

		1 - Already included 2 - Can be included if additional information available through existing sources 3 - Will not be included either due to lack of relevance or lack of readily available data 4 - Needs further clarification 5 - Will be included in AQAP
I-710 Corridor Project EIR/EIS: Review of Health Impact Assessment Research Questions [5/29/09]		
	Research Questions	Response
<i>Social Cohesion</i>		
<i>Existing Conditions Research Questions</i>		
1	How long have people lived in neighborhoods along the 710 corridor?	1 - information (i.e., housing tenure) will be provided at the census tract level. CIA
2	How many community orgs are there in these neighborhoods? Churches? Other measures of involvement with neighborhood orgs?	1 - information regarding known community organizations, churches and other public facilities will be included in CIA and EIR/EIS to the extent this information is readily available from cities.
3	How long have these types of orgs been in the neighborhood? What is their membership level?	3 - beyond current scope to gather this level of detail about each org in study area
4	Other ways that community identity and/or social equity have been or could be quantified.	1 - will be included - community profiles will be included in CIA and summarized in EIR/EIS to the extent that this information is readily available from cities.
5	Where are the existing spaces for social interaction (parks, local-serving retail, libraries, etc.)?	1 - will be included in CIA and EIR/EIS
6	Types of community deprivation and social assault due to race/income level.	3 - this does not appear to be relevant to a transportation project and information is subjective.
<i>Project-Based Research Questions (both during construction phase and when project is complete) - based on plans for how much property is to be taken, and what will be displaced as a result.</i>		
7	Will project increase division of neighborhoods?	1 - will be included in CIA and EIR/EIS
8	Will project end up moving businesses?	1 - will be included in CIA and EIR/EIS
9	Will project lead to displacement of people from homes, or other types of displacement?	1 - will be included in CIA and EIR/EIS. Note that displacement also includes relocation as required by law.

10	Will project mean that residents have less access to family/friends/churches/community orgs?	1 - EIR/EIS discusses access to community facilities on a general level. CIA
11	Have the corridor communities been included in all stages of the planning process in a meaningful way? Have decisions already made reflected documented community concerns?	1 - this project has an extensive community participation process including the Local Advisory Committees, Subject Working Groups, and Corridor Advisory Committee. CIA
12	Will negative outcomes impact low income and communities of color disproportionately? Will any proposed benefits flow equally to these communities?	1 - CIA and EIR/EIS will discuss Environmental Justice concerns.
13	Will project lead to further segregation of race/income?	1 - CIA and EIR/EIS will discuss Environmental Justice concerns.
Congestion and Mobility		
<i>Existing Conditions Research Questions</i>		
14	a) Current levels of disease/health outcomes in corridor communities (asthma, cancer, b) obesity etc.)	a) 1 - asthma and cancer will be discussed in the AQ/HRA . b) 3- obesity rates will not be included in the AQ/HRA since it is not relevant at the project-level and is subjective due to transportation elements being only one possible contributor to obesity.
15	Current transportation use (% of trips/by mode of transportation).	1 - will be included in traffic report and EIR/EIS.
16	Current travel time to work in corridor communities.	1 - will be included in traffic report and EIR/EIS.
17	Where do the pedestrian/bike injuries occur most frequently (SWITRS)?	1 - will be included in the traffic report and EIR/EIS.
<i>Project-Based Research Questions (both during construction phase and when project is complete)</i>		
18	Will widening the freeway lead to decreased traffic congestion on arterial streets and/or the freeway? Will there be an effect on congestion during the construction phase?	1 - will be included in traffic report and EIR/EIS.
19	How will this project impact the use of public transportation?	1 - will be included in traffic report and EIR/EIS.
20	How will the project impact walkability and bikeability?	1 - impacts to pedestrian and bicycle facilities will be included in traffic report and EIR/EIS.
21	Will community infrastructure and retail be displaced as a result of the project?	1 - will be included in CIA, DRIR and EIR/EIS.
22	How will the barrier between the freeway and schools, daycare facilities, senior centers, and other sensitive receptors change as a result of the 710 expansion?	1 - will be included in CIA and EIR/EIS.

