively.

Soil samples collected in tertiles with the highest percent Latina/ o/x/Hispanic residents, immigrant residents, and residents speaking limited or no English had 105.1%, 96.4%, and 66.1% higher Pb concentrations, on average relative to the lowest tertile, respectively. This latter pattern was not observed across all groups of residents speaking limited or no English. Census tracts with higher fractions of Asian limited or non-English speakers, for instance, had relatively lower

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average Pb concentrations, as shown in Fig. SIV of the supplemental materials section.

Fig. III presents the number of Census tracts depicted according to their average Pb concentrations, as well as the total number of residents under five years of age who resided in those Census tracts. Of the 61 Census tracts in Santa Ana, the majority (78.7%) had average leads concentrations between 50 and 150 ppm, with 21 tracts (34.4%) between 150 and 400 ppm and three (4.9%) with concentrations less than 50 ppm. Importantly, there was one Census tract (18 samples) where average Pb concentrations were in excess of the 400 ppm EPA standard for play areas. Although this was only a single Census tract, there were over 650 children under five years of age who resided in that Census tract. What is more, an analysis of maximum Pb concentrations showed that 56 different Census tracts housing over 28,000 children had maximum Pb concentrations that exceeded the 80 ppm California safety recommendation, while 20 Census tracts housing over 12,000 children had maximum concentrations in excess the 400 ppm EPA standard.

Presented in Fig. IV is a map of interpolated soil Pb concentrations based on kriging. Results show the highest lead levels in the central region and northeast quadrant of Santa Ana, just southwest of the I-5 freeway. This area also corresponds with the downtown area of Santa Ana, and the 92,701, 92,706, and 92,703 zip codes. In contrast, the southwest quadrant and northeast corner of the map show the lowest estimated Pb concentrations. These areas correspond with zip codes 92,704 and 92,707.

Fig. V is a map depicting Santa Ana Census tracts according to their Cumulative Risk Index scores. As shown, the cluster of Census tracts in the central region of the city, just south of the 1-5 freeway, had the highest cumulative risk scores. A map presenting the Vulnerability Index scores by Census tract is presented in Fig. SIII of the supplemental materials section. As shown in Fig. SV, we found a positive correlation ($\mathbf{r} = 0.41$) between the Cumulative Risk Score of each Census tract and its percent Latina/o/x/Hispanic population.

4. Discussion

This study sought to examine the spatial distribution of soil Pb in an urban area in the Southwest region of the U.S. and to identify social and economic vulnerabilities to soil Pb exposure. Pb concentrations were found to vary widely, with approximately 4% and -1% exceeding U.S. EPA standards for play and non-play areas, respectively. Moreover, nearly half of Pb concentrations exceeded the California safety recommendation of 80 ppm for soil Pb in play areas. Soil Pb concentrations varied by landuse type, with samples collected near major roadways and residential areas having the highest concentrations.

There are three key findings from this study. First, within residential areas, 51.8% of samples had soil Pb concentrations in excess of the California EPA safety guideline for soil Pb in play areas, and 4% had concentrations in excess of the 400 ppm U.S. EPA standard for play areas. This finding is of importance for early life exposure given that residential areas frequently serve as play areas for children. One Census tract that housed over 650 children under age five had average Pb concentrations in excess of the 400 ppm U.S. EPA standard. In general, Census tracts with a higher fraction of children had higher average Pb concentrations. These findings highlight an important public health issue since children are an especially vulnerable subpopulation to the adverse neurological and social impacts of Pb exposure (Canfield et al., 2003; Lanphear et al., 2005; Reuben et al., 2017). Additionally, soil Pb and the resuspension of soil Pb have been demonstrated to be significant contributors to the blood Pb burden in children (Maisonet et al., 1997; Mielke et al., 2007; Weitzman et al., 1993; Zahran et al., 2013).

The mean (median) soil Pb concentration of 123.1 ppm (77.8 ppm) from this analysis was similar to recent findings from another community-based participatory study by Johnston et al. (2019), which showed median soil Pb concentrations in nearby Los Angeles County, CA, to be 190 ppm, with nearby 14% of samples exceeding the 400 ppm US.

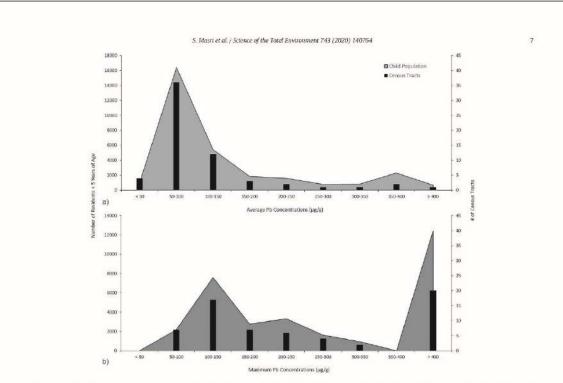


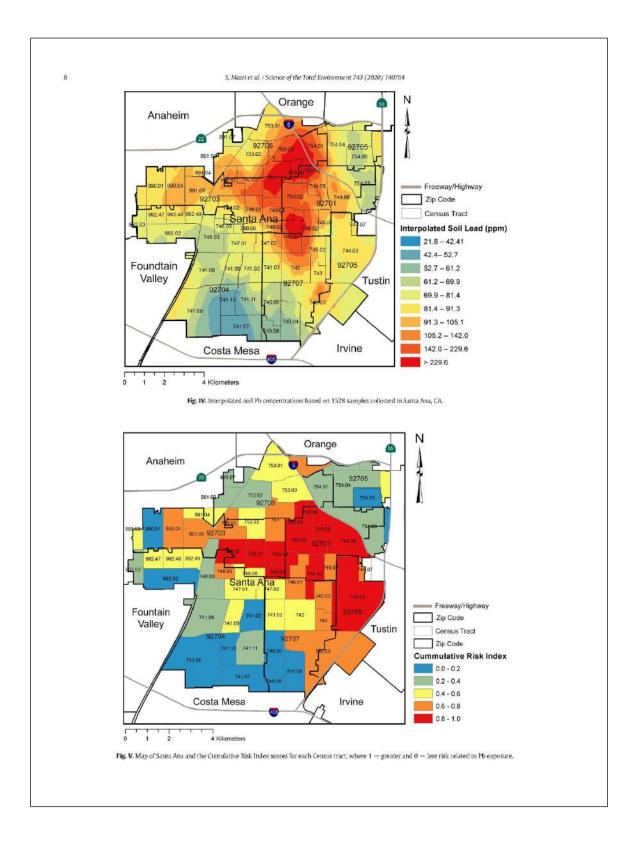
Fig. III. The number of Census tracts where a) average and b) maximum Pb concentration fell within specified ranges, and the total number of residents under age five who resided in such Census tracts.

EPA standard. Higher concentrations in that study appear attributable in part to the proximity of measurement sites to a lead-acid battery smelter. An important finding from the Los Angeles study was an association between soil Pb levels with both in utero and early life exposure to Pb (based on teeth Pb levels) even where neighborhoodaveraged soil Pb concentrations were below 400 ppm. In another soil sampling study of central Los Angeles County, results showed a mean (median) soil Pb concentration of 181 ppm (81 ppm), with a total of \$% of samples exceeding 400 ppm (Wu et al., 2010). As with the present study, higher concentrations were reported near freeways and arterial roads.

Second, results suggest a robust pattern of greater vulnerability to soil Pb exposure for residents of lower socioeconomic statuses. For example. Census tracts with a lower median household income had considerably higher average soil Pb concentrations compared to higher income Census tracts. Similarly, Census tracts with a lower fraction of college educated residents had much higher Pb concentrations on average. Lastly, we observed higher soil Pb concentrations within Census tracts that had higher fractions of renter-occupied housing units and residents without health insurance coverage. Across nearly all of the socioeconomic factors examined, soil Pb concentrations either increased or decreased in a stepwise fashion across all three tertiles, reinforcing the existence of a meaningful socioeconomic gradient in vulnerability to exposure to soil Pb. These results showcase environmental and socioeconomic inequities in the city of Santa Ana and underscore the need for increased public outreach, awareness, and intervention to protect children and families and minimize Pb exposure. These results may also serve to aid in the deployment of municipal resources towards areas and residents of lower socioeconomic status.

Third, when examining important social characteristics, Census tracts with a higher fraction of immigrant, limited or non-English speaking, and Latina/o/x/Hispanic residents exhibited considerably higher average Pb concentrations. However, this pattern was reversed for Census tracts with higher fractions of limited or non-English speaking Asian residents. This could reflect differences in the socioeconomic statuses of these two populations, as indicated in post-hoc analyses of Census estimates of median household income included as Fig. SIV of the supplemental materials section.

Collectively, these results are consistent with a body of geospatial literature that reveal the disproportionate impact of Pb contamination in low-income communities and communities of color (McClintock, 2015; Mielke et al., 2007; Zhuo et al., 2012) and that theorize race and class as social constructs that are fundamental causes of health inequities (Phelan et al., 2010). Importantly, the presence of multiple social and economic disadvantages can foreseeably be synergistic so as to render a particular subgroup or Census tract at considerably higher vulnerability to Pb exposure. For example, neighborhoods where residents may be concerned about immigrant policing and have limited English fluency may be less inclined to inquire with authorities about Pb exposures in their community or engage with public health officials or initiatives relevant to their individual, household, or neighborhood experiences (Nichols et al., 2018). Additionally, having lower income and lacking health insurance may limit a household's or neighborhood's ability to individually or collectively obtain either public health advice for exposure prevention or medical attention following exposures, which are over-concentrated in these areas. It is also common that families who rent their homes have less flexibility to manipulate the property or landscape compared to families who own their homes. This lack of flexibility may render a household less able to take precautionary



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4.2. Strengths and limitations

measures to minimize Pb exposure, such as lead paint remediation, replacing topsoil, or covering topsoil with grass or gravel. These findings suggest that neighborhoods with a greater proportion of renters are important spaces for governmental action to support lead remediation.

We considered six social and economic factors in conjunction with average soil Pb concentrations for each Census tract in order to calculate Cumulative Risk scores across Santa Ana. Approximately eleven Census tracts were considered high risk (CR 0.8–1.0) and were primarily located in the central region of the city. We found a positive correlation between the Cumulative Risk score of each Census tract and its percent Latina/o/x/Hispanic population, which highlights the interconnections of racial-, age-, and socioeconomic-related vulnerabilities to soil Pb exposure. Such results are not only important for members of affected neighborhoods, but also for public health officials, city managers, and elected representatives charged with protecting public health and allocating resources for disease prevention and health promotion across the life course.

Additionally, results showing increased Pb concentrations near roadways and residential areas were reasonable and were consistent with prior studies (Wu et al., 2010). Higher concentrations near roadways may be explained by historic use of leaded gasoline in vehicles, making traffic emissions an important historic source of lead in the atmosphere and surrounding environment. Similarly, increased Pb concentrations in residential areas may be explained by the historic use of lead-based paint. As painted surfaces erode over time, lead-containing paint particles deposit on nearby soils. Moreover, in community discussions residents highlighted concern about several metal processing plants located in Santa Ana. While the U.S. EPA Toxic Release Inventory identifies five industrial sources of atmospheric lead in Santa Ana, with total lead emissions of 19.1 kg (42.0 lbs) reported between 1987 and 2017, these reported emissions likely represent an underestimate of true emissions. For instance, auto-repair shops, body shops, and autobattery recycling centers are usually small-scale businesses that do not report to EPA. Importantly, however, these sources are more dispersed and often closer to residents, rendering them of high importance to exposure. Future studies should disentangle contemporary sources of lead to soil and the contribution from historical lead in gasoline, paint, and industrial emissions

4.1. Community-driven recommendations

Our partnership is developing several community-driven recommendations for policies and community-based initiatives to remediate soil Pb and prevent and mitigate exposures to lead. These recommendations are informed by our process of leveraging a community organizing strategy to discuss with residents who participated in the study: emerging findings, their interpretations of these findings, and recommendations for how our partnership moves forward to promote a healthier environment. Emerging recommendations fall into two interconnected multi-sectoral approaches: remediating soil with high Pb concentrations and addressing the effects of Pb exposures for affected community members. Recommendations that are currently still in development include eliciting support from governmental agencies with jurisdiction over soil Pb in Santa Ana to remediate soil, continuing to engage popular education strategies to enhance community consciousness of exposures to soil Pb, investing in early childhood education, making improving access to healthy and affordable foods, and ensuring that residents have regular access to quality health care. Additionally, our partnership is engaging in a visioning process to imagine new systems to promote community health, such as augmenting the vibrant local food sovereignty movement, developing a cooperative focused on soil remediation, and developing new channels of communication across generations and social identities in Santa Ana, As we continue to discuss these findings with affected community members, we will translate recommendations into a public health equity action plan.

An important strength of this study is that it is grounded in community priorities and principles of community-driven communityacademic partnerships (González, 2019; Israel et al., 1998; LeBrón et al., 2019a, 2019b; Wolff et al., 2016). The research questions, study design, study implementation, interpretation of findings, and ongoing development of a vision for a healthier community were each guided by our partnership process. Community-academic partnerships characterized by ownership of action research agendas by community and academic partners have greater potential for informing the translation of research into action to promote community health and health equity (González, 2019; Wolff et al., 2016). Another strength of this study is the random sampling of a large number of soil samples (n = 1528), thus allowing for a more spatially resolved understanding of the distribution of lead in the soil. This helps to reduce exposure misclassification. High density spatial sampling also enabled an assessment of average Pb concentrations at each Census tract, which is an improvement from prior studies which only examined the zip code level. An additional strength is the characterization of soil Pb across landuse types, which is useful to allow for targeted interventions to minimize exposure and to enable a better understanding of potential contributing sources of Pb.

This study had several limitations. First, despite a high number of sampling sites, a limitation of this study nonetheless was the inherent uncertainty of Pb concentrations between sampling sites. Such uncertainty can potentially lead to exposure misclassification, particularly where samples are sparser. Second, examining correlations between lead and social and economic characteristics at the Census tract level, as opposed to individual level, comes with limitations in the ability to draw conclusions. For example, while low-income Census tracts had the highest Pb concentrations, we do not know how Pb concentrations varied according to income level within a given Census tract. Third, our Cumulative Risk index can only be used as a general guideline of risk since risk assessment inherently involves a number of assumptions. Fourth, the vulnerability index was informed by U.S. Census estimates, which may systematically underestimate the population in subregions (e.g., Census tracts, zip codes) of Santa Ana, potentially contributing to an underestimate of the cumulative burden of exposure to lead. For example, Santa Ana is characterized by high levels of engagement of youth and adults of color with the criminal justice system who may not be represented in Census estimates of the population (Avila et al., 2019; Lai and Ashar, 2013). Additionally, as with many urban areas, Santa Ana is undergoing gentrification processes that escalate housing instability, housing quality concerns, and homelessness in the community. Accordingly, recent Census estimates may offer a conservative assessment of place-based risk of soil Pb exposure. Future studies are warranted that examine the source(s) of soil Pb, associations of soil Pb levels with health outcomes, and that test the effectiveness of health equity interventions designed to mitigate soil Pb exposures and remediate the environment.

5. Conclusions

This spatial analysis of soil Pb concentrations across Census tracts found that Census tracts with a higher fraction of children, lower median household income, lower percent of college educated residents, higher proportion of renters, and higher fraction of residents lacking health insurance coverage had higher average Pb concentrations compared to other Census tracts. Similarly, Census tracts with a higher fraction of immigrant, limited English proficiency, and Latina/o/x/Hispanic residents exhibited much higher Pb concentrations than other Census tracts. These findings illuminate environmental inequities and areas of vulnerability as it relates to Pb exposure, and underscore the need for public outreach and intervention to reduce and eventually eliminate inequities in exposure to soil Pb.

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CRediT authorship contribution statement

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Shahir Masri: Conceptualization, Methodology, Software, Data curation, Formal analysis, Writing - original draft, Writing - review & editing, Visualization, Alana LeBrón: Conceptualization, Methodology, Writing - original draft, Writing - review & editing, Supervision, Project administration, Funding acquisition. Michael Logue: Data curation, Writing - review & editing, Enrique Valencia: Conceptualization, Investigation, Supervision, Project administration, Funding acquisition, Writing - review & editing. Abel Ruiz: Conceptualization, Supervision, Project administration, Funding acquisition, Writing - review & editing, Abigail Reyes: Conceptualization, Funding acquisition, Writing - review & editing. Jean M. Lawrence: Writing - review & editing, Funding acquisition. Jun Wu: Conceptualization, Methodology, Writing - review & editing, Supervision, Project administration, Funding acquisition.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi. org/10.1016/j.scitotenv.2020.140764.

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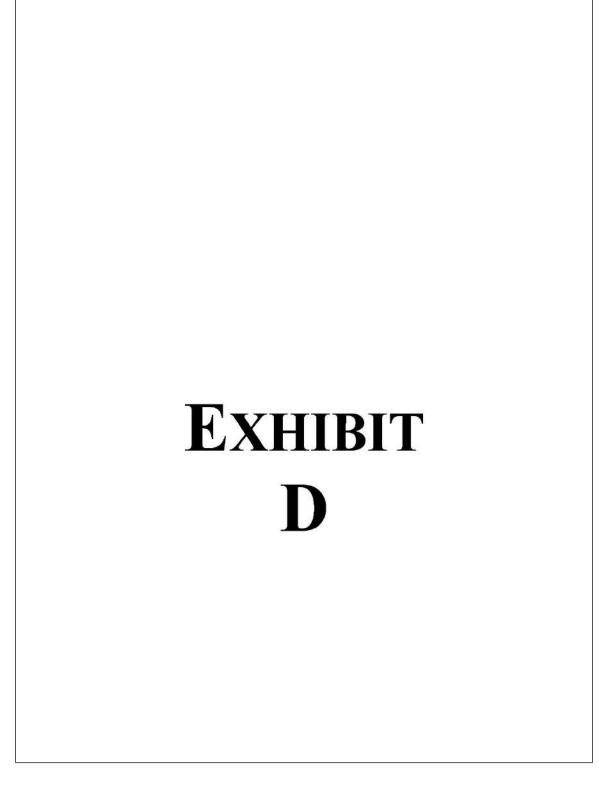
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RESEARCH ARTICLES

Lead and Other Heavy Metals in Dust Fall from Single-Family Housing Demolition

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ABSTRACT

Objective. We measured lead and other heavy metals in dust during older housing demolition and effectiveness of dust suppression.

Methods. We used American Public Housing Association Method 502 and U.S. Environmental Protection Agency Methods SW3050B and SW6020 at 97 single-family housing demolition events with intermittent (or no) use of water to suppress dust at perimeter, non-perimeter, and locations without demolition, with nested mixed modeling and tobit modeling with left censoring.

Results. The geometric mean (GM) lead dust fall during demolition was 6.01 micrograms of lead per square foot per hour (µg Pb/ft²/hour). GM lead dust fall was 14.18 µg Pb/ft²/hour without dust suppression, but declined to 5.48 µg Pb/ft²/hour (p=0.057) when buildings and debris were wetted. Significant predictors included distance, wind direction, and main street location. At 400 feet, lead dust fall was not significantly different from background. GM lead concentration at demolition (2,406 parts per million [ppm]) was significantly greater than background (GM=579 ppm, p=0.05). Arsenic, chromium, copper, iron, and manganese demolition dust fall was significantly higher than background (p<0.001). Demolition of approximately 400 old housing units elsewhere with more dust suppression was only 0.25 µg Pb/ft²/hour.

Conclusions. Lead dust suppression is feasible and important in single-family housing demolition where distances between houses are smaller and community exposures are higher. Neighbor notification should be expanded to at least 400 feet away from single-family housing demolition, not just adjacent properties. Further research is needed on effects of distance, potential water contamination, occupational exposures, and water application.

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Large sources of lead exposure remain, despite considerable progress in reducing exposures in the United States during the past few decades. Thirty eight million housing units in the U.S. have lead-based paint; of those, 24 million have lead-based paint hazards in the form of deteriorated lead-based paint, contaminated dust, and contaminated bare soil, with 37 billion square feet (ft2) of building components coated with lead paint.¹ Demolition can be expected to disturb lead paint and produce significant emissions of lead dust and other contaminants.2-6 Dust from only 1 ft2 of surface painted with lead-based paint in a 100 ft² room can result in a potential dust lead loading of 9,300 micrograms per square foot ($\mu g/ft^2$), well above the U.S. Environmental Protection Agency (EPA) limit of 40 μ g/ft² for interior floors. Earlier research has focused mostly on large numbers of multifamily housing units undergoing demolition within a confined geographic area.1-4 Only one small pilot study6 has examined single-family housing demolition, which often occurs at scattered sites adjacent to occupied homes, and no studies have reported on metals other than lead in demolition dust.

Population blood lead levels (BLLs) in the U.S. have declined by 84% since the late 1980s,⁷ but mean BLLs still remain two orders of magnitude above the natural background BLL,⁸ suggesting that large lead exposure sources still remain. Exposure to lead can occur from many pathways and sources, but housing is the main pathway of exposure in the U.S., accounting for approximately 70% of childhood lead poisoning cases.⁹

Furthermore, demolition of older housing in the U.S. has been shown to explain approximately 30% of the variation in children's BLLs during a 20-year time period¹⁶ because, in the long run, lead-contaminated housing is removed from service. But demolition can also contribute to increased exposures in the near term due to lead-contaminated dust. Furthermore, dust emissions from housing demolition have been found to contribute to adverse health effects other than lead poisoning, such as asthma exacerbation.⁴

While lead exposure limits have been developed for paint, interior settled dust, and bare soil,¹¹ as well as ambient air and drinking water, no standard has been developed for exterior settled dust. The U.S. Department of Housing and Urban Development (HUD) created a cleanup guideline of 800 µg/ft² for exterior concrete or other rough surfaces;¹² however, there are no enforceable standards for lead dust hazard identification on exterior surfaces or lead dust fall, and no standards have been incorporated into the U.S. federal regulatory standards. There are also no consistent lead dust-suppression methods in the housing demolition field, although one recent protocol has been developed.¹⁵

This study is the first to characterize lead and other heavy metals in dust fall from single-family housing demolition.

METHODS

We collected dust fall samples at perimeter and nonperimeter residential property locations near 97 scattered, single-family demolition events (i.e., an event was considered one workday at one location). Older housing units likely to contain lead-based paint and scheduled for demolition were selected as a convenience sample with the aid of local officials and/ or developers. To measure dust fall not associated with demolition, we collected street-level background samples at locations farther than one-quarter mile away from the demolition site during the same time interval as demolition and also at 35 non-demolition events (Photo 1). Demolition samples were collected for a median of 4.5 hours each day (range: 2–8 hours).

Lead, other heavy metals, and total dust fall and concentration were measured by American Public Health Association (APHA) Method 502 and EPA Methods SW3050B and SW6020, as modified by Farfel et al.² This passive method uses a polyethylene container with a surface area opening of 0.0594 square meters containing 1 liter of deionized water opened to the atmosphere for a measured time period (Photo 2). Particulate matter settles onto and is captured by the water. After sampling, the container was sealed and transported to a laboratory, where the water was filtered; the filter was then dried to a constant weight and analyzed for total dust, lead, and other heavy metal mass by inductively coupled plasma mass spectrometry, with results



Photo 1. Typical locations of perimeter and non-perimeter samples

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Photo 2. Dust fall sampler apparatus, Source: University of Illinois at Chicago

reported in mass of total dust, lead, and other heavy metals per unit surface area per unit time ($\mu g/ft^2/$ hour). We chose $\mu g/ft^2$ to facilitate a comparison with federal housing standards. If the total dust mass was less than the reporting limit (RL) of 100 µg, a value of 100 µg was used for statistical analysis. RLs for each metal were as follows: arsenic (1 µg), cadmium (4 µg), chromium (4 µg), copper (2.5 µg), iron (100 µg), lead (1 µg), manganese (2 µg), nickel (30 µg), selenium (1 µg), silver (1 µg), and thallium (5 µg). Lead dust fall samples below the laboratory RL were replaced by the RL divided by the square root of two. The analytical laboratory is recognized by the EPA National Lead Laboratory Accreditation Program.

We used a nested mixed model on natural logtransformed dust fall lead loadings that accounted for the correlation of lead dust fall measurements at the same address or on the same day to identify predictors of lead dust fall. We used a backward elimination procedure to eliminate non-significant covariates (p>0.1). The model allowed residual variance to differ for the three dust fall sample types (i.e., property perimeter at demolition site, non-perimeter at demolition site, and street-level background at demolition site).

We estimated wind speed using data from a local airport. Sample collection containers were placed in unobstructed locations, with the exact position recorded by global positioning system sensors. We measured traffic density of sample locations by classifying adjacent streets as either side or main streets. We collected field blank samples as a quality control step. We recorded descriptive data on the following variables: ground saturated (yes/no), relative humidity, temperature, atmospheric pressure, wind speed, wind direction, use of a hose, presence of a fence, type of demolition activity (e.g., building razing, debris removal, or both), type of building material (e.g., siding, unpainted/painted wood, or unpainted/painted stone), type of street (main or side), and demolition equipment used (e.g., bulldozer, wrecking ball, picker, or other). We categorized samples into one of three groups according to the amount of time they were located downwind during the sampling events: (1) downwind of demolition <5% of the sampling period (55%), (2) downwind 5%–50% of the sampling period (20%), and (3) downwind >50% of the sampling period (25%).

We recorded data on the use of water for dust suppression, which was either nonexistent (Photo 3) or intermittent (Photo 4). We also used the following variables in modeling: ground saturation (yes/no), average relative humidity, temperature, wind speed and wind direction (downwind <5% of the time, downwind 5%–50% of the time, or downwind >50% of the time) during sampling, the use of a hose to wet down the building and debris (yes/no), presence of a fence (yes/no/unknown), building razing (yes/ no) and debris removal (yes/no), primary exterior



Photo 3. No dust suppression used at a demolition site in Chicago. Source: University of Illinois at Chicago



Photo 4. Limited dust suppression in use at a Chicago demolition site. Source: University of Illinois at Chicago

[painted (yes/no), brick/stone (yes/no)] and secondary exterior [painted (yes/no), brick/stone (yes/ no)], number of stories, number of dwellings, partly commercial structure (yes/no) and garage (yes/no),

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whether the sample was on a main street or a side street, and distance from the demolition activity. The model included quadratic and cubic terms to control for wind speed and wind direction.

We analyzed non-lead metals using Tobit models for left-censored measurements under the assumption of log normality for both concentration (in parts per million [ppm]) and dust fall ($\mu g/ft^2$ /hour), so no substitutions of values below the RL were needed.¹⁴ All data were analyzed using SAS[®] version 9.1.¹⁸

RESULTS

The dataset included 463 samples from 97 demolition events and 64 samples from 35 background nondemolition events (Table 1). About 9.6% of the lead dust fall samples were below the RL. The overall GM lead dust fall during demolition was 6.01 µg Pb/ft²/ hour (GSD=4.47). The GM was higher when a water hose was not used to control the dust (n=13 events, GM=14.18 µg Pb/ft²/hour) than when a water hose was used to control the dust (n=84 events, GM=5.48 µg Pb/ft²/hour; p=0.057). The GM lead concentrations at demolition site perimeters and non-perimeters were 2,800 ppm and 1,900 ppm, respectively, and were much higher than street-level background (GM=300=1,300 ppm) (Table 1).

Not surprisingly, the effect of distance from demolition on dust fall was modified by wind direction (Table 2). Lead dust fall was lower for samples that were <5% downwind compared with 5%–50% downwind at a distance of 10–240 feet (all p<0.05) and marginally lower at a distance of 260–280 feet (p=0.065 and p=0.089 at 260 and 280 feet, respectively). Lead dust

Table 1. Geometric mean total and lead dust fall and concentration measurements at single-family housing demolition and non-demolition locations in Chicago, 2008–2009

Dust fall and lead concentration	Demolition perimeter (87 events, 261 samples)	Demolition non-perimeter (75 events, 158 samples)	Street-level background demolition >1/4 mile distance (43 events, 44 samples)	Street-level background non-demolition (16 events, 28 samples)	Rooftop background non-demolition (19 events, 36 samples)
Total dust fall (µg/ft²/hour)	2,202	1,208	589	129	247
Lead dust fall (µg/ft²/hour)	6.01 (no water hose: 14.18, n=13; hose: 5.48, n=84)*	2.45	0.32	0.19	0.09
Lead concentration (ppm)	2,800	1,900	600	1,500	300

""No water hose" means there was no observed wetting of the building and debris before or during demolition; "hose" means that there was some wetting before or during demolition.

 $\mu g/ft^2 - \text{micrograms per square foot}$

ppm – parts per million

Table 2. Parameter estimates of natural logarithm of lead dust fall ($\mu g/ft^2/hour$) at single-family housing demolition in Chicago, 2008–2009

Effect	Estimate (SE)	P-value for estimate	P-value for effect
Intercept	3.2072 (0.6031)	<0.001	<0.001
Downwind			< 0.001
<5%	-1.1941 (0.3376)	< 0.001	
5%-50%	-0.3418 (0.4238)	0.420	
<50%	0	NA	
Distance			< 0.001
Downwind <5%	-0.00581 (0.000765)	< 0.001	
Downwind 5%-50%	-0.00636 (0.002496)	0.011	
Downwind >50%	-0.00978 (0.003210)	0.002	
Distance ²			< 0.001
Downwind <5%	2.967 × 10% (O)	<0.001	
Downwind 5%-50%	2.061 × 10° (2.601 × 10°)	0.429	
Downwind >50%	5.51 × 10 ⁻⁶ (4.021 × 10 ⁻⁶)	0.171	
Relative humidity	-0.01845 (0.009939)	0.064	0.064
Type of street			0.079
Side	0.3983 (0.2262)	0.079	
Main	0	NA	

 μ g/ft^s – micrograms per square foot

SE = standard error

NA – not applicable

fall was lower for samples that were <5% downwind compared with >50% downwind at a distance of 10-170 feet (all $p \le 0.05$) and marginally lower at a distance of 180-190 feet (p=0.063 and p=0.093 at 180 and 190 feet, respectively). Lead dust fall was not different for 5%-50% downwind compared with >50% downwind across the range of distances (10-750 feet). At 400 feet from demolition, the effect of wind was minimal and lead dust fall was not significantly different from background street-level lead dust fall, which has important implications for notification of nearby residents. A convenience sample of community residents showed that dust exposures from demolition, inadequate notice, and dilapidated housing targeted for demolition were all important community concerns (Unpublished report, Bartlett J. Results of interviews with community residents on demolition. Chicago: Metropolitan Tenants Organization; 2009).

While there is no federal regulation governing lead dust fall from demolition, there are two relevant comparison values. In 1995, HUD published a guidance value of 800 µg/ft² for settled lead dust on exterior concrete surfaces.¹² and in 2001, EPA published a regulation¹¹ for interior floor settled lead dust of 40 µg/ft². After eight hours of demolition at 400 feet from demolition, the probability of exceeding 40 and 800 µg/ft² was 13% and 6%, respectively (Figure).

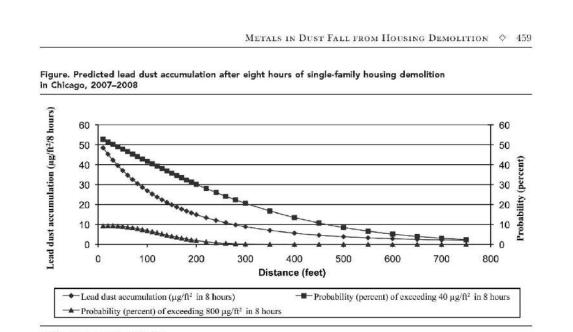
For metals other than lead, many samples were

below the RL; however, 428 demolition samples (n=97 events) and 73 background samples (n=34 events) could be quantified (Table 3). GM lead and cadmium concentrations in ppm were significantly greater in demolition samples than in background samples, and dust fall in pg/ft²/hr was significantly higher for arsenic, chromium, copper, iron, lead, and manganese in demolition samples (all p < 0.001).

DISCUSSION

Demolition is conducted in a diverse manner and many factors can contribute to variable dust fall levels. For example, we found that lead dust fall decreased by 17% for each increase in relative humidity of 10%. Relative humidity ranged from 21% to 83% with a mean of 50%. Although the effect of ground saturation was allowed to enter the model, it did not indicate a significant influence, probably because relative humidity was a stronger predictor. One study found that total suspended particulate (TSP) had a negative correlation with relative humidity, but that lead concentration was high in TSP with increasing wind speed.16 Another study showed that wind direction (but not wind speed) was a significant predictor of lead dust fall.6 Wind speed may increase the concentration of airborne particulates by acrosolizing settled dusts.

Lead dust fall was 33% lower on side streets than



 $\mu g/ft^2=\ micrograms\ per\ square\ foot$

on main streets, possibly due to greater numbers of trees and green landscaping on side streets as well as re-entrainment of particulate from vehicular traffic. We did not sample during winter months to avoid water freezing. Therefore, the results presented in this article cannot be used to estimate dust fall during the winter months, which may be higher due to lack of water dust suppression. Other factors we could not measure in this study included the surface area and concentration of lead-based paint, source of other heavy metals in housing, type and density of housing, extent of occupational exposures, and amount of water actually used.

