



BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

Bay Area Air Quality Management District

CEQA Guidelines Update

Public Workshop, Oakland

April 26, 2010

Planning and Research Division
Bay Area Air Quality Management District

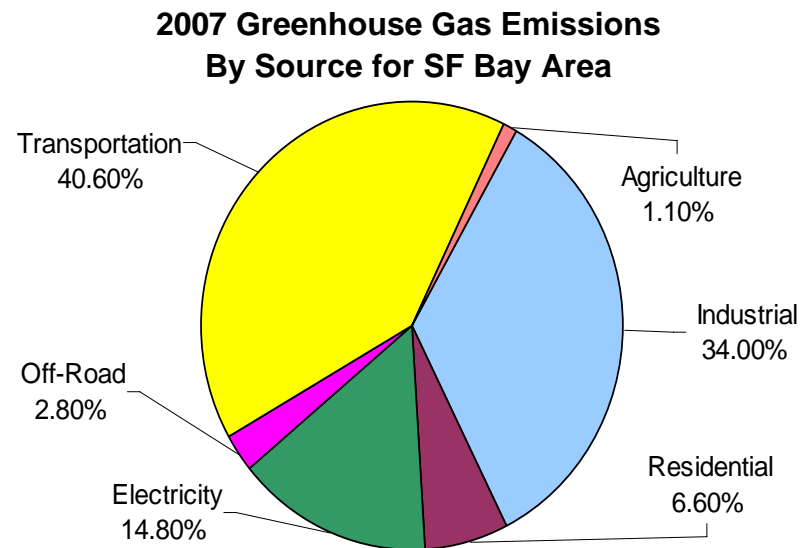


Why Update the CEQA Guidelines?

- Attain health-based State and national ambient air quality standards for ozone and fine particulate matter
 - Recent more stringent standards
 - Public health impacts, especially from fine PM
 - Noncompliance threatens federal transportation funding
- Public health impacts associated with toxic air contaminants
 - Highest exposures to toxics & fine PM occur near roadways, heavy industry
 - Pre-term & early childhood exposures to carcinogens 10 times more important than previous estimates
 - Adverse health outcomes of near-roadway exposures: cardiovascular disease, asthma, reduced birth weight, mortality
- GHG reductions needed to achieve SB 375, AB 32, Governor's Executive Order
- Local land use decisions influence transportation emissions

Transportation, Land Use and Air Quality

- Motor vehicles are largest source of air pollution in Bay Area - ozone, PM, toxics, GHGs
- Region still exceeds health based AQ standards
- Low hanging fruit is long gone – need emissions reductions from all sources
- California vehicle fleet is very clean—need to reduce vehicle use
- More efficient land use will be critical to improve air quality, reduce GHGs





Air District Land Use Goals

- Promote strategies that support livable communities
 - Support mixed-use, infill, transit-oriented development
 - Minimize greenfield development
 - Increase transit use, walking, cycling
- Reinforce MTC, ABAG, and local programs
 - FOCUS/PDAs, MTC TOD policy, SB 375 are critical to AQ and GHG improvements
 - Seek to coordinate local AQ studies with local planning processes
- Use caution planning residential, schools, sensitive uses near areas with high emissions – busy freeways, ports, refineries, etc.
- Potential conflicts may often be resolved through site specific analysis and mitigation
 - Site planning/setbacks, project phasing, diesel retrofits, idling limits, truck routes, HVAC, etc.



Key Milestones

- 14 month process with public workshops held in:
 - April 2010
 - Dec 2009
 - Sept/Oct 2009
 - April 2009
 - Feb 2009
- Additional meetings with stakeholders
- Board Hearings
 - Nov 18, Dec 2, and Jan 6
- Draft documents available
 - Draft CEQA Guidelines
 - Draft Thresholds Report
 - Public comments and responses



Workshop Purpose

- Address concerns raised during update process:
 - Hinders infill development and PDAs
 - Need further developed methodologies and tools
 - Guidance needed on community risk reduction plans and GHG reduction strategies
- Focus on GHG and risk assessments, methodologies, and mitigation strategies
- Provide county-specific case studies for applying proposed thresholds
- Address specific local issues



Proposed GHG Thresholds

- Address critical void
 - No guidance on GHGs in CEQA currently exists
 - Legal scrutiny by AG, others
- Based on AB 32 and Scoping Plan
- Thresholds options – land use projects
 - Plan based – consistency with GHG reduction strategy OR
 - “Bright line” – 1,100 metric tons/yr OR
 - Efficiency based – 4.6 tons/service population/year (residents & employees)
- Take credit for lower vehicle/efficiencies of infill, mixed use projects
- Thresholds will be revisited if/when State guidance available



Importance of GHG Thresholds

- Consistent with State CEQA Guidelines (SCG)
 - SCG encourages addressing GHG in CEQA docs, but does not recommend threshold
 - Significance determination must still be made even without significance thresholds
 - SCG “encourage lead agencies to rely on thresholds established by local air quality management districts”
- Guidelines provide certainty in determining significance of impacts and consistency in mitigation
 - Provide legally defensible approach to analyzing GHG impacts
 - Provide level playing field throughout Bay Area
 - Supported by AG and major environmental groups



GHG Tools & Resources

- GHG Off-Model Spreadsheet Calculator for Projects
 - Imports URBEMIS results
 - Estimates additional GHG emissions from transportation and electricity use
 - Covers additional GHG mitigation measures
 - Will be available June 2010
- GHG Reduction Strategy Guidance
 - Interpretation of State CEQA Guidelines
 - GHG Methodology Guidance – will offer recommended data sources, resources, and tools for quantifying GHG emissions and inventories; will address key issues such as, emission factors, forecasting, and VMT



GHG Tools & Resources

- GHG Mitigation Measure Quantification
 - Developed through CAPCOA by Environ
 - Provides GHG range of effectiveness estimates for measures and guidance on how to interpret/assign effectiveness
 - Offers quantification assumptions, methodologies, and data sources and references for quantifying mitigation measures
 - Will be available June 2010
- Potential Offsite Mitigation Program
 - Allow project developers to mitigate their project emissions offsite to a less than significant level after all available onsite mitigation measures have been considered
- URBEMIS/GHG off-model training classes
- Technical assistance during project review



GHG Reduction Strategy

Similar to ICLEI approach:

- A) Community baseline inventory
- B) Forecast of future emissions
- C) Target consistent with AB 32
- D) Quantified GHG reductions from policies/measures
- E) Implementation strategy
- F) Environmental review
- G) Demonstrate new projects are consistent