23	Will there be any physical changes to arterial roads, onramps, sidewalks or other transportation infrastructure?	1 - will be included in traffic report , geometric plans, and EIR/EIS.
24	If congestion increases, will that lead to an increase in travel time?	1 - will be included in traffic report and EIR/EIS.
25	Will project lead to an increase in ped/bike injury on arterial roads?	1 - a qualitative analysis will be included in the EIR/EIS based on the location of improvements to arterials as part of the proposed project.
26	Will project lead to increase in motor vehicle accidents on freeway (and/or arterial roads)? (If congestion is in fact decreased and mobility is increased)	1 - assessment of congestion will be included in traffic report and EIR/EIS.
Parks		
<i>Existing Conditions Research Questions</i>		
27	Where are the current parks in the 15 corridor communities?	1 - will be included in CIA and EIR/EIS.
28	Where are the pedestrian injuries/fatalities?	1 - will be included in traffic report and EIR/EIS.
29	What is the current park use (# of people, use type, frequency that parks are visited)?	2 - can include if usage data is readily available from local agencies. CIA
30	Do people typically drive or walk to parks?	3 - this information is not available; no park usage surveys were planned as part of work scope.
31	What are reasons that keep people from using parks?	3 - this information is not available and is subjective.
<i>Project-Based Research Questions (both during construction phase and when project is complete)</i>		
32	How will the project impact routes to parks?	1 - already included in CIA and EIR/EIS.
33	Will the project affect changes in speed limits and traffic calming on local roads? If so, what will the impact of this be on ped/bike injury?	1 - discussion of speed limits and traffic calming will be discussed in traffic report and EIR/EIS. Discussion on this impact on ped/bike injury can be included qualitatively in EIR/EIS.
34	If people have to drive to parks as a result of the project, how will VMT increase? What would be the impact of this on air pollution, and time spent engaging in physical activity?	3 - this information is not available and is subjective.
35	Will people be deterred from using parks due to air quality concerns?	3 - this information is not available and is subjective.
36	Will park acreage be decreased (will parks be deleted as a result of the project, or made smaller)?	1 - will be included in CIA and EIR/EIS. Direct impacts to parks are not anticipated as a result of the proposed project; acreage will be increased at Cesar Chavez Park in Long Beach.

Schools		
<i>Existing Conditions Research Questions</i>		
37	Where are the current schools located?	1 - already included in CIA and EIR/EIS.
38	How many students attend these schools?	1 - already included in CIA and EIR/EIS.
39	What is the mode split on how students get to school (local as well as non-local)?	3 - this information is not considered relevant to evaluating impacts of the I-710 project.
40	What proportion of students are local and non-local?	3 - this information is not considered relevant to evaluating impacts of the I-710 project.
41	How much physical activity do students currently get (or percentage that is physically fit)?	3 - this information is not considered relevant to evaluating impacts of the I-710 project.
42	What are the obesity rates of kids in corridor communities?	3 - this information is not considered relevant to evaluating impacts of the I-710 project.
43	Are there any joint use agreements with community? If so, any data on who uses playgrounds?	1 - any joint use agreements will be documented in CIA and EIR/EIS. 2 - usage data will be presented only if available from local agencies. CIA
<i>Project-Based Research Questions (both during construction phase and when project is complete)</i>		
44	How will the project impact routes to schools?	1 - already included in CIA and EIR/EIS.
45	Will schools be closed temporarily or permanently as a result of the project?	1 - already included in CIA and EIR/EIS. Impacts to parks are not anticipated.
46	Does physical access to schools have an impact on attendance? On truancy?	3 - will not be included as it is not considered relevant to evaluating impacts of the I-710 project.
47	Is there evidence of higher pedestrian injury in schools in closer proximity to the 710 or other freeways?	1 - this information can be included (Esmeralda mentioned there was a source for this info). Traffic
Jobs and Economic Development		
<i>Research Questions both During Construction and when Project is Complete</i>		
48	a) What type of jobs will the I-710 project create? b) Do they pay a living wage? Do they offer benefits?	a) 1 - types of jobs are already discussed in the CIA and EIR/EIS. b) 3 - Living wages/benefits are not under the purview of Caltrans' authority and will not be included.
49	Will the project impact the mix of local jobs?	1 - will be discussed in CIA and EIR/EIS
50	Who will have access to these jobs (is there a local hiring policy, etc.)?	4 - Further clarification is needed on what type of information is requested; local hiring/business policies can be considered. CIA
51	Will job training programs be offered?	4 - Further clarification is needed on what type of information is requested; local hiring/business policies can be considered. CIA