A study in Baltimore, Maryland, that used the same dust fall sampling methods involved approximately 400 contiguous old row homes in one geographical area that were demolished during a much shorter (three-month) time period. In that study, eight fixed site sampling stations within the demolition area were established, with the demolition proceeding around them, instead of the property-specific perimeter sampling locations in Chicago (Unpublished report, Jacobs DE, Phoenix J, Travis-Miller V, Harris R. Final report of the East Baltimore Development Initiative [EBDI] Advisory Committee, 2010). A much more extensive dust-suppression protocol13 was established with the support of the EBDI, a local advocacy group (Coalition to End Lead Poisoning), an external independent advisory committee, and others, together with a number of local community meetings. The EBDI dust-suppression protocol included training of all demolition workers in lead-safe work practices; designation of a full-time dust-suppression manager; provision of walk-off mats and high-efficiency particulate air vacuums for residents remaining near the periphery of the demolition zone; landscaping and greening of lots; regular street and sidewalk cleaning; environmental monitoring; installation of jersey barriers and fencing covered with plastic to limit entry and help contain dust; sediment control; and, perhaps most importantly, the extensive use of fire hoses, with one wetting the roof and building exterior and the second wetting the debris on the ground (Photo 5).

The Chicago site had much more limited (and, in some cases, no) dust suppression, fewer houses being demolished, different background lead dust fall, different distances to sampling locations, and a greater likelihood of being on side streets. These differences make a direct comparison with Chicago problematic. In Baltimore, levels were as follows: GM lead dust fall = $0.25 \text{ µg/ft}^2/\text{hour}$, GM total dust fall = $0.70 \text{ µg/ft}^2/\text{hour}$, and GM lead in dust fall = 0.25% (Table 4). In Chicago, 6% of the homes exceeded the HUD exterior cleanup standard of 800 µg/ft² after eight hours of demolition; however, in Baltimore, none of them did.

Both the Chicago homes that had water use and the Baltimore results suggest that control of lead dust from demolition in both single- and multifamily

housing is feasible. Of the different dust-suppression techniques observed in this study, extensive use of water to wet down building exteriors and debris thoroughly and employment of a dust-suppression manager are likely to help reduce emissions. The Baltimore results also demonstrate that sampling of airborne lead dust (as opposed to dust fall) is less informative, because airborne dust lead results are more likely to be below the limit of detection than is dust fall. This result is probably because lead-contaminated dust is dense and demolition dust is likely to be of larger particle size, both of which suggest it will settle out relatively rapidly and remain airborne for a shorter period of time.

Previous studies of demolition were from large, multifamily housing sites or multiple row homes, where people did not live next door to demolition

Table 3. Geometric mean concentration and dust fall for heavy metals at single-family hour	ing
demolition in Chicago, 2008–2009	00004753

		Samples		Metal concentration	(ppm)	Metal dust fall (µg/ft ^{-/} hour)		
Metal and demolition or background	Events N	N	Percent above LRL	GM (95% Cl)	P-value*	GM (95% Cl)	P-value	
Arsenic					< 0.001		<0.001	
Background	34	73	4.1	127 (25, 640)		0.114 (0.042, 0.305)		
Demolition	97	428	17.5	29 (21, 40)		0.605 (0.497, 0.737)		
Cadmium		1.00.00		M. P. (1997) 1997	NA ^b		NA	
Background	34	73	0.0					
Demolition	97	428	4.7	8 (4, 13)		0.569 (0.407, 0.794)		
Chromium	10.05	1.020	1000	6.4.3 LEX	< 0.001		< 0.001	
Background	34	73	5.5	226 (47, 1,096)	22026000	0.285 (0.145, 0.560)		
Demolition	97	428	14.3	75 (50, 113)		1.841 (1.548, 2.190)		
Copper	392	10.0	0.02223		< 0.001		< 0.001	
Background	34	73	16.4	191 (87, 420)		0.199 (0.117, 0.339)		
Demolition	97	428	30.1	164 (129, 209)		1.680 (1.429, 1.974)		
Iron					< 0.001		< 0.001	
Background	34	73	38.4	29,084 (18,636, 45,392)		11.559 (7.393, 18.074)		
Demolition	97	428	59.3	25,777 (22,235, 29,882)		101.120 (87.175, 117.300)		
Lead					0.05		< 0.001	
Background	43	44	77.1	579 (0.039, 2,794)		0.330 (0.219, 0.498)		
Demolition	87	434	92.1	2,406 (957, 8,798)		6.010 (0.927, 2,794)		
Manganese				set see the rest of	< 0.001		< 0.001	
Background	34	73	49.3	1,172 (747, 1,838)		0.330 (0.219, 0.498)		
Demolition	97	428	65.9	707 (602, 830)		2.037 (1.759, 2.358)		
Nickel		1022205	1112-220-20	2000 1000 10000		ಾಜನವರು ಕಾರ್ಯವರ್ಷವರ್ಷನೆಗಳು		
Background	34	73	0.0					
Demolition	97	428	0.0					
Selenium					NAb		NA	
Background	34	73	0.0					
Demolition	97	428	2.6	2.14 (1.04, 4.43)		0.399 (0.291, 0.546)		
Silver					NAL	SCALCONSISTER STREET, SCAL	NA ^b	
Background	34	73	0.0					
Demolition	97	428	0.5	33.02 (0.06, 1,909)		0.257 (0.196, 0.336)		
Thallium								
Background	34	73	0.0					
Demolition	97	428	0.0					

*P-value for test that GM metal concentration or dust fall was different at background and demolition locations

"Value was too low to calculate the statistic and p-value.

ppm – parts per million

 $\mu g/ft^2$ – micrograms per square foot

LRL – laboratory reporting limit

GM = geometric mean

CI = confidence interval NA = not applicable



Photo 5. Extensive dust suppression used at a housing demolition site in Baltimore, with simultaneous water application to roof and to debris pile below. Lead dust fall sampler shown in foreground. Source: East Baltimore Development Initiative

activities. Farfel et al. showed that dust fall lead emissions from multifamily housing demolition can be quite high, because more surfaces are disturbed during a shorter time period.^{2.8} However, such sites are typically evacuated during the demolition. But single-family housing demolition is more likely to be conducted in neighborhoods where most residents are still present and where exposure to community members may be greater. There may be higher cumulative exposures due to more frequent exposure and closer proximity to single-family home demolition. The houses in Chicago were only 3 to 5 meters apart from each other, with neighboring properties remaining occupied while demolition occurred.

Distance has been found to be an important factor in other studies. Davies et al. showed that lead in house dust, pavement dust, road dust, and garden soil in those houses located within a 500-meter radius of a demolition site had a higher concentration of 364 µg/

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gram of lead in soil compared with 267 µg/gram of lead in soil for houses >500 meters from demolition sites.¹⁷ Similarly, interior dust in homes near demolition sites had a lead concentration of 443 µg/gram, whereas homes outside a 500-meter radius of demolition had a mean lead concentration of 417 µg/gram in house dust.¹⁸

In Chicago, GM arsenic, chromium, copper, iron, and manganese concentrations and dust fall rates were all significantly greater in demolition samples than in background samples (all p<0.001). This finding indicates that these metals are a significant component of building materials and demolition dust, perhaps from old pressure-treated lumber that likely has higher levels of copper, chromium, and arsenic. The significantly high lead content (in ppm) as a function of total dust concentration, as well as significant total loading of lead in demolition dust fall, provides strong support for the idea that lead in dust fall comes from residential lead-based paint. The amount of total mass of paint relative to the total mass of other building materials might be expected to be relatively small, but our results indicate that dust from paint is a significant constituent of total dust from housing demolition and supports the hypothesis that the large amount of lead-based paint in housing results in a significant release of lead particulate during demolition.

Limitations

The Chicago study had some important limitations. Because the properties were a convenience sample, there may have been selection bias. Sample location was also constrained to the property perimeters for safety reasons. Given the distance effect reported in this article, it is likely that dust fall is much higher within the actual demolition site. We also could not measure occupational exposure, which is an area for future investigation. Additionally, the impact of cleaning sidewalks and streets (which was done in Baltimore but not in Chicago) was not quantified and is another

Table 4. Baltimore demolition results where more extensive dust	t suppression was used, 2008–2009
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Variable	Samples N	Percent below LRL	GM (GSD)	25th percentile	50th percentile	75th percentile
Lead dust fall (µg/ft²/hour)	238	66	0.25 (3.57)	1.28	2.01	4.49
Lead percentage	226	65	0.25 (3.54)	0.23	1.21	2.85
Total dust fall (µg/ft²/hour)	237	5	0.70 (2.34)	1,996	4,201	6,234

LRL = laboratory reporting limit

GM = geometric mean

GSD = geometric standard deviation

 $\mu g/ft^2 = microgram per square foot$

potential area for future research. Lastly, the lead content of interior and exterior paint and other heavy metals was not determined prior to demolition activities, although all the homes were old and, therefore, highly likely to contain lead-based paint.

CONCLUSIONS

Further research is needed to determine if dustsuppression methods such as water and cleanup are effective in controlling both community and occupational exposures to metals other than lead. The use of water to reduce dust emissions from demolition has been acknowledged for more than a century.19 Tjoe Nij et al. found that wetting construction and demolition material so that it was moist significantly reduced the amount of respirable dust by a factor of 2.8 for workers.20 However, that study also found that only 16% of workers routinely used water to suppress dust, suggesting the need for a dust-suppression manager, as was the case in the EBDI protocol.18 Future research should examine whether some types of nozzle configurations on hoses at demolition sites do a better job of containing dust fall and how to control contamination from runoff. The principal method of controlling contaminated water runoff from the site in Baltimore was placement of sandbags over storm sewers to capture lead in the water before it entered the sewer, but no data were available to determine if this method was adequate.

Large amounts of dust contaminated with lead and other heavy metals are generated from demolition of older housing, which is likely to contain lead-based paint and other building materials with heavy metals. Dust suppression is feasible in housing demolition and may also be effective for the other heavy metals we found in demolition dust fall. Its use is especially important in single-family housing demolition, where distances to nearby occupied housing are smaller and community exposures are likely to be higher. Community member notification should be widened to at least 400 feet from the demolition site, not just the next-door neighbors, as is now commonly the practice in single-family housing demolition.

This study was approved by the Institutional Review Board of the University of Illinois at Chicago.

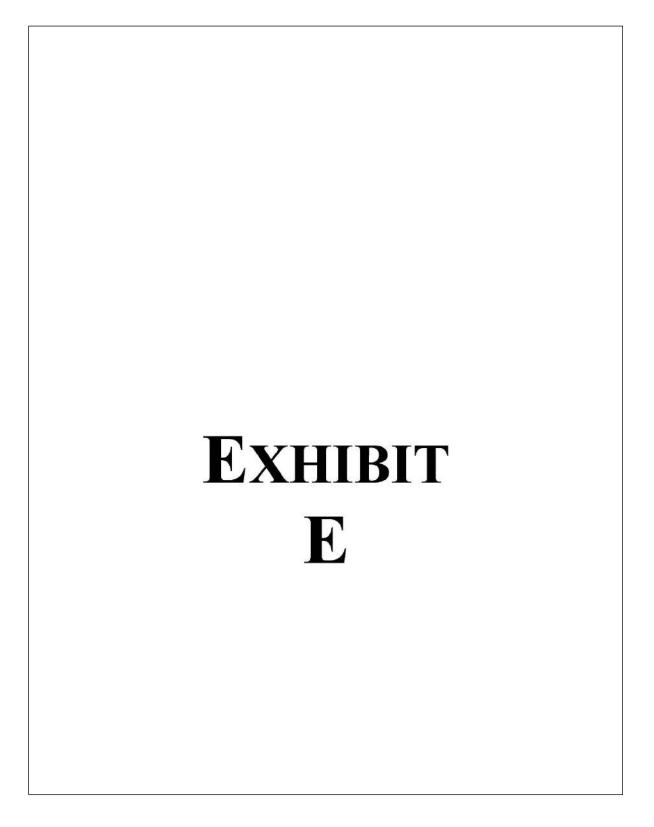
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Research | Article

A Study of Urban Housing Demolitions as Sources of Lead in Ambient Dust: Demolition Practices and Exterior Dust Fall

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Demolition of older housing for urban redevelopment purposes benefits communities by removing housing with lead paint and dust hazards and by creating spaces for lead paint-free housing and other community resources. This study was conducted to assess changes, if any, in ambient dust lead levels associated with demolition of blocks of older lead-containing row houses in Baltimore, Maryland (USA). In this article we present results based on dust-fall samples collected from fixed locations within 10 m of three demolition sites. In subsequent reports we will describe dust lead changes on streets, sidewalks, and residential floors within 100 m of the demolition sites. Geometric mean (GM) lead dust-fall rate increased by > 40-fold during demolition to 410 µg Pb/m²/hr (2,700 µg Pb/m² per typical work day) and by > 6-fold during debris removal to 61 µg Pb/m²/hr (440 µg Pb/m² per typical work day). Lead concentrations in dust fall also increased during demolition (GM, 2,600 mg/kg) and debris removal (GM, 1,500 mg/kg) compared with baseline (GM, 950 mg/kg). In the absence of dust-fall standards, the results were compared with the U.S. Environmental Protection Agency's (U.S. EPA's) dust-lead surface loading standard for interior residential floors (40 µg/ft², equivalent to 431 µg/m²); daily lead dust fall during demolition exceeded the U.S. EPA floor standard by 6-fold on average and as much as 81-fold on an individual sample basis. Dust fall is of public health concern because it settles on surfaces and becomes a pathway of ambient lead exposure and a potential pathway of residential exposure via tracking and blowing of exterior dust. The findings highlight the need to minimize demolition lead deposition and to educate urban planners, contractors, health agencies, and the public about lead and other community concerns so that society can maximize the benefits of future demolition activities nationwide. Key words: demolition, demolition practices, dust fall, dust lead, environment, lead, lead sources, urban housing, urban redevelopment. Environ Health Perspect 111:1228-1234 (2003). doi:10.1289/ehp.5861 available via http://dx.doi.org/[Online 1 April 2003]

Demolition of aging and derelict housing is one component of redevelopment and revitalization efforts under way in America's inner cities. During this decade, the U.S. Department of Housing and Urban Development (HUD) estimates that 1.8 million older housing units will be demolished nationwide (President's Task Force 2000). Demolition can eliminate housing with high amounts of lead in paint and dust and create open spaces for the development of new housing free of lead paint and for other community projects. Our earlier work showed that new housing clusters built on past demolition sites in older urban areas after the 1978 federal ban on lead in residential paint were associated with low levels of lead in house dust and children's blood (U.S. EPA 1997a).

These benefits notwithstanding, it is important to understand the risks associated with the demolition of housing containing lead in paint and dust, particularly in older urban neighborhoods where children are already at high risk of lead poisoning [Centers for Disease Control and Prevention (CDC) 2000]. Because older housing is likely to contain lead in paint and dust (Jacobs et al. 2002), demolition of older housing represents a potentially large source of dispersed lead in urban environments. We observed the dispersion of large amounts of visible dust into the air, streets, and sidewalks when blocks of older (pre-1950) row houses were demolished in lowincome minority neighborhoods of Baltimore, Maryland. Few data are available on changes in ambient and residential lead levels associated with the demolition of older houses. One small study found that demolition was associated with increased dust lead loadings in neighboring houses, particularly when demolition was performed without wetting (Diorio 1999). A review of the literature and conversations with experts at various federal and state agencies revealed little relevant information regarding the specific risks of lead exposure in neighborhoods in the vicinities of residential demolition sites. Studies have documented lead exposures associated with the removal of lead-based paint from bridges and other steel structures (Bareford and Record 1982; Landrigan et al. 1982).

A longitudinal field study of three residential demolition sites in Baltimore was planned and conducted in collaboration with the Historic East Baltimore Community Action Coalition (HEBCAC), the agency coordinating housing and economic redevelopment activities in a portion of the East Baltimore Empowerment Zone. The demolition activities studied in this research were planned and performed by other entities as part of ongoing redevelopment efforts in the HEBCAC area and were not initiated for the purposes of this study. The study protocol and consent forms were reviewed and approved by the institutional review board of the Johns Hopkins Medical Institutions.

In this article we describe the study sites, demolition processes, changes in exterior dustfall lead loadings, and concentrations in close proximity to the demolition sites (within 10 m) and discuss the public health significance of the findings and implications for future demolition activities. Future reports will describe changes in lead levels in settled dust from streets, sidewalks, and floors in houses within a radius of 100 m (-2 blocks) from the demolition sites.

Materials and Methods

Study sites. The three demolition sites selected for study were all located within 1 km of each other in low-income neighborhoods undergoing urban redevelopment. Selection criteria were as follows: demolition was performed using typical practices on residential blocks built before 1950 and likely to contain lead paint based on the year of construction (Jacobs et al. 2002). The study area had no industrial sources of lead exposure.

Site 1 was a $40 \text{ m} \times 50 \text{ m}$ block of 26 two-story row houses on a 3.5-m-wide alley street with 12 houses on one side and

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Lead dust-fall findings of this study were presented at a community meeting with study participants and officials from Baltimore City and State of Maryland agencies in November 2001.

agencies in November 2001. We thank J. Berrong, C. Bowen, D. Cooper, J. Dows, N. Jenkins, J. Nanda, V. Perzosyan, R. Samuels, T. Smith, J. Thompson, P. Tracey, B. Zimmerman, the Historic East Baltimore Community Action Coalition, the Men's Center, and the residents of Last Baltimore for their help in this research. We also thank W. Friedman and D. Jacobs of HUD's Office of Healthy Homes and Lead Hazard Control for their helpful comments on the manuscript. This research was supported by a cooperative

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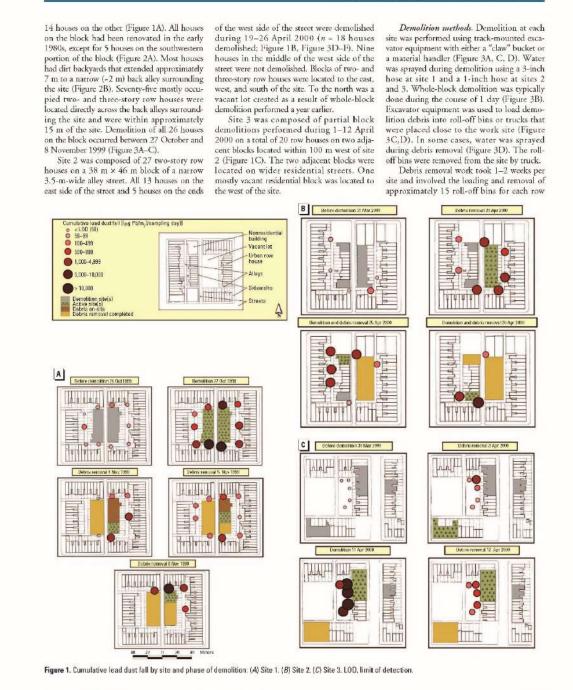
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Article | Urban housing demolition and lead in dust fall

2. Response to Comments



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house demolished. Each roll-off bin held approximately 15.3 m^3 (20 yd³) of debris. At site 1, for example, approximately 400 rolloffs were loaded and removed between 28 October and 8 November 1999. Where only two or three houses were demolished at a time (e.g., the ends of one side of the street at site 2), demolition and debris removal work was completed on the same day. After debris removal at site 1, basements and the entire vacant lot was backfilled with soil with low lead concentration (< 200 mg/kg) from a remote location. Sites 2 and 3 were backfilled with soil or covered with gravel (Figure 3F).

Field data collection. Lead in paint. Testing of lead in paint was performed in a subset of houses at sites 1 and 2 that could be safely accessed before demolition. A certified lead inspection firm performed the testing using a portable X-ray fluorescence (XRF) analyzer. Due to safety concerns, convenience testing was conducted on readily accessible surfaces (painted front and side exterior walls and painted surfaces on the first floors of the houses, including window sills, door trim, walls, baseboards, and ceilings).

Dust fall. Samples were collected from fixed locations at the fence lines of houses directly across the alleys surrounding sites 1 and 2 at baseline, during demolition, and during debris removal (Figure 1A.B). All but one of the sampling locations were within 10 m of the site. On selected sampling days during debris removal at sites 1 and 2, samples were collected from a subset of locations closest to the active work area. At site 3, sampling was performed only at locations close to the active work area during demolition and debris removal (Figure 1C). Dust fall was collected in a 5.7 L (1.5 gallon) plastic container (depth, 11 cm; diameter, 20 cm; area of opening, 0.0613 m²) containing 0.8 L of deionized water according to American Public Health Association (APHA) Method 502 for dust-fall air sampling (APHA 1977). The container was suspended 1.5 m above the ground (Figure 2B) to prevent tampering. Sampling was usually performed for 4-8 hr on any given day (average time, 6.8 hr) during the period of active work. After sampling, the dust-fall container was sealed for transfer to the laboratory. A total of 101 dust-fall samples and one field blank were collected on 15 sampling days across the three sites; two samples from site 2 were voided in the field. The remaining 99 samples (site 1, = 49; site 2, n = 30; site 3, n = 20) and the field blank were analyzed for lead.

Because dust fall represents a source of continuing exposure via contaminated surfaces, the dust-fall method was employed in this study as opposed to the more traditional air sampling methods. The dust-fall method yields multiple end points (i.e., dust fall per hour, cumulative lead dust fall per sampling period on any given day, and dust lead concentration) that are comparable with the dust lead loading and dust lead concentration estimates provided by the vacuum-based cyclone device used to collect exterior and interior surface dust in this study.

Sample preparation and laboratory analysis. As specified in APHA Method 502 (APHA 1977), water in the dust-fall collection container was filtered through a #20 mesh screen to remove extraneous material. The water was then filtered through 55 mm glass



Figure 2. Before demolition, site 1. (A) Row houses, (B) Dust-fall collection apparatus with arrow pointing to another view of the same sampling location.

microfiber filter paper (particle retention, 0.7 µm) using a membrane filtering system attached to a GAST model MDA-P109-AA vacuum pump (GAST Manufacturing, Inc., Benton Harbor, MI). Before measuring the tared and loaded weight, the filter paper was placed in a drying oven for a minimum of 4 hr. Tared and loaded weights were measured using a Mettler AM100 analytical balance (Mettler-Toledo, Inc., Columbus, OH).

The loaded filter paper was digested using nitric acid hot-plate digestion according to U.S. Environmental Protection Agency (EPA) Method 3050 (U.S. EPA 1986a). The following reagents were used: nitric acid (trace metal grade, concentrated, 69.9–70%; J.T. Baker, Mallinckrodt Baker, Inc., Phillipsburg, NJ), hydrogen peroxide (30% reagent ACS; Mallinckrodt Baker, Inc.), and deionized water. Digestates were analyzed for lead by inductively coupled plasma-atomic emission spectroscopy (Perkin Elmer Plasma 1000; Perkin Elmer, Wellesley, MA) according to U.S. EPA Method 6010 (U.S. EPA 1986b). The following standard solutions were used for calibration: 0.25, 0.5, 1.0, 5.0, 10.0, and 20.0 mg/kg. Standard solutions were prepared in 10% nitric acid from Pure Atomic Spectroscopy Standard (1,000 mg/kg lead; Perkin Elmer).

To test for dissolved lead, the eluent from a subset of 28 of the 99 samples across the three sampling phases (baseline, demolition, and debris removal) was digested using nitric acid hot-plate digestion according to U.S. EPA Method 3050 (U.S. EPA 1986a). All filtrate lead concentrations were below the calculated limit of quantitation (0.35 µg/mL) except for one baseline sample, indicating that dissolution of lead was not a problem.

Quality control samples were prepared using Lead Standard Solution (1,000 mg/kg lead; GFS Chemicals, Inc., Powell, OH). The mean lead recovery on stock solution spikes (n = 12) and spike duplicates (n = 12) was 94% (range, 84–102%). No evidence of systematic lead contamination was found for method blanks (n = 8) or reagent blanks (n = 9). Median lead concentrations were below the calculated instrumental detection limit (IDL; 0.071 µg/mL) for reagent blanks and minimally exceeded the IDL for method blanks. The one field blank had a lead concentration below the IDL.

Data analysis. Data analysis included the calculation of the following dust-fall metrics: lead dust-fall rate per hour (micrograms Pb per square meter per hour), cumulative lead dust-fall rate (micrograms Pb per square meter per sampling period on any given day), and lead concentration (milligrams Pb per kilogram of dust). The calculated limit of detection (LOD) was 58 µg Pb/m²/sampling day for cumulative lead dust fall, which is



Figure 3. Demolition in progress. Site 1: (A) during demolition; (B) after demolition and before debris removal; and (C) debris removal. Site 2: (D) debris removal; (£) after debris removal; and (A) vacant lot.

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26 October 1999 [geometric mean (GM), 84

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Article | Urban housing demolition and lead in dust fall equivalent to 8.5 µg Pb/m²/hr for an average µg Pb/m²/sampling day] at site 1. Similar baseline results (GM < 58 µg Pb/m²/sampling day)

measurements at baseline were lower than those during demolition. Acute increases in lead in dust fall were detected at all three sites during demolition and to a lesser degree during debris removal (Figures 1A-C). GM lead dust fall increased to 410 µg Pb/m²/hr on an hourly basis and to 2,700 µg Pb/m²/sampling day on a cumulative basis during demolition (i.e., an increase of more than 40fold above baseline). Maximum cumulative lead dust-fall values were 35,000 µg Pb/m² during demolition and 26,000 µg Pb/m² during debris removal. During debris removal, the GM lead dust-fall rate increased to 61 µg Pb/m2/hr and to 440 µg Pb/m2 for cumulative lead dust fall (i.e., a more than 6fold increase above baseline). The increases during demolition and debris removal were statistically significant for both lead dust fall and cumulative lead dust fall. None of the sample location or site differences were statis-

Results

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presence of demolition phase and sample collection date

Dust-fall lead concentrations. Fifty-three percent (20 of 38) of the baseline samples and 14% (5 of 36) of the samples collected during debris removal had dust masses < LOD (0.002 g). The low dust masses precluded the calculation of lead concentrations for these 25 samples. Table 2 shows descriptive statistics for dust-fall lead concentrations by site and by phase for the samples with dust masses > LOD. Based on pooled data, GM lead concentrations during demolition (GM, 2,600 mg/kg) and debris removal (GM, 1,500 mg/kg) were higher than the GM lead concentration at baseline (950 mg/kg). The ranges of the lead concentration during demolition (1,200-6,900 mg/kg) and during debris removal (560–5,100 mg/kg) were higher than the range of values at baseline (340–4,700 $\,$ mg/kg). The increased dust-fall lead concentration during demolition was statistically significant. The increase in lead concentration during debris removal compared with baseline was of borderline statistical significance. None of the sample location or site differences were statistically significant in the regression model in the presence of phase and sample collection date,

Discussion

In this study we investigated whether demolition of older urban row houses is associated with increased lead levels in ambient dust. It was not intended to be a comprehensive study of factors influencing the patterns and changes in lead in dust. By design, the environmental

Table 1. Descriptive statistics for cumulative lead dust fall (µg/m²/per sampling day) and hourly lead dust fall (µg/m²/hr) by site and phase of demolition.

			Cumulative lead dust fall				Hourly lead dust fall				
Site	Phase	No.	GM	GSD	Min	Max	GM	GSD	Min	Max	
All	Baseline	38	62	1.6	< 58ª	220	10	1.6	< 8.50	29	
	Demolition	22	2,700	4.4	250	35,000	410	4.5	34	6,400	
	Debris removal	36	440	4.5	< 58	26,000	61	4.4	< 8.5	3,300	
1 6	Baseline	20	67	1.6	< 58	220	10	1.6	< 8.5	29	
	Demolition	10	2,200	4.5	340	29,000	230	4.5	34	3,000	
	Debris removal	19	460	5.4	< 58	26,000	58	5.3	< 8.5	3,300	
2	Baseline	84	73	1.5	< 58	120	12	1.7	< 8.5	22	
	Baseline	5*	< 58	1.6	< 58	100	9	1.7	< 8.5	18	
	Demolition	71	1.500	2.9	250	9,200	350	2.6	69	1.600	
	Debris removal	7	940	2.9	220	3,700	140	2.9	33	580	
3	Baseline	5	< 58	ÿ	< 58	< 58	< 8.5	1.3	< 8.5	10	
	Demolition	5	9,100	4.0	1,100	35,000	1,600	4.0	200	6,400	
	Debris removal	10	230	3.1	64	1,500	37	3.2	10	220	

Abbreviations: GSD, geometric standard deviation; Max, maximum; Min, minimum. "LOB for cumulative lead dust fall is 53 µgm² per sampling day. "LOD for hourly lead dust fall is 3.5 µg/m²/hr. "Samples were collected from the same sampling locations on 25 and 26 October 1959. "Eight samples were collected on 18 November 1959. "Five samples were collected on 31 Narch 2000. "Samples collected at sits 2 reflect both demolition and debis removal activities done during the same day on a subset of houses on 25 and 26 April 2000. Three samples col-lected from toechisms done distant from the active work area were excluded from the data analysis: two samples from 25 April (lead dust fall = 15 µg/m²/hr, cumulative lead dust fall = 20 µg/m²/hr, parmulative lead dust fall = 35 µg/m²/per sampling day), the first excluded cample from 25 April lead sist at 1 = 32 µg/m²/hr, cumulative lead dust fall = 200 µg/m²/per sampling day). The first excluded cample from 25 April was too distant from the site to be displayed in Figure 18. #The GSD was zero because all five values ware < IDL.

Site	Phase	No.	GM	GSD	Min	Max
ALL	Baseline	18	950	2.0	340	4,700
	Demolition	22	2,600	1.5	1,200	6,900
	Debris removal	31	1,500	1.8	560	5,100
1	Baseline	8.8	1,100	2.4	390	4,700
	Demolition	10	3,100	1.6	1,200	6,900
	Debris removal	16 ^b	1,300	1.7	560	3,800
2	Baseline	24	1,500	1.7	1.100	2,100
	Baseline	54	710	1.9	340	1,300
	Demolition	78	2,700	1.3	1,900	3,700
	Debris removal	7	3,000	1.4	2,000	5,100
3	Baseline	3	840	1.6	490	1.100
	Demolition	5	1,800	1.3	1,500	2,700
	Debris removal	8×	1,300	1.7	800	4,400

Abbreviations: GSD, geometric standard deviation; Max, maximum; Min; minimum. 4Excludes 12 samples with mass < LOD. 4Excludes 3 samples with mass < LOD. 4Excludes 5 samples with mass < LOD out of a total of 8 samples collected on 18 November 1993. 4Tive samples were collected on 31 March 2000. *Samples colected at site 2 reflect bath demolition and debris removal activities done during the same day on a subset bi houses on 25 and 26 April 2000. Three samples collected from locations more distant from the active demolition site were excluded from the data analysis: two samples from 25 April ilead concentration = 820 mg/kg and 1,100 mg/kg) and one sample from 26 April ilead concentration = 1,100 mg/kg). The first excluded sample from 25 April was too distant from the site to be dis-played in Figure 18. Excludes 2 samples with mass < LOD. Pocludes 2 samples with mass < LOD.

sampling was conducted close to the demolition site to maximize the ability to detect changes in ambient lead levels. In the case of dust fall, sampling was conducted at the fence line of the immediately adjacent properties surrounding the demolition sites. The extent to which this contamination is spread beyond the fence line is unknown.

Demolition and debris removal activities were found to be associated with significant and acute increases in lead dust fall within 10 m of the three demolition sites. The increase in lead dust-fall rate above baseline levels was greater during demolition (-40fold) than during debris removal (-6-fold) (Table 1 and photographs of visible dust emi sions in Figure 3A, C ,D). Some lead dust-fall rates during debris removal, however, were just as high as those during demolition (e.g., Figure 1A). Lead dust fall tended to be the highest at sampling locations closest to the active work areas (e.g., Figure 1A, 4 and 8 November 1999) and at downwind sampling locations as noted on particular sampling days (e.g., Figure 1A, 27 October and 5 November 1999; wind direction, south). It should be noted that these findings were associated with site wetting of limited effectiveness during demolition (Figure 3A) and with limited or no wetting during debris removal (Figure 3C, D). Our findings are consistent with those of Diorio (1999) and emphasize the need for more effective dust suppression during demolition and debris removal.

The dust-fall loading results indicate that lead was deposited at a higher rate during demolition than during debris removal. The increase in dust-fall lead concentration above baseline was also greater during demolition (2.7-fold increase) than during debris removal (1.6-fold increase). These findings likely reflect a greater degree of disruption of leadbased paint present on interior and exterior surfaces of the demolished houses and subsequent higher rate of dispersion of lead paint particles and lead-containing dust during demolition compared with debris removal. Other likely sources of lead in dust fall during demolition are lead-containing dusts present on interior and exterior surfaces of the demolished houses, and settled street and sidewalk dust that might have become airborne as a result of demolition activities. The apparent greater degree of disruption of paint and dust during demolition is related to the fact that demolition tends to disturb a larger mass of material at a greater height and generates more air movement at any given time compared with debris removal activities.

Debris removal activities disturb and disperse lead dust contained in the debris pile. In fact, the debris removal process can potentially disperse a greater mass of lead in dust fall than does demolition because the former involves an

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extended process of loading and hauling away a large volume of debris. In this study, debris removal entailed the loading of hundreds of roll-off bins over a period of 1-2 weeks. Based on our findings (Table 1), we estimated that the 1-day demolition was associated with a mean total lead dust fall of 2,700 µg Pb/m2 in the zone within 10 m of the demolition site (calculated as 2,700 µg/m²/day × 1 day of activity), whereas the debris removal was associated with an estimated total of 4,400 µg Pb/m2 (calculated as 440 µg/m2/day × 10 days of activity in which one excavator was operational per day). Additionally, transportation of the loaded roll-off bins with debris away from the site can potentially disperse dust lead into the ambient environment beyond the immediate vicinity of the demolition site.