GHG Quantification Guidance

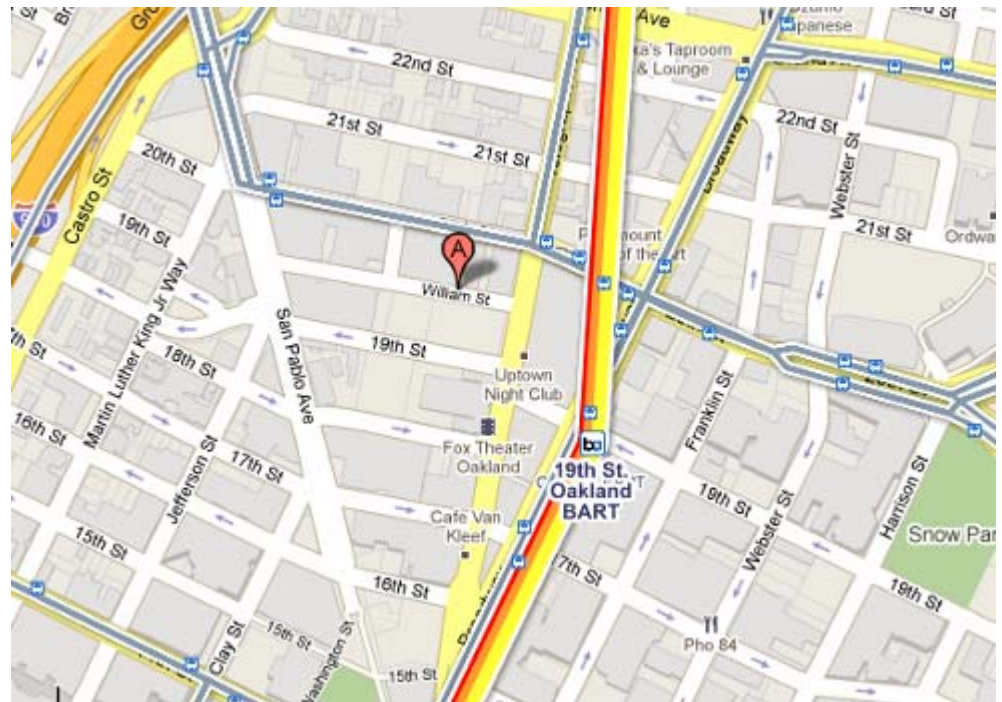
- Purpose: to address questions and issues raised by local governments
- Draws from existing, established methods and standards
- Discusses key issues related to community inventories, forecasting, mitigation measures and implementation strategies
- Will be continuously updated – seeking input from local government staff, stakeholders



Case Study: The Uptown, Oakland

Project characteristics:

- Located in downtown Oakland
- 700 multi-family units
- 14,500 sq. ft. retail
- Excellent public transit





Case Study: The Uptown, Oakland

URBEMIS Measures	BAAQMD Methodology
Mix of Uses	Yes
Local serving retail within 1/2 mile	yes
Transit Service	Yes
Bike & Pedestrian	Yes
Affordable Housing	
Free Transit Passes	
Secure Bike Parking	
Guaranteed Ride Home Program	
Car-Sharing	
Info on Transportation Alternatives	
Carpool Matching Program	
Preferred Carpool/Vanpool Parking	
Reduced Parking Supply	
Double Counting Credit	
GHG Model Measures	
Drought tolerant landscaping	
Tankless water heaters	
10% waste reduction	
Efficient toilets	



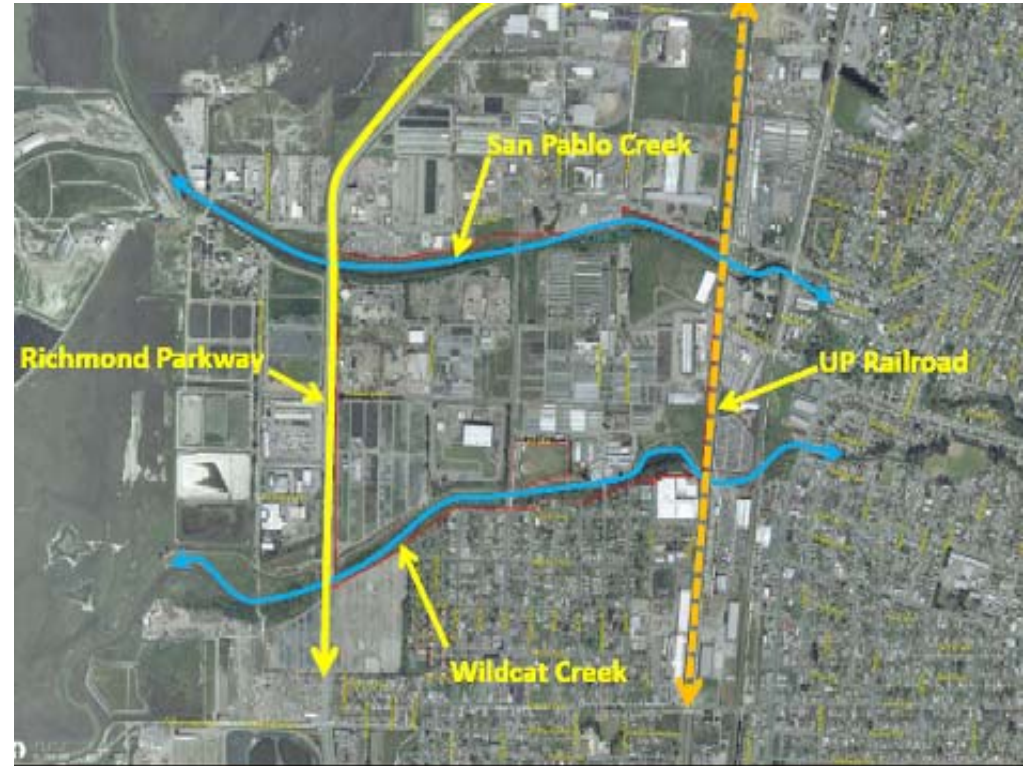
Case Study: The Uptown, Oakland

Residents: 1,736 Employees: 41 Service Pop: 1,777	<u>BAAQMD Methodology</u>
CO2e Emissions in Metric Tons	
Transportation	3,200
Electricity	1,041
Other (NG, water, waste)	1,525
Total Emissions	5,766
Metric Tons/Service Population	3.2

Case Study: North Richmond Specific Plan, Contra Costa County

Project Characteristics:

- 2,100 dwelling units
- ~290,000 sq. ft. of retail center
- ~785,000 sq. ft. of office space
- 71 acres of park/open space
- Several bus stops in Project area