52	Are there programs to support local ownership of retail businesses?	4 - Further clarification is needed on what type of information is requested; local hiring/business policies can be considered. CIA
53	Will local retail lose or gain customers/business as a result of the 710 project?	1 - will be discussed in CIA and EIR/EIS
54	Will the 710 project impact property values in corridor communities?	1 - will be discussed in CIA and EIR/EIS
55	Will the 710 project impact housing conditions in corridor communities?	1 - will be discussed in CIA and EIR/EIS
56	Will the 710 project impact current levels of employment in corridor communities?	1 - will be discussed in CIA and EIR/EIS
Air Quality		
<i>Existing Conditions Research Questions</i>		
57	What are the existing air pollution sources and their proximities to communities?	1 - will be generally discussed in EIR/EIS air quality existing setting section. AQ/HRA
58	What is the AADT on the 710? Is it different near the 15 different communities? Specifically, what are the counts for truck traffic and varying weights and what are the current levels of toxic air pollutants along various segments of the corridor and disparities in exposure?	1 - Traffic analysis will include information on current AADT and the results of the recent traffic count study. Modeled current levels of I-710-specific air toxics will be described in the 2008 Baseline AQ/HRA analyses.
59	a) What are the types of trains and trucks operating along the corridor or at intermodal facilities (railyards, distribution centers) and b) what levels of pollution do they emit?	a) 1 - 2008 CEQA baseline truck types and emissions will be described. Traffic The cumulative impact of current intermodal facilities and related traffic will be analyzed qualitatively in the cumulative impact analysis . b) 3 - The EIR/EIS will not include a quantitative assessment of train emissions along the corridor or at intermodal facilities, since that is beyond the current scope of this project-level analysis and not relevant to evaluating the impacts to the I-710 project. 5 - The AQAP will address these questions.
60	a) What are the existing health conditions along the corridor? b) (see health risks identified in first column)	a) 1 - If this question refers to existing levels of local air pollutants and known related health effects, that general information will be discussed in the EIR/EIS . If additional local information, such as recent health studies by ARB and local universities, is available, it can be summarized and referenced in the EIR/EIS. AQ/HRA b) 4 - The reference to "health risks identified in first column" is unclear. More specifics would be necessary.

61	a) Where are the existing sound barriers and b) how do these impact air pollution levels along the corridor?	a) 1 - The location of existing sound barriers will be described in the EIR/EIS. Noise Report b) 4 - Please clarify what potential air quality impact(s) the question refers to.
<i>Intangible/Qualitative</i>		
62	Perceived air quality impacts and their impacts on livability, real estate, commercial development.	3 - outside the scope of this project-level analysis. 5 - The AQAP may address this question if adequate technical methodologies exist.
63	<i>Project-Based Research Questions (both during construction phase and when project is complete)</i>	
64	Have school districts in the 710 project area monitored air pollution levels in the schools? Have cities/air agencies/universities along the 710 corridor monitored air pollution along the freeways?	1 - existing monitoring data available from air agencies will be used to described the existing setting for air quality in the EIR/EIS. We are aware that other studies have been done in the area, many in conjunction with air agencies. Those are being reviewed for applicability and usefulness in this project-level assessment. Other monitoring programs may be considered if they are identified (but there may be issues on data quality and applicability).
65	What does elevation do to air impacts (elevated truck lanes)?	1 - elevated lanes will be modeled as elevated sources as part of the AQ/HRA.
66	How would indoor air quality mitigations (e.g. filters) in schools or other buildings impact existing ventilation on air conditioning systems (and potentially increase other health impacts)?	3 - School by school assessments would be outside of the scope of this project. 4 - what is the basis of concern about potential increases in other impacts? Are there references available? As appropriate we can include this information in the assessment of potential project and/or cumulative mitigation measures.
67	How much is project, upon completion, expected to increase air pollution levels? - passenger vehicle volume - truck volume	1 - car and truck volume changes will be described in the traffic study report. <u>Incremental</u> air pollution level changes among the Alternatives will be assessed in the AQ/HRA using AERMOD (and CAL3QHC for CO at hot-spots). Note that the question assumes that air pollution levels will increase, but that will not be known until the analyses are completed. 3 - the AQ/HRA is not a forecast and we will not be assessing non-project emission and/or air quality changes.