The relatively high lead concentration of dust fall at baseline (GM, 950 mg/kg) likely reflects the fact that study sites were located in older urban neighborhoods (median year of construction, 1939-1946) with residential lead paint and lead-contaminated exterior dusts and soils. In fact, in this study, preliminary data on the baseline concentrations of lead in street dust (GM, -700 mg/kg), sidewalk dust (GM, -2,000 mg/kg), and residen-tial entryway mat dust (GM, -750 mg/kg) collected within 100 m of the study sites were similar to the GM dust-fall lead concentration at baseline. In another study, similar lead concentrations (range, 300-2,000 mg/kg) were measured in yard soil in these and other inner city neighborhoods of Baltimore (Orlova et al. 2001). The similarity of dust-fall lead concentrations at baseline and during demolition and debris removal suggests that they share common source(s) of lead (e.g., lead-based paint) and that past demolition-related dust deposition might be one pathway to lead in dust fall measured at baseline. Other pathways might be deterioration of exterior lead paint and historic deposition of gasoline lead additives.

The similarity of findings across the three study sites suggests that the findings are likely to be generalizable to other neighborhoods in Baltimore where older row homes are demolished using the same practices. Also regarding generalizability, it is important to note that no differences were found between the demolition of blocks of older unrenovated houses (sites 2 and 3) and the demolition of a block of older mostly renovated houses (site 1) in which windows and doors had been replaced and walls had been covered but some interior and exterior lead painted surfaces remained (e.g., behind drywall). To the degree that similar demolition practices are used elsewhere, the findings would be widely generalizable because row houses comprise the predominant type of housing in inner city neighborhoods in Baltimore and other cities.

Public health significance. The substantial acute increase in lead in dust fall during demolition and debris removal activities compared with baseline suggests that demolition activities can increase the risk of lead exposure to neighborhood residents and workers. We observed, and residents anecdotally reported, a lack of control of public access to the sites (Figure 3A-E). Children and adults were seen walking through the site and on the debris pile during and immediately after the active work phase. Residents also reported that windows of neighboring houses were left open and that laundry and pets remained outside during demolition work. These situations likely reflect the reported absence of advance notification and health education to community esidents about measures to protect themselves from demolition dust fall and other potential health and safety hazards.

Dust fall represents a residual (and additive) source of lead dust in the urban environment. Lead in dust fall dispersed during demolition and debris removal can increase the risk of lead exposure beyond the acute work phase, especially for young children, by ncreasing lead loadings of settled ambient dust. Lead-contaminated settled ambient dust is also of concern because it can be tracked into houses on shoes or blown into houses (Adeate et al. 1998; Bornschein et al. 1986). This is important because for young children the time spent indoors is typically greater than the time spent outdoors (U.S. EPA 1997b), and therefore the likelihood and frequency of exposure to lead in dust are expected to be greater for interior surfaces than for exterior surfaces.

Currently, there are no health-based standards for lead dust fall. HUD had a postabatement clearance guidance level, based on wipe sampling, of 800 µg/ft2 (equivalent to 8,620 µg/m2) for exterior concrete or other rough surfaces (HUD 1995) that was not included in the U.S. EPA's recent lead loading standards for dust on residential surfaces (U.S. EPA 2001). To better understand the public health significance of the findings, the results were compared with the U.S. EPA standard for lead in settled dust on residential floors (40 μ g/ft², equivalent to 431 μ g/m²; U.S. EPA 2001). The rationale for this comparison is that dust fall settles on exterior surfaces and, in turn, becomes a pathway of lead exposure in young children, via the hand-to-mouth route of ingestion, in and around the homes in the community surrounding the demolition site.

The contribution of demolition dust fall to settled ambient dust is of public health concern because our findings show that lead in demolition dust fall can substantially exceed the equivalent U.S. EPA standard for residential floor lead loadings. During demolition, the GM value for cumulative lead in dust fall (2,700 µg/m² per sampling day) was 6.3 times greater than the U.S. EPA's residential floordust lead standard. During debris removal, the GM cumulative lead dust fall (440 µg/m² per sampling day) was just above the U.S. EPA's residential floor-dust lead standard. The maximum cumulative lead dust-fall values during demolition (35,000 µg/m² per sampling day) and debris removal (26,000 µg/m² per sampling day) exceeded the U.S. EPA's residential floor dust lead standard by 81-fold and 60fold, respectively. Before demolition, all of the dust-fall results, cumulative dust-fall results, and GM values for these end points were well below the equivalent U.S. EPA standard for lead in settled dust on residential floors.

The public health concern regarding the increased risk of lead exposure associated with residential demolition is particularly important in older urban communities undergoing urban redevelopment that involves the demolition of multiple blocks of houses. Such communities, already at high risk of lead poisoning because of poor housing conditions and age of housing (President's Task Force 2000), have likely experienced cumulative increases in ambient lead from multiple demolitions in the same neighborhood over time. In fact, this study was conducted in a federal empowerment zone with a history of whole-block demolitions and where plans are pending for large-scale demolitions of row houses in the near future. The part of the empowerment-zone community slated for future demolition has a low-income minority population and young children at high risk of lead poisoning. In 1997, for example, approximately 60% of tested children 12-36 months of age in this area had blood lead concentrations above 10 µg/dl. (Maryland Department of the Environment 2000).

Conclusion

The literature on abatement, repair, and renovation of houses containing lead-based paint shows that certain methods and activities (e.g., paint removal by sanding, dry scraping, and use of open flame torches, and interior demolition) can generate large quantities of lead-containing dust and that proper methods and practices need to be implemented to control and contain dust lead hazards (HUD 1995; U.S. EPA 1997c). Our study shows that this is also true when houses containing lead paint are demolished.

For this reason, demolition needs to be conducted in a manner that minimizes lead exposure for residents, workers, and the environment so that the process of redevelopment does not exacerbate existing risks of lead poisoning. In particular, the dust-fall results presented here highlight the need to identify and implement improved work practices to minimize the dispersion of lead during demolition and debris removal and to limit public access to the demolition site. The approaches,

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precautions, methods, and safe work practices described in Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing (HUD 1995), including practices to minimize and contain lead dust and to otherwise protect occupants and workers, can help inform the development of a new protective approach to urban residential demolition.

Additional studies are needed to investigate lead dispersion and nonlead end points associated with demolition of various types of residential structures and with other types of demolition practices, including improved practices to control fugitive dust emissions. Future research is needed to assess changes in lead dust fall at distances > 10 m from the demolition site, to assess longer-term changes in lead dust fall postdemolition, characterize the lead in dust fall (e.g., particle size), and assess the need for longer sampling times to account for settling of finer particles, if any, that may not have been captured within our sampling period. It is also important to understand the influence of the type, height, and configuration of the surrounding houses, and meteorologic conditions, on lead dispersal.

Another critical element in addressing public health issues associated with demolition is the development of mechanisms to provide residents living in the vicinity of the demoli-tion site with advance notification of demolition and information on steps they can take to minimize their risk of associated lead exposure. During the course of this study, community residents anecdotally expressed concerns about the demolition process that relate to their safety and other environmental health hazards, such as rats, waste water, noise, and dust allergens, and the lack of street and sidewalk cleaning after demolition. These concerns warrant further investigation and should be taken into account as needed in the process of planning and implementing demolition. This study also suggests that control of lead exposure among nolition workers warrants further attention. de

Understanding, recognizing, and addressing lead and other housing-related environmental health issues associated with demolition, and related community concerns, will help society attain the full public health benefits of demolition and urban redevelopment. Unfortunately, urban planners, developers, and contractors may not be well informed of the lead risks associated with the demolition of older housing. In the context of residential remodeling

and renovation work in pre-1978 housing. EPA's Pre-Repovation Education Rule (U.S. EPA 2002) requires contractors to supply the owner and occupant with an information pamphlet on lead hazards before starting the renovation, except for very small projects. [The rule implements section 406(b) of the Toxic Substances Control Act (U.S. EPA 1976); the section was created by the Residential Lead-Based Paint Hazard Reduction Act of 1992, known as Title X (Alliance to End Childhood Lead Poisoning 1993)]. No such federal requirement exists for residential demolition.

Some local communities are taking actions to address this issue. The city of Wausau, Wisconsin, is providing applicants for demolition permits with an educational amphlet on how to control demolition dust (Wasson 2002). In Baltimore, educational materials about potential demolition hazards and protective measures have been developed for distribution to residents living near demolition sites, and community residents have been trained as outreach educators for urban demolition. These efforts are part of a collaborative effort by the authors, community organizations, and local and state agencies to develop a preventative approach to urban residential demolition that addresses community concerns about current demolition practices. It is particularly important that urban redevelopment and public health agencies become more aware of demolition-related public health issues in light of the large numbers of older lead-painted houses that are estimated to be demolished nationwide in future years (President's Task Force 2000).

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O2. Response to Comments from Shute, Mihaly and Weinberger on behalf of Orange County Environmental Justice, dated September 20, 2021.

O2-1 The commenter incorporates its prior November 9, 2020, comment letter to the Planning Commission, attached as Exhibit A to the comment letter. This letter from Shute, Mihaly, and Weinberger, LLC provided comments on the General Plan Update on behalf of Orange County Environmental Justice. The letter is dated the day of the Planning Commission's Public Hearing and was submitted after the public review period and comment deadline for the 2020 Draft PEIR (September 16, 2020) and does not include comments on the Recirculated Draft PEIR. Comments are not specific to the EIR or, in particular, to the Recirculated Draft PEIR, and therefore responses are not required in this Final Recirculated PEIR. The comments are forwarded to decision-makers as part of this Final Recirculated PEIR.

The commenter states that the Recirculated Draft PEIR has not sufficiently evaluated the GPU's impacts on environmental justice (EJ) communities, including soil lead contamination. CEQA requires that environmental analysis determine the impact of a proposed project (in this case the GPU) on existing conditions. It is not the purview of an EIR to address existing environmental issues such as air pollution and soil lead exposures. The Recirculated Draft PEIR is required to evaluate impacts on existing physical conditions and determine cumulative impacts.

See responses to Comments O2-2 and O2-6.

O2-2 The City launched an Environmental Justice Community Outreach Campaign in the spring of 2021 to ensure that the City's residents were heard and included in the GPU. The campaign included two roundtables and ten community meetings, with representatives and local stakeholders providing ideas and feedback on tools and strategies that could be used to effectively engage as many community members as possible. Based on that, the City sent out meeting flyers to every address within the EJ communities of the city, informing them of future meetings and encouraging them to participate in the EJ survey to share their experiences and ideas to improve their quality of life. These flyers were provided in multiple languages and mailed out two weeks prior to the meeting date.

The City collaborated with neighborhood leaders, including residents, community organizations, and faith-based organizations, in ensuring that the meeting flyers and surveys were sent out to members of the community, resulting in 746 surveys collected citywide. The City actively engaged in social media outreach, including Constant Contact email campaigns, Nextdoor notifications, PeachJar, Facebook, Instagram, Nixle, City Managers Newsletter, and Voiceshot. Using social media, the City reached out to thousands of its community members—for example, 7,879 Constant Contact emails were sent out, and 17,404 PeachJar emails were sent to parents and guardians of students in the Santa Ana Unified School District and Garden Grove Unified School District.

The commenter identifies issues with the adequacy of the community surveys the City used to engage community residents on environmental justice issues, but does not reference specific concerns related to environmental impacts that could result from implementation of the project or the analysis within the Recirculated Draft PEIR. However, the comment will be passed along to City decision makers as part of the Final Recirculated PEIR.

The commenter summarizes a lead agency's duty pursuant to CEQA to disclose, and cites to *Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296, 311, for the contention that the City is "hiding behind its own failure to gather relevant data" through the use of its "inadequate" community surveys. However, the *Sundstrom* case and State CEQA Guidelines Sections 15144, 15145, and 15151 speak to the responsibility of the lead agency for investigating the relevant environmental issues addressed in the EIR and disclosing any and all environmental impacts of the project. Because the commenter does not explain how the "inadequate" community surveys caused the City to not disclose all environmental impacts, no further response is required. Moreover, as summarized above and in the Recirculated Draft PEIR, the City engaged in extensive community outreach to solicit public participation and raise awareness of the proposed GPU, and therefore complied with CEQA.

- O2-3 The commenter identifies issues with the proposed GPU policies, but does not reference specific concerns related to environmental impacts that could result from implementation of the project or to the analysis in the Recirculated Draft PEIR. This comment will be passed along to City decision makers as part of the Final Recirculated PEIR. Concerns about soil-lead contamination and a public health action plan were addressed in the previously circulated Final PEIR and are addressed in the updated policies of the proposed GPU. For example, the proposed GPU adds Implementation Action CM-3.3 (Health metrics), Implementation Action S-2.4 (Lead contamination), Implementation Action 1U-3.6 (Lead paint abatement), Policy CM-3.10 (Public health), Implementation Action 3.7 (Public health and wellness collaboration summit), and Implementation Action 3.8 (Environmental soil screening measures). No further response is required.
- O2-4 Please see response to Comment O2-3.
- O2-5 Please see response to Comment O2-3. The proposed GPU adds policies and implementation actions geared toward helping tenants and removing potential barriers they may face to test lead in the soil of their homes, such as Implementation Action CM-1.7 (Rental property outreach) and Implementation Action LU-3.28 (Tenant protections).
- O2-6 The comment asserts that the Recirculated Draft PEIR's analysis of impacts from exposure to hazardous materials is not supported by substantial evidence. CEQA defines "substantial evidence" as "facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts" (CEQA Guidelines § 15384(b)). Further, "[a]rgument,

speculation, unsubstantiated opinion or narrative, evidence which is clearly inaccurate or erroneous, or evidence of social or economic impacts which do not contribute to or are not caused by physical impacts on the environment does not constitute substantial evidence" (CEQA Guidelines § 15384(a)).

Where an environmental impact report's significance determination or conclusion is supported by "enough relevant information and reasonable inferences from this information that a fair argument can be made to support a conclusion, even though other conclusions might also be reached," the significance determination or conclusion should be upheld (CEQA Guidelines § 15384(a)).

The Recirculated Draft PEIR substantially expands the information regarding hazardous materials, including lead contamination. Data has been provided within the Environmental Setting section of Hazards (including Figure 5.8.1, *Cumulative Index Scores for Lead in* Soils, and as a specific sub-section of the impact analyses. The Hazards section of the Recirculated Draft PEIR also provides numerous updates/figures disclosing CalEPAs CalEnviroScreen (CES) hazards-related data relative to disadvantaged communities (environmental justice areas).

The Recirculated Draft PEIR notes that lead in soil is a persistent exposure source in the City's socioeconomically disadvantaged communities as a result of leaded gasoline in vehicles, lead-based paint, and source emissions from industrial facilities (Recirculated Draft PEIR, p. 5.8-41). As the Recirculated Draft PEIR states, because the proposed GPU incorporates community health and related environmental hazards into the City's long-term planning and includes a comprehensive approach to be responsive to the community, implementation of the GPU's policies and implementation actions would remedy existing lead-contaminated soil impacts and prevent any future impacts associated with new sensitive receptors. Accordingly, the Recirculated Draft PEIR properly concluded that impacts from the existing lead-contaminated soils is less than significant, and mitigation is not required (Recirculated Draft PEIR, p. 5.8-42; State CEQA Guidelines § 15126.4).

O2-7 See response to Comment O2-6. Compliance with applicable regulatory standards can provide a basis for determining that the project will not have a significant environmental impact. (*Tracy First v. City of Tracy* (2009) 177 Cal.App.4th 912.) A requirement that a project comply with specific laws or regulations may also serve as adequate mitigation of environmental impacts in an appropriate situation. (*Oakland Heritage Alliance v. City of Oakland* (2011) 195 Cal.App.4th 994, 906.) Unlike in *Californians for Alternatives to Toxics v. Department of Food & Agriculture* (2005) 136 Cal.App.4th 1, where the lead agency did not independently evaluate impacts of pesticides but relied solely on another agency's conclusion that there would be no significant impact, the analysis in the Recirculated Draft PEIR takes into account the specific existing conditions of the potential lead contamination in the city, looks at the potential incremental impacts of the GPU, and appropriately determines that the policies and implementation actions of the proposed

GPU would reduce impacts to less than significant. (See State CEQA Guidelines § 15125(a)(1): CEQA treats the environmental setting as it exists as the baseline for evaluating the changes to the environment that will result from the project and determining whether those environmental effects are significant.) Thus, the Recirculated Draft PEIR properly determines that implementation of the GPU would be sufficient to prevent significant adverse impacts from exposure to lead.

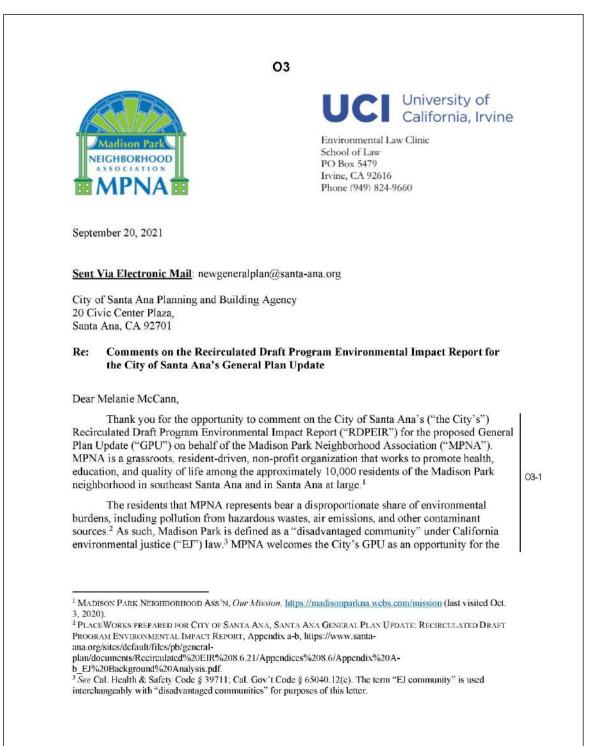
O2-8 Please see responses to Comments O2-1 through O2-7.

The Recirculated Draft PEIR adequately analyzes the environmental effects of the GPU, and the conclusions in the Recirculated Draft PEIR are supported by substantial evidence in the record. None of the conditions requiring recirculation listed in State CEQA Guidelines section 15088.5 have been met, and recirculation of the Recirculated Draft PEIR is not required. None of the revisions that have been made to the Recirculated Draft PEIR indicate new significant impacts or a substantial increase in the severity of an environmental impact identified in the Recirculated Draft PEIR, and none of the revisions identify a feasible project alternative or mitigation measure that is considerably different from those in the Recirculated Draft PEIR and would lessen the environmental impacts of the GPU. Furthermore, no new information brought forward supports that the Recirculated Draft PEIR is so fundamentally flawed that it precludes meaningful public review.

Because none of the CEQA criteria for recirculation have been met, recirculation of the Draft PEIR is not warranted.

The commenter's request for the City to revise its community survey and work with community groups to more broadly disseminate the survey to impacted residents and to participate in additional roundtable discussion will be passed along to City decision makers as part of the Final Recirculated PEIR. No further response is required because no specific environmental concerns are identified in this comment.

LETTER O3 UCI Environmental Law Clinic on behalf of Madison Park Neighborhood Association (11 page[s])



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City to address EJ concerns of its residents and to reduce the impact of health risks caused by environmental pollution in Santa Ana's EJ communities.⁴

MPNA believes that the City has made progress in engaging EJ communities in the GPU process. However, the RDPEIR requires further revisions in order to meaningfully incorporate EJ community feedback. Therefore, MPNA offers the following comments, and urges the City to revise the RDPEIR accordingly to further incorporate EJ into the GPU. Additionally, previous comments made by MPNA on the 2020 DPEIR that were unresolved and should be included in the current RDPEIR are referenced throughout this letter.⁵

I. SB 1000 Requires the City to Incorporate Environmental Justice in the General Plan Update

In several key areas, the City fails to meet its obligations under SB 1000 because the City has not meaningfully incorporated EJ community feedback in key parts of the RDPEIR. California law defines "environmental justice" as "the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies," including the "meaningful consideration of recommendations from populations and communities most impacted by pollution into environmental and land use decisions."⁶ According to the California Environmental Protection Agency ("CalEPA"), "the aim [of environmental justice] is to lift the unfair burden of pollution from those most vulnerable to its effects."⁷

While the City has recently improved its engagement with EJ communities, this engagement loses purpose without the proper inclusion of EJ community feedback in the GPU and EIR. Since 2016, SB 1000 has required local governments to incorporate EJ considerations into general plans updated after the beginning of 2018.⁸ To satisfy this requirement, a general plan must "identify objectives and policies," such as reducing pollution exposure, improving air quality, and promoting physical activity, "to reduce the unique or compounded health risks in disadvantaged communities," and to adopt, or at least review, these objectives and policies.⁹ SB 1000 also requires the identification of policies that "promote civil engagement in the public decision-making process."¹⁰ Recently, the statutory definition of EJ was expanded to include "meaningful participation" of the communities most impacted by pollution in government decision-making.¹¹ MPNA encourages the City to abide by SB 1000 and meaningfully incorporate MPNA's feedback on the RDPEIR.

03-1

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03-2

⁴ See Cal. GOV'T CODE § 65302(h).

⁵ MPNA Comment Letter on DPEIR to City of Santa Ana Planning and Building Agency (Oct. 6, 2020) [hereinafter MPNA Comment Letter on DPEIR].

⁶ CAL, GOV, CODE, § 65040.12(c) (2020).

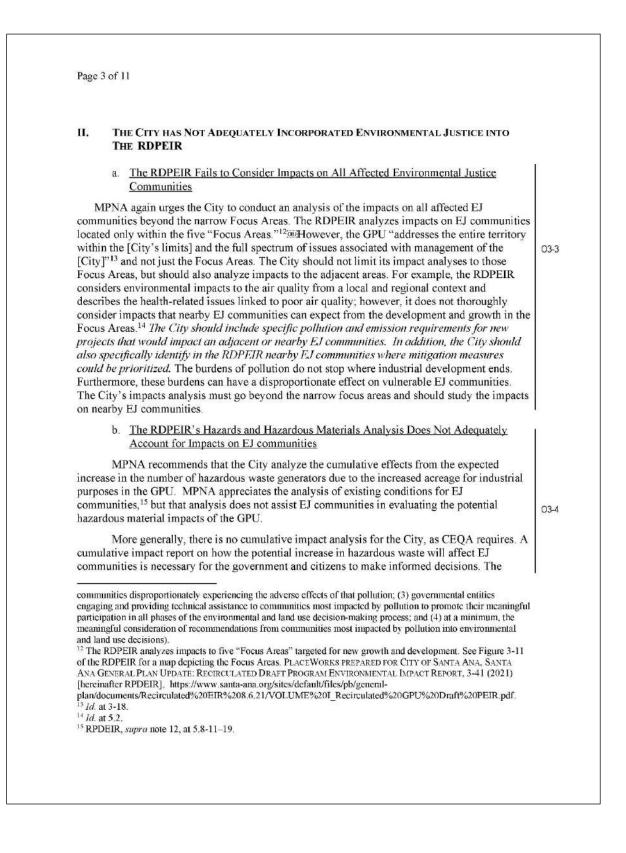
⁷ Environmental Justice Program, CALEPA, https://calepa.ca.gov/envjustice/ (last visited Sept. 19, 2021).

⁸ Gov'r § 65302(h).

⁹ Gov't § 65302(h)(1)(A).

¹⁰ Gov't § 65302(h)(1)(B)-(C).

¹¹ In 2019, the California legislature passed AB 1628 which modified the state's definition of "environmental justice." CAL, GOV'T CODE § 65040.12(e) (2019) (modifying the definition to include: (1) the availability of a healthy environment for all people; (2) the deterrence, reduction, and elimination of pollution burdens for



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California Environmental Quality Act ("CEQA") Guidelines require a discussion of cumulative impacts when "the project has possible environmental effects that are individually limited but cumulatively considerable."¹⁶

The possible environmental effects of the GPU's industrial expansion are clearly laid out in the RDPEIR, yet in regard to hazards and hazardous materials, the RDPEIR is silent on cumulative impacts. The RDPEIR states that there are currently 73 open leaking underground storage tanks or cleanup sites, 110 small quantity hazardous waste generators, and 18 large quantity hazardous waste generators in Santa Ana or its sphere of influence.¹⁷ In addition, the City determined that the GPU will lead to a net increase of 683.1 acres for industrial uses over existing industrial uses," which would "result in some increase in the number of hazardous waste generators.¹¹⁸ Moreover, the construction and operation of industrial facilities is expected to "involve some risk of accidental release of hazardous materials used by the projects, as well as accidental disturbance of existing hazardous materials in the environment.¹¹⁹

Cumulative impact analysis of the risks from hazardous materials exposure due to the GPU's addition of 683.1 acres dedicated to industrial purposes, in a city that is already home to a large number of hazardous sites and waste generators located near EJ communities, would inform the City and EJ communities of the potential increase in hazards and hazardous materials exposure related to the GPU. An EIR cannot fairly evaluate whether an impact is significant without evaluating the cumulative impacts of a project.²⁰ Because this problem has not been addressed, MPNA has addressed precisely how to manage this issue in our discussion on this matter from our previous comment letter in full.²¹

c. The RDPEIR Does Not Consider a Meaningful Range of Alternatives to the GPU

The alternatives analysis in the RDPEIR remains incomplete, and does not allow the City or its residents to meaningfully weigh alternatives to the GPU. In its evaluation of possible alternatives in Chapter 7, the RDPEIR compares the proposed GPU to alternative plans including: (1) No Project/Current General Plan, (2) Reduced Intensity Alternative, (3) 2020 RTP Consistency Alternative, and (4) Reduced Park Demand Alternative. Regardless of the addition of the Reduced Park Demand Alternative, the RDPEIR again identifies the RTP/SCS Consistency Alternative as the "environmentally superior alternative" compared to the GPU.²² Section 7.1 of the RDPEIR cites CEQA Guidelines § 15126.6(a) which requires an EIR to "include a discussion of reasonable project alternatives that would 'feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen any significant effects of

03-5

¹⁶ CAL, CODE REGS, tit. 14, § 15065(a)(3); "Cumulatively considerable" means "the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.", CAL, CODE REGS, tit. 14, § 15065(a)(3) (2020).

¹⁸ Id. at 5.8-43.

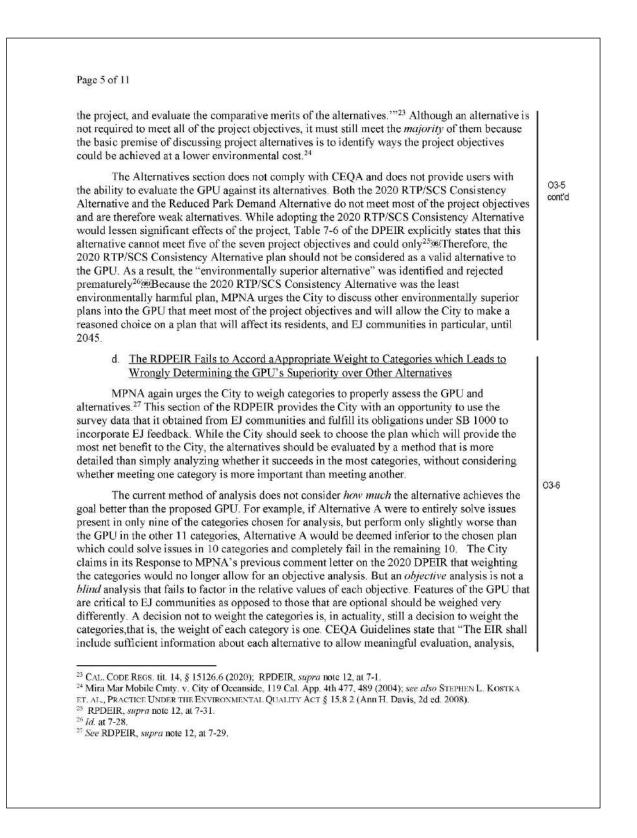
¹⁹ Id.

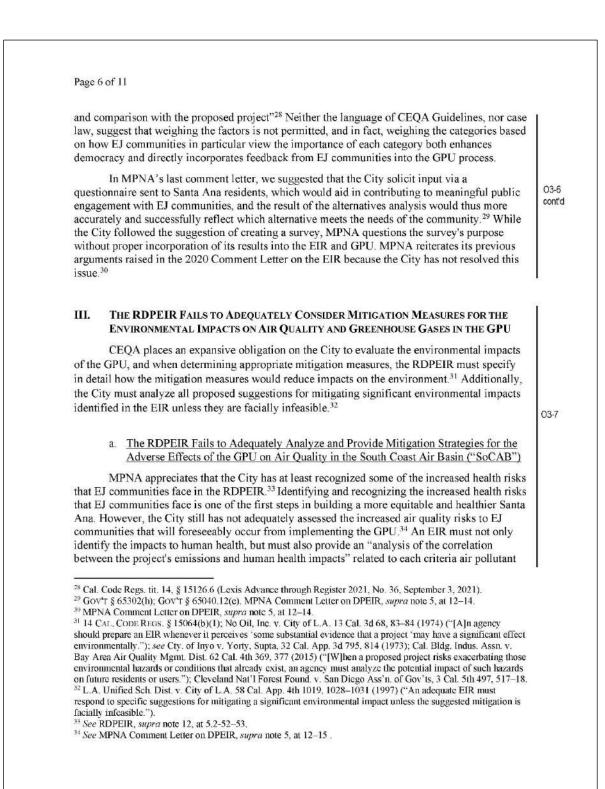
²⁰ Ctr. for Biological Diversity v. Dep't of Fish & Wildlife, 62 Cal. 4th 204, 361 P.3d 342 (2015), as modified on denial of reh'g (Feb. 17, 2016).

²¹ MPNA Comment Letter on DPEIR, *supra* note 5, at 6-7.

²² RPDEIR, supra note 12, at 7-33.

¹⁷ RPDEIR, *supra* note 12, at 5.8-23, 38.





analysis. ³³ that EJ co	eds the regional significance thresholds, or explain why it cannot conduct such an ⁵ Using inadequate methodologies to assess this risk does not mitigate the very real risk mmunities may experience from breathing more toxic air contaminants, including y-to-day over the course of decades.	
Response emissions so the resi GPU and raised in S Supreme (risks to th cannot ad. AQMD") methodole that becau to link the This is ins quality im cannot use referenced	hile the City has previously argued that this analysis would be infeasible in its to Comments on the DPEIR in 2020, the RDPEIR must link the actual projected from the City's GPU with the actual projected health effects from predicted emissions dents of Santa Ana can understand how their lives will be affected by the proposed provide useful feedback to the City. ³⁶ Moreover, the City acknowledges the issue <i>Sterra Club v. County of Fresno</i> , otherwise known as <i>Friant Ranch</i> , in which the Court of California found an EIR in violation of CEQA where it did not link health e magnitude of emissions exceeding significance thresholds. ³⁷ The City claims that it dress the issue because South Coast Air Quality Management Division ("South Coast has not provided methodology to do so, but the City has not looked into any other ogies (or if it has, it has not explained so) to solve the issue. Instead, the City argues use one agency has not provided a methodology to analyze a problem, it is impossible resulting health risks to the magnitude of the emissions that will result from the GPU. sufficient and in no way a "a reasonable effort to substantively connect a project's air pacts to likely health consequences." ³⁸ For example, the City has not explained why it e the EPA's Community Multiscale Air Quality ("CMAQ") model, or a similar model, d in MPNA's Comment letter from over a year ago. ³⁹	03-7
implemen less hazar implemen	ecause the City claims it cannot adequately assess the increased localized risk that the tation of the GPU will impose on EJ communities when other alternatives will result in dous air quality, the City should delay approval of the RDPEIR until it explores and ts meaningful methods to assess the localized risk that EJ communities may face from sed GPU to comply with CEQA.	
b.	The City of Santa Ana Should Conduct a More Thorough Analysis of Mitigation Measures for Greenhouse Gas Impacts	
GHG imp This analy	PNA again urges the City to assess and pursue aggressive mitigation measures for acts. Analyzing GHG emissions is a statutory requirement when drafting an EIR. ⁴⁰ ysis is especially important to EJ communities because GHG production contributes to hange which has major, disproportionate ramifications for EJ communities, including	O3-
Diego Ass'n possible neg ³⁶ Sierra Ch and human unhealthy sy magnitude o by CEQA g	b v. Cty. of Fresno, 6 Cal. 5th 502, 507 (2018); see generally Cleveland Nat'l Forest Found. v. San of Gov'ts, 3 Cal. 5th 497, 514 (2017) (stating an EIR must analyze the nature and magnitude of gative health impacts on the local community). ub, 6 Cal. 5th at 522 (holding that Fresno County violated CEQA due to its lack of analysis on air quality health impacts and concluding that "although [Fresno County's] DPEIR generally outlines some of the ymptoms associated with exposure to various pollutants, it does not give any sense of the nature and of the 'health and safety problems caused by the physical changes' resulting from the Project as required uidelines."). <i>supra</i> note 12, at 5,2-31.	
39		
MPNA Con	nment Letter on DPEIR, <i>supro</i> note 5, at 10. DE REGS, til, 14, § 15064.4.	

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but not limited to water and food insecurity, extreme heat, coastal erosion, economic insecurity and a cascading host of associated adverse health impacts.⁴¹ In fact, an entire field of study on climate justice has arisen to specifically address this concern. Because the City wants to "consider[] changes to its goals, policies, and actions that will improve existing and future conditions for all of Santa Ana, with a focus on those in greatest need of help and protection,"⁴² the City should pursue aggressive mitigation measures for GHG emissions resulting from the GPU.