Case Study: North Richmond Specific Plan, Contra Costa County

URBEMIS Measures	BAAQMD Methodology
Mix of Uses	Yes
Local serving retail within 1/2 mile	yes
Transit Service	Yes
Bike & Pedestrian	Yes
Affordable Housing	Yes
Free Transit Passes	
Secure Bike Parking	Yes
Guaranteed Ride Home Program	
Car-Sharing	
Info on Transportation Alternatives	Yes
Carpool Matching Program	
Preferred Carpool/Vanpool Parking	
Parking charge	Yes
Passby Trip Reduction	Yes
GHG Model Measures	
Drought tolerant landscaping	Yes
Tankless water heaters	Yes
10% waste reduction	Yes
Efficient toilets	Yes



Case Study: North Richmond Specific Plan, Contra Costa County

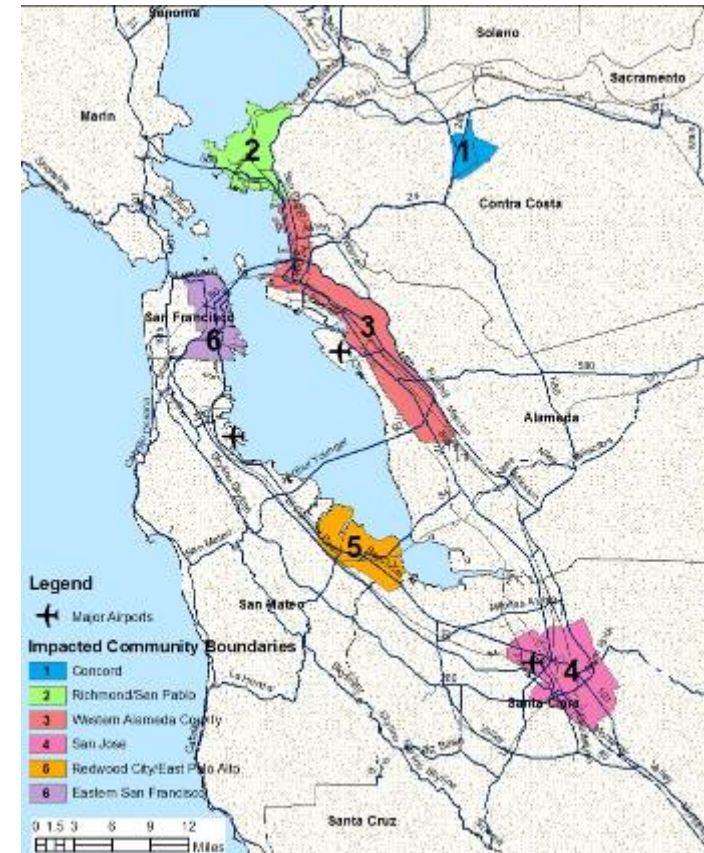
Residents: 5,768 Employees: 3,672 Service Pop: 9,440	<u>BAAQMD Methodology</u>
CO2e Emissions in Metric Tons	
Transportation	24,536
Electricity	9,126
Other (NG, water, waste)	10,668
Total Emissions	44,332
Metric Ton/Service Population	4.6



Questions or Comments?

Purpose of Community Risks and Hazards Thresholds

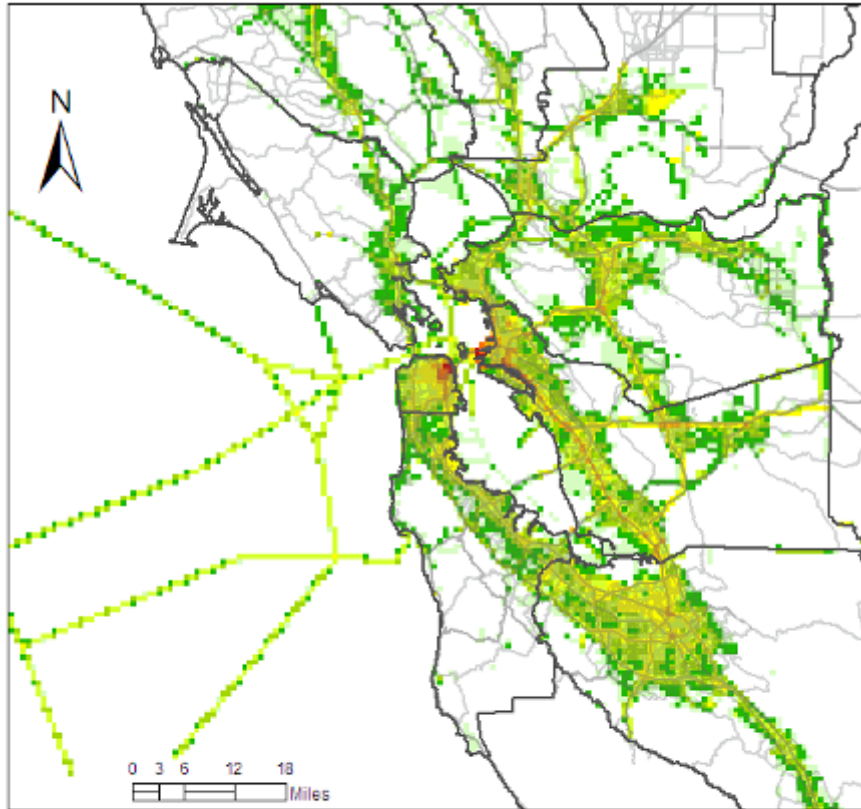
- CARE program identifies 6 priority communities in Bay Area
 - High emissions, concentrations of toxics, PM
 - Vulnerable populations
- Seek to reduce impacts from land use, transportation decisions
- Promote infill, while protecting residents
- Address new sources of pollution *and* new receptors near existing sources (eg, freeways)



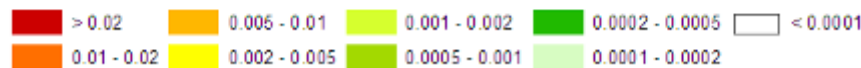


Emissions and Modeled Air Toxics (2005)