68	a) How much additional air pollution is expected during construction phase and where will be the greatest impacts? b) What staging area locations could provide sufficient health protections?	a) 1 - summary overall construction emissions will be estimated, but not year and location-specific since that information is not available. Discussion will be provided on how to avoid, reduce and mitigate construction staging air quality impacts. AQ/HRA b) 1 - Proximity to sensitive receptors will be considered in the location of staging areas. AQ?HRA
69	What are existing sources of air pollution, and what would cumulative impact be between those and additional air pollution from the construction and operations of the project? How does this compare to if the project is not built?	1 - 2035 impacts will be addressed qualitatively in cumulative impacts analysis (2035 Project Alternatives, including No-Build). A list of cumulative projects will be included in the EIR/EIS. 5 - the AQAP will address questions related to the effects of other existing sources of air pollution.
70	What are other projects expected in the reasonably foreseeable future and what will be the cumulative impacts on air pollution along the corridor?	1 - see answer to # 69
71	a) Do the plans include additional sound barriers or "improved" sound barriers? b) How much would these mitigate or exacerbate the effects of air pollution?	a) 1 - New/improved sound barriers will be part of the project but they (and other off-freeway structures) are not included in the air quality model. Traffic is modeled as a volume source, due to wake mixing, so emissions are released from that volume source. AQ/HRA b) 4 - Is there some specific research that this question is based upon that should be considered?
72	What impact will the expansion have on rail (cargo movements) and what are the air pollution increases/decreases due to more rail for the 15 communities?	1 - will be discussed qualitatively in the analysis of cumulative impacts . The AQ/HRA modeling will not analyze any rail impacts not on the I-710 freight corridor itself. 1 - The expansion of rail (cargo movements) was modeled in the Railroad Goods Movement Study completed for this project to determine the impact of maximum goods movement by rail. This information is factored into the traffic model which is used as input into the model for the AQ/HRA . 5 - The AQAP will address these questions.

73	a) How have current cargo volume projections been impacted by the recession and how does this impact the need for the project? b) How have changes in port expansion plans impacted previous cargo volume/truck traffic on the I-710 Corridor?	a) 3 - Port cargo projections are long-term forecasts (2035) and are not affected by short-term fluctuations due to the current recession. B) see answer to Question #72.
74	What level of increased cargo traffic could be accommodated by the Alameda Corridor, rather than by truck traffic on the I-710, if the Alameda Corridor if fully utilized? What would the benefits/detriments be along the rail and freeway corridors as a result due to decreases/increases in air pollution? How would these results be impacted if the Alameda Corridor was electrified?	1+A98 - The share of cargo to be handled on the Alameda Corridor was analyzed as part of the Railroad Goods Movement Study for this project; however, the specific air quality effect of this will not be analyzed in the AQ/HRA or EIR/EIS for this project. 5 - The AQAP could consider these questions.
75	Which options would increase/decrease mortality and morbidity due to air pollution more: specified truck lanes, mixed lanes, carpool lanes?	1- the AQ/HRA will assess the incremental differences in criteria air pollutant concentrations and toxic air pollutant risks among the Project alternatives. To the extent that those alternatives reflect changes in truck lanes, mixed lanes, and carpool lanes, the AQ/HRA impact will be assessed. 3 - The AQ/HRA will not quantify mortality/morbidity, so that will not be assessed.
76	a) Would the project proposal increase or decrease traffic on the 710 (and how would this change over the coming years)? b) How would this impact existing air quality conditions (all pollutants)? How will this impact existing health outcomes?	a) 1 - incremental traffic impacts will be discussed in traffic report study and the EIR/EIS. Incremental AQ/HR impacts will be discussed in AQ/HRA and air quality section of the EIR/EIS b) 4 -Need clarification on what is meant by "impact existing air quality conditions." As discussed previously, the AQ/HRA is not a forecast of future overall air quality, only the incremental changes from future-year project emissions compared to baseline project emissions. Health outcomes: needs clarification, but AQ/HRA is only quantifying incremental cancer risk, health hazard indices and cancer burden. AQ/HRA will not be quantifying other health impacts. 5 - The AQAP will consider these questions.
77	What type of alternatives could be developed to alleviate traffic congestion on the 710 (public transportation, mag lev, etc.?)	1 - included in Alternatives Tech report, Multi-modal Report and EIR/EIS .