MPNA appreciates that the RDPEIR now includes four new items in the mitigation measures for Impact 5.7-1 to be considered when the City updates its Climate Action Plan (CAP),⁴³ including measures to protect the most vulnerable populations, measures to increase carbon sinks, standards for electric vehicle parking, and standards for construction projects.⁴⁴ However, the language also suffers from a problem that MPNA and others, including the California DOJ,⁴⁵ have raised repeatedly that has gone uncorrected: the language is not specific and enforceable. Measures to reach each of these goals are far too important to only be considered; they must be implemented and in a way that prioritizes EJ communities. In this instance, the problem may be remedied by simply revising the language from "the following measures will be considered" to "the CAP update must include the following" before listing the four measures.

However, this fix alone is not sufficient to solve the pervasive problem of other mitigation measures lacking specificity and enforceability that MPNA has pointed out in our previous letter. Because this problem has not been addressed, MPNA incorporates our discussion on this matter from our previous comment letter in full.⁴⁶ Moreover, we reiterate that the DOJ has also criticized the City for this problem, and we point the City to the California DOJ's letters for suggestions on how to address this issue.⁴⁷ In sum, the City should incorporate specific, enforceable policies into its EIR to advance the City's EJ objectives, including implementing monitoring systems to determine whether long-term emissions meet the targets of a programmatic GHG emissions mitigation plan, providing data to residents to keep them

plan/documents/Draft%20EJ%20Policy%20Framework_202000831.pdf.

⁴³ ICLEI-USA PREPARED FOR CITY OF SANTA ANA, SANTA ANA CLIMATE ACTION PLAN, (Dec. 2015), https://www.santa-ana.org/sites/default/files/Documents/climate_action_plan.pdf.

https://oag.ca.gov/sites/all/files/agweb/pdfs/environment/sb1000-letter-santa-ana.pdf. See also Letter from Office of the Attorney General to Devon Muto, Chief County Planner (Aug. 21, 2009), COMMENTS ON THE DRAFT ENVIRONMENTAL FOR THE SAN DIEGO GENERAL PLAN UPDATE, 6–8,

https://oag.ca.gov/sites/all/files/agweb/pdfs/environment/comments_SD_County_GP_DEIR.pdf.

46 MPNA Comment Letter on DPEIR, supra note 5, at 12-14.

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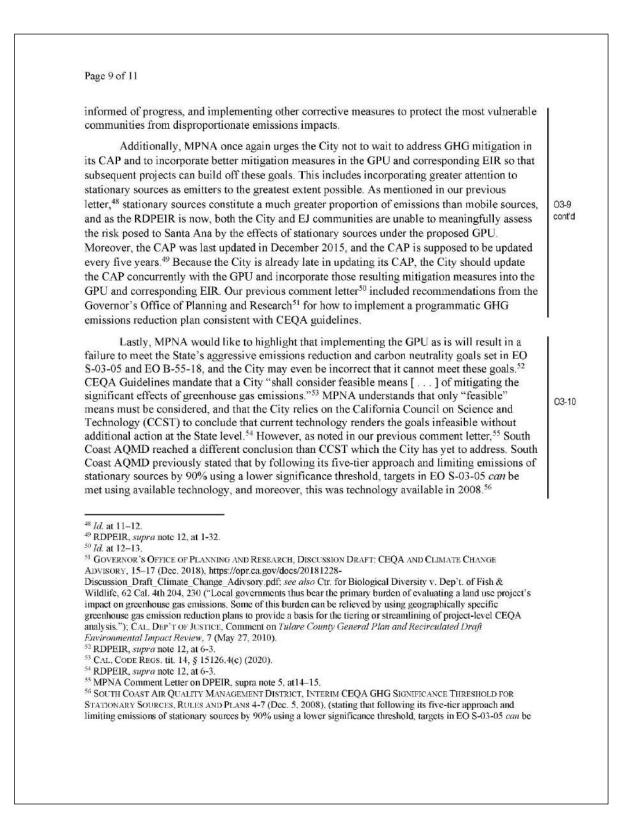
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 ⁴¹ LINDA MAZUR ET. AL., INDICATORS OF CLIMATE CHANGE IN CALIFORNIA: ENVIRONMENTAL JUSTICE IMPACTS 1–4, (Dec. 1, 2010), <u>https://oehha.ca.gov/media/downloads/climate-change/document/climatechangeej123110.pdf</u>.
 ⁴² CITY OF SANTA ANA, ENVIRONMENTAL JUSTICE POLICY FRAMEWORK (DRAFT) FOR THE GENERAL PLAN UPDATE, (Jun. 2020), <u>https://www.santa-ana.org/sites/default/files/pb/general-</u>

⁴⁴ RDPEIR, *supra* note 12, at 1-32.

⁴⁸ STATE OF CALIFORNIA DEPARTMENT OF JUSTICE, Letter from Rica Garcia, Deputy Attorney General, to Verny Carvajal, Principle Planner, City of Santa Ana, 8 (Oct. 16, 2020),

⁴⁷ See STATE OF CALIFORNIA DEPARTMENT OF JUSTICE, Letter from Rica Garcia, Deputy Attorney General, to Verny Carvajal, Principle Planner, City of Santa Ana, 8 (Oct. 16, 2020), https://oag.ca.gov/sites/all/files/agweb/pdfs/environment/sb1000-letter-santa-ana.pdf.



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MPNA urges the City to explore the feasibility and potential for success of this five-tier approach suggested by South Coast AQMD both to meet the State's goals and for the protection of the City's EJ communities who will be most impacted by GHG emissions. Not doing so means the City will fail to accomplish the EIR's primary goal which is "to provide sufficient information on the potential environmental impacts of the [GPU] to allow the City of Santa Ana to make an informed decision regarding approval of the project."⁵⁷ Therefore, the City should revise the EIR to analyze mitigation methods using current technology to meet GHG reduction goals.

IV. CONCLUSION

The City of Santa Ana's RDPEIR does not adequately incorporate important considerations for achieving environmental justice, as required by California law. Until the feedback of EJ communities is properly incorporated into the GPU and EIR, the RDPEIR should not be approved. The RDPEIR fails to adequately analyze the projected negative impacts on air quality from GHGs and other emissions, and it does not provide adequate mitigation measures for the GPU's projected impacts on disadvantaged communities. MPNA appreciates the City's recent efforts to engage EJ communities and encourages the City to use the valuable information that residents have provided in the GPU and EIR. Thank you for considering MPNA's comments on the City's RDPEIR. Please reach out to MPNA if you have questions about the comments contained herein. MPNA looks forward to continuing its collaboration with the City throughout the GPU process.

Sincerely,

/s/ /s/ /s/

Adolfo Sierra Interim President, Madison Park Neighborhood Association Jose J. Rea Treasurer, Madison Park Neighborhood Association Leonel Flores GREEN Community Organizer, Madison Park Neighborhood Association

/s/____/s/____/s/____

Ethan Licon Emily Tanaka

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met using currently available technology) http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/ghgboardsynopsis.pdf?sfvrsn=2.

57 RDPEIR, supra note 12, at 2-2.

O3-10 cont'd

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Certified Law Environmental UC Irvine Scho	l Law Clinic	
C E	Michael Robinson-Dorn Co-Associate Dean for Experiential Education Environmental Law Clinic JC Irvine School of Law	

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O3. Response to Comments from UCI Environmental Law Clinic on behalf of Madison Park Neighborhood Association, dated September 20, 2021.

- O3-1 This comment is introductory in nature, explaining the background of Madison Park Neighborhood Association and generally discussing comments overall. The commenter's prior comments made on the Draft PEIR have been addressed in the October 2020 Final PEIR. No further response to this introductory comment is required.
- O3-2 The commenter states that the City has violated SB 1000 for failing to adequately incorporate Environmental Justice community feedback into the Recirculated Draft PEIR. SB 1000, however, is not a requirement of the California Environmental Quality Act ("CEQA"). Further, Appendix A-b - EJ Background Analysis of the Recirculated Draft PEIR discusses how the proposed GPU complies with SB 1000 requirements. In addition, Sections 2.4.1 and 2.4.2 of the Recirculated Draft PEIR summarize the extensive outreach and engagement the City has participated in with its residents and its community since the City's decision to recirculate the Draft PEIR. That outreach was intended to ensure that the community's voice is heard and included. Although environmental justice is not a specific CEQA issue, the related topical environmental impacts are addressed throughout the Draft EIR and the Recirculated Draft PEIR, including air quality, greenhouse gases, hazards, noise, hydrology/water quality, public services, and utilities. The Recirculated Draft PEIR substantially expands the review and disclosure of EJ related impacts including health risks facing these communities (see Section 5.2, Air Ouality and Section 5.8, Hazards and Hazardous Materials) and Recreation impacts (Section 5.15).

In accordance with CEQA, therefore, the Recirculated Draft PEIR appropriately evaluates the potential impacts of implementing the GPU.

O3-3 As stated in Response to Comment O3-2, because SB 1000 is not a CEQA requirement, the Recirculated Draft PEIR is not required to specifically address impacts within the specific boundaries of EJ/disadvantaged communities. The Recirculated Draft PEIR addresses environmental justice-related impacts, such as air quality/pollution, noise, water quality, and public services and utilities, but not specifically for disadvantaged communities. Pursuant to CEQA, these impacts are addressed in comparison to existing conditions and in a city-wide, resource-based, or service-provider-boundary context.

Because the Recirculated Draft PEIR for the proposed GPU is a long-range planning environmental document prepared at the program level (just as the GPU is a long-range planning document), it is speculative to estimate or evaluate the potential pollution and emission-related impacts from future, unknown projects. For the same reasons, it would be speculative to identify certain EJ-communities where mitigation measures could be prioritized. Chapter 5.2 of the Recirculated Draft PEIR includes a supplemental discussion on air quality impacts to EJ communities related to development pursuant to the proposed GPU, and lists applicable EJ policies and implementation actions in the

proposed GPU. For example, Safety Element Policy 2.3, Land Use Element Policies 3.8, 3.9, 3.11, 3.12 and Implementation Actions 3.3, 3.16, 3.23, 3.24, Conservation Element Policy 1.5 and Implementation Actions 1.2 through 1.12, and Community Element Policy 3.2 and Implementation Actions 1.3, 3.3, and 3.5 all would reduce the exposure of sensitive receptors in EJ communities to TACs. (See Recirculated Draft PEIR, p. 5.2-52.)

O3-4 As stated in Response to Comment O3-2, because CEQA does not mandate SB 1000 compliance, the Recirculated Draft PEIR is not required to specifically address the cumulative impacts of hazards and hazardous materials within the EJ/disadvantaged community boundaries. Nevertheless, in response to concerns raised during the public review period for the Draft PEIR, the City chose to recirculate Section 5.8, *Hazards and Hazardous Materials* of the Draft PEIR to expand the analysis to address community concerns. The Recirculated Draft PEIR is now supplemented with hazardous materials-related EJ policies and implementation actions to demonstrate compliance with SB 1000. (See Recirculated Draft PEIR, Section 5.8.4.2.)

In addition, Section 4.5 of the Recirculated Draft PEIR, Assumptions Regarding Cumulative Impacts, describes the approach to cumulative impacts for hazards and hazardous materials, the analysis of which is based on the geographic boundary of the City. (See Recirculated Draft PEIR, pp. 4-16 through 4-17.)

The commenter reiterates the same comments submitted on the Draft PEIR concerning the cumulative impacts of hazards and hazardous materials on EJ/disadvantaged communities. Please refer to the October 2020 Final PEIR, which responds to these comments. (See FEIR, p. 2-255.)

O3-5 The commenter states that the Alternatives analysis in the Recirculated Draft PEIR is inadequate because two of the alternatives - the 2020 RTP/SCS Consistency Alternative and the Reduced Park Demand Alternative - do not meet most of the project objectives. The City complied with CEQA Guidelines section 15126.6 in selecting alternatives for analysis in the Recirculated Draft PEIR. As discussed in the Recirculated Draft PEIR Chapter 7, Alternatives to the General Plan Update," [T]he discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly.' (15126.6[b].)" (Recirculated Draft PEIR, p. 7-1.) Under these standards, an alternative that would substantially reduce the project's significant environmental impacts should not be excluded from the analysis simply because it would not fully achieve the project's objectives. (Habitat & Watershed Caretakers v City of Santa Cruz (2013) 213 CA4th 1277, 1304.) The CEQA Guidelines assume that the alternatives described in an EIR will not necessarily attain all of the project's objectives. (Watsonville Pilots Ass'n v City of Watsonville (2010) 183 CA4th 1059, 1087.) There is no requirement that the

alternatives included in an EIR satisfy every basic objective of the project. (California Native Plant Soc'y v City of Santa Cruz (2009) 177 CA4th 957, 991.)

The primary consideration in defining the project alternatives was their potential to reduce or eliminate significant impacts of the proposed GPU, such as long-term air quality impacts, GHG emissions, population and housing impacts, and recreation impacts directly related to the level of development anticipated in the City (Recirculated Draft PEIR, p. 7-9.) As explained in the Recirculated Draft PEIR, the alternatives selected for evaluation represent a reasonable range of alternatives that have the potential to feasibly attain most of the basic objectives of the proposed GPU, but which may avoid or substantially lessen any of the significant effects. While the commenter suggests the City should consider other alternatives that would meet most of the project objectives and reduce or eliminate the significant and unavoidable impacts of the proposed GPU, the commenter has not identified any such alternative; but even if one was identified, the City is not obligated to analyze every alternative presented by the public. The Alternatives analysis in the Recirculated Draft PEIR is consistent with the purpose of CEQA alternatives—to evaluate the potential of a better alternative and to foster informed decision making.

O3-6 The commenter restates its request that the City rank alternatives by considering one category more important than the other. However, as addressed in the Final EIR, this approach is contrary to CEQA and its requirement to provide an objective analysis. (See October 2020 Final EIR, p. 2-256.) Although the commenter states that an "objective analysis" is not a "blind analysis," to the extent the commenter is suggesting that the City accord more weight to certain categories based on EJ communities, this is not what CEQA mandates. CEQA is generally concerned with effects on the environment, not with effects on particular persons. (Clews Land & Livestock v. City of San Diego (2017) 19 Cal.App.5th 161, 196; see also Mira Mar Mobile Community v. City of Oceanside (2004) 119 Cal.App.4th 477 [EIR case holding that question under CEQA is whether project will affect environment of persons in general, not whether particular persons will be adversely affected].)

With respect to the commenter's request that the City incorporate input received from the EJ community so that the alternatives analysis reflects a more accurate representation of the EJ community, the City has done this by recirculating the Alternatives Chapter of the Draft PEIR after engaging in extensive outreach focusing on environmental justice and specific community concerns raised in comments on the draft GPU and the Draft EIR. (See Section 2.4.2, 2021 EJ Community Outreach, of Recirculated Draft PEIR.)

O3-7 This comment asserts that the city has not sufficiently analyzed the link between projectrelated emissions and the potential health risks and believes more methodologies should be explored. Please refer to responses AS-15 through A2-17 which address this assertion. This comment also recommends that approval of the Recirculated Draft PEIR be delayed until additional, meaningful methodologies to assess the increased risk to EJ communities

from GPU implementation be implemented. Responses A2-15 through A2-17 substantiate the infeasibility of quantifying the health risks to individual communities, and as explained in Response O3-2, CEQA does not require analysis specific to EJ communities and boundaries. The Recirculated Draft PEIR complies with CEQA and no delay to explore additional methodologies are required.

- O3-8 Mitigation measures to reduce potential greenhouse gas (GHG) emissions impacts were identified in Section 5.7, Greenhouse Gas Emissions, of the Draft PEIR. In addition to the proposed GPU policies, Mitigation Measure GHG-1 commits the City to updating their Climate Action Plan (CAP) every five years to ensure a trajectory consistent with the GHG reduction targets of the state. The language used in the mitigation measure states that, "The CAP update shall include the following:" 'Shall' carries the same weight as 'must' and therefore, this mitigation measure requires that the City conduct these measures. No changes are warranted.
- O3-9 See response to Comment O3-8. The CAP update shall include the following:" 'Shall' carries the same weight as 'must' and therefore, this mitigation measure requires that the City conduct these measures. The GPU does not include a Climate Action Plan (CAP). Mitigation Measure GHG-1 also requires that the City update the CAP every five years and include monitoring, reporting, adaptive management, and tracking tools. Despite this mitigation measure GHG emissions impacts were identified as significant and unavoidable. No changes are warranted to Mitigation Measure GHG-1.
- O3-10 See response to Comment O3-8 and O3-9. The commenter states that it may be feasible to achieve a trajectory consistent with the state's GHG reduction goals reducing stationary emissions by 90 percent and using a lower significance threshold. However, the City of Santa Ana does not have jurisdiction over stationary sources of emissions. Additionally, the significance thresholds for air quality for jurisdictions within Southern California are based on the South Coast Air Quality Management District's guidance. Even if it were possible to implement, there is no evidence that these measures alone would place communitywide emissions in the City (which exclude stationary emissions) on a trajectory to achieve the state's carbon neutrality goals without parallel efforts being implemented by the state. This is because the vast majority of these emissions are from existing mobile sources and energy use in the City, which would be unaffected by stationary source emissions reductions and CEQA significance thresholds for new development.

The Draft PEIR provides an appropriate and conservative evaluation of the potential impacts of the proposed project on the environment. The Draft PEIR and the Recirculated Draft PEIR are sufficient as an informational document. CEQA Guidelines Section 15144 states that drafting an EIR [...] necessarily involves some degree of forecasting. While foreseeing the unforeseeable is not possible, an agency must use its best efforts to find out and disclose all that *it reasonably can (emphasis added)*. Further, the degree of specificity required in an EIR will correspond to the degree of specificity

involved in the underlying activity which is described in the EIR (CEQA Guidelines Section 15146). While the environmental analysis should consider a reasonable range of environmental, economic, and technical factors, an agency is not required to engage in speculation or conjecture and may choose to utilize numerical ranges and averages where specific data is not available (CEQA Guidelines Section 15187). While lead agencies must use their best efforts to find out and disclose all that they reasonably can about a project's potentially significant environmental impacts, they are not required to predict the future or foresee the unforeseeable (CEQA Guidelines Section 15144). An agency need not speculate about all conceivable impacts, but it must evaluate the reasonably foreseeable effects of the proposed project, which has been done in the Draft PEIR and Recirculated Draft PEIR.

O3-11 This paragraph is a conclusion that broadly summarizes the commenter's points in the letter and thanks the City for its efforts to engage EJ communities and encourages the City to continue such efforts. Please refer to responses to O3-1 through O3-10 for specific responses to commenter's comments. Because this comment does not raise specific CEQA issues, no further response is required.

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Letter O4 – Shute, Mihaly and Weinberger LLP on behalf of Rise Up Willowick (46 page[s]) 04 SHUTE, MIHALY WEINBERGER LLP 396 HAYES STREET, SAN FRANCISCO, CA 94102 GABRIEL M.B. ROSS T: (415) 552-7272 F: (415) 552-5816 Attorney www.smwlaw.com Ross@smwlaw.com September 20, 2021 Melanie McCann Principal Planner City of Santa Ana Planning Division PO Box 1988 (M-20) Santa Ana, CA 92702 mmccann@santa-ana.org newgeneralplan@santa-ana.org Re: Comments on Santa Ana General Plan Update RDPEIR, Clearinghouse No. 2020029087 Dear Ms. McCann:

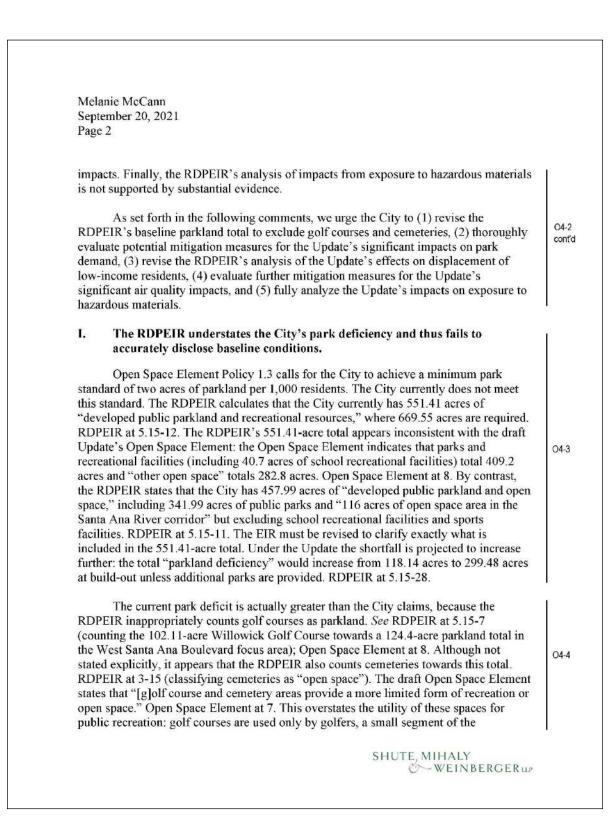
On behalf of Rise Up Willowick, I write to provide comments on the August 2021 Santa Ana General Plan Update ("the Update") and its accompanying Recirculated Draft Program Environmental Impact Report ("RDPEIR"). Shute, Mihaly & Weinberger, LLP previously submitted comments on behalf of Rise Up Willowick on an earlier draft of the Update and on the prior Draft Program Environmental Impact Report ("DPEIR") in an October 6, 2020 letter to City planning staff, attached as Exhibit A, and a November 9, 2020 letter to the Planning Commission, attached as Exhibit B. Those earlier comments remain relevant to the Update and RDPEIR and are hereby incorporated by reference.

The California Environmental Quality Act ("CEQA"), Public Resources Code section 21000 et seq.,¹ requires that the RDPEIR thoroughly evaluate the Update's environmental impacts and mitigate significant impacts. However, the RDPEIR is inadequate in several respects. First, the RDPEIR understates the City's park deficiency and thus fails to accurately disclose baseline conditions. Second, the RDPEIR fails to show why the Update's significant park demand impacts are unavoidable or why mitigation is infeasible. Third, the RDPEIR fails to support its conclusion that the Update would not cause displacement of lower-income residents. Fourth, the RDPEIR fails to adequately consider potential mitigation measures for the Update's significant air quality

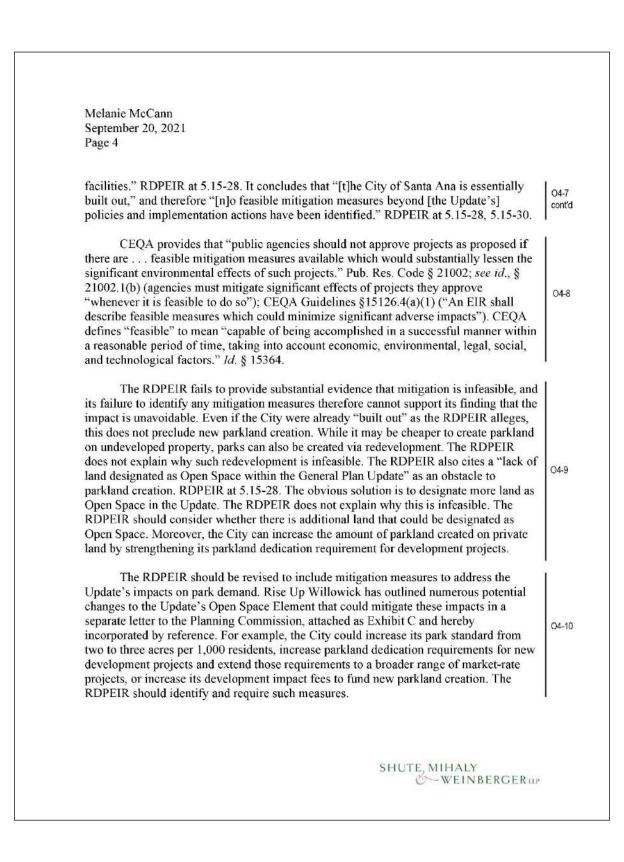
¹ Undesignated statutory references are to the Public Resources Code. References to the "CEQA Guidelines" are to title 14, Cal. Code of Regulations, section 15000 et seq.

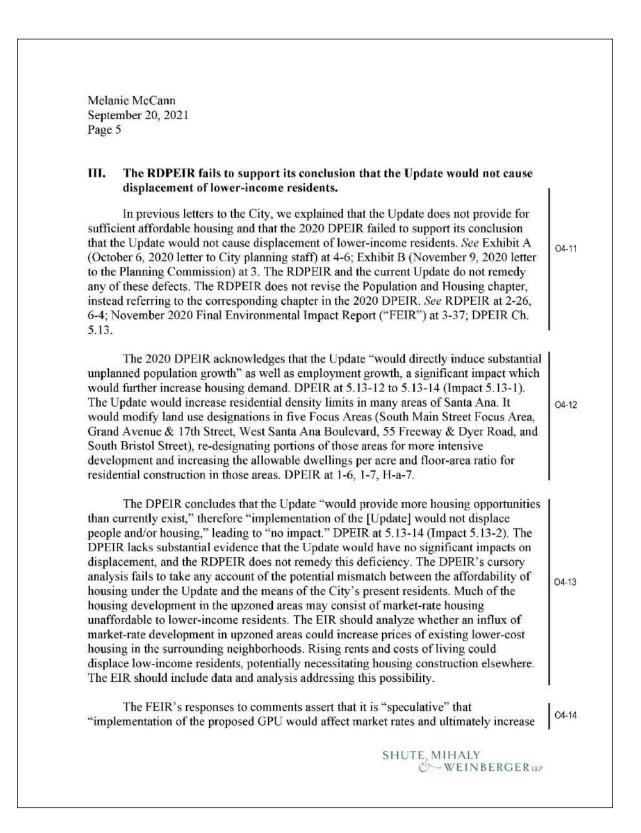
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04-2



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amoi most prov	alation who must pay substantial user fees, ² an exclusivity exacerbated by the huge unt of acreage the City is claiming from golf courses. Cemeteries generally prohibit if not all public recreational uses. Because golf courses and cemeteries do not ide recreational opportunities to most City residents, the RDPEIR should not count towards the City's parkland total.	O4-4 cont'd
CEQ abou Cour Resc RDP appe of th the p	An EIR must include a description of existing physical conditions in the project which serves as the "baseline" against which a project's impacts are evaluated. A Guidelines §§ 15125, 15126.2(a). An EIR's omission of essential information t baseline environmental conditions is legal error. <i>County of Amador v. El Dorado</i> <i>nty Water Agency</i> (1999) 76 Cal.App.4th 931, 952-56; <i>San Joaquin Raptor/Wildlife</i> <i>ue Center v. County of Stanislaus</i> (1994) 27 Cal.App.4th 713, 722-29. Here, the EIR's inflation of the City's baseline park total makes the City's parkland deficiency ar smaller than it is. This inaccurate baseline description prevents informed analysis e Update: while the RDPEIR acknowledges that the Update would further increase markland deficiency, it understates the starting amount of that deficiency. The EIR is therefore legally inadequate.	04-5
П.	The RDPEIR fails to show why the Update's significant park demand impacts are unavoidable or why mitigation is infeasible.	I
incre 5.15- incre deter	Unlike the 2020 DPEIR, which found that the Update's impacts on park demand d be less than significant, the RDPEIR now concludes that the Update would ease park demand, resulting in a significant and unavoidable impact. RDPEIR at -30. The additional residential development generated by the Update would result in eased use of already-inadequate existing park facilities, exacerbating physical cioration of those facilities, and would necessitate the construction or expansion of park facilities. RDPEIR at 5.15-27 to 5.15-30 (Impacts 5.15-1, 5.15-2).	04-6
RDP that ' and i	However, the RDPEIR fails to support its conclusion that mitigation of park and impacts is infeasible and that these impacts are therefore unavoidable. The EIR asserts that new park development is constrained by funding availability, and "[a]Ithough required park fees for development could be sufficient to fund new parks mprovements, there is a lack of available land and lack of land designated as Open we within the General Plan Update to develop new parks or expand existing	04-7
depe	example, Willowick Golf Course user fees range from \$15 to \$51 per visit nding on the time of day and day of the week. <i>See</i> <u>:://www.willowickgolf.com/rates</u> .	I
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housing prices and displace existing residents." FEIR at 2-218. While the Update's effect on housing affordability and displacement may be uncertain, it is not speculative to conclude that it might have some impact, and the City must attempt to fully disclose and analyze this potential impact. See Berkeley Keep Jets Over the Bay Committee v. Board of Port Com'rs (2001) 91 Cal.App.4th 1344, 1367 (CEQA requires "good faith effort at full disclosure" and "good faith, reasoned analysis" of potential project impacts).

Studies have shown that even if increased housing supply puts downward pressure on prices at a regional level, new market-rate development can exert upward pressure on rents in existing housing in the surrounding neighborhood in some circumstances. See, e.g., Anthony Damiano and Chris Frenier, University of Minnesota Center for Urban and Regional Affairs, Build Baby Build?: Housing Submarkets and the Effects of New Construction on Existing Rents (October 16, 2020), excerpt attached as Exhibit D (finding that new market-rate development raises rents by 6.6% in lower-priced rental housing nearby). This can lead to higher cost burdens for nearby lower-income residents, and can cause increased displacement at the local level, especially in regions with strong housing markets. See, e.g. Miriam Zuk et al., Federal Reserve Bank of San Francisco, Gentrification, Displacement and the Role of Public Investment: A Literature Review (August 2015), at 33, 45, excerpt attached as Exhibit E; Miriam Zuk and Karen Chapple, Institute of Governmental Studies, University of California, Berkeley, Housing Production, Filtering and Displacement: Untangling the Relationships (May 2016), at 7, attached as Exhibit F (noting that "market-rate construction can simultaneously alleviate housing pressures across the region while also exacerbating them at the neighborhood level" because "new construction could simply induce more in-moving" and that by extension, "one would expect market-rate development to reduce displacement at the regional scale but increase it or have no or a negative impact at the local neighborhood scale."). The EIR should analyze whether such localized impacts could occur in Santa Ana.

IV. The RDPEIR fails to show why the Update's significant air quality impacts are unavoidable or why additional mitigation is infeasible.

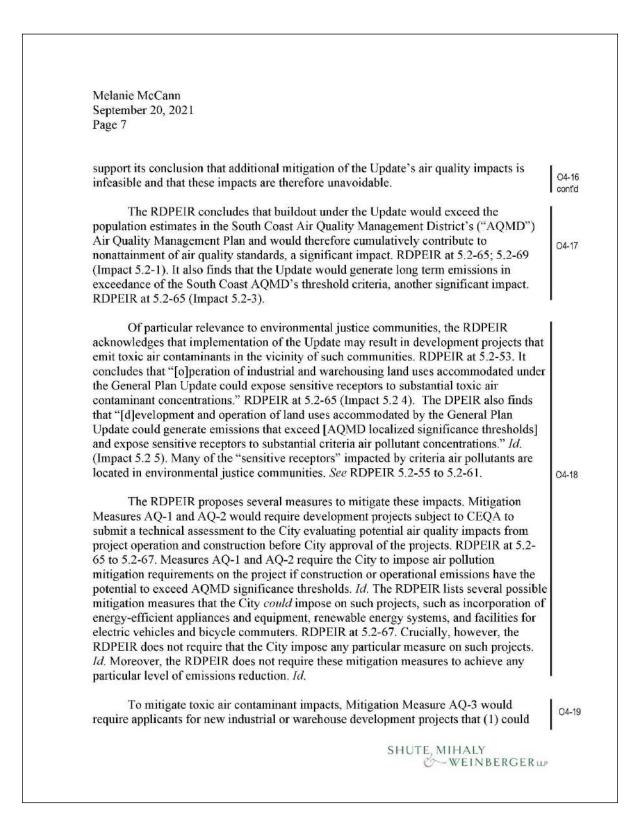
In our October 6, 2020 comments to the City, we explained that the DPEIR failed to adequately analyze the Update's air quality impacts on environmental justice communities. *See* Exhibit A at 7-8. The RDPEIR adds new information regarding those impacts. *See* RDPEIR at 1-6; 1-8. The RDPEIR concludes that the Update's air quality impacts including impacts to environmental justice communities, would be significant and unavoidable even after mitigation. RDPEIR at 5.2-69 to 5.2-71. However, it fails to

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O4-14 cont'd

04-15

04-16



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generate 100 or more diesel truck trips per day or have 40 or more trucks with operating diesel powered transport refrigeration units, and (2) are within 1,000 feet of a sensitive land use such as a school or hospital to submit a health risk assessment to the City. RDPEIR at 5.2-68. The assessment must be "prepared in accordance with policies and procedures of the State Office of Environmental Health Hazard Assessment and the South Coast Air Quality Management District." Id. If that assessment shows that the project would exceed South Coast AQMD thresholds for incremental cancer risk or noncancer hazards, the project applicant would be required to "identify and demonstrate that best available control technologies for toxics (T-BACTs), including appropriate enforcement mechanisms, are capable of reducing potential cancer and noncancer risks to an acceptable level." Id. The measure does not specify what constitutes an "acceptable level" of health risk. This measure effectively defers mitigation for the Update's impacts until the time of individual development project approval, but is excessively vague and lacks appropriate performance standards. Such deferral of mitigation without specific performance standards violates CEQA. See Preserve Wild Santee v. City of Santee (2012) 210 Cal. App.4th 260, 280-82; Rialto Citizens for Responsible Growth v City of Rialto (2012) 208 Cal.App.4th 899, 944-945. The City should revise this measure to require that industrial and warehouse projects reduce their emissions to comply with the South Coast AQMD threshold standards.