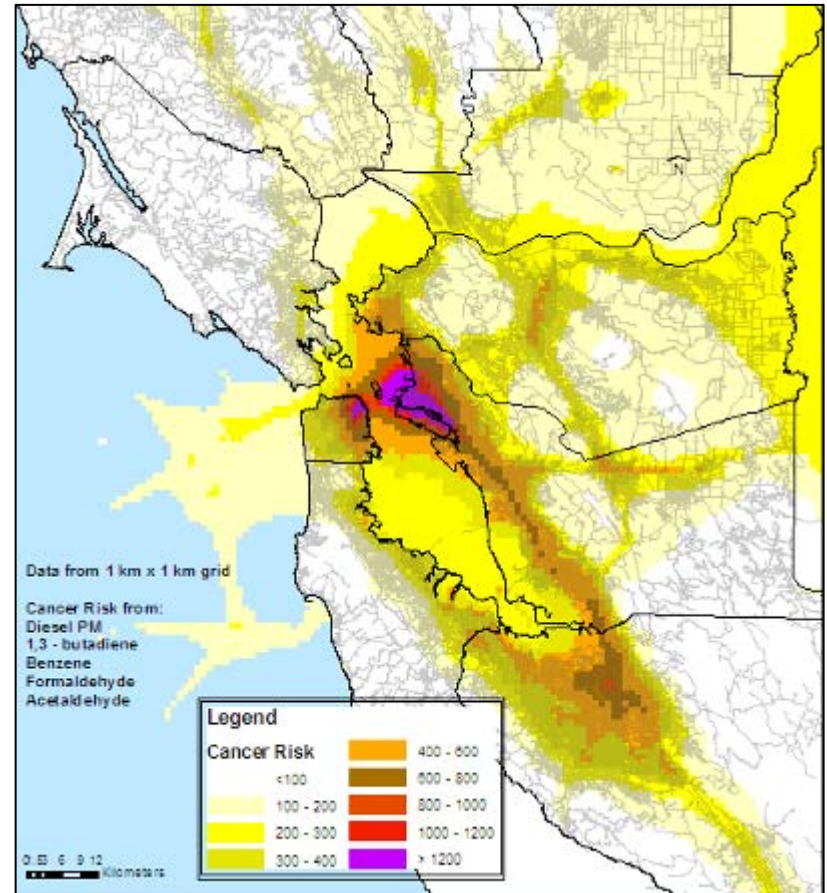
Risk-weighted Emissions



Cancer risk-weighted emissions (lbs/day * unit risk factor)



Modeled Air Toxics Risk



Proposed Local Community Risks and Hazards Thresholds

<p>Single source (Source or Receptor)</p>	<p>Compliance with Qualified Risk Reduction Plan OR</p> <ul style="list-style-type: none">• Increased cancer risk >10.0 in a million• Increased non-cancer risk > 1.0 Hazard Index (Chronic or Acute)• Ambient PM_{2.5} increase: > 0.3 µg/m³ annual average <p><u>Zone of Influence</u>: 1,000-foot radius from proposed project</p>
<p>Cumulative (Source or Receptor)</p>	<p>Compliance with Qualified Risk Reduction Plan OR</p> <ul style="list-style-type: none">• Cancer: > 100 in a million (from all local sources)• Non-cancer: > 10.0* Hazard Index (from all local sources) (Chronic)• PM_{2.5}: > 0.8 µg/m³ annual average (from all local sources) <p><u>Zone of Influence</u>: 1,000-foot radius from proposed project</p>

* Threshold proposal revised since December 7, 2009 draft Guidelines



Community Risk Reduction Plans

- Supports community wide planning approach to reduce cumulative impacts
- Collaborative effort between local governments and Air District
- CRRP Elements:
 1. Defined CRRP Planning Area
 2. Emission Inventories
 3. Risk Modeling
 4. Goal or Reduction Target, e.g.,
 - a) No Net Increase/Net Reduction
 - b) Percent Reduction from Baseline Conditions
 - c) Equivalent to Regional Average Risk
 5. Emission Reduction Measures
 6. Monitoring and Updating Mechanism
 7. Public Involvement and CEQA Process



Developing CRRPs/Support Local Planning Activities

- District staff to work closely with local government staff
 - District:
 - Template for plans and methodology for developing targets and mitigations
 - Emissions inventory & modeling
 - Identify areas with high emissions and exposures
 - Assist with mitigation
 - Local government
 - Planning/policy framework
 - Public outreach
 - Assist with mitigation
- Initiate pilot projects – San Jose, San Francisco
- Integrate with and assist local planning
 - Support FOCUS, PDAs, infill
 - Coordinate CRRPs with general plan updates, specific plans, etc.
 - District budget funds for local government assistance for plans



Risk & Hazards Tools & Resources

- Construction risk screening spreadsheet
 - User defined equipment list
 - Estimates risk and PM_{2.5} concentration near site
- Stationary source risk screening tables
 - Database of District permitted sources including location, type of source, emissions, and risks
 - Google map application
- Roadway risk screening tables
 - Risks based on distance from all California highways
 - Surface street risks based on vehicle volumes
- Detailed Phased Modeling Methodology
 - Use of site specific inputs in more complex, sophisticated models

Phased Approach for New Sources & Receptors

STEP 1

PROJECT
SUBMISSION

Any Major Roads &
Sources > 1,000 ft?

No

DONE

STEP 2

Use Screening Tables
PM_{2.5} & Toxics
> CEQA Thresholds?

No

Report Results

STEP 3

Site-Specific Air
Modeling & HRA
PM_{2.5} & Toxics
> CEQA Thresholds?

No

Yes

Recommend Mitigation
Measures

Yes

Yes



Case Studies

- Case Studies for
 - The Uptown, Oakland
 - North Richmond Specific Plan, Contra Costa County
- Demonstrate Use of Screening Tables
 - California Highways
 - Surface Streets
 - Permitted Stationary Sources
 - Railroads

Case Study: The Uptown, Oakland



Step 1 – Determine 1,000 foot radius

Step 2 – Identify local roads (>10,000 vehicles/day) and freeways to be evaluated

Step 3 – Identify local permitted sources

Step 4 – Identify other sources

Permitted Source Application through Google Earth

Fly To: Find Businesses Directions
Fly to e.g., 37 25' 19.1"N, 122 05' 06"W

Places: Add Content

- 1000 foot buffer_Info
- F6B
- F6B_Info
- Japantown Redevelopment
- Japantown Redevelopment_...
- Downtown Berkeley
- Berkeley Downtown Plan, Berkeley Exported with ET
- 1000 foot buffer
- 1000 foot buffer_Info
- Downtown Berkeley
- Downtown Berkeley_Info
- Permitted sources
- Uptown Oakland
- Uptown Development, Oakland Exported with ET GeoWizards
- Permitted sources
- 1000 foot buffer

Layers

- Primary Database
- Borders and Labels
- Places of Interest
- Panorama
- Roads
- 3D Buildings
- Ocean
- Street View
- Weather
- Gallery
- Global Awareness
- More
- Terrain

14301	
Permitted_sources_schema.FID	8821
Permitted_sources_schema.Plant_Numb	14301
Permitted_sources_schema.FACILITY_N	City of Oakland Envr Scvs Division
Permitted_sources_schema.Source_Typ	Diesel Engine, Onan model 350D
Permitted_sources_schema.UTM_E	563759
Permitted_sources_schema.UTM_N	4184776
Permitted_sources_schema.Cancer_Ris	8.1
Permitted_sources_schema.Chronic_Ha	0.00
Permitted_sources_schema.Acute_Haza	0.00
Permitted_sources_schema.PM2_5	0.01