78	What is the impact of the 710 project proposal on greenhouse gas emissions?	1 - The scope of the greenhouse gas emissions analysis would be the analysis of incremental operational (e.g., direct traffic-related emissions, indirect emissions for electric-powered conveyances, etc.) GHG emission impacts among the Project alternatives and CEQA/NEPA baselines. AQ/HRA
Noise		
<i>Existing Conditions Research Questions</i>		
79	What are the existing sources of noise for corridor communities?	1 - will be included in noise report and EIR/EIS.
80	Existing noise levels (if available) and disparities in exposure.	1 - will be included in noise report and EIR/EIS.
81	a) What is the AADT on the 710? Is it different near the 15 different communities? b) Specifically, what are the counts for truck traffic of varying weights?	a) 1 - will be included in traffic report and EIR/EIS. b) 3 - this information is not available and was not included in the modeling.
82	What are the types of tires that a majority of trucks have and are these better/worse for noise?	3 - information not available.
83	Where are the existing sound barriers, and what type of barriers are they?	1 - will be included in noise report and EIR/EIS.
84	What types of trains/tracks currently exist, and are they good/bad for noise (i.e., rubber wheels, etc.)?	1 - part of "ambient" noise. Noise 3 - project will not evaluate different types of trains/trucks.
85	Existing health outcomes related to exposure to noise.	1 - a qualitative analysis of health outcomes can be done relative to Noise Abatement Criteria (NAC). Noise Study
86	What are the communities' perceived health impacts resulting from noise?	3 - not included due to subjective nature of this question.
<i>Project-Based Research Questions (both during construction phase and when project is complete)</i>		
87	Have school districts in the 710 project area monitored noise levels in the schools? Have cities along the 710 corridor monitored noise levels along the freeways?	2 - can be included if information is readily available. Noise Report
88	What is the impact of elevation on noise (elevated truck lanes)?	1 - will be included in noise report and EIR/EIS.
89	How would soundproofing in schools or other buildings impact existing ventilation or air conditioning systems (and potentially increase other health impacts)?	3 - information not available and is subjective.
90	How much is project expected to increase noise levels? (from vehicle volume and from trucks)	1 - will be included in noise report and EIR/EIS.

91	How much additional noise is expected during project construction phase?	1 - will be included in noise report and EIR/EIS.
92	What are existing sources of noise, and what would cumulative impact be between those and additional noise?	1 - will be included in noise report and EIR/EIS.
93	Do the plans include additional sound barriers or improved sound barriers? How much would these mitigate the effects of noise?	1 - will be included in noise report and EIR/EIS.
94	What impact will the expansion have on the use of rail, and what are the noise increases/decreases due to the future use of rail for the 15 communities?	1 - the effects of expansion of rail will be discussed qualitatively in the cumulative analysis .
95	How does vehicle speed affect noise?	1 - will be included in noise report and EIR/EIS.
96	How would noise sources differ at different times of day?	2 - can be included if information is readily available. Noise Report
97	What is an appropriate goal for noise levels?	1 - the Federal Noise Abatement Criteria thresholds for considering noise abatement of 67 decibels (exterior) and 52 decibels (interior) for noise sensitive land uses such as residences, schools, parks, churches, libraries, and hospitals will be used in the noise report and EIR/EIS.
98	Cumulative effects of environmental noise and air pollution?	1 - will be included in cumulative section of EIR/EIS and built into both noise and air quality models.
99	Does perception of noise play a part in its effect? (for example, whether noise is perceived as necessary, recognizable, dangerous, or controllable)	3 - not included due to subjective nature of this question.
100	Is there evidence out there for health effects of vibration, and if so, should vibration be included in the noise analysis?	3 - information is not available.
Light Pollution		
<i>Both During Construction Phase and when Project is Complete</i>		
101	What is the currently accepted standard for the best way to reduce light pollution from transportation/highway lighting?	1 - will be included in Visual Impact Assessment (VIA) and EIR/EIS.
102	What type of bulbs, electricity, solar, heights, angles, etc. are used to achieve this standard?	1 - will be included in Visual Impact Assessment (VIA) and EIR/EIS.
103	What does research show about health impacts from lighting (e.g., increase in sleep disorders)	3 - information is not considered relevant to evaluating impacts of the I-710 project.