The RDPEIR concludes that these mitigation measures would be insufficient to reduce the Update's air quality impacts to a less than significant level, and asserts that no other feasible mitigation measures are available. RDPEIR at 5.2-69 to 5.2-71. The RDPEIR asserts that "due to the magnitude and scale of the land uses that would be developed, no mitigation measures are available that would reduce operation and construction [air quality] impacts below South Coast AQMD thresholds." RDPEIR at 5.2-69; *see also* 5.2-65; 5.2-70. The RDPEIR fails to provide substantial evidence in support of this conclusion.

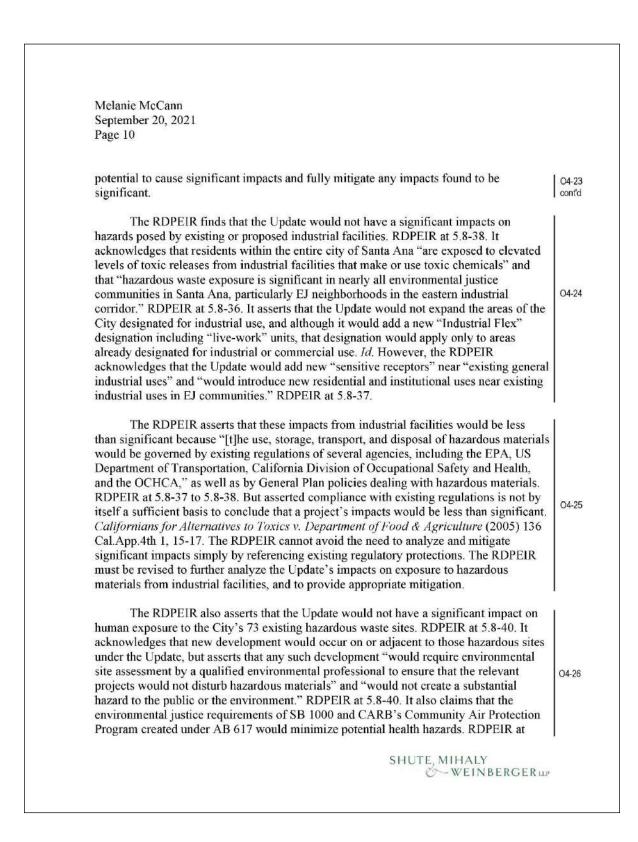
The RDPEIR provides no explanation as to why the scale of allowable development under the Update must necessarily result in significant air quality impacts. It is within the City's power to require new development to adhere to stricter standards that would further reduce those impacts. In fact, as noted above, the RDPEIR lists—but does not require—a variety of possible mitigation measures that could be imposed on development projects. RDPEIR at 5.2-77. This contradicts the RDPEIR's assertion that no additional mitigation is available. The City could further reduce emissions by mandating that development projects employ particular mitigation measures, and by requiring that those projects achieve a specified level of emissions reduction.

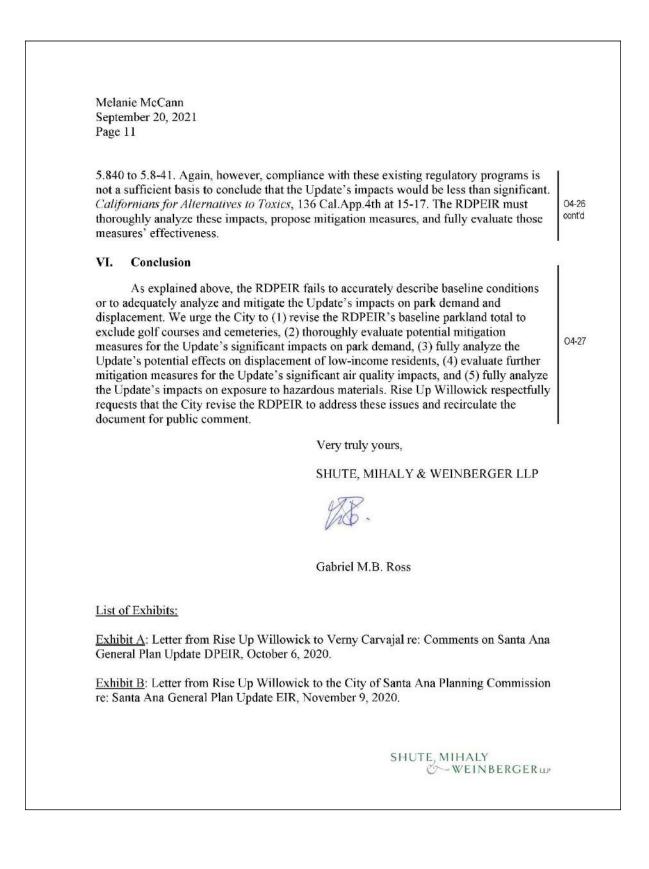
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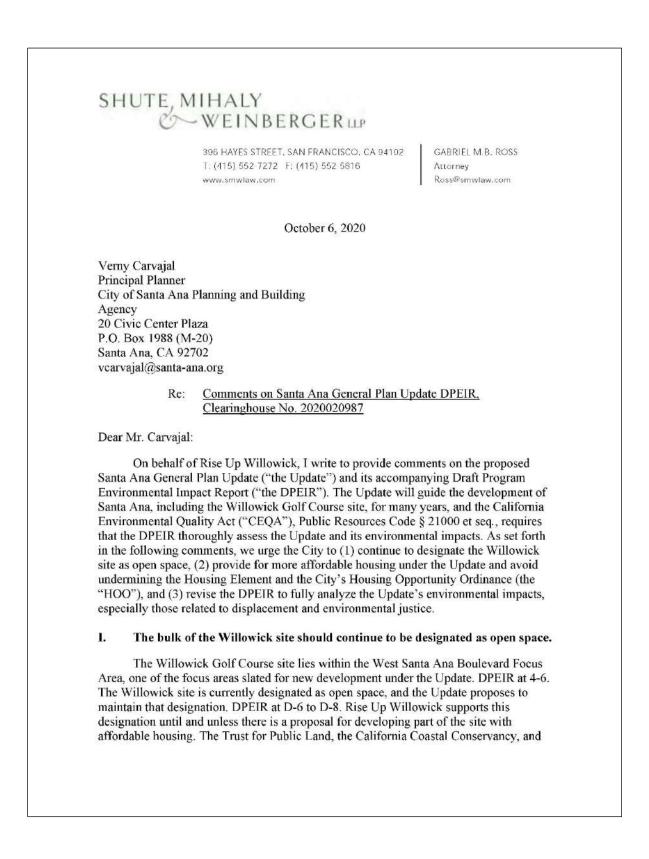
Mola	unie McCann	
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prom	Moreover, the RDPEIR fails to consider other changes that could mitigate the ate's air quality impacts from transportation, such as additional zoning changes to note transit-oriented development, regulatory changes to encourage transit use such ced parking requirements, and requirements that development projects limit the use	O4-2 cont
	esel trucks and other high-emitting vehicles.	
that v proje on he Meas mitig gene trigg inste com furth	The RDPEIR also fails to support its conclusion that the Update's significant acts on toxic air contaminant exposure are unavoidable. RDPEIR at 5.2-71. It asserts while individual development projects would achieve the South Coast AQMD's ect-level risk thresholds for toxic air contaminants, the Update's cumulative impacts eath risk would be unavoidable. <i>Id</i> . The RDPEIR does not explain why Mitigation sure AQ-3 could not go further to reduce cumulative health risks. For example, the gation measure could be applied to smaller industrial and warehouse projects that rate fewer than 100 truck trips per day. It could provide that sensitive land uses er health risk assessments if they are located 2,000 feet away from such projects, ad of 1,000 feet. Or it could require that projects in environmental justice munities not only meet AQMD's risk thresholds, but reduce toxic air emissions er below that level. The RDPEIR does not explain why any of these changes would feasible.	04-2
signi 2100 "whe descr the R abov are u	CEQA provides that "public agencies should not approve projects as proposed if e are feasible mitigation measures available which would substantially lessen the ficant environmental effects of such projects." Pub. Res. Code § 21002; <i>see id.</i> , § 2.1(b) (agencies must mitigate significant effects of projects they approve enever it is feasible to do so"); CEQA Guidelines §15126.4(a)(1) ("An EIR shall ribe feasible measures which could minimize significant adverse impacts"). Because RDPEIR lacks substantial evidence that the additional mitigation measures described e are infeasible, it fails to support its conclusion that the Update's air quality impacts navoidable. The RDPEIR must be revised to identify and require additional air ty mitigation measures.	04-2
V.	The RDPEIR fails to support its conclusion that the Update would not have a significant impact on exposure to hazardous materials.	ĩ
5.8-4	The RDPEIR concludes that the Update would have no significant impacts related zards or hazardous materials, with no need for any mitigation. RDPEIR at 5.8-43 to 16. However, the document's cursory discussion fails to support this conclusion with tantial evidence. The RDPEIR must be revised to thoroughly analyze the Update's	04-2
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Melanie McCann September 20, 2021 Page 12 Exhibit C: Letter from Rise Up Willowick to the City of Santa Ana Planning Commission re: Santa Ana General Plan Update, September 15, 2021. Exhibit D: Anthony Damiano and Chris Frenier, University of Minnesota Center for Urban and Regional Affairs, Build Baby Build?: Housing Submarkets and the Effects of New Construction on Existing Rents, October 16, 2020 (excerpts). Exhibit E: Miriam Zuk et al., Federal Reserve Bank of San Francisco, Gentrification, Displacement and the Role of Public Investment: A Literature Review, August 2015 (excerpts). Exhibit F: Miriam Zuk and Karen Chapple, Institute of Governmental Studies, University of California, Berkeley, Housing Production, Filtering and Displacement: Untangling the Relationships, May 2016. 1412898.18 SHUTE, MIHALY WEINBERGER LLP

EXHIBIT A



Verny Carvajal October 6, 2020 Page 2 Clifford Beers Housing have submitted a proposal to the City of Garden Grove pursuant to the Surplus Land Act, Government Code sections 54220 et seq., to develop the majority of the site into a community park, with affordable housing on the remainder. See Willowick Community Park Proposal, attached as Exhibit A. This public green space will further the goals and policies of the General Plan's Open Space Element, which call for the preservation of existing open space areas and the creation of new public parks. DPEIR at 5.15-13, 5.15-14 (Open Space Element, Goals 1-3). Designation of the majority of the Willowick site as public open space will help meet the growing demand for parks in the City. The Update's proposed increase in residential density in many areas of the City would lead to increased demand for parks and open space. DPEIR at 5.15-15, 5.15-17. The DPEIR projects that the proposed land use changes would result in construction of an estimated 36,261 dwelling units across the City (DPEIR at H-b-5), and a population increase of 96,855 people (DPEIR at 5.15-16). However, park acreage under the Update would increase by only 1.84 acres. Id. Open Space Element Policy 1.3 calls for the City to achieve a minimum park standard of two acres of parkland per 1,000 residents. The City currently does not meet this per-resident standard, and under the Update the shortfall is projected to increase further: the total "parkland deficiency" would increase from 107.56 acres to 299.48 acres at build-out unless additional parks are provided. DPEIR at 5.15-16. The DPEIR calculates that the City currently has 561.94 acres of parkland, but it includes other kinds of open space in this total, such as sports facilities and school recreational facilities. DPEIR at 5.15-10. Although the DPEIR does not fully explain the basis for this parkland calculation, it appears that it may inappropriately count golf courses and cemeteries towards the parkland total. Golf courses, including the Willowick golf course, are classified as "open space." DPEIR at 5.15-10. A golf course, only usable by a small segment of the population and even then for a fee, is not the kind of public space that meets the community's needs. Cemeteries are also classified as "open space," although they are not available for recreational uses. DPEIR at 3-15. Thus, if the DPEIR counts these areas as parkland, the current park deficit is actually greater than the City claims. Despite the admitted deficit, the DPEIR concludes that the Update will have less

Despite the admitted deficit, the DPEIR concludes that the Update will have less than significant impacts related to park demand. DPEIR at 5.15-15 to 5.15-17 (Impact 5.15-1). It reasons that "[p]rovision of parks under implementation of the GPU, which will occur over time, is expected to keep pace with the increase in population growth related to the plan and would not result in a significant impact." *Id.* at 5.15-16. The DPEIR assumes that the City will develop significantly more open space than the 1.84 acres of future parks designated in the Update, funded via in-lieu impact fees collected

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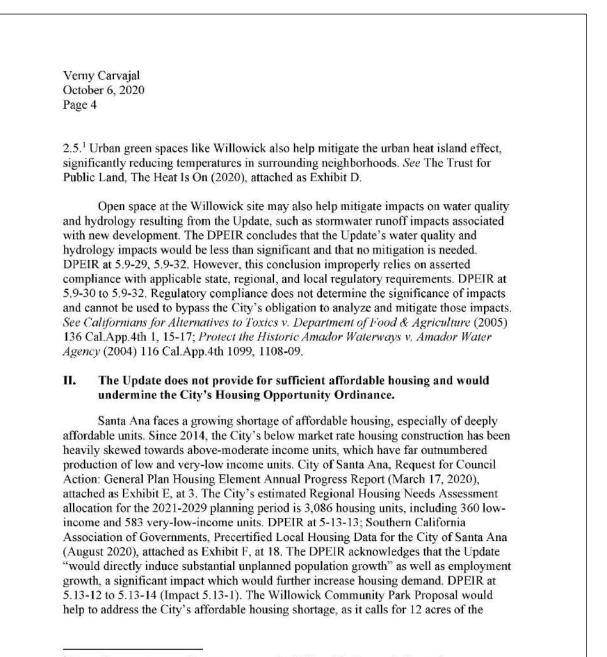
from private developers, among other sources. *Id.* However, the DPEIR fails to provide any evidence that funding will be sufficient to reduce the City's parkland deficiency such that impacts would be less than significant. The DPEIR also asserts that the City's park shortage would be reduced by "private parks and recreational facilities owned and maintained by homeowner associations." *Id.* The DPEIR fails to note that many private recreational facilities, like rooftop parks, are not open to the public and will do nothing to improve park access for most of the City, especially lower-income residents. The DPEIR's unsupported conclusions and its failure to identify mitigation measures are invalid under CEQA.

In order to achieve the City's park standard and accommodate the needs of tens of thousands of new City residents, additional park space is urgently needed, and the 102acre Willowick site can help meet this need. The Willowick Community Park proposal calls for 90 acres to be set aside for public parkland, with the remaining 12 acres to be developed as affordable housing. *See* Willowick Community Park Proposal at 17, 30. In addition to serving growing citywide demand for parks, real recreational open space at the Willowick site will also help meet the existing needs of nearby residents who currently lack adequate access to green spaces in their neighborhoods. There are an estimated 8,500 people living within a 10-minute walk of the Willowick site who currently lack access to a nearby public park. *See* Willowick Community Park Proposal at 26.

Preserving most of the Willowick site as open space will also help to mitigate environmental impacts associated with other aspects of the Update. The DPEIR indicates that the proposed increases in intensity of development and population growth under the Update are projected to generate significant impacts on air quality and greenhouse gas emissions. DPEIR at 1-13, 1-25 (Table 1-4). Urban green spaces improve air quality and mitigate climate change, as trees remove air pollutants and greenhouse gases from the air. *See* David J. Nowak and Gordon M. Heisler, National Recreation and Parks Association, Air Quality Effects of Urban Trees and Parks (2010), attached as Exhibit B; Erica Gies, The Trust for Public Land, The Health Benefits of Parks (2006), attached as Exhibit C, at 13. Thus, maintaining Willowick as green space can mitigate air quality and climate impacts.

Willowick's role in air quality mitigation is especially important because neighborhoods adjacent to the site have high levels of certain air pollutants, including PM

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¹ Several census tracts adjacent to or near the Willowick site are designated as disadvantaged communities that experience a high pollution burden, including high concentrations of PM 2.5 and high occurrences of asthma and cardiovascular diseases. *See* CalEnviroScreen 3.0, https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-30.



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Willowick site to be developed into approximately 270 affordable housing units. See Willowick Community Park Proposal at 30.

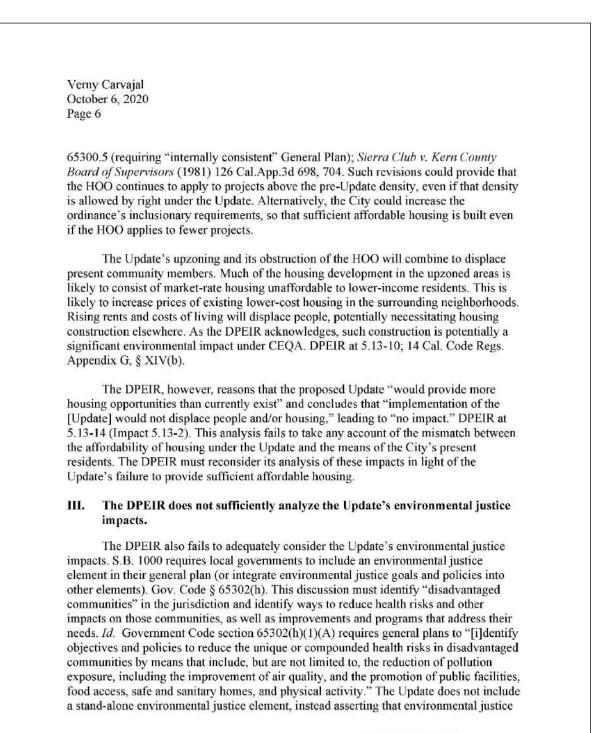
The Willowick development by itself would not be sufficient to meet the City's affordable housing needs—the Update must provide for increased affordable housing development citywide. However, the Update fails to provide for sufficient housing at the affordability levels the City needs, and its upzonings would instead undermine the effectiveness of the city's Housing Opportunity Ordinance. The Update would increase residential density limits in many areas of Santa Ana. It would modify land use designations in five Focus Areas (South Main Street Focus Area, Grand Avenue & 17th Street, West Santa Ana Boulevard, 55 Freeway & Dyer Road, and South Bristol Street), re-designating portions of those areas for more intensive development and increasing the allowable dwellings per acre and floor-area ratio for residential construction in those areas. DPEIR at 1-6, 1-7, H-a-7. The Update would also add a "Corridor Residential" land use designation, which would allow higher density residential development in additional areas. DPEIR at 3-52. These upzonings will facilitate increased housing construction, but would also undermine the HOO's inclusionary housing requirements.

The HOO requires developers to construct affordable units or pay a fee when the number of residential units in a new development exceeds the density permitted by applicable zoning. Santa Ana Muni. Code § 41-1902. Development projects are not subject to the HOO's inclusionary requirements if they do not exceed established density limits under the zoning for the site. *Id.*

Because the Update would increase density limits in many areas of the City and allow more by-right development, fewer developments will need to seek City approval for additional density. In many, if not most, cases the HOO's inclusionary requirements will be triggered less often. As a result, the HOO will apply to fewer projects. Developers will build fewer affordable units and pay less into the City's inclusionary housing fund. By reducing the effectiveness of the HOO, the Update would also undermine General Plan Housing Element Policy 2.6, which provides that "pursuant to the Housing Opportunity Ordinance," the City must "require eligible rental and ownership housing projects to include at least 15 percent of the housing units as affordable for lower and moderate-income households." DPEIR at 5.10-17.

The Update will thus create an internal inconsistency within the General Plan, as the increased by-right densities will impede achievement of the Housing Element's goal. To avoid this illegal inconsistency, the City must, within or simultaneous with the Update, revise the HOO to ensure sufficient affordable housing production. Gov. Code §





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issues will be incorporated throughout the Update. DPEIR at 3-17. The Update includes several draft goals and policies which refer to equity and environmental justice (*See* DPEIR at B-a-2, B-a-5, B-a-19, B-a-20, B-a-25, B-a-39, B-a-41, B-a-43, B-a-44).

Despite the Update's inclusion of these policies, the DPEIR makes no attempt to analyze the Update's environmental justice impacts on disadvantaged communities. CEQA requires an evaluation of the Update's significant environmental effects and consistency with applicable General Plan policies. 14 Cal. Code Regs §§15126.2(a), 15125(d). The Update includes goals and policies that seek to promote environmental justice by addressing air pollution, hazardous waste exposure, and other impacts on disadvantaged communities. See, e.g., DPEIR at B-a-25 (Policy CN-1.5; air pollution and environmental justice), B-a-39 (Policy S-2.6; hazardous materials and environmental justice), B-a-43 (Policy LU-3.9; polluting land uses and environmental justice). The DPEIR should consider whether other aspects of the Update would have significant environmental impacts on disadvantaged communities,² and whether those elements would impede the Update's environmental justice goals and policies, creating an internal inconsistency within the General Plan. See Gov. Code § 65300.5 (requiring "internally consistent" General Plan); Sierra Club v. Kern County Board of Supervisors (1981) 126 Cal.App.3d 698, 704. The DPEIR should comprehensively analyze environmental justice impacts, including air quality and pollution exposure in disadvantaged communities as well as access to public facilities such as parks and access to healthy food.

As part of its environmental justice analysis, the DPEIR should consider whether the Update may result in conflicts between industrial or commercial uses and proposed housing in corridors that the Update has designated for upzoning. It should particularly analyze any resulting impacts on disadvantaged communities. For example, air pollutant emissions from light industrial uses may affect air quality in the areas designated for increased residential density, potentially increasing residents' exposure to air pollution. Notably, four of the five "focus areas" designated for residential upzoning under the Update also include land designated for industrial uses. DPEIR at 1-6. This would potentially cause an disproportionate adverse impact on disadvantaged communities. Moreover, the effect of the Update policies promoting such development would cause harms contrary to Update policies on environmental justice- an internal inconsistency.

² The CEQA guidelines make clear that "economic and social effects of a physical change may be used to determine that the physical change is a significant effect on the environment" and that "[i]f the physical change causes adverse economic or social effects on people, those adverse effects may be used as a factor in determining whether the physical change is significant." 14 Cal. Code Regs. § 15064(e); *see also id.* §15382.



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Similarly, he Update proposes a new "Industrial/Flex" land use designation in these areas, which will promote "large-scale office industrial flex spaces, multi-level corporate offices, and research and development uses." DPEIR at 3-18. The DPEIR must consider the potential impacts of these newly-designated industrial areas on existing residents in nearby housing.
IV. Conclusion As currently proposed, the Update does not provide for sufficient open space or

affordable housing, and would undermine the City's Housing Opportunity Ordinance. As set forth above, Rise Up Willowick urges the City to (1) continue to designate the Willowick site as open space until and unless there is a proposal for developing part of it with affordable housing, (2) provide for more affordable housing in order to avoid undermining the HOO and causing an internal inconsistency within the General Plan, and (3) revise the DPEIR to fully analyze the Update's impacts on displacement and environmental justice. Rise Up Willowick respectfully requests that the City revise the Update to address these issues, revise the DPEIR, and recirculate both for public comment.

Very truly yours,

SHUTE, MIHALY & WEINBERGER LLP

Gabriel M.B. Ross

List of Exhibits:

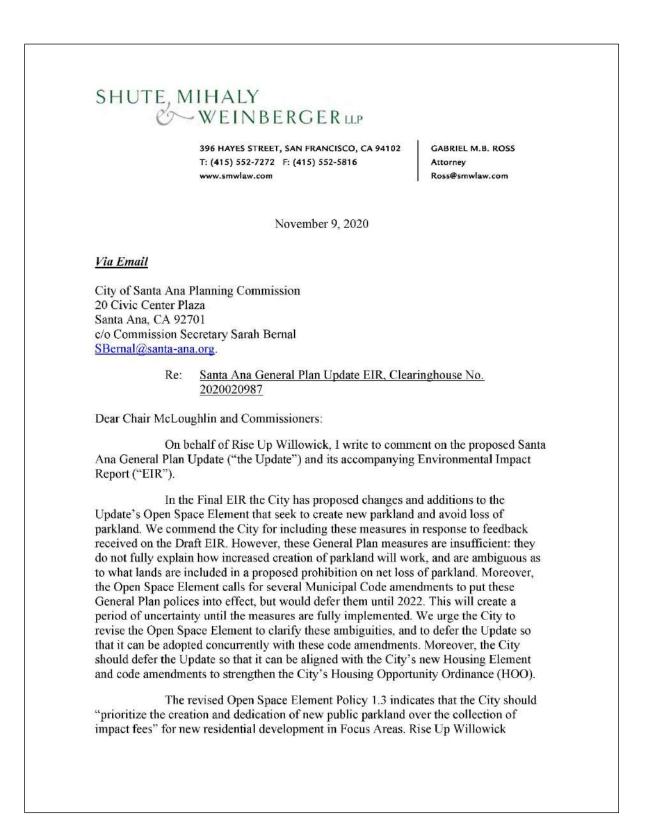
Exhibit A: Trust for Public Land, Coastal Conservancy, and Clifford Beers Housing, Willowick Community Park Proposal (August 2020)

Exhibit B: David J. Nowak and Gordon M. Heisler, National Recreation and Parks Association, Air Quality Effects of Urban Trees and Parks (2010)

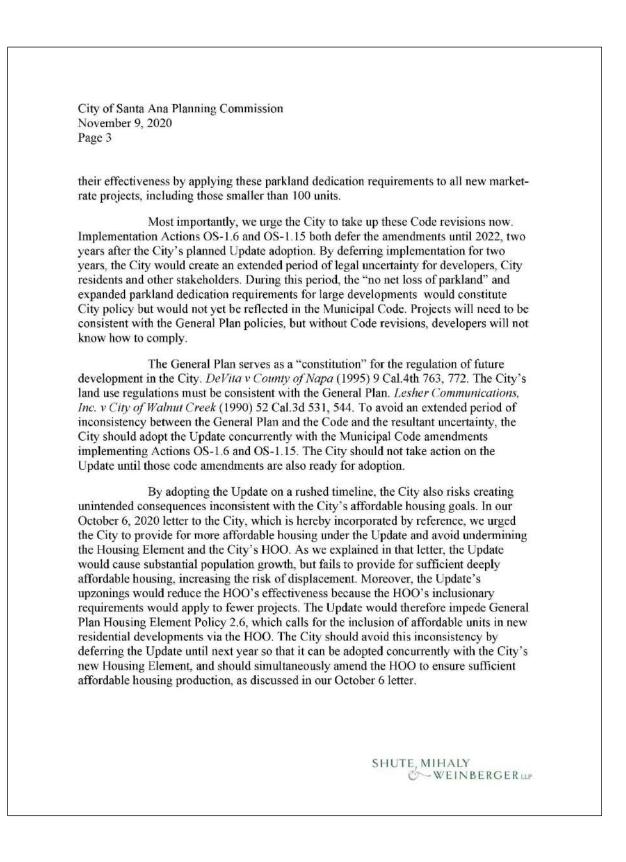
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Verny Carvajal October 6, 2020 Page 9 Exhibit C: Erica Gies, The Trust for Public Land, The Health Benefits of Parks (2006) Exhibit D: The Trust for Public Land, The Heat Is On (2020) Exhibit E: City of Santa Ana, Request for Council Action: General Plan Housing Element Annual Progress Report (March 17, 2020) Exhibit F: Southern California Association of Governments, Precertified Local Housing Data for the City of Santa Ana (August 2020) 1286679.21 SHUTE, MIHALY

EXHIBIT B







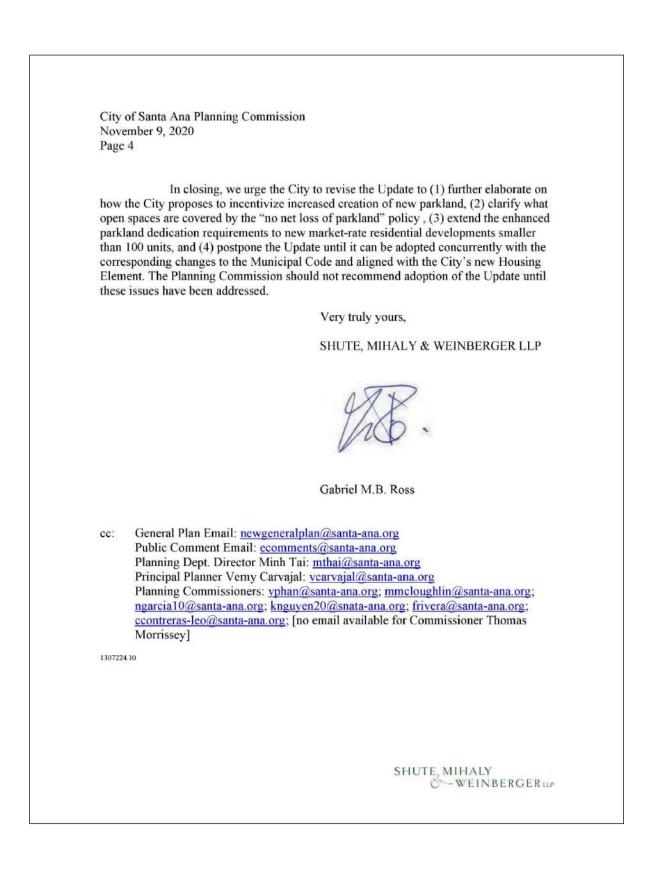
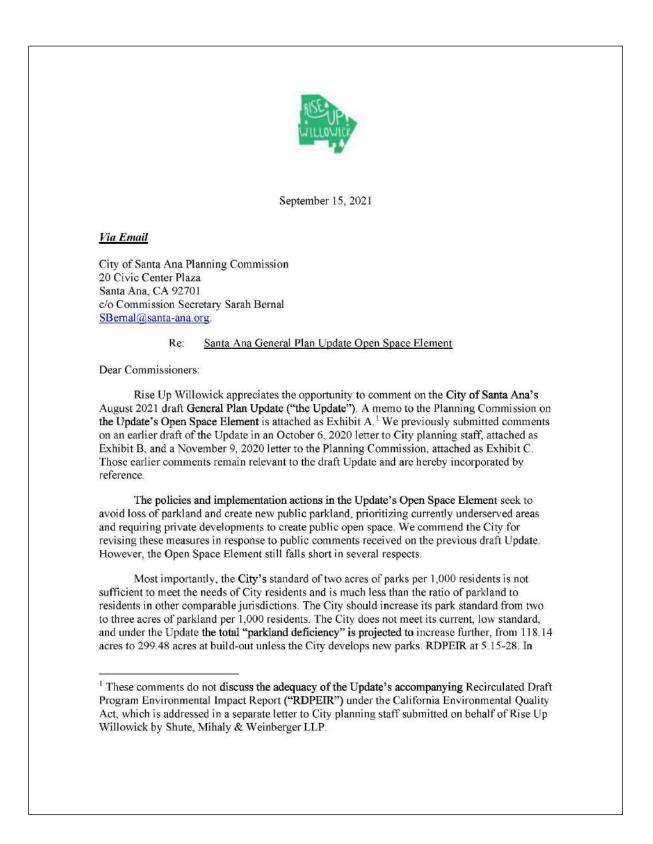


EXHIBIT C



more ambitious policies to facilitate par	y and meet the needs of City residents, the City needs rkland creation.
per 1,000 residents, and should amend t	the Municipal Code to reflect this standard. In addition, a the City to revise the Open Space Element to:
 define the terms "parks," "parks," "parks," "environmental justice area," 	arkland," "open space," "park deficient area" and
(2) apply the "no net loss" polic provisions on replacement of lo	y to open space as well as to parkland and strengthen st open space,
(3) increase parkland dedication meet the City's enhanced park s	requirements for new development projects in order to standard,
(4) extend parkland dedication r development projects,	requirements to a broader range of market-rate
(5) require that parkland created distance of the associated develo	by dedication be located within a half-mile walking opment, and
(6) include more specific incent park deficient and environmenta	ive mechanisms to create new parkland, especially within al justice areas.
actions that would address each of these	nguage for General Plan policies and implementation e issues. We respectfully request that the City revise the oposals. Thank you for your consideration.
	Very truly yours,
	Rise Up Willowick
	Groft
	Cynthia Guerra

City of Santa Ana Planning Commission September 15, 2021 Page 3 List of Exhibits: Exhibit A: Rise Up Willowick, Comments to City of Santa Ana Planning Commission re: Proposed Changes to Open Space Element of City of Santa Ana General Plan Update, September 15, 2021. Exhibit B: Letter from Rise Up Willowick to Verny Carvajal re: Comments on Santa Ana General Plan Update DPEIR, October 6, 2020. Exhibit C: Letter from Rise Up Willowick to the City of Santa Ana Planning Commission re: Santa Ana General Plan Update EIR, November 9, 2020. General Plan Email: newgeneralplan@santa-ana.org CC: Public Comment Email: ecomments@santa-ana.org Planning Dept. Director Minh Tai: mthai@santa-ana.org Principal Planner Melanie McCann: mmccann@santa-ana.org Planning Commissioners: mmcloughlin@santa-ana.org; tmorrissey@santa-ana.org; ealderete@santa-ana.org; mcalderon@santa-ana.org; bpham@santa-ana.org; iramos@santa-ana.org; awoo@santa-ana.org 1412866.7

EXHIBIT A

	RISEUP
TO:	City of Santa Ana Planning Commission
FROM:	Rise Up Willowick
DATE:	September 15, 2021
RE:	Proposed Changes to Open Space Element of City of Santa Ana General Plan Update

Rise Up Willowick proposes the following changes and additions to the Open Space Element of the City of Santa Ana's August 2021 draft General Plan Update.

1. Definitions of Key Terms

The Open Space Element lacks definitions for key terms used in several policies and implementation actions involving parks and open space. These definitions are needed to clarify the scope and effects of those policies and actions. We propose modifying the Open Space Element to define "parks" and "parkland" with reference to the Municipal Code's existing definition of "parks":

As used in the Open Space Element, "parks" and "parkland" have the same meaning as "parks" as defined in Municipal Code Section 31-1 (4).