Directions: To here - From here

Imagery Date: Aug 25, 2009
10 S 5640e8.82 m E 4184970.37 m N 56ewk10.6 d
Eye alt: 3513 ft

Construction Risk Screening Spreadsheet

A1		USER INPUTS													
A		B	C	D	E	F	G	H	I	J	K	L	M		
1	USER INPUTS														
2															
3	General Options														
4	Construction site acreage:	total acres													
5	Age Sensitivity Factors	OFF													
6	Minimum Construction Duration:	NA													
7	Residential Project Type	single family													
8	Emission Sources Included:														
9	<input checked="" type="checkbox"/> Area Source														
10	<input checked="" type="checkbox"/> Mobile Source														
11															
12															
13															
14															
15	Soil Exportation Factors (mobile source only)														
16	cu. yds/acre residential	1,500.00000													
17	cu. yds/acre commercial/industrial	1,500.00000													
18	Truck Capacity (cu. yds)	20.00000													
19	Phasing Apportionment														
20	Grading Length fraction of total duration	0.50000													
21	Paving Length fraction of total duration	0.50000													
22	Construction Start Dates for All Scenarios														
23	Grading Start Date	1/1/2010													
24	Paving Start Date	2/1/2010													
25	Construction Start Date	3/1/2010													
26															
27	Total Construction Duration Equations														
28	Duration (work days) = a * units/sq.ft. + b														
29	Category	a	b												
30	Residential	1.10000	90.00000												
31	Commercial	0.00060	82.00000												
32	Industrial	0.00060	90.00000												
33															
34	Persistence Factors (mobile Source Only)														
35	Conversion Type	ISC or Default	Value												
36	1-hour --> 8 hr conversion	ISC Value	0.996												
37	1-hour --> annual conversion	ISC Value	0.312												
38															
39															
40															

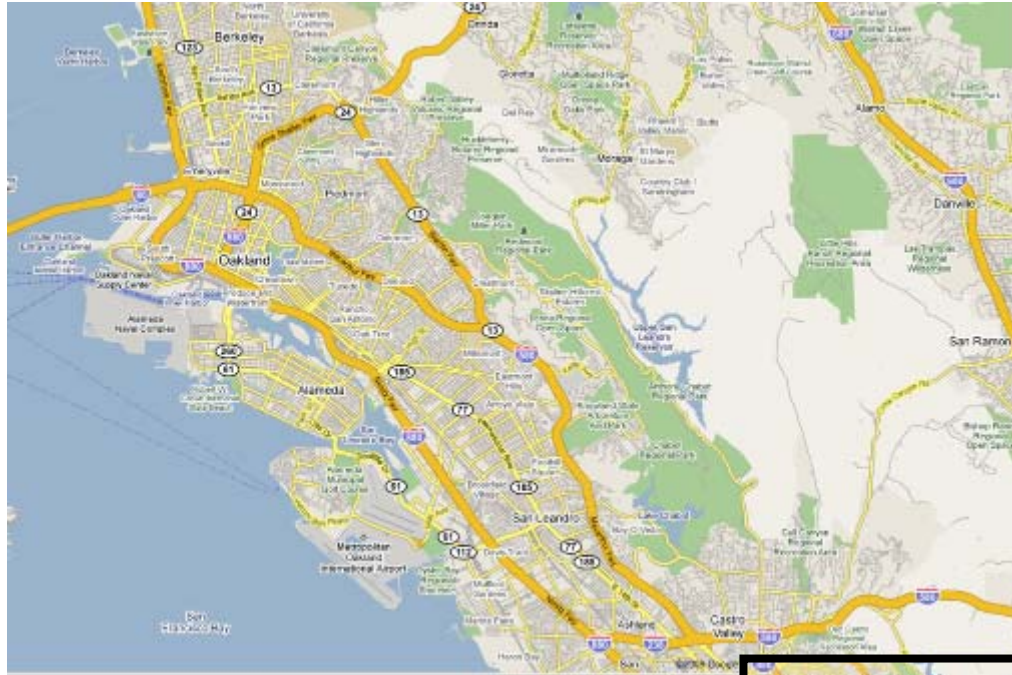
Scenario	Maximum Distance from Fence Line where threshold is exceeded					
	DPM		PM2.5	Acrolein		
	Cancer	Chronic	Annual Average Concentration	Acute	8-hr	Chronic
Residential						
5_SFR	7.0	-	75.0	50.0	175.0	-
10_SFR	1.0	-	70.0	19.0	150.0	-
25_SFR	-	-	80.0	9.0	125.0	-
50_SFR	-	-	85.0	-	75.0	-
100_SFR	-	-	90.0	-	25.0	-
250_SFR	-	-	150.0	-	9.0	-
500_SFR	-	-	150.0	-	-	-
1000_SFR	-	-	80.0	-	-	-
2000_SFR	3.0	-	55.0	-	-	-
5000_SFR	4.0	-	40.0	-	-	-
Commercial						
5_TSF_Com	25.0	11.0	90.0	125.0	225.0	3.0
10_TSF_Com	19.0	6.0	85.0	100.0	225.0	-
30_TSF_Com	11.0	1.0	90.0	65.0	225.0	-
60_TSF_Com	5.0	-	95.0	30.0	200.0	-
100_TSF_Com	9.0	-	100.0	30.0	200.0	-
300_TSF_Com	8.0	-	200.0	2.0	100.0	-
500_TSF_Com	6.0	-	150.0	-	40.0	-
1000_TSF_Com	8.0	-	150.0	-	8.0	-
3000_TSF_Com	45.0	-	150.0	-	-	-
7000_TSF_Com	20.0	-	30.0	-	-	-
Industrial						
5_TSF_Ind	25.0	12.0	95.0	125.0	225.0	4.0
10_TSF_Ind	20.0	7.0	90.0	100.0	225.0	-
30_TSF_Ind	13.0	1.0	95.0	65.0	225.0	-
60_TSF_Ind	6.0	-	100.0	30.0	200.0	-
100_TSF_Ind	11.0	-	100.0	30.0	200.0	-
300_TSF_Ind	9.0	-	200.0	2.0	100.0	-
500_TSF_Ind	7.0	-	150.0	-	40.0	-
1000_TSF_Ind	8.0	-	150.0	-	8.0	-
3000_TSF_Ind	45.0	-	150.0	-	-	-
6000_TSF_Ind	25.0	-	40.0	-	-	-

Author:
Relates the total acreage of each construction site to the total construction duration. See the file "URBEMIS Data_v2"

Author:
The ISC value is the persistence factor of the ISC area source modeling (see ISC Concentrations worksheet). The default value is the BAAQMD's recommended persistence factor.

Alameda County Screening Tables

Particulate Matter less than 2.5 microns ($\mu\text{g}/\text{m}^3$) Generated from Roadways



- ← Northern Alameda County includes:
- Highway 13 (Ashby Avenue)
 - Highway 24
 - Highway 61
 - Highway 77
 - Highway 80
 - Highway 123 (San Pablo Avenue)
 - Highway 185 (International Blvd and East 14th Street)
 - Highway 238
 - Highway 260
 - Highway 580
 - Highway 680
 - Highway 880
 - Highway 980

- Southern Alameda County includes: →
- Highway 84 (Dumbarton Bridge)
 - Highway 92 (San Mateo-Hayward Bridge)
 - Highway 205
 - Highway 238
 - Highway 262



Alameda County Screening Tables

Particulate Matter less than 2.5 microns (ug/m³) Generated from Roadways

How to use the screening tables:

- Distance is from the edge of the nearest highway travel lane to the facility or development
- When two or more highways are within the influence area, sum the contribution from each freeway

Alameda County State Highways			
Highway Number	Average Daily 2-Way Traffic Volumes (vehicles/day)	Start Location	End Location
13 (Ashby Avenue)	74,000	Oakland, Highway 580	Berkeley, Highway 80
24	158,000	Oakland, Highways 580 and 980	Caldecott Tunnel
61	27,000	San Leandro, Highway 112	Alameda, Highway 260 North (Central Avenue/Webster Street)
77	20,000	Oakland, Highway 880	Oakland, East 14th Street
80	294,000	San Francisco - Oakland Bay Bridge/Toll Plaza	Albany, Highway 580, Buchanan Street
84	74,000	Fremont, Dumbarton Bridge Toll Plaza	Highway 580
92	109,000	Hayward, San Mateo-Hayward Bridge Toll Plaza	Hayward, Highway 185 and 238, Mission Boulevard
123 (San Pablo Avenue)	30,500	Oakland, Highway 580	Albany, Solano Avenue
185 (International Boulevard and East 14th Street)	27,500	Hayward, Highways 92 and 238, Jackson Street/Foothill Boulevard	Oakland, High and 12th Streets
205	112,000	Highway 580	San Joaquin County Line
238	131,000	Fremont, Highway 680, Mission Boulevard	San Leandro, Highway 880, Nimitz Freeway
260	56,000	Alameda, Atlantic Avenue	Alameda Posey Tube to Oakland, Highway 880
262	90,000	Fremont, Highway 880	Fremont, Highway 680
580	218,000	Highway 205 East	Albany, Highway 80 North
680	266,000	Fremont, Scott Creek Road	Pleasanton, Highway 580
880	264,000	Fremont, Highway 262 East	Oakland, Highway 80 West
980	97,000	Oakland, Highway 880	Oakland, Highway 580

NORTH OR SOUTH OF ALAMEDA COUNTY HIGHWAY					
Highway	Distance North or South of freeway - PM2.5 Concentrations (ug/m ³)				
	100 feet	200 feet	500 feet	700 feet	1,000 feet
13	0.40	0.28	0.13	0.10	0.074
24	0.90	0.60	0.28	0.20	0.14
61	0.20	0.11	0.056	0.038	0.032
77	0.064	0.046	0.024	0	0
80	0.70	0.60	0.36	0.26	0.19
84	0.34	0.30	0.17	0.12	0.080
92	0.50	0.42	0.26	0.18	0.12
123	0.22	0.13	0.064	0.052	0.036
185	0.19	0.11	0.056	0.038	0.032
205	0.80	0.48	0.24	0.16	0.084
238	1.2	0.50	0.24	0.15	0.10
260	0.30	0.10	0.046	0.034	0.024
262	0.76	0.36	0.17	0.11	0.076
580	0.80	0.60	0.32	0.22	0.16
680	2.0	0.90	0.40	0.30	0.19
880	0.80	0.64	0.34	0.28	0.18
980	0.54	0.36	0.15	0.11	0.076

EAST OR WEST OF ALAMEDA COUNTY HIGHWAY					
Highway	Distance East or West of freeway - PM2.5 Concentrations (ug/m ³)				
	100 feet	200 feet	500 feet	700 feet	1,000 feet
13	0.76	0.44	0.20	0.16	0.11
24	1.6	1.2	0.44	0.34	0.22
61	0.30	0.17	0.068	0.036	0.026
77	0.050	0.040	0.016	0	0
80	0.90	0.84	0.60	0.48	0.34
84	0.34	0.30	0.20	0.15	0.11
92	0.50	0.44	0.30	0.22	0.16
123	0.30	0.20	0.080	0.060	0.036
185	0.38	0.24	0.060	0.036	0.030
205	0.90	0.60	0.26	0.18	0.13
238	1.2	0.50	0.24	0.18	0.12
260	0.22	0.14	0.044	0.032	0.020
262	0.96	0.40	0.18	0.15	0.096
580	1.1	0.96	0.58	0.44	0.34
680	2.8	2.0	0.76	0.56	0.38
880	0.90	0.84	0.56	0.40	0.32
980	0.84	0.60	0.26	0.18	0.12

• Screening tables based on meteorological data collected from Oakland Sewage Treatment Plant in 2000 (Highways 13, 24, 61, 77, 80, 123, 185, 238, 260, 880, and 980), Pleasanton in 2005 (Highways 580 and 680), Union City in 1996 (Highway 84, 92, 238, and 262), and Livermore Laboratory in 2005 (Highway 205).

Roadway Screening Tables

Surface Streets Screening Tables Particulate Matter less than 2.5 microns (ug/m³) Generated from Roadways