We propose modifying the Open Space Element to define "open space" as follows:

As used in the Open Space Element, "open space" means "any publicly-accessible parcel or area of land or water, whether publicly or privately-owned, that is reserved for the purpose of preserving natural resources, for the protection of valuable environmental features, or for providing outdoor recreation or education."

We propose amending the Municipal Code to include this definition of "open space," which is not currently defined in the code.

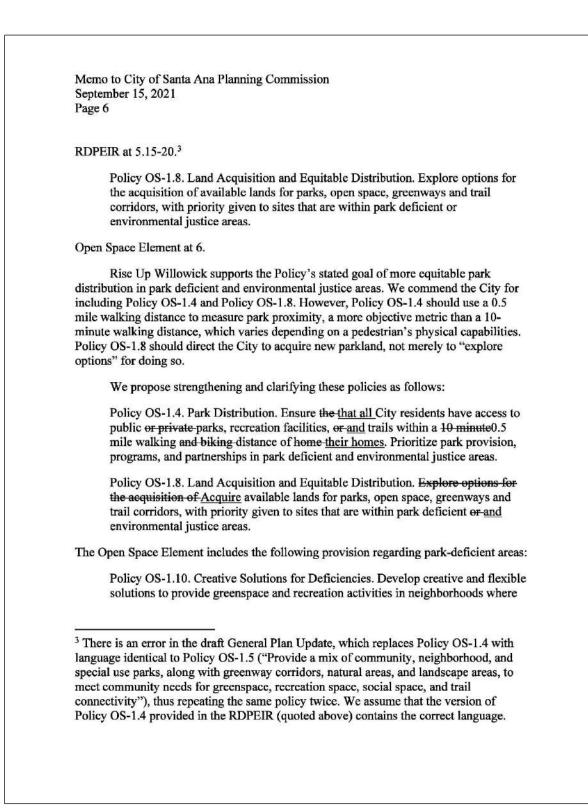
We propose modifying the Open Space Element to define "park deficient area" as follows:

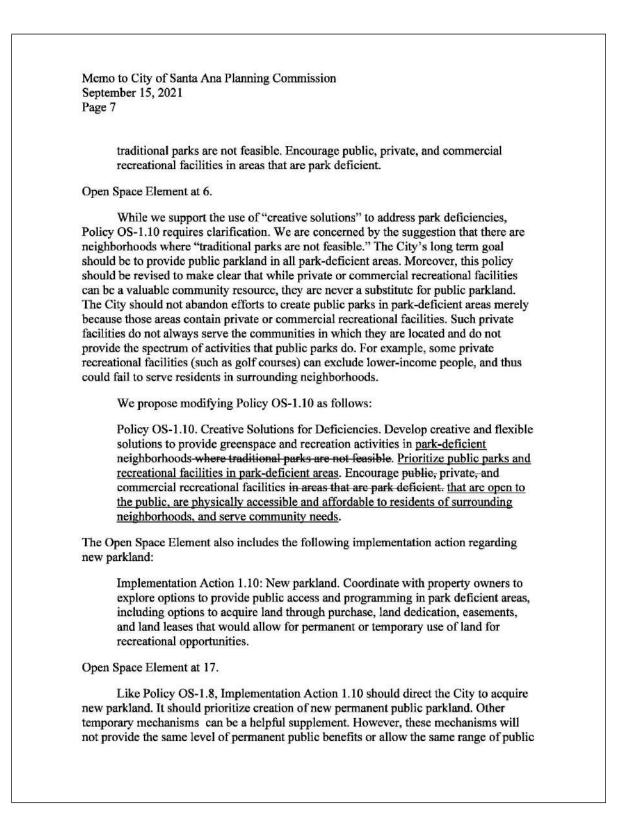
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	As used in the Open Space Element, "park deficient area" means "a geographic area which is located more than 0.25 miles from the nearest public park of 5 acres or less and more than 0.5 miles from the nearest public park larger than 5 acres as measured along the shortest available pedestrian route."
	This is a modified version of the definition used in the August 2021 Recirculated the Program Environmental Impact Report (RDPEIR) for the General Plan Update. PEIR at 5.15-12, 5.15-13. ¹
area	We propose modifying the Open Space Element to define "environmental justice" as follows:
	As used in the Open Space Element, "environmental justice area" means "a disadvantaged community as defined by Government Code Section 65302(h)(4)(A), i.e. a low-income area that is disproportionately affected by environmental pollution and other hazards that can lead to negative health effects, exposure, or environmental degradation, or an area identified by the California Environmental Protection Agency pursuant to Section 39711 of the Health and Safety Code."
6530 Prote comi Heal	This definition of "environmental justice area" is consistent with the RDPEIR, th references SB 1000's definition of "disadvantaged community." Gov. Code § 02(h)(4)(A); RDPEIR at 4.15-4.16, 5.15-12, 5.15-15. The California Environmental ection Agency has identified 23 census tracts in Santa Ana as environmental justice munities because they have received a California Communities Environmental th Screening (CalEnviroScreen) composite score greater than 75 percent. RDPEIR 19, 4-15.
2.	Proposed Addition of "No Net Loss of Open Space" Policy in General Plan Update
Elen	We propose the addition of a "no net loss of open space" policy in the Open Space nent:
	Policy OS-1.14: No Net Loss of Open Space. There shall be no net loss of Open Space in the city, excluding any acreage of a golf course that is redeveloped solely for 100% below-market rate housing. Any Open Space lost due to development shall be replaced at a ratio of at least 1:1.
¹ The	e RDPEIR maps park deficient areas using aerial linear distances to the closest park, er than actual on-the-ground walking distances, which are typically longer due to a

Memo to City of Santa Ana Planning Commission September 15, 2021 Page 3 Although the Open Space Element already includes a "no net loss of parkland" implementation action (discussed below), the "no net loss" concept is so important and fundamental that it should be articulated as a policy as well. Moreover, given the shortage of both parks and open space in the City, this policy should apply to all open space, not merely to parkland. The City already has a "parkland deficiency" of 118.14 acres, which is expected to increase to 299.48 acres under the Update unless new parks are built. RDPEIR at 5.15-28. Non-park open space provides an important supplemental recreational resource, and can potentially be developed into parkland in the future. The City cannot afford to lose any of its existing parkland or open space acreage. Proposed Changes to the Update's "No Net Loss" Implementation Action 3. The draft Open Space Element currently includes this provision: Implementation Action [OS-]1.4: No-net-loss of parkland. Establish land use provisions in the Municipal Code that prevent a net loss of public parkland in the city. Require at least a 1:1 replacement if there is any loss of public parkland due to public or private development. City of Santa Ana Draft General Plan Update, Open Space Element, at 16. The City proposes to enact the no-net-loss ordinance in 2022; the City's Parks, Recreation and Community Services Agency (PRCSA) would be responsible. We commend the City for including this "no net loss" implementation action in the Update. However, as explained above, this provision should apply to all open space, not only to parkland. The implementation action should specify that net loss of open space will be avoided by prohibiting development that causes such a net loss. Moreover, the provision should clarify that replacement parks and open space must be located within 0.5 miles of the lost parks and open space, to ensure that the replacements serve the same communities. Finally, the implementation action should require that development of replacement parks and open space occur before the closure of the lost parks or open space. This will ensure that there is not a lag or "gap" in time where communities lose park or open space access if the replacement process is delayed. We propose modifying Open Space Element Implementation Action OS-1.4 to read as follows: Implementation Action OS-1.4: No Net Loss of parkland Open Space. Establish land use provisions in the Municipal Code that prevent prohibit development that causes a net loss of public parkland Open Space in the city, including City parks as well as other public and private land designated as Open Space under the General Plan or the zoning code, but excluding any acreage of a golf course that is

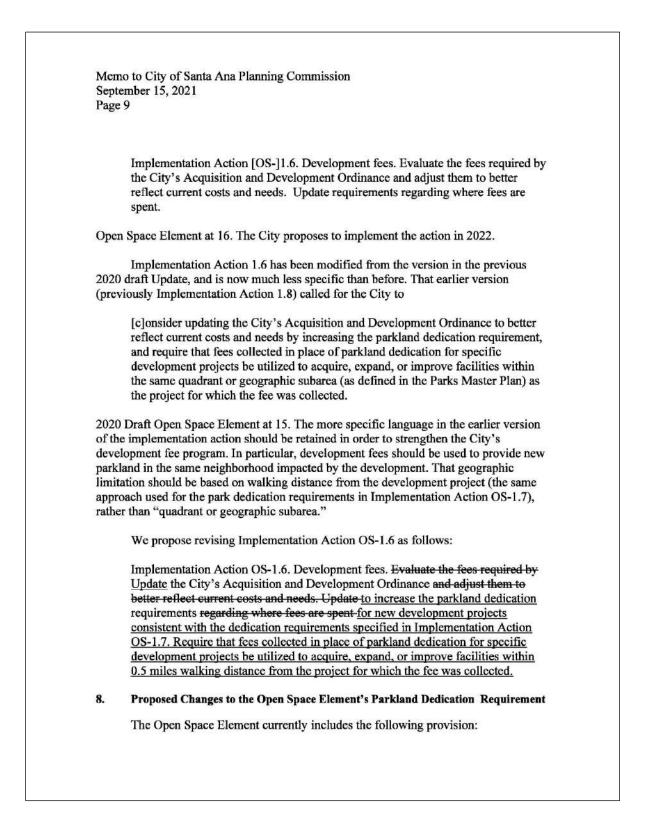
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	redeveloped solely for 100% below-market rate housing. Require that any loss of Open Space be replaced at a ratio of at least a-1:1-replacement if there is any loss of public parkland due to public or private development., that loss of public parks be replaced by new public parks, and that replacement Open Space (including public parks) be located within 0.5 miles walking distance from the lost Open Space. Require that a plan for replacement, including specific location of replacement land, be approved before or as part of approval of any project that would change the use of existing parks or Open Space. Require that development of replacement parks or Open Space occur prior to the closure or redevelopment of the lost parks or Open Space.
4.	Proposed Changes to the Open Space Element's "Park Standard"
	The draft Open Space Element currently includes this "park standard" policy:
	Policy OS-1.3: Park Standard. Establish and maintain public open space and recreation requirements for new residential and nonresidential development to provide sufficient opportunities for Santa Ana residents and visitors. Strive to attain a minimum of two acres of park land per 1,000 residents in the City.
to-re prov and	of Santa Ana Draft General Plan Update, Open Space Element, at 5. This parkland- esident standard is already reflected in Municipal Code Section 35-108(a), which rides that "[d]evelopment of parks within the city will require the construction of park recreation facilities sufficient to provide two (2) acres of such facilities per one stand (1,000) population in the city."
"par	The August 2021 RDPEIR for the General Plan Update acknowledges that the currently does not meet this per-resident standard, and under the Update the total kland deficiency" is projected to increase further, from 118.14 acres to 299.48 acres uild-out unless additional parks are provided. RDPEIR at 5.15-28.
othe typi whil acre	The City's standard of two acres of parks per 1,000 residents is not sufficient to t the needs of City residents and is much less than the ratio of parkland to residents in r jurisdictions. According to the National Recreation and Park Association, the cal jurisdiction has a median of 9.9 of acres of parkland for every 1,0000 residents, le jurisdictions of more than 250,000 people (like Santa Ana) have a median of 10.9 s of parkland per 1,000 residents. ² Nationally, the bottom quartile of jurisdictions 250,000 people have a median of 5.3 acres of parkland per 1,000 residents.
	tional Recreation and Park Association, NRPA Agency Performance Review 8

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dedi	The City's parkland standard is also less than the standard set out in the Quimby Government Code section 66477, which allows cities to require that subdivisions cate parkland sufficient to provide up to three acres of park area per 1,000 livision residents.
ratio Envi attai	Moreover, Policy OS-1.3 has been weakened from the version included in the 0 draft Update. While the previous draft policy called for the City to "achieve" a park of two acres per 1,000 people (2020 Draft Open Space Element at 5; Final ironmental Impact Report at 2-17), the new draft merely says the City will "strive to n" that standard. Open Space Element at 5. Given the importance of addressing the 's park deficiency, the policy's language should be mandatory.
	We therefore propose revising Policy OS-1.3 to read as follows:
	Policy OS-1.3: Park Standard. Establish and maintain public open space and recreation requirements for new residential and nonresidential development to provide sufficient opportunities for Santa Ana residents and visitors. Strive to attain The City shall achieve a minimum citywide park ratio of two-three acres of park land per 1,000 residents in the City. For new residential development in Focus Areas, the City shall prioritize the creation and dedication of new public parkland over the collection of impact fees.
calli	We also propose that the Update include an additional implementation action ng for the City to amend the Municipal Code to reflect this standard:
	Implementation Action OS-1.16. Park Standard. Amend Municipal Code Chapter 35, Article IV to require that the City achieve a minimum citywide park ratio of three acres per 1,000 residents.
5.	Proposed Changes to the Open Space Element's Policies on Parkland Creation and Distribution
park	The Open Space Element currently includes the following policies relating to land creation and distribution:
	Policy OS-1.4. Park Distribution. Ensure the City residents have access to public or private parks, recreation facilities, or trails within a 10 minute walking and biking distance of home. Prioritize park provision, programs, and partnerships in park deficient an[d] environmental justice areas.





Memo to City of Santa Ana Planning Commission September 15, 2021 Page 8 uses. They are therefore not a substitute for permanent public parkland. The City should not rely on privately-owned open space to increase recreational opportunities in parkdeficient areas. We propose revising this provision as follows: Implementation Action 1.10: New parkland. Create new public parkland in parkdeficient areas via purchase or land dedication. In addition, Ccoordinate with property owners to explore options to provide public access and programming on privately-owned open space in park deficient areas, including options to acquire land through purchase, land dedication, and obtain easements, and or land leases that would allow for permanent or temporary public use of land such open space for recreational opportunities. 6. Proposed Changes to the Open Space Element's Policy on New Development The Open Space Element currently includes the following policy on new development: Policy OS-1.9: New Development. Ensure all new development effectively integrates parks, open space, and pedestrian and multi-modal travelways to promote a quality living environment. For new development within park deficient and environmental justice areas, prioritize the creation and dedication of new public parkland over the collection of impact fees. Open Space Element at 6. We propose revising this policy to clarify that new developments must create public parkland via the mechanisms described in Implementation Actions OS-1.6 and OS-1.7 in order to meet the citywide park standard set in Policy OS-1.3: Policy OS-1.9: New Development. Require that Ensure all new development effectively integrates parks, open space, and provide adequate parks and open space, including via parkland dedication or development fees, in order to meet the City's park standard. Ensure that new development includes pedestrian and multimodal travelways to promote a quality living environment. For new development within park deficient and environmental justice areas, prioritize the creation and dedication of new public parkland over the collection of impact fees. 7. Proposed Changes to the Open Space Element's Development Fee Requirements The draft Open Space Element currently includes the following provision:



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	Implementation Action [OS-]1.7. Public parkland requirements for larger residential projects. Update the Residential Development Fee Ordinance for Larger Residential Projects to require public parkland within a 10-minute walking distance of the new residential projects. Consider allowing developers a reduction in on-site open space by giving credits for park development or the provision of private park land. Incentivize the creation of public parks that exceed City requirements, especially within park deficient and environmental justice areas. Establish incentives for coordination between two or more residential projects (of any size) to create larger and/or more centralized public park space, such as exploring housing density bonus options for the provision of open space as a public benefit and leverage Residential Development fee to partner with developers to create public open space.
Op	en Space Element at 17. The City proposes to implement the action in 2022.
	Implementation Action 1.7 has been modified extensively from the version uded in the previous 2020 draft Update, with many of the specifics have been deleted e earlier version (formerly Implementation Action 1.15) provided:
	Implementation Action 1.15. Public parkland requirements for larger residential projects. Amend the Residential Development Fee in the Municipal Code (Chapte 35, Article IV) to reflect requirements for Larger Residential Projects (100+ units, residential only or mixed-use) to facilitate the creation two acres of new public parkland within a 10-minute walking radius of the new residential project. Establish provisions that allow the Larger Residential Projects to reduce all onsite private and common open space requirements by 50 percent if new public parkland is provided within a 10 minute walking radius and by 80 percent if the new public parkland is immediately adjacent to or on the residential project property. Work with property owners and new development projects within the Focus Areas to identify options (e.g., 100 percent reduction of onsite private and public open space requirements) that would incentivize the creation of public park areas that are more than the minimum and/or if a location can expand park access for an adjoining underserved neighborhood and/or environmental justice area. Establish incentives for coordination between two or more residential projects (of any size) to create larger and/or more centralized public park space.
mu	0 Draft Open Space Element at 16. The new draft weakens the Update by replacing ch of the action's detail with general statements. The more detailed version should be ored, with further changes as outlined below.
	The Santa Ana Municipal Code already requires that subdivision map approvals

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provide two acres of park area per 1,000 people residing in the subdivision. The Quimby Act, Government Code section 66477, authorizes more than that, allowing cities to require that subdivisions dedicate parkland sufficient to provide up to three acres of park area per 1,000 subdivision residents.

We propose modifying Implementation Action OS-1.7 to use all the authority the Quimby Act gives the City. It should require that subdivision dedications of parkland be sufficient to achieve a standard of three acres of parkland per 1,000 residents. In addition, we suggest modifying Action OS-1.7 to require that new \geq 80% market-rate, non-subdivision developments of 100 or more units dedicate three acres of new public parkland, and that \geq 80% market-rate non-subdivision developments of 50 to 99 units dedicate two acres of public parkland. These changes will help to address the City's parkland deficit, meet the General Plan's parkland standard, and promote equitable park access.

We also suggest changing the limit on the location of dedicated parkland from a "10-minute walking radius" of the development, a subjective measure that varies depending on a pedestrian's physical capabilities, to a 0.5-mile walking radius, a more objective metric. The revised Implementation Action would read as follows:

Implementation Action OS-1.7. Public parklands requirements for larger residential projects. Update the Residential Development Fee Ordinance for Larger Residential Projects to require public parkland within a 10-minute walking distance of the new residential projects. Amend Municipal Code Chapter 34, Article VIII to require that subdivision map approvals for residential subdivisions of more than 50 parcels dedicate parkland sufficient to provide three acres of park area per 1,000 people residing in the subdivision, consistent with Policy OS-1.3. Amend Municipal Code Chapter 35, Article IV to require that projects including 100+ residential units that are 80 percent market-rate or more and do not require a subdivision dedicate three acres of new public parkland concurrent with the completion of and within a 0.5-mile walking radius of the new residential project, and to require non-subdivision projects of 50 to 99 residential units that are 80 percent market-rate or more to dedicate two acres of public parkland concurrent with the completion of and within a 0.5 mile walking radius of the project. Consider allowing developers a reduction in on-site open space by giving credits for park development or the provision of private park land. Establish provisions that allow these projects to reduce all onsite private and common open space requirements by 50 percent if new public parkland is provided within a 0.5-mile walking radius and by 80 percent if the new public parkland is immediately adjacent to or on the residential project property. To the greatest extent possible, parkland created via this dedication process shall be located in park-deficient neighborhoods and environmental justice areas. Incentivize the creation of public

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> parks that exceed City requirements, especially within park deficient and environmental justice areas. Establish incentives for coordination between two or more residential project (of any size) to create larger and/or more centralized public park space, such as a housing density bonus for the provision of open space as a public benefit and leveraging of Residential Development fees to partner with developers to create public open space.

9. Clarification of the Open Space Element's Incentives for Parkland Creation

The new draft Open Space Element deletes an implementation action included in the previous 2020 draft (Implementation Action OS-1.16), which indicated that the City should "[d]evelop an incentives program that encourages private development and public agencies to provide park and recreation facilities beyond the minimum requirements."

Similarly, Implementation Action OS-1.7 now calls for the City to "[i]ncentivize the creation of public parks that exceed City requirements, especially within park deficient and environmental justice areas" and to "[e]stablish incentives for coordination between two or more residential projects (of any size) to create larger and/or more centralized public park space, such as exploring housing density bonus options for the provision of open space as a public benefit and leverag[ing] Residential Development fee[s] to partner with developers to create public open space." The Open Space Element should describe these incentives in greater detail.

As suggested by Action OS-1.7, the City could provide a density bonus to development projects that exceed public parkland dedication requirements. This would be similar to the density bonuses provided to projects containing below-market-rate units under Government Code section 65915 (codified in Santa Ana Municipal Code Chapter 41, Article XVI.I). The density bonus could be provided on a sliding scale: development projects which exceed minimum parkland dedication by a greater amount would receive a larger bonus. The size of the maximum density bonus for additional parkland dedication should be no greater than the 25% maximum density bonus for below-market-rate units under the City's existing density bonus ordinance. Santa Ana Municipal Code § 41-1604(a). However, development projects which include below-market-rate units and dedicate more parkland than required should be eligible to receive both the parkland density bonus and the affordable housing density bonus. Use of one bonus should not preclude or limit the use of the other.

In the previous draft of the Open Space Element, Implementation Action 1.15 suggested a "100 percent reduction of onsite private and public open space requirements" if a development dedicates public park areas that exceed the minimum dedication requirement. 2020 Draft Open Space Element at 16. The City should consider a revised version of this incentive: reductions of onsite open space should reflect the amount by

Memo to City of Santa Ana Planning Commission September 15, 2021 Page 13 which parkland dedication exceeds minimum requirements. For example, a development would receive a 90% reduction in the onsite open space requirement if it dedicates 0.5 acres more than the required amount of parkland and a 100% reduction if it dedicates 1 acre more parkland than required. 10. **Proposed Changes to the Open Space Element's Funding Policies** The Open Space Element currently includes the following policy: Policy OS-1.11: Funding Sources: Explore and pursue all available funding, including nontraditional funding sources, for park acquisition, facility development, programming, and maintenance of existing and new parks. Set aside park funding to have monies on hand to acquire and develop parkland when opportunities arise and to leverage grant options. Open Space Element at 6. We commend the City's commitment to pursue all available funding sources for parks. Given the current park deficiency in the City, the City should set an explicit goal to obtain enough funding for new park development to meet a park standard of three acres per 1,000 residents (see proposed changes to Policy OS-1.3 above). We propose modifying Policy OS-1.11 as follows: Policy OS-1.11: Funding-Sources: Explore and pursue all available funding, including nontraditional funding sources, for park acquisition, facility development, programming, and maintenance of existing and new parks, in order to increase park investment per resident and meet the City's Park Standard of three acres per 1,000 residents (Policy OS-1.3). Set aside park funding to have monies on hand to acquire and develop parkland when opportunities arise and to leverage grant options. In addition, the City should aim to increase per-resident investment in parks, including maintenance and improvement of existing parks as well as new park development. We propose the addition of an "increased per-resident parks investment" policy in the Open Space Element: Policy OS-1.15: Park Investment Per Resident. Increase per-resident investment in park maintenance and upgrades in order to ensure equitable access to wellmaintained neighborhood parks for all City residents, and increase per-resident investment on new park acquisition and development to a level sufficient to achieve the City's Park Standard of three acres per 1,000 residents (Policy OS-1.3).

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O4. Response to comments from Shute, Mihaly and Weinberger LLP on behalf of Rise Up Willowick, dated September 20, 2021

- O4-1 This comment is introductory, broad and does not raise specific CEQA issues. The CEQA-related issues raised in the commenter's prior comment letter on the Draft PEIR (Exhibit A) are addressed in the October 2020 Final PEIR. Exhibit B is a November 9, 2020 letter addressed to the Planning Commission and was received after the deadline for public on the Draft PEIR (September 16, 2020). Although the subject line on this letter references the GPU EIR, the letter focuses on the GPU and does not include any comments specific to the adequacy of the Draft PEIR. No further response is required.
- O4-2 This comment is introductory and simply lists the arguments that the commenter makes later in the letter. This response responds to those arguments below. No further response to this introductory comment is necessary.
- O4-3 This comment reiterates the Open Space Element Policy (1.3) to achieve a minimum park standard of two acres of parkland per 1,000 residents and notes inconsistent open space/recreation acreage information between the GPU and the Recirculated Draft PEIR. The GPU and Recirculated Draft PEIR provide information and recreation/open space acreage data based on slightly different definitions. The Updated Draft PEIR has been updated in track changes to correct and clarify the acreages. The revisions are shown in track changes (see Final PEIR, Volume II, *Updated Draft PEIR*, Section 5.15, *Recreation*). The Open Space Element has also been updated to assure consistency.

As shown in the Updated Draft PEIR, the 515.11 total acres of park and recreation facilities include the following: 340.21 acres of public parks, 31.78 acres of joint-use school parks, 15.46 acres sport facilities, 11.66 acres of walking and bike trails, and 116.00 acres of open space within the Santa Ana River corridor. A comparison of the respective acreages by category between the Updated Draft PEIR and the GPU Open Space Element is provided in the following table:

Classification	Draft Recirculated PEIR (acreage)	GPU Open Space Element (acreage)	Difference
Public Parks	340.21 ^{1,2}	357.60 ³	(17.39)
Recreational Sports Facilities (public)	15.46	-	15.46
Walking and Bike Trails	11.66 ⁴	14.12 ⁵	(2.52)
Joint-Use School Parks	31.78	31.78	0
Santa Ana River Corridor	116.00	-	116.0
Total	515.11	403.5	111.61

¹Refer to Table 5.15-2 of the Updated Draft PEIR (Volume II of the Recirculated Final PEIR).

² Number does not include the two future parks, Raitt and Myrtle and Standard and McFadden Parks, with a total of 1.75 acres. ³ Number includes the total for Community Parks, Neighborhood Parks, Small Parks, and Specialty Parks including the two future parks as shown in Table OS-1 of the GPU Open Space Element.

⁴ This number was calculated using the 15.74 miles of City's Bikeways/Trails assuming an average trail width of 6 feet. The number excludes the 3.7 miles of trails in the Santa Ana River corridor.

⁵ This number was calculated using the total 19.44 miles of class I bikeways/trails including the trails in the Santa Ana River corridor.

As shown in the table, the 116 acres of open space associated with the Santa Ana River corridor is not included in the Open Space Element since this area is part of a regional system of open space corridors promoted by Orange County. The Updated Draft PEIR categorizes the Cabrillo Tennis Center, the Santa Ana Stadium, and the Civic Center Plaza as sports facilities. The Open Space Element categorizes these three facilities as neighborhood parks (for Cabrillo Tennis Center and the Santa Ana Stadium) and specialty parks for the Civic Center Plaza and their total acreage of 15.46 acres is included under the Public Parks category. The Updated DEIR also does not include the two future parks, Raitt and Myrtle and Standards and McFadden Parks, in the exiting public park total whereas the Open Space Element includes these two parks. The additional acreage of 1.75 acres, associated with these two parks, is added to the City's proposed total public park acreage. The Updated Draft PEIR also excludes the Santa Ana River trail, as noted in the Open Space Element, from the total miles calculated for walking and biking trails since this trail is already included in the 116 acres for the Santa Ana River corridor.

- O4-4 The commenter notes that the park deficit is actually greater than the City claims because the Recirculated Draft PEIR inappropriately counts golf courses, and potentially cemeteries as parkland. As shown in the table in Response O4-3, golf courses are not included in the park and recreation facilities acreage total. Neither are cemeteries. Moreover, the Draft PEIR calculation for parkland acres/1,000 residents did not include the Willowick Gold Course. The 102.11 golf course, however, was included in the summary narrative for recreation facilities for the West Santa Ana Boulevard Focus Area. The total parkland for this acreage is clarified in the Updated Draft PEIR in track changes. The parkland acreage for this focus area without the golf course totals 8.08 acres.
- O4-5 This comment summarizes the arguments that commenter makes in paragraphs O4-3 and O4-3; as such please refer to Response to Comment O4-3 and Response to Comment O4-4. The commenter summarizes the general legal standards regarding setting the environmental baseline for an EIR. The commenter states that the Recirculated Draft PEIR inflates the City's baseline park total, making the parkland deficiency appear smaller than it actually is.

As explained in Response O4-5, the inventory of parkland and recreation facilities for existing conditions (baseline) for the City does not include golf courses or cemeteries. A refinement to the numbers provided in the Draft PEIR to achieve consistency with the GPU Open Space Element, however, does result in a decrease in the total of City recreation (public parkland and facilities) acreage. The Recirculated Draft PEIR reflected a total of 551.41 acres and the updated total is 525.11 acres. This changes as included in track changes in the Updated Draft PEIR increases the baseline, existing parkland/recreation acreage from 121.49 acres to 157.79 acres. The Update Draft PEIR (FEIR Volume II, Table 5.15-4) updates the resultant ratio of parkland acres/1,000 residents. The ratio is lowered from 1.65 to 1.54.

informed analysis of the GPU or alter the impact conclusion of the Recirculated Draft PEIR which remains legally adequate.

- O4-6 This comment summarizes the conclusion of the Recirculated Draft PEIR that the proposed project would result in a significant, unavoidable impacts to recreation and notes that this is a change from the 2020 Draft PEIR that concluded that recreation impacts would be less than significant. The summary is correct, and no further response is required.
- O4-7 The commenter asserts that feasible mitigation is available to reduce the significant Recreation impact of the proposed project. The commenter cites the Recirculated Draft PEIR conclusions that 'although required park fees could be sufficient to fund new parks and improvements, there is a lack of available land and lack of land designated as Open Space within the GPU to develop new parks...." The commenter cites the Recirculated Draft PEIR correctly. The response to the commenters suggestion to resolve this issue is provided in Response O4-9
- O4-8 The comment summarizes the requirements under CEQA for a lead agency to consider feasible mitigation measures to lessen the significant environmental impacts of projects. The paragraph quotes provisions of the Public Resources Code and CEQA Guidelines and does not make any specific comments about the Recirculated Draft PEIR. No further response is required.
- O4-9 The City concurs that parks can be created by redevelopment of existing properties. The City has revised and supplemented implementation actions to prioritize land acquisition and park development including the following revised IA 1.7 and new IA 1.17:

IA 1.7 Action Public parkland requirements for residential projects. Update the Residential Development Fee Ordinance for Residential Projects to require public parkland within a 10-minute walking distance with the City limits of the new residential projects. Allow developers a reduction in on-site open space by giving credits for the provision of park land for public use. Establish a process and program to incentivize publicly accessible open space through the coordination between two or more residential projects (of any size) to create public parkland and open space , such as exploring housing density bonus options.

IA 1.16 Acquisitions to meet Park Standard: Using the Park Master Plan as guidance, identify and acquire property within the City for park and open space use which will focus on bringing the park and recreation system to 2 acres of land per 1000 residents with a plan to keep pace with future urban growth.

The commenter suggests that "The obvious solution is to designate more land as Open Space in the Update" and states that the Recirculated Draft PEIR does not explain why this is infeasible. First – redesignating land uses within the GPU is not a CEQA mitigation

but a change in the proposed project. This would not fall under the purview of the EIR. Second – designating properties with existing residential, commercial and industrial land uses that are currently consistent with their General Plan designation as Open Space would 'downzone' the property to a more restrictive, likely less economically viable land use. This would make these uses nonconforming and potentially deprive the property owner of a vested right (considered a 'taking').

The commenter also suggests increasing the parkland dedication requirement for development projects. Increasing the parkland dedication requirement would not eliminate the significant Recreation impact. As noted in previous responses, given the current park deficiency in the City, the 2 acres/1,000 resident park standard is a goal that will be difficult to achieve given the current level of park deficiency in the City. Note, however, that implementation of the updated policies will improve the overall ratio of park/population over time.

- O4-10 This comment suggests that the Recirculated Draft PEIR be revised to add mitigation measures to address the GPU impacts on parkland. It then references Rise Up Willowick's letter to the Planning Commission (Exhibit C) outlining several suggested changes to the GPU Open Space Element. The suggestions including changing the parkland dedication standards from two to three acres per 1,000 residents, and increasing parkland dedication requirement for new development projects, and increasing development fees are related to the GPU (proposed project) and policies and not to the Recirculated Draft PEIR The City has revisited and refined the Open Space policies and implementation actions in response to comment received on the Recirculated Draft PEIR including the updated implementation actions included in Response O4-09. Also see Response A2-2 for new mitigation measure and GPU policy/implementation action changes.
- O4-11 The limited purpose of the Recirculated Draft PEIR, as discussed on page 1-6 of the Recirculated Draft PEIR, is to define a new project alternative, and to thoroughly discuss and evaluate impacts related to environmental justice, including air quality, hazards, and recreation/open space. The Draft PEIR was not recirculated to reanalyze the impacts of the project as a whole. State CEQA Guidelines section 15088.5(c) permits a lead agency to recirculate only those portions of an EIR that have been modified. Here, the City has only recirculated the Executive Summary, Introduction, Project Description, Environmental Setting, Air Quality, Hazards and Hazardous Materials, Recreation, Alternatives, and certain appendices.

State CEQA Guidelines section 15088.5(f)(2) permits a lead agency to request that reviewers limit their comments to only the revised portions of a recirculated EIR, as was done in this Recirculated Draft PEIR. Under section 15088(f)(2), a lead agency need only respond to comments received during the recirculation period that relate to the portions of the EIR that were revised and recirculated. No responses to comments that have been submitted during the recirculation period that relate to the the recirculated during the recirculated to issues other than the recirculated during the recirculated to issues other than the recirculated during the recirculated to issues other than the recirculated during the recirculated during the recirculated to issues other than the recirculated during the recirculated during the recirculated to issues other than the recirculated during dur

portions of the Recirculated Draft PEIR are necessary. Therefore, because this comment pertains to Population and Housing, which was not recirculated, it exceeds the scope of the recirculated portions of the PEIR and no further response is required

- O4-12 Please refer to Response to Comment O4-11.
- O4-13 Please refer to Response to Comment O4-11.
- O4-14 Please refer to Response to Comment O4-11.
- O4-15 Please refer to Response to Comment O4-11.
- O4-16 The methodology for the air quality assessment in Section 5.2, *Air Quality*, in the Recirculated DEIR is consistent with the recommendations of the South Coast Air Quality Management District (South Coast AQMD). See response to Comment O4-18 regarding mitigation measures.
- O4-17 The summary of the air quality impacts in Section 5.2, *Air Quality*, in the Recirculated DEIR is noted.
- O4-18 The summary of the air quality impacts in Section 5.2, *Air Quality*, in the Recirculated DEIR is noted.