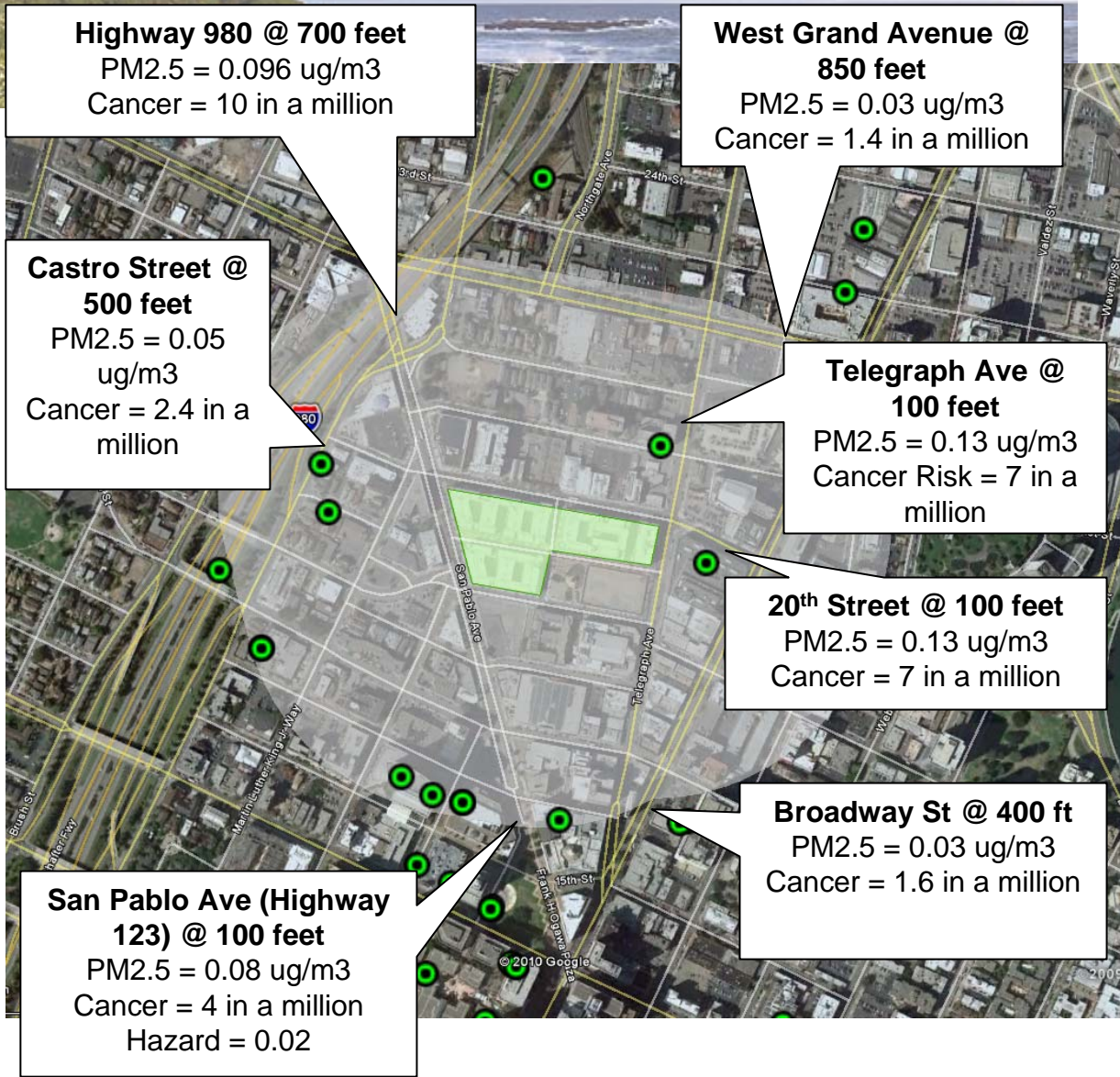
How to use the screening tables:

- Distance is from the edge of the nearest highway travel lane to the facility or development
- When two or more highways are within the influence area, sum the contribution from each freeway

NORTH-SOUTH DIRECTIONAL ROADWAY					
Average Annual Daily Traffic	Distance East or West of Roadway - PM2.5 Concentrations (ug/m ³)				
	100 feet	200 feet	500 feet	700 feet	1,000 feet
1,000	No analysis required				
5,000					
10,000					
20,000	0.14	0.090	0.037	0.029	0.021
30,000	0.21	0.14	0.056	0.043	0.032
40,000	0.28	0.18	0.074	0.057	0.042
50,000	0.35	0.23	0.093	0.071	0.053
60,000	0.42	0.27	0.11	0.086	0.063
70,000	0.49	0.32	0.13	0.10	0.074
80,000	0.56	0.36	0.15	0.11	0.084
90,000	0.63	0.41	0.17	0.13	0.095
100,000	0.70	0.45	0.19	0.14	0.11

EAST-WEST DIRECTIONAL ROADWAY					
Average Annual Daily Traffic	Distance North or South of Roadway - PM2.5 Concentrations (ug/m ³)				
	100 feet	200 feet	500 feet	700 feet	1,000 feet
1,000	No analysis required				
5,000					
10,000					
20,000	0.16	0.10	0.040	0.030	0.018
30,000	0.25	0.17	0.075	0.048	0.028
40,000	0.28	0.21	0.092	0.072	0.046
50,000	0.35	0.26	0.12	0.090	0.070
60,000	0.42	0.31	0.14	0.11	0.084
70,000	0.49	0.36	0.17	0.13	0.10
80,000	0.56	0.42	0.19	0.14	0.11
90,000	0.63	0.47	0.22	0.16	0.13
100,000	0.70	0.52	0.24	0.18	0.14