Pursuant to the CEQA Guidelines Section 15126.4(a)(1)(B), mitigation measures may specify performance standards for mitigating a significant impact when it is impractical or infeasible to specify the specific details of mitigation during the EIR review process, provided the lead agency commits to implement the mitigation, adopts the specified performance standard, and identifies the types of actions that may achieve compliance with the performance standard. In this case, the proposed project is an update to the City's General Plan; and thus, individual, site-specific development projects are not proposed at this time. As a result, the mitigation measure are designed to provide the City a roadmap to evaluate and mitigate future site-specific development. Mitigation Measure AQ-1 and AQ-2, for construction and operational criteria air pollutant impacts, respectively, lays out clear performance standards based on thresholds identified by the South Coast Air Quality Management District's (South Coast AQMD).³ Mitigation Measures AQ-1 and AQ-2 provide a list of types of measures that can be applied to reduce project-level emissions below the South Coast AQMD's significance thresholds. The measures are broad measures across a variety of project types (e.g., residential, non-residential). The Commenter does not identify any additional mitigation measures that would further reduce criteria air pollutant emissions from future development projects in the City.

³ South Coast AQMD's significance thresholds can be found on South Coast AQMD's website: http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf?sfvrsn=2

O4-19 Section 5.2, Air Quality, in the Recirculated DEIR requires implementation of Mitigation Measure AQ-3 to reduce project-level impacts of TAC. Mitigation Measure AQ-3 ensures that new industrial/warehouse development evaluation mobile-source emissions of TACs and minimize risk below the South Coast AQMD threshold (i.e., 10 in a million cancer risk and 1 hazard index) and requires that the health risk assessment (HRA) is prepared in accordance with policies and procedures of the State Office of Environmental Health Hazard Assessment and the South Coast AQMD. The condition to prepare a HRA when a project generates more than 100 truck trips and is within 1,000 feet of a sensitive use is consistent with the 2005 CARB Air Quality and Land Use Handbook: A Community Health Perspective (CARB Handbook). Facilities that generate less than 100 trucks or that are farther than 1,000 feet from sensitive land uses would not generate concentrations of project-generated diesel particulate matter (DPM) emissions that have the potential to exceed the 10 in a million threshold. This mitigation measure is applicable to project-level review of development projects; and therefore, this mitigation measure is required to be implemented prior to the development project approval (and thus before any new emissions are generated).

At the request of the Commenter, Mitigation Measure AQ-3 will clarify that this protocol requires consideration of both mobile and stationary sources as part of the HRA impact analysis and specifically identify the South Coast AQMD threshold values (see Chapter 3, *Revisions to the Draft EIR*).

AQ-3 Prior to discretionary approval by the City of Santa Ana, project applicants for new industrial or warehousing development projects that 1) have the potential to generate 100 or more diesel truck trips per day or have 40 or more trucks with operating diesel-powered transport refrigeration units, and 2) are within 1,000 feet of a sensitive land use (e.g., residential, schools, hospitals, or nursing homes), as measured from the property line of the project to the property line of the nearest sensitive use, shall submit a health risk assessment (HRA) to the City of Santa Ana for review and approval. The HRA shall be prepared in accordance with policies and procedures of the State Office of Environmental Health Hazard Assessment and the South Coast Air Quality Management District and shall include all applicable stationary and mobile/area source emissions generated by the proposed project at the project site. If the HRA shows that the incremental cancer risk and/or noncancer hazard index exceed the respective thresholds, as established by the South Coast AQMD at the time a project is considered (i.e., 10 in one million cancer risk and 1 hazard index), the project applicant will be required to identify and demonstrate that best available control technologies for toxics (T-BACTs), including appropriate enforcement mechanisms, are capable of reducing potential cancer and

noncancer risks to an acceptable level. T-BACTs may include, but are not limited to, restricting idling on-site, electrifying warehousing docks to reduce diesel particulate matter, or requiring use of newer equipment and/or vehicles. T-BACTs identified in the HRA shall be identified as mitigation measures in the environmental document and/or incorporated into the site plan.

It should be noted that despite individual projects mitigating to below the South coast AQMD threshold of 10 in a million cancer risk, cumulative impacts would remain significant and unavoidable.

O4-20 See response to Comment O4-18 and O4-20. Section 5.2, *Air Quality*, in the Recirculated DEIR identifies all air quality impacts, except odors, to be significant and unavoidable. Significant unavoidable air quality impacts include consistency of the proposed project to the Air Quality Management Plan (AQMP) (Impact 5.2-1), regional and localized construction-related air quality impacts (Impact 5.2-2 and Impact 5.2-5), regional and localized operational phase air quality impacts (Impact 5.2-3 and Impact 5.2-5), and the project's cumulative contribution to cancer risk in the South Coast AQMD region (Impact 5.2-4). Consistent with CEQA Guidelines Sections 15204, 15144, and 15146, the Recirculated DEIR provides an appropriate and conservative evaluation of the potential impacts of the proposed project on the environment. The Recirculated DEIR is sufficient as an informational document and the comment does not provide evidence to the contrary.

The South Coast AQMD significance thresholds are based on the annual emissions permitting thresholds in the US Environmental Protection Agency Prevention of Significant Deterioration (PSD) of Air Quality regulation. The project-level thresholds for criteria air pollutants identified by South Coast AQMD is the threshold that demonstrates that new emissions emitted from the project, in conjunction with other applicable emissions increases and decreases from existing sources, will not cause or contribute to a violation of any applicable National Ambient Air Quality Standards (AAQS) or PSD increment. Consequently, the thresholds are intended for project-level review and not necessarily general plan-level CEQA evaluations. None-the-less, the South Coast AQMD significance thresholds were conservatively used to evaluate environmental impacts of the proposed project. It is for this reason, the EIR references the scale of development allowed under the proposed project compared to emissions generated by site-specific project-level review conducted for an individual development project.

As described in response to Comment O4-18, Mitigation Measures AQ-1 and AQ-2 provide a list of types of measures that can be applied to reduce project-level emissions below the South Coast AQMD's significance thresholds. The South Coast AQMD's significance thresholds are supported by substantial evidence. The Commenter does not provide substantial evidence on use of thresholds other than those identified by the South

Coast AQMD to evaluate air quality impacts associated with project-level development projects. The mitigation measures require individual development projects to incorporate measure to reduce emissions below the South Coast AQMD significance thresholds. The measures included in the mitigation are broad measures across a variety of project types (e.g., residential, non-residential) because the proposed project allows a variety of land use types within the City. The Commenter does not identify any additional mitigation measures that would further reduce criteria air pollutant emissions from future development projects in the City.

Additional zone changes would require subsequent environmental review. The General Plan includes policies that promote transit-oriented development and encourage transit use and reduce emissions from transportation-related air pollution (see Policy 4.1 through 4.9, Policy 5.6, Policy 1.11, Policy 1.11 and Implementation Action 1.7 and 1.8).

- O4-21 Please see Response O4-19, including proposed revisions to Mitigation Measure AQ-3 as requested to further reduce health risks.
- O4-22 The comment summarizes the requirements under CEQA for a lead agency to consider feasible mitigation measures to lessen the significant environmental impacts of projects. No response to this summary of the law is required. With respect to the air quality mitigation measures, please refer to Responses to Comments O4-16 through O4-21.
- O4-23 The Draft Recirculated PEIR hazards and hazardous materials section (Section 5.8) has been substantially supplemented to provide more detail regarding existing conditions and to explain the impact of the proposed GPU. As appropriate the section describes the regulatory requirements and responsible agencies that govern many potential hazards. The Recirculated Draft PEIR provides the necessary substantiation for the less than significant conclusion for the GPU's impact and no further changes are necessary.
- O4-24 The commenter summarizes a portions of the Recirculated Draft PEIR Section 5.8 Hazards and Hazardous Materials section regarding the potential exposure of City of Santa Ana residents to be exposed to toxic releases from industrial facilities. It restates that the Recirculated Draft PEIRs (page 5.8-37) that "the GPU would introduce new residential and institutional uses near existing industrial uses in EJ communities. The previous discussion on this same page, however, provides a focus area by focus area description of the potential for new sensitive uses to be located by industrial uses and also describes the Industrial Flex land use designation as a buffer (not to include heavy industrial uses). Finally, the conclusion beginning at the end of page 5.8-37 lists the regulatory agencies that govern the use, storage, transport and disposal of hazardous materials that would serve to mitigate potential impacts to new sensitive uses are not considered impacts on the environment. Impacts to new, future sensitive uses are not considered impacts on the environment. Although the subject discussion closes out the

potential for significant hazard-related impacts to new sensitive units introduced by the project, this is not the focus of CEQA.

O4-25 The commenter states that the analysis in the Recirculated Draft PEIR cannot just rely on existing regulations to determine that impacts from industrial facilities will be less than significant, and that it must provide appropriate mitigation. Contrary to the commenter's assertion, compliance with applicable regulatory standards can provide a basis for determining that the project will not have a significant environmental impact. (Tracy First v. City of Tracy (2009) 177 Cal.App.4th 912). A requirement that a project comply with specific laws or regulations may also serve as adequate mitigation of environmental impacts in an appropriate situation. (Oakland Heritage Alliance v. City of Oakland (2011) 195 Cal.App.4th 994, 906). In Californians for Alternatives to Toxics v. Department of Food & Agriculture (2005) 136 Cal.App.4th 1, which the commenter cites, the lead agency did not independently evaluate impacts of pesticides and instead relied solely on another agency's conclusion that there would be no significant impact. In contrast, the analysis in the Recirculated Draft PEIR takes into account the existing conditions between industrial and residential, recreational, and institutional uses, in particular the existing industrial land use corridor that runs in the eastern part of the City, and the potential hazardous impacts that come from these industrial uses. (Recirculated Draft PEIR, pp. 5.8-11 through 5.8-24; see State CEQA Guidelines, §15125(a)(1) [CEQA treats the environmental setting as it exists as the baseline for evaluating the changes to the environment that will result from the project and determining whether those environmental effects are significant].)

> As explained in Section 5.8.4 of the Recirculated Draft PEIR, the proposed GPU does not introduce any general or heavy industrial uses anywhere in the city in comparison to existing conditions. The increase in the proposed industrial designated properties is all within the focus areas and is all designated Industrial Flex, which is being used as a means of providing a buffer between existing industrial uses and existing residential areas. The intent behind the Industrial Flex zone is to allow for cleaner industrial uses, including office-industrial flex space, small-space clean manufacturing, research and development, artist galleries, craft maker spaces and live-work spaces. Thus, the Industrial Flex zone would not expand industrial areas in the City and would reduce the exposure to hazardous materials and wastes for existing areas in the City that are adjacent to industrial areas. Based on this analysis, and with implementation of the proposed GPU's policies and implementation actions that focus on existing land use compatibility issues and aim to prevent any future impacts to sensitive receptors within EJ communities, the Recirculated Draft PEIR properly determines that impacts associated with existing and proposed industrial facilities would be less than significant.

O4-26 Please refer to Response to Comment O4-25. As explained in Section 5.8.4 of the Recirculated Draft PEIR, any development on or immediately adjacent to any of the existing hazardous material sites within the City would require environmental site assessment by a qualified environmental professional to ensure that the relevant projects

would not disturb hazardous materials on any of the hazardous materials sites or plumes of hazardous materials diffusing from one of the hazardous materials sites, and that any proposed development would not create a substantial hazard to the public or the environment. Moreover, the proposed GPU would not introduce any new stationary industrial sources near EJ communities, and new residential and institutional uses close to industrial facilities would be minimal. Along with the EJ requirements under SB 1000, the Community Air Protection Program would reduce the exposure of communities most impacted by air pollution. Accordingly, the analysis in the Recirculated Draft PEIR appropriately determines that impacts on human exposure from the existing hazardous waste sites would be less than significant.

- O4-27 This comment is a summary of the points provided in the comment letter. As included in the detailed responses:
 - The Recirculated Draft PEIR's baseline for parks and recreation facilities does not include golf courses or cemeteries.
 - Potential measures for parkland impacts due to the project have been evaluated and disclosed
 - The displacement of low-income residents is not within the scope of this Recirculated Draft PEIR
 - Further evaluation of mitigation measures for air quality impacts it not required.
 - The potential exposure to hazardous materials is appropriately and sufficiently analyzed

LETTER I1 - Janella Simpson (1 page[s])

From: Janella Simpson To: PBAeComments Subject: High density housing Date: Monday, September 6, 2021 5:20:16 PM Please STOP with the high density housing developments. I know that California is pushing for more housing and pushing the cities to cram more living spaces into smaller areas but this is not solving the problems of housing shortage. It is only making grid lock more prevalent. What about low cost burgalows in open land spaces? These high rise apartment complexes with hundreds of units are an eye sore and are not affordable. They are just people stacked one on top of another. Traffic is is worse than ever and you keep approving more multilevel complexes. How much do we have to have? Aren't there	To: PBAeComments Subject: High density housing Date: Monday, September 6, 2021 5:20:16 PM Please STOP with the high density housing development housing and pushing the cities to cram more living space problems of housing shortage. It is only making grid lock bungalows in open land spaces? These high rise apartm sore and are not affordable. They are just people stacke ever and you keep approving more multilevel complexes any undeveloped land spaces in the city that you can put around my area. It is ugly and it will be worse when finis	es into smaller areas but this is not solving the k more prevalent. What about low cost ment complexes with hundreds of units are an eye ed one on top of another. Traffic is is worse than a. How much do we have to have? Aren't there
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Please STOP with the high density housing developments. I know that California is pushing for more housing and pushing the cities to cram more living spaces into smaller areas but this is not solving the problems of housing shortage. It is only making grid lock more prevalent. What about low cost bungalows in open land spaces? These high rise apartment complexes with hundreds of units are an eye sore and are not affordable. They are just people stacked one on top of another. Traffic is is worse than ever and you keep approving more multilevel complexes. How much do we have to have? Aren't there	Please STOP with the high density housing development housing and pushing the cities to cram more living space problems of housing shortage. It is only making grid lock bungalows in open land spaces? These high rise apartm sore and are not affordable. They are just people stacke ever and you keep approving more multilevel complexes any undeveloped land spaces in the city that you can put around my area. It is ugly and it will be worse when finis inviting places to live but they are just uniform boxes. It is	es into smaller areas but this is not solving the k more prevalent. What about low cost ment complexes with hundreds of units are an eye ed one on top of another. Traffic is is worse than a. How much do we have to have? Aren't there
housing and pushing the cities to cram more living spaces into smaller areas but this is not solving the problems of housing shortage. It is only making grid lock more prevalent. What about low cost bungalows in open land spaces? These high rise apartment complexes with hundreds of units are an eye sore and are not affordable. They are just people stacked one on top of another. Traffic is is worse than ever and you keep approving more multilevel complexes. How much do we have to have? Aren't there	housing and pushing the cities to cram more living space problems of housing shortage. It is only making grid lock bungalows in open land spaces? These high rise apartm sore and are not affordable. They are just people stacke ever and you keep approving more multilevel complexes any undeveloped land spaces in the city that you can put around my area. It is ugly and it will be worse when finis inviting places to live but they are just uniform boxes. It is	es into smaller areas but this is not solving the k more prevalent. What about low cost ment complexes with hundreds of units are an eye ed one on top of another. Traffic is is worse than a. How much do we have to have? Aren't there
any undeveloped land spaces in the city that you can put a pod community? I hate what I'm seeing around my area. It is ugly and it will be worse when finished. More cookie cutter boxes trying to look like inviting places to live but they are just uniform boxes. It is not a neighborhood or a community.	Janella Simpson	hed. More cookie cutter boxes trying to look like

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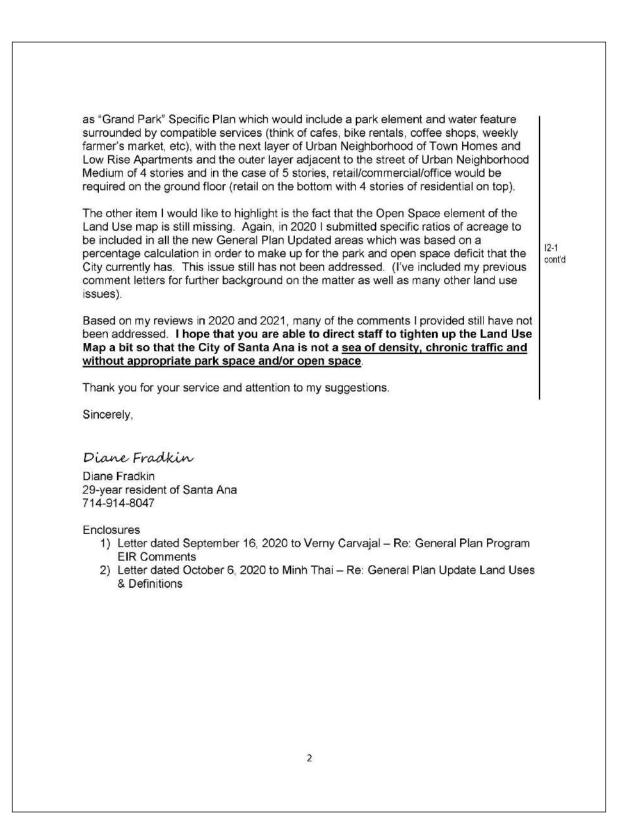
I1. Response to Comments from Janella Simpson, dated September 6, 2021.

I1 This commenter expresses opposition to high density development in the City and notes several concerns. None of the comments are directly related to the Recirculated Draft EIR and no further response is required.

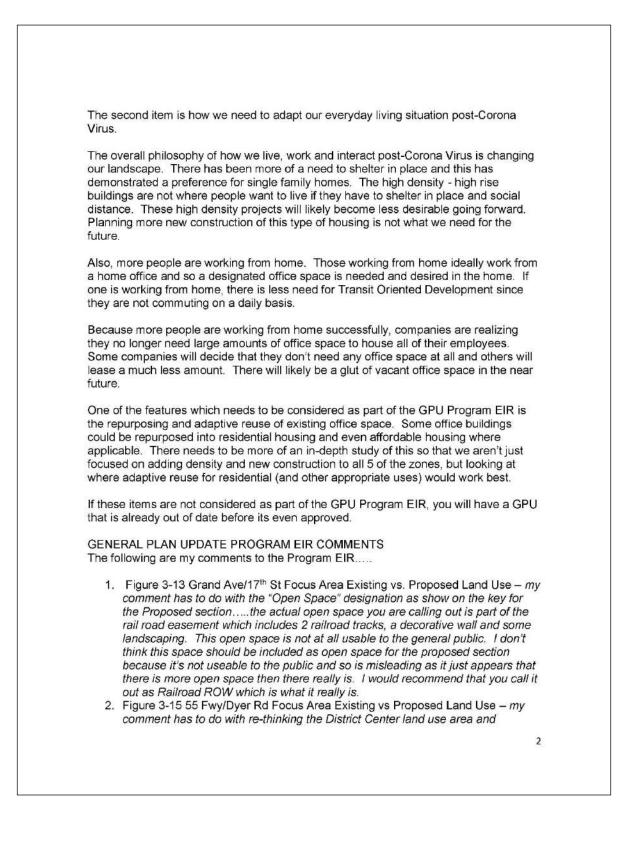
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LETTER I2 – Diane Fradkin (24 page[s])

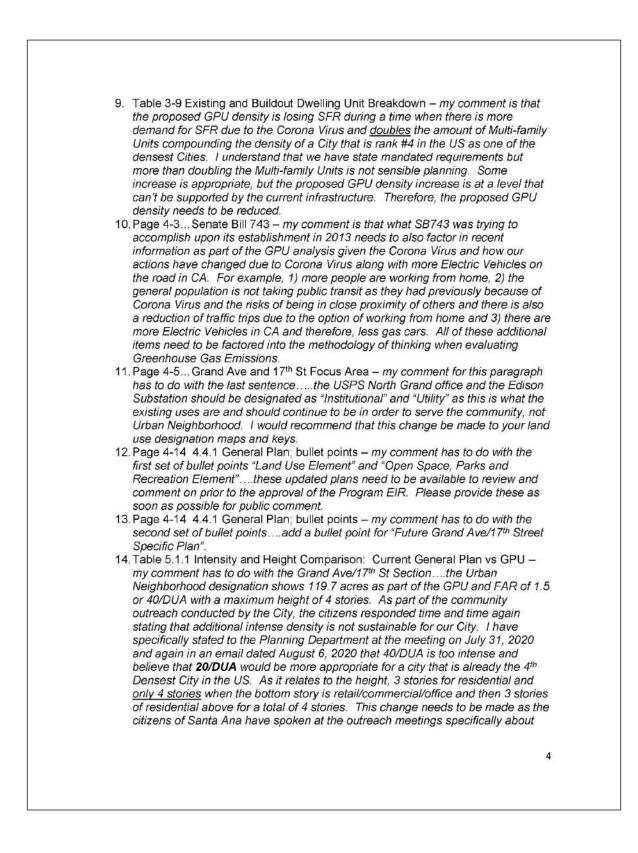
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DIANE FURTADO FRADKIN 2402 OAKMONT AVE SANTA ANA, CA 92706 <u>dianefradkin@hotmail.com</u>	
September 7, 2021	
City of Santa Ana Planning Commission PO Box 1988 Santa Ana, CA 92702	
RE: 2021 General Plan Update and Program EIR	
Honorable Planning Commissioners: I participated in an in-depth review of the 2020 General Plan Update and Program EIR. Unfortunately, I was not able to articulate the exact changes made from the 2020 documents to the 2021 documents based on the format.	
However, I will continue to provide feedback on the Land Use portion, particularly for the 17 th Street and Grand Ave area.	
Most of the Land Use Map shows Urban Neighborhood along Grand Ave north of 17 th Street. This is a reasonable use, but I believe it should be more defined at this point to:	
 Urban Neighborhood Low (UN-20), 3 stories Urban Neighborhood Medium (UN-30), 4 stories Perhaps in the frontage area closest to the intersection of 17th Street and Grand Ave, the Urban Neighborhood Medium High (UN-40), 5 stories (retail/commercial on the ground level and 4 stories of residential above) could be applied to a limited section that fronts these streets 	12-1
Most importantly, any area that is adjacent the Single Family Residential should only be allowed to have <u>2 stories abutting to SFR</u> .	
Again, as I mentioned previously in 2020 correspondence (see attached), the properties located in the northwest section of 17 th Street and Grand Ave, specifically between the Railroad Tracks and Grand Ave north of 17 th Street (Medical Arts & Shopping Center), should be <u>Specific Planned</u> since its a large acreage that would be best planned in unison due to the various constraints such as no access adjacent to the Railroad Tracks (western boundary), limited right in/right out access on 17 th Street and Single Family Residential to the northern area. In my previous correspondence I described this area	
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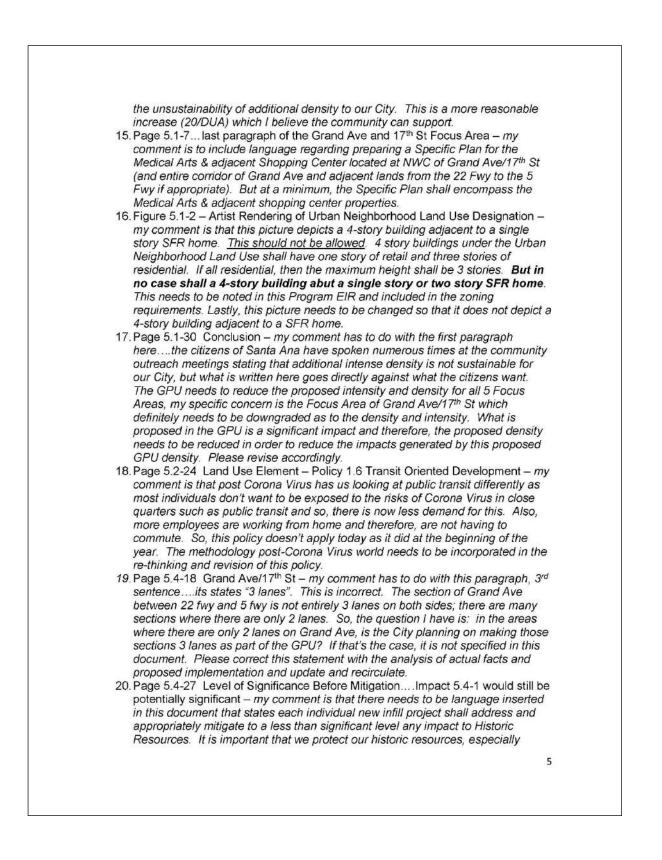


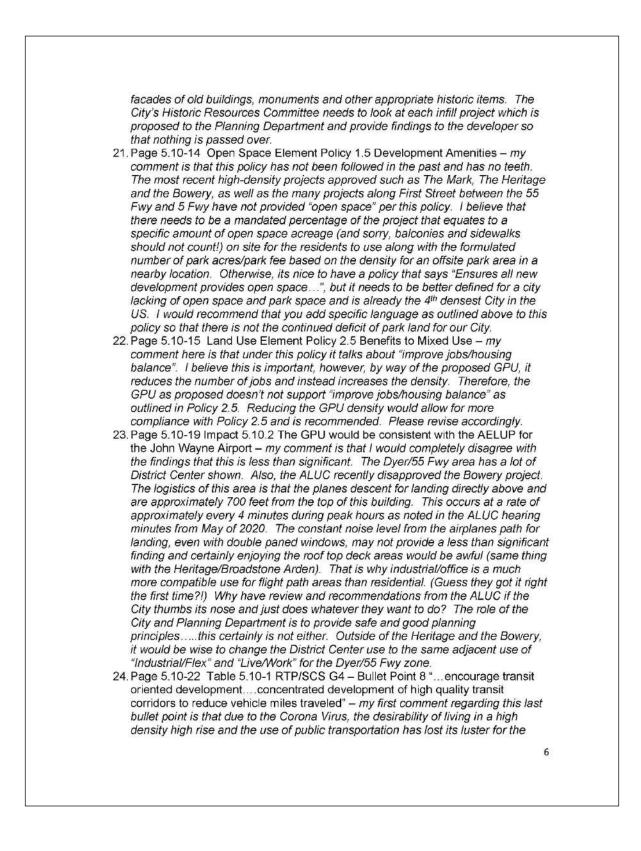
I2 – Attachment 1 lease refer to Letter I20, Santa Ana General Plan Update Final PEIR, November 2020. DIANE FURTADO FRADKIN 2402 OAKMONT AVENUE SANTA ANA, CA 92706 714-914-8047 DIANEFRADKIN@HOTMAIL.COM		
September 16, 2020	VIA EMAIL & US MAIL	
Verny Carvajal, Principal Planner City of Santa Ana Planning & Buildin PO Box 1988 (M-20) Santa Ana, CA 92702 RE: Comments to the Program EIR State Clearinghouse Number: 2	for the Santa Ana General Plan Update	
Dear Mr. Carvajal:		
	n your team, in preparing the General Plan Update anta Ana.	
is needed, but there is also a practical balance needs to be achieved so that	ands. A creative vision for each of the Focus Areas al side to how the areas are re-envisioned. A it the future planning requirements, what the current ad what can actually be implemented and	
reduced project with less intensity an	gnment and is out of balance. I believe that a nd density would create a better balance between d the needs of the Citizens of this community.	
There are 2 items that have not been developing the land use element and	n considered as part of the overall methodology of I analysis for the Program EIR	
City emphatically spoke out regardin	ated in all the outreach meetings conducted by the g their concerns for the intense density increase and yet, their voices were not heard.	
proposed as part of the General Plan	lensest Cities in the US and what has been Dupdate is an extensive density increase City's infrastructure can handle some density rrently proposed.	
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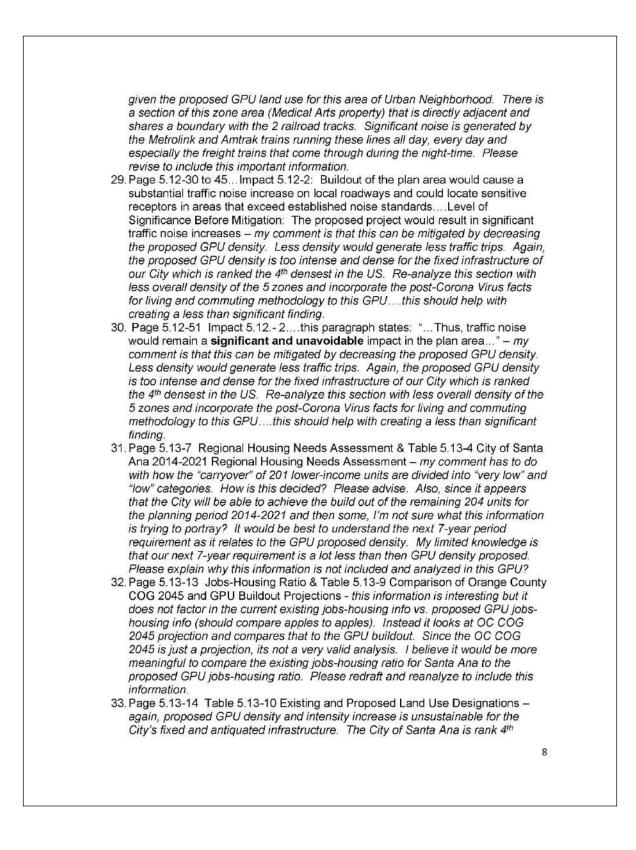


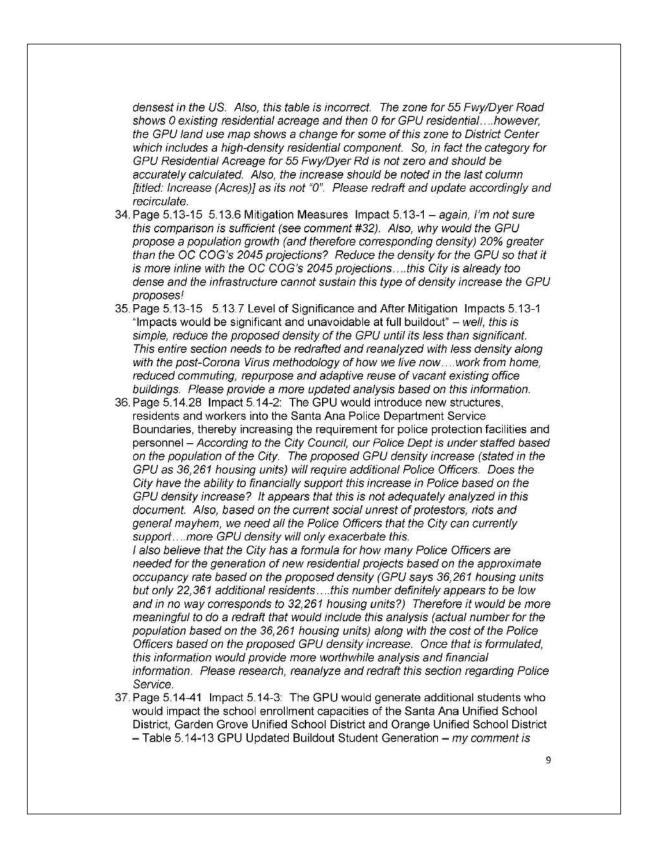




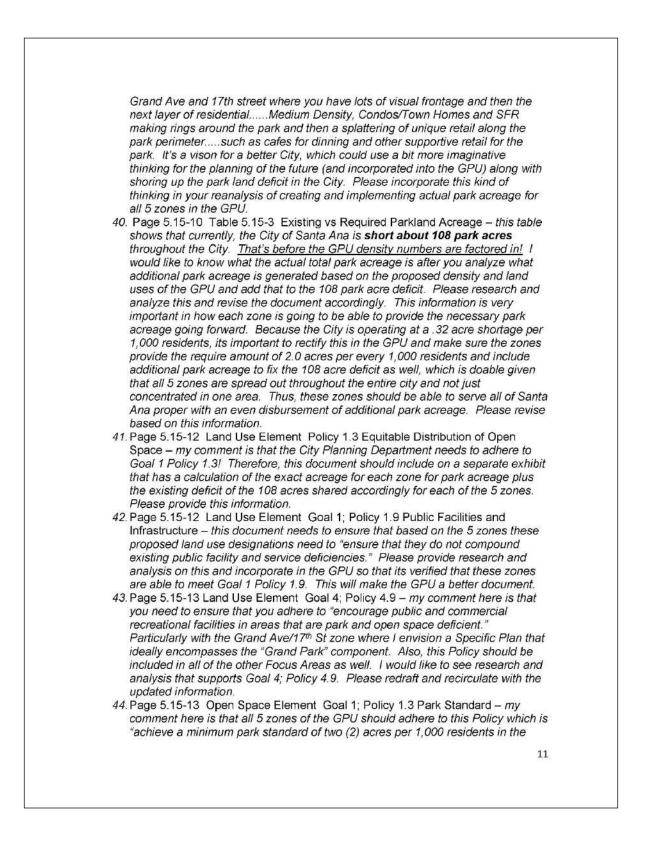


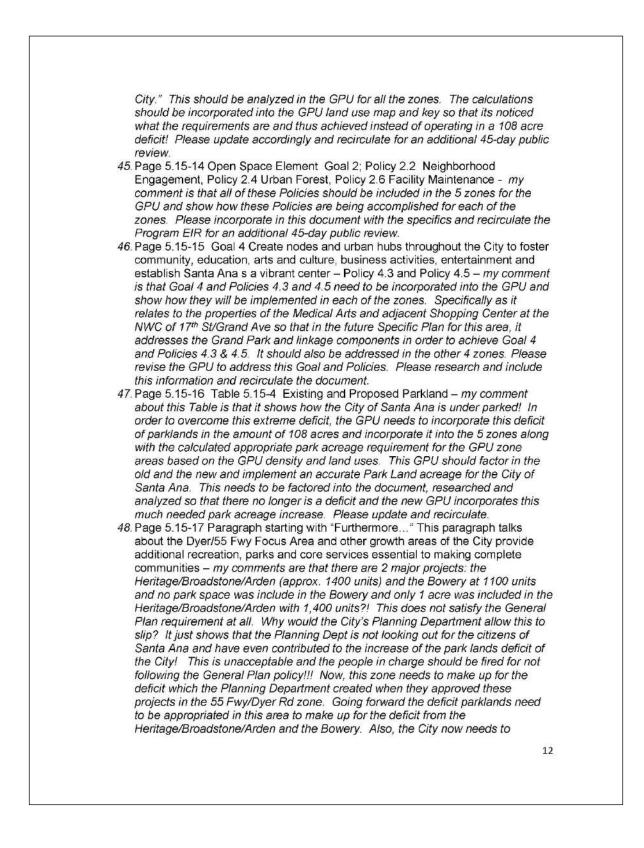


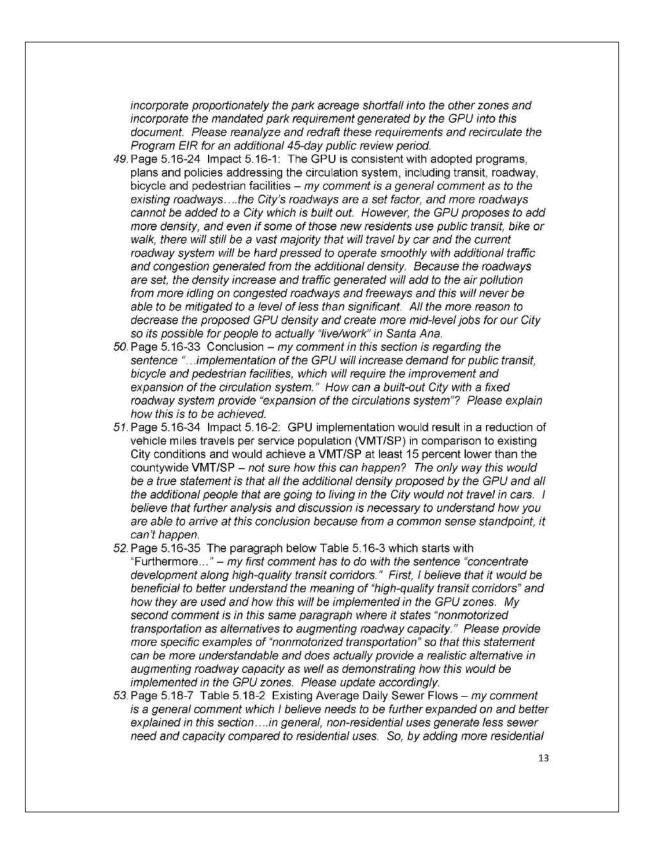


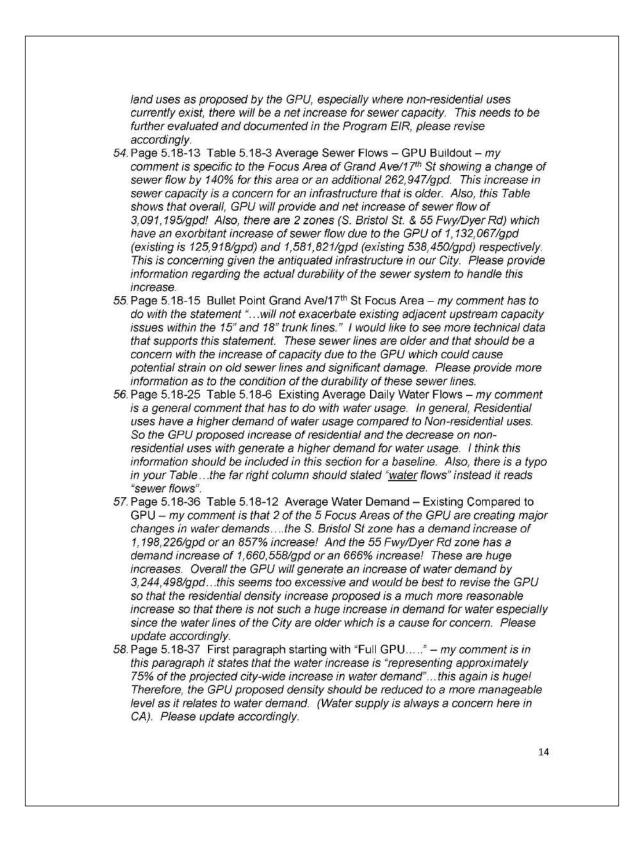


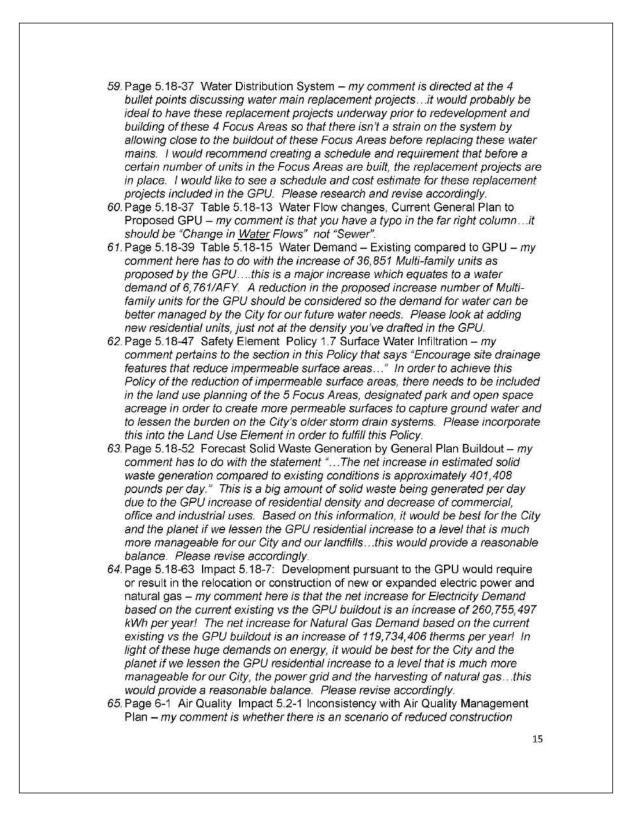
















	populationthis is not sensible thinking. Please reanalyze and revise based on
	this comment.
77	Page 7-6 7.2.2 Reduced Traffic Noise Alternative – my comment on this section is whether there is any planning scenario that would mitigate traffic noise to a less than significant level? I would like to know if there is as to whether this is
78	even achievableplease advise. Page 7-9 7.3 Alternatives Selected For Further Analysis – bullet point Reduced Intensity Alternative – my comment here is by creating a reduced density and intensity alternative, is it possible for Air Quality, GHG Emissions, Noise and
	Population & Housing impacts to be reduced to a level of less than significant? It would be interesting to find out how this could be achievable. I would like to see some analysis for this as I believe overall, it would be very helpful in creating an Alteractive that would be level done and therefore level impacting.
79	Alternative that would be less dense and therefore, less impacting. Page 7-10 bullet point 2020 RTP/SCS Consistency Alternative – my comment regarding this alternative is if you revise the GPU to mirror the Connect So Cal
	and RTP/SCS projections, would this alternative create a less that significant impacts for Air Quality, GHG Emissions, Population & Housing and Noise? It would be interesting to know what this alternative looks like.
80	Page 7-12 7.3.1 Alternative Comparison Table 7-3 Project Alternatives – Socioeconomic Comparison – this is a very interesting tableI would like to see a blended alternative prepared which melds the best of the "Reduced Intensity Alternative" and the best of the "2020 RTP Population/Housing Consistency
	Alternative". I believe that this combined alternative may be the win/win/win scenario for the City, its citizens and future generations. I would highly recommend that the Planning Department create this alternative and provide the
	same level of analysis and make this the GPU "preferred" project for the Program EIR.
Based	on the above comments, I would suggest the following recommendations:
	A. Prepare a "preferred" project that is a blend of the "Reduced Intensity Alternative" and the "2020 TRP Population/Housing Consistency Alternative". This would 1) create a less dense and intense GPU Preferred Project compared to the current GPU August 2020 project as presented in the Program EIR, 2) still achieve the goals of the Planning Department and 3) would likely be better embraced by the Community.
	B. Redraft and reanalyze this GPU Program EIR so that it factors in the rethinking and methodology of the post-Corona Virus adapted way we now live, work and commute today and in the future.
	C. Include a park acreage component for the City's deficit amount of park lands plus what each Focus Area will require based on the land uses and density in each zone. Add this acreage total to the land use maps and keys for each of the Focus Areas as well as in the GPU narrative for each of the Focus Areas in order to incorporate, through the planning process and actually construct, the much needed park land throughout the City.

I2. Response to comments from Diane Fradkin, Dated September 7, 2021

I2-1 This letter includes comments and land use recommendations on the General Plan Update but offers no comments on the Draft Recirculated PEIR. No further response is required. The comments will be forwarded to decision-makers for consideration.

I2-Attachment 1

This letter is a comment letter submitted on the original Draft PEIR and GPU on September 16, 2020. Please refer to Letter I20, Sana Ana General Plan Update Final PEIR, November 2020. This document is posted on the City's website.

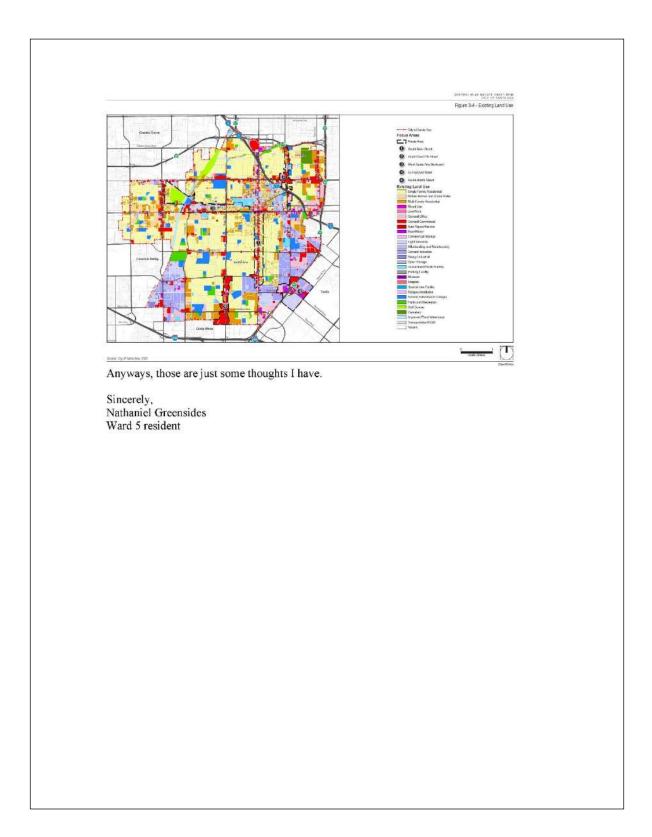
I2-Attachment 2

This letter provides comments on the GPU and was submitted to the City on October 6, 2020. It predates the Recirculated Draft PEIR and does not include environmental comments. No further response is required.

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LETTER I3 – Nathaniel Greensides (2 page[s])

	13	
From: To: Subject: Date: Attachments:	Nathaniel Greensides <u>PBAeComments</u> Public Comment Item 1 - Planning Commission Regular Meeting Agenda Sep 13, 2021 Sunday, September 12, 2021 3:18:47 PM image.png	
automobiles t	Commission, EIR seemingly includes no details regarding how to reduce usage of individual o get around town. Considerations of increasing the amount of people who use carpooling, or even protected bike lanes is noticeably absent from the Draft.	13-1
already highe city will see n outdated mod yet the propos	e map of existing land use, I am disappointed that the focus areas are largely r density residential and commercial zones. The vast majority of the rest of the to changes - it largely remains zoned as single family residences reliant upon the el of one person one car. The idea of the Urban Neighborhood is one I applaud - sal as it exists aims to turn areas of the city which are essentially already urban is even moreso into urban neighborhoods.	13-2
impacts of (re rezoning SFR are already de circumstances	the a serious discussion about mitigating and or reducing the environmental a)development in the city, the discussion also needs to include the aspect of . zoned neighborhoods to increase density in those areas - not just in areas which ense. Yes, it is absolutely controversial as it goes directly against the very is under which it came into existence - "The American Dream". But of course this of the currently proposed General Plan Updates.	13-3
by automobile Bike/Bus/Car allow for pede	R seemingly makes no mention of manners in which air quality will be affected e traffic outside of periods of construction and re-development. Dedicated pool lanes during certain rush hours might be effective. Car free weekends to estrian and transport shuttles on weekends is another. Incorporation of native into any development plans is another.	13-4
include an asp to allow the e and recreation parks that allo and commerc opinion. How acquiring new	e focus areas being targeted by the GPU might also be positively served to beet of green space. I don't mean that we should clear already existing structures arth to breathe again. I simply mean that creative manners of creating new parks a space need to come about. In San Francisco and in Chicago there are elevated by people there to have a car free view of the world and doubly serve as transit ial centers. Santa Ana would benefit from this type of development in my ever, this certainly does not mean to say that where there is the possibility of v space for parks - such as Willowick - that those should be foregone. After all, on why Central Park remains a beloved landmark in New York City - there'd be to no access for humans to directly connect with the soil of the earth beneath	13-5



I3. Response to Comments from Nathaniel Greensides, dated September 12, 2021.

- I3-1 CEQA allows two different ways to respond to comments on the Recirculated Draft EIR:
 - 1) When an EIR is substantially revised and the entire document is recirculated, the lead agency may require reviewers to submit new comments and, in such cases, need not respond to those comments received during the earlier circulation period.
 - 2) Or, when the EIR is only partly revised and the lead agency recirculates only the revised chapter or portions of the EIR, the lead agency may request that reviewers limit their comments to the revised chapters or portions of the recirculated EIR. The lead agency need only respond to (i) comments received during the initial circulation period that relate to chapters or portions of the document that were not revised and recirculated, and (ii) comments received during the recirculated to the chapter of the earlier EIR that were revised and recirculated.

Based on the limited number of chapters requiring modification, the City has decided to only recirculate the Draft PEIR chapters that have been revised and the City is implementing Option 2, as described above, with respect to comments received on the Recirculated Draft PEIR. Reviewers were directed in the Recirculated Draft PEIR and the Notice of Availability released on August 6, 2021 to only submit comments on the revised EIR chapters included in this Recirculated Draft PEIR. The comments in the original Final PEIR adequately address comments received on portions of the Draft PEIR that have not been recirculated.

The commenter notes that a discussion on the City's multimodal transportation network is not included in the Recirculated Draft PEIR. The consistency of the GPU with adopted programs, plans, and policies addressing the circulation system, including transit, bicycle, and pedestrian facilities is discussed in Section 5.16, *Transportation*, of the Draft PEIR and comments to the transportation section were addressed in the Final PEIR of the Draft PEIR. The commenter should refer to these documents for a discussion of multimodal transportation.

The recirculated air quality section does include a discussion on decreasing vehicle miles traveled (VMT) by increasing multimodal transportation. The following GPU policies and implementation actions promote an increase in concepts and designs that would increase active transportation like walking and bicycling as well as use of public transit to mitigate air quality impacts:

Land Use Element

Policy 1.6 Transit Oriented Development. Encourage residential mixed-use development, within the City's District Centers and Urban Neighborhoods, and adjacent to high quality transit.

- Policy 1.7 Active Transportation Infrastructure. Invest in active transportation connectivity between activity centers and residential neighborhoods to encourage healthy lifestyles.
- Policy 4.1 Complementary Uses. Promote complete neighborhoods by encouraging a mix of complementary uses, community services, and people places within a walkable area.

Urban Design Element

- Policy 1.6 Active Transportation Infrastructure. Support the creation of citywide public street and site amenities that accommodate and promote an active transportation-friendly environment.
- Policy 5.4 Intersections for all Travel Modes. Strengthen active transportation connections and amenities at focal intersections to promote a pleasant and safe experience for non-motorized forms of travel.
- 13-2 This comment is regarding the proposed General Plan Update and does not provide a specific comment regarding the Recirculated Draft PEIR. The comment will be forwarded to decision-makers for consideration.
- I3-3 This comment is regarding the proposed General Plan Update and does not provide a specific comment regarding the Recirculated Draft PEIR. The comment will be forwarded to decision-makers for consideration.
- 13-4 The methodology for the air quality assessment in Section 5.2, *Air Quality*, in the Recirculated DEIR is consistent with the recommendations of the South Coast Air Quality Management District (South Coast AQMD) and provides a quantitative analysis of the increase in peak daily criteria air pollutant emissions associated with transportation, energy, and area sources of emissions based on buildout of the proposed land use plan. The City of Santa Ana is working with the Orange County Transportation Authority to implement the OC Street Car project, anticipated to be operational in 2022, which improve transportation connectivity to downtown Santa Ana. The General Plan also includes policies and implementation actions to reduce vehicle trips in the City and encourage bicycling, transit (bus and light rail), and pedestrian modes of transportation (see Section 5.2.3.2, *General Plan Update Policies and Implementation Actions*).

The commenter notes that the incorporation of native plant species into development plans should be considered to reduce the impacts on air quality from automobile traffic. The GPU includes the following policies to include the use of trees, landscaping, parks, open space, and urban forests, all of which could include native species, to remove air pollutants and improve air quality.

Urban Design Element

Policy 3.10 Coordinated Street Improvement Plans. Coordinate citywide landscape medians and street trees with land use plans and development projects.

Open Space Element

- Policy 2.5 Air Quality and Heat. Coordinate park renovation and development to address air quality and climate impacts by reducing heat island effect by providing green infrastructure and shade, and reducing air pollution by providing vegetation that removes pollutants and air particles.
- **Policy 3.5 Landscaping**. Encourage the planting of native and diverse tree species in public and private spaces to reduce heat island effect, reduce energy consumption, and contribute to carbon mitigation.
- Implementation Action 3.5 Urban Forestry Plan. Coordinate with other City agencies to develop, implement and maintain a citywide tree preservation ordinance and Urban Forestry Plan for parks and open space that provides air pollution mitigation, microclimate modification, noise reduction, and offers an area of recreation, rest, and education.
- I3-5 This comment is regarding the proposed General Plan Update and does not provide a specific comment regarding the Recirculated Draft PEIR. The comment will be forwarded to decision-makers for consideration.

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LETTER I4 – Greg Camphire (1 page)

From:	I4 Grea Camphire					
To: Subject:	<u>PBAeComments</u> RE: Public Hearing on the Recirculated Draft Program Environment Impact Report Prepared for the General Plan Update					
Date:	Monday, September 13, 2021 4:55:37 PM					
Dear Santa	Ana Planning Commission,					
Orange Cou of our neigh been expose	s Greg Camphire, and I am a resident of Santa Ana. I am writing to represent anty Environmental Justice (OCEJ) policy demands for remediating lead in the soil hborhoods. I urge you to expand blood testing in adults as well as youth who have ed to contamination. A comprehensive, city-wide plan is needed to identify who, how many of our neighbors have been poisoned at all ages.					
and accessi in the soil, I this effort s	ation processes should be offered by the city or county at little to no cost in an easy ble manner. Such remediation processes should target any area identified with lead but especially those with levels at or above 80 parts per million. Local job hires for hould be prioritized, and accomplished according to LEED union industry Bioremediation should be incorporated as the preferred method over soil extraction.					
in dealing v and followi	residents affected by this pollution need to be empowered with basic tenants rights with this situation, including limitations on rent increases and evictions, both during ng remediation. The city's outreach efforts to low-income communities are also implement environmental justice policies that are developed through the General					
Prioritize o	ur health! Let's create a safer Santa Ana.					
Thank you,						
Greg Camp 92701	hire					

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I4. Response to Comments from Greg Camphire, dated September 13, 2021.

I4-1 The purpose of CEQA and the GPU PEIR is to evaluate and disclose the potential environmental impacts of implementing the GPU. In accordance with CEQA, the potential environmental effects of proposed projects are compared to existing ("baseline") conditions. This commenter requests policies to remediate lead in soils and also urges the City to expand blood testing related to potential exposure to contaminants. The commenter also makes requests regarding tenant rights and potential evictions during remediation activities. None of these issues are within the purview of CEQA and no further response it required.

Please also refer to responses to Letter O2 (Shute, Mihaly and Weinberger, LLP on behalf of Orange County Environmental Justice) and Letter O3 (Madison Park Neighborhood Association/UCI Environmental Law Clinic) related to lead contaminated soils in the City of Santa Ana.

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LETTER I5 – Dale Helvig (5 page[s])

	15	
Dale He 2536 N. V	lvig alencia St. Santa Ana CA 92706	
714-541-7	254 helvig_denny@msn.com	
Septemb	ər 20, 2021	
Minh Tha	i, Executive Director, Planning	
City of Sa		
	enter Plaza	
PO Box 1		
Santa An	a CA 92702	
Subject:	Comments on Program Environmental Impact Report (PEIR) State Clearinghouse # 2020029087	
City's dev term poli	Cities website Santa Ana's "Golden City Beyond: A Shared Vision" General Plan will guide the relopment and conservation for the next 25 years through 2045. The update will provide long- cy direction and communicate the vision, values, and goals for Santa Ana's physical ment, fiscal and environmental sustainability, and overall quality of life.	
Keep this	thought in mind and see if this will be met.	
ENVIRO	NMENTAL JUSTICE AREAS	
Areas no	th of the I-5 were omitted from Environmental Justice consideration: Maybury Park and Grand	1
	These areas are listed on page A-b-10. I can't imagine that the lead issue, noise pollution and ie pollution stops at the freeway.	
BUILDO	UT	
One of a		
	e of the many <i>significant and unavoidable</i> impacts in the PEIR is described in Sections 5 and	
Section 6		
Section 6 "; a	: The projected full buildout would result in an estimated population growth of up to 96,855	
Section 6 "' A " P P h h p h p p p	: The projected full buildout would result in an estimated population growth of up to 96,855 Iditional residents." [pages 5.13-15]	
Section 6 "' A " P P h h p h p p p	The projected full buildout would result in an estimated population growth of up to 96,855 Iditional residents." [pages 5.13-15] ND mpact 5.13-1, Population and Housing Growth. Full buildout of the GPU would result in a opulation of 431,629, and the city's 2045 population growth would be approximately 20 ercent greater than the Orange County COG's 2045 projections. Furthermore, the city's busing units at buildout would be 115,053, which exceeds the Orange County COG's opection by 38 percent. There are no feasible mitigation measures to mitigate the opulation and housing growth at buildout, and impacts would be significant and	
Section 6 "; a p p p p p p p p p p p p p p	The projected full buildout would result in an estimated population growth of up to 96,855 Iditional residents." [pages 5.13-15] ND mpact 5.13-1, Population and Housing Growth. Full buildout of the GPU would result in a opulation of 431,629, and the city's 2045 population growth would be approximately 20 ercent greater than the Orange County COG's 2045 projections. Furthermore, the city's busing units at buildout would be 115,053, which exceeds the Orange County COG's operation by 38 percent. There are no feasible mitigation measures to mitigate the opulation and housing growth at buildout, and impacts would be significant and havoidable." [page 6-4]	

Dale Helvig 2536 N. Valencia St. Santa Ana CA 92706 714-541-7254 helvig_denny@msn.com



I5-2 cont'd

According to the usa.com website, for a city over 130,000, Santa Ana is the densest city in California and the fourth densest in the United States. While growth is inevitable, growth needs to be controlled to ensure quality of life current residents as well as future residents. Let's not exacerbate the problem by adding large amounts of high-density areas to the city over the next 25 years.

National Rank in Population [Density]	Population Density ▼ (per sq mi)	City	Population
1	17,833.9	New York, NY	8,354,889
2	16,812.5	Paterson, NJ	146,341
3	12,137.8	Jersey City, NJ	255,861
4	12,038.2	<u>Santa Ana, CA</u>	331,266
5	11,586.7	Chicago, IL	2,712,608
6	10,839.8	Philadelphia, PA	1,546,920
7	10,677.2	<u>Newark, NJ</u>	278,750
8	10,171.4	<u>Hialeah, FL</u>	232,311
9	9,787.6	Yonkers, NY	198,654
10	9,680.6	Garden Grove, CA	173,853

http://www.usa.com/rank/us--population-density--city-rank.htm?yr=9000&dis=&wist=&plow=100000&phigh=

5.15 RECREATION

The PEIR does not address the absence of 192 acres of parkland and the profound impact this will have on the physical, social, mental, and economic health and well-being of Santa Ana.

California Public Park Preservation Act [page 5.15-2]

The primary instrument for protecting and preserving parkland is California's Public Park Preservation Act of 1971. Under California Public Resources Code Sections 5400 et seq., cities and counties may not acquire any real property that is in use as a public park for any nonpark use unless compensation, land, or both are provided to replace the parkland acquired. This ensures no net loss of parkland and facilities.¹⁵⁻³

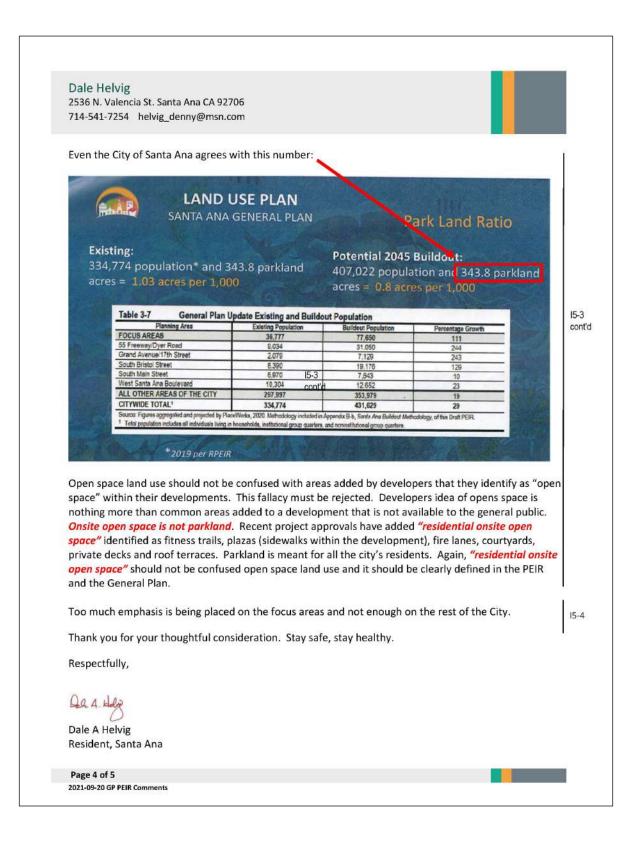
Quimby Act [page 5.15-2]

The 1975 Quimby Act (California Government Code Section 66477) authorizes cities and counties to pass ordinances requiring that developers set aside land, donate conservation easements, or pay fees for park improvements. Revenues generated through the Quimby Act cannot be used for the operation and maintenance of park facilities. A 1982 amendment (AB 1600) requires agencies to clearly show a reasonable relationship between the public's need for the recreation facility or parkland, and the type of development project upon which the fee is imposed. Cities and counties with a high ratio of park space to inhabitants can set a standard of up to five acres per 1,000 people for new development. Cities and counties with a lower ratio can require the provision of up to three acres of park space per 1,000 people.

Page 2 of 5

2021-09-20 GP PEIR Comments

714-541-7254 hel	vig_denny@m	isn.com				
The calculation of population count						
	iture parks, N	OT existing op	REPORT AND CONTRACTOR			1,000 residents for es, and NOT joint-
"Policy (OS-1.3, PARK	STANDARD "S	trive to attai	n a minimum	park standar	d of in the City."
What needs to be Acreage. Why? I		0.5	1 T			ecreational Facilities
Table 5.15-3 Exis	ting vs. Requi	ired Public Parl	kland and Re	creational Fo	cilities Acrea	ge [pg. 5.15-12]
	Santa Ana Plan Area 2019 Population	Parkland Standard (Acres/1000)	Required Acreage	Existing Acreage from Table 5-15.2	Existing Deficiency	Acres per 1000 Residents
Developed Public Parkland and Recreational Resources	334,774	2	669.55	551.41	118.14	1.68
What it should be	e					
2021	334,774	2	669.55	341.99	327.56	1.02
2045	431,629	2	863.26	343.8	521.27	.79
This means we sh deficiency of 1.02 This lack of additi parkland space ig	acres per 10 onal parkland	00 residents. T I due to the add	he current p	lan has an ind ost 96,000 re	rease of ZERC	
	graam de terre te		an an ann an an Ann Ann an			





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I5. Response to Comments from Dale Helvig, dated September 20, 2021.

- Intro The commenter notes that the goal of the GPU, per the City's website, is to provide longterm policy direction and communicate the vision, values, and goals for Santa Ana's physical development, fiscal and environmental sustainability, and overall quality of life. No response is required.
- 15-1 The commenter notes that the neighborhoods of Maybury Park and Grand Sunrise north of the I-5 were omitted from the EJ discussion and references page A-b-10 of Appendix A-b, EJ Background Analysis. These two neighborhoods are in Census Tract 6059075403. Page A-b-10 shows the results of CalEnviroScreen (CES) 3.0. CES generates a composite score that assesses disproportionate impacts on California communities. It uses 21 indicators organized across four categories—pollution exposure, environmental effects, sensitive populations, and socioeconomic factors. These categories are summed into two primary metrics—pollution burden and population characteristics—which CES multiplies to arrive at the CES composite score. The results for each census tract are then measured against every other census tract in California. The outcome is a scale that sorts census tracts from the least impacted to the most impacted as a ranked percentile. Those ranked in the top 25 percent are a disadvantaged or environmental justice community. Census Tract 6059075403 has a CES percentile of 73 percent and is therefore not a disadvantaged community.⁴ Per CES 4.0, Census Tract 6059075403 has a CES score of 64 percent.⁵
- 15-2 The limited purpose of the Recirculated Draft PEIR, as discussed on page 1-6 of the Recirculated Draft PEIR, is to define a new project alternative, and to thoroughly discuss and evaluate impacts related to environmental justice, including air quality, hazards, and recreation/open space. The Draft PEIR was not recirculated to reanalyze the impacts of the project as a whole. State CEQA Guidelines section 15088.5(c) permits a lead agency to recirculated only those portions of an EIR that have been modified. Here, the City has only recirculated the Executive Summary, Introduction, Project Description, Environmental Setting, Air Quality, Hazards and Hazardous Materials, Recreation, Alternatives, and certain appendices.

State CEQA Guidelines section 15088.5(f)(2) permits a lead agency to request that reviewers limit their comments to only the revised portions of a recirculated EIR, as was done in this Recirculated Draft PEIR. Under section 15088(f)(2), a lead agency need only respond to comments received during the recirculation period that relate to the portions of the EIR that were revised and recirculated. No responses to comments that have been submitted during the recirculation period that relate to issues other than the recirculated portions of the Recirculated Draft PEIR are necessary. Therefore, because this comment

⁴ California Open Data Portal. June 2018. CalEnviroScreen 3.0 Results.https://data.ca.gov/dataset/calenviroscreen-3-0results/resource/89b3f4e9-0bf8-4690-8c6f-715a717f3fae

⁵ California Office of Environmental Health Hazard Assessment. 2021. Draft CalEnviroScreen 4.0. https://oehha.ca.gov/calenviroscreen/report/draft-calenviroscreen-40.

pertains to Population and Housing, which was not recirculated, it exceeds the scope of the recirculated portions of the PEIR and no further response is required

15-3 The commenter states that the Draft Recirculated PEIR does not address the impact that the lack of parkland will have on the physical, social, mental and economic well-being of Santa Ana. Economic and social effects are not the purview of CEQA which focuses on potential impacts to the physical environment (see CEQA Guidelines Section 15131, *Economic and Social Effects*). Typically social and economic benefits are only evaluated in CEQA to the degree that these impacts could indirectly result in physical impacts.

The commenter questions the accuracy and categorization of parkland acreages in the Draft Recirculated PEIR, particularly in light of policy requirements in the GPU Open Space Element. Please refer to Response O4-3 for a detailed description and comparison of parks, recreation facilities and open space and their respective categorization and acreages in the Open Space Element and the Recirculated Draft PEIR.

This commenter also asserts that the GPU "has an increase of zero acres" of parkland. This is incorrect. The GPU includes numerous policies to improve and expand recreation facilities and develop new parkland, and in accordance with the Quimby Act, the City's municipal code (Chapters 34 Article VIII, and 35, Article IV) requires the dedication of land or the payment of fees in lieu thereof, or a combination of both, for park or recreational purposes as a condition to the approval of a tentative map or parcel map.

I5-4 This comment states that too much emphasis is being placed on the focus areas and not enough on the rest of the City. This comment does not provide any specific comment on the Draft Recirculated PEIR and therefore no response is required.