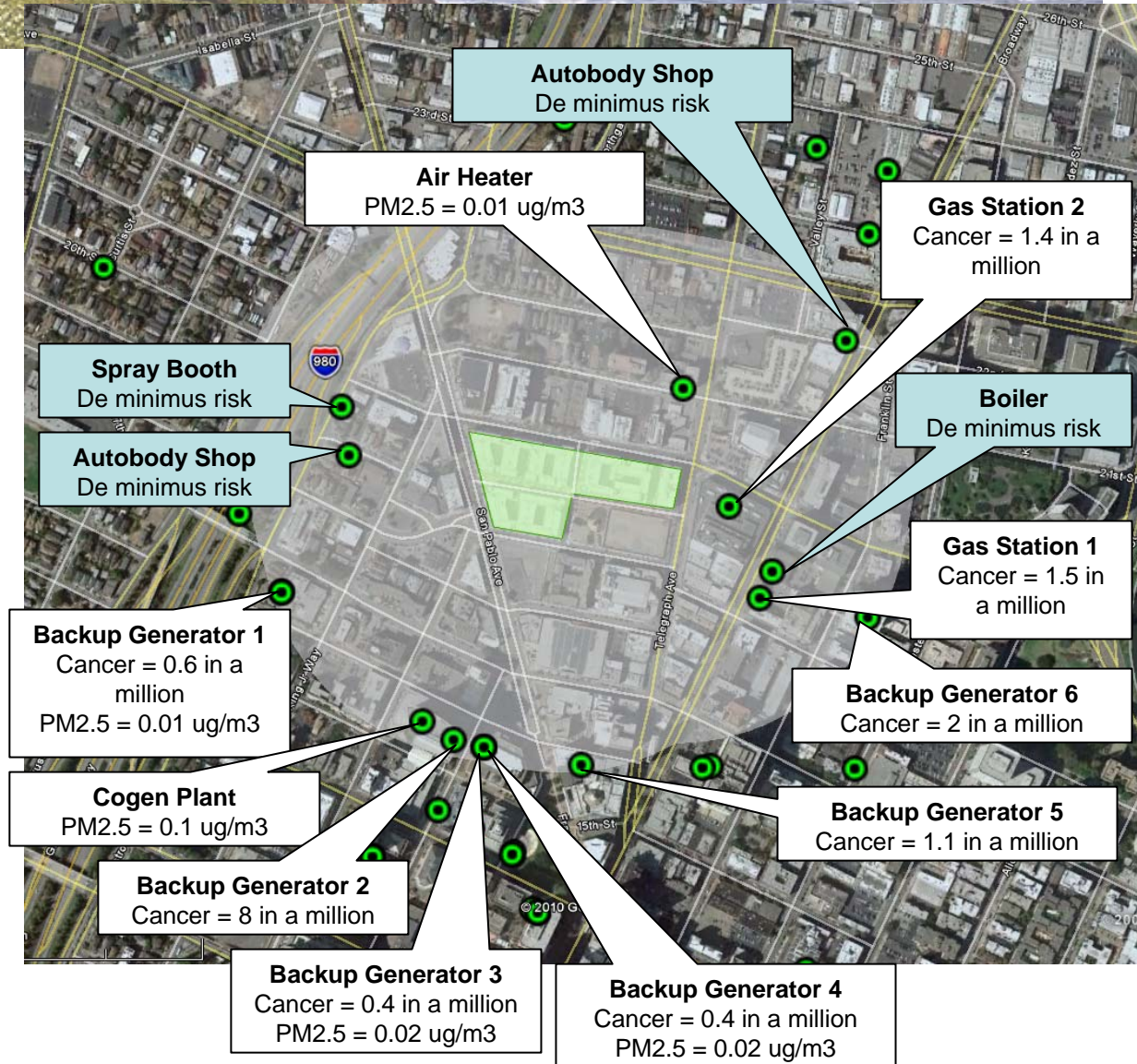
Roadway Impacts Near The Uptown



Roads	PM2.5 (ug/m3)	CEQA Threshold
Highway 980	0.10	0.30
Highway 123	0.08	
Castro St	0.05	
W Grand	0.03	
Telegraph	0.13	
20th St	0.13	
Broadway	0.03	

Roads	Cancer (cases per million)	CEQA Threshold
Highway 980	10	10
Highway 123	4	
Castro St	2.4	
W Grand	1.4	
Telegraph	7	
20th St	7	
Broadway	1.6	

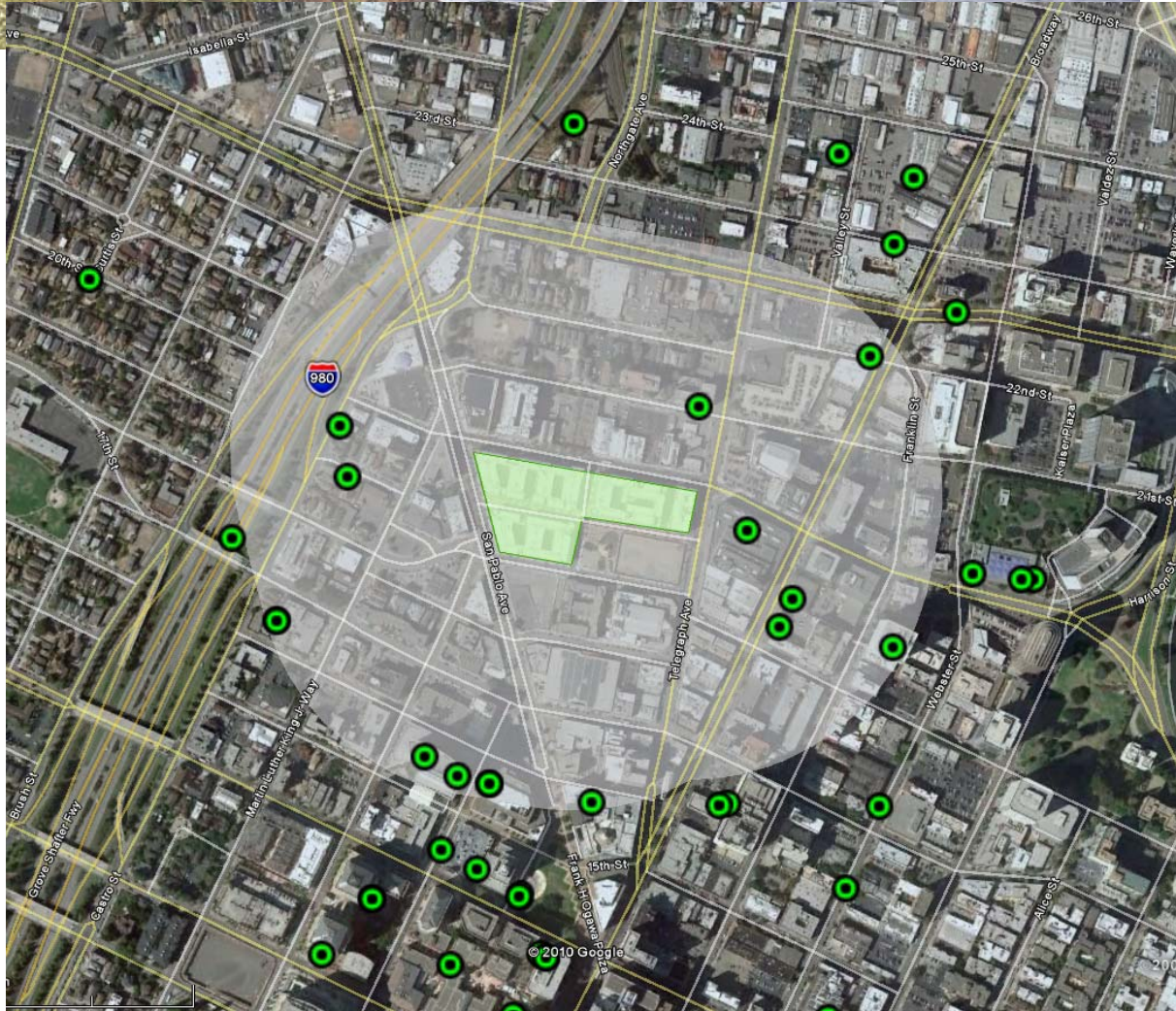
Permitted Sources Near The Uptown



Source	PM2.5 (ug/m3)	CEQA Threshold
Generator 1	0.01	0.30
Cogen	0.1	
Generator 3	0.02	
Generator 4	0.02	
Air Heater	0.01	

Source	Cancer (cases per million)	CEQA Threshold
Generator 1	0.6	10
Generator 2	8	
Generator 3	0.4	
Generator 4	0.4	
Generator 5	1.1	
Generator 6	2	
Gas Station 1	1.5	
Gas Station 2	1.4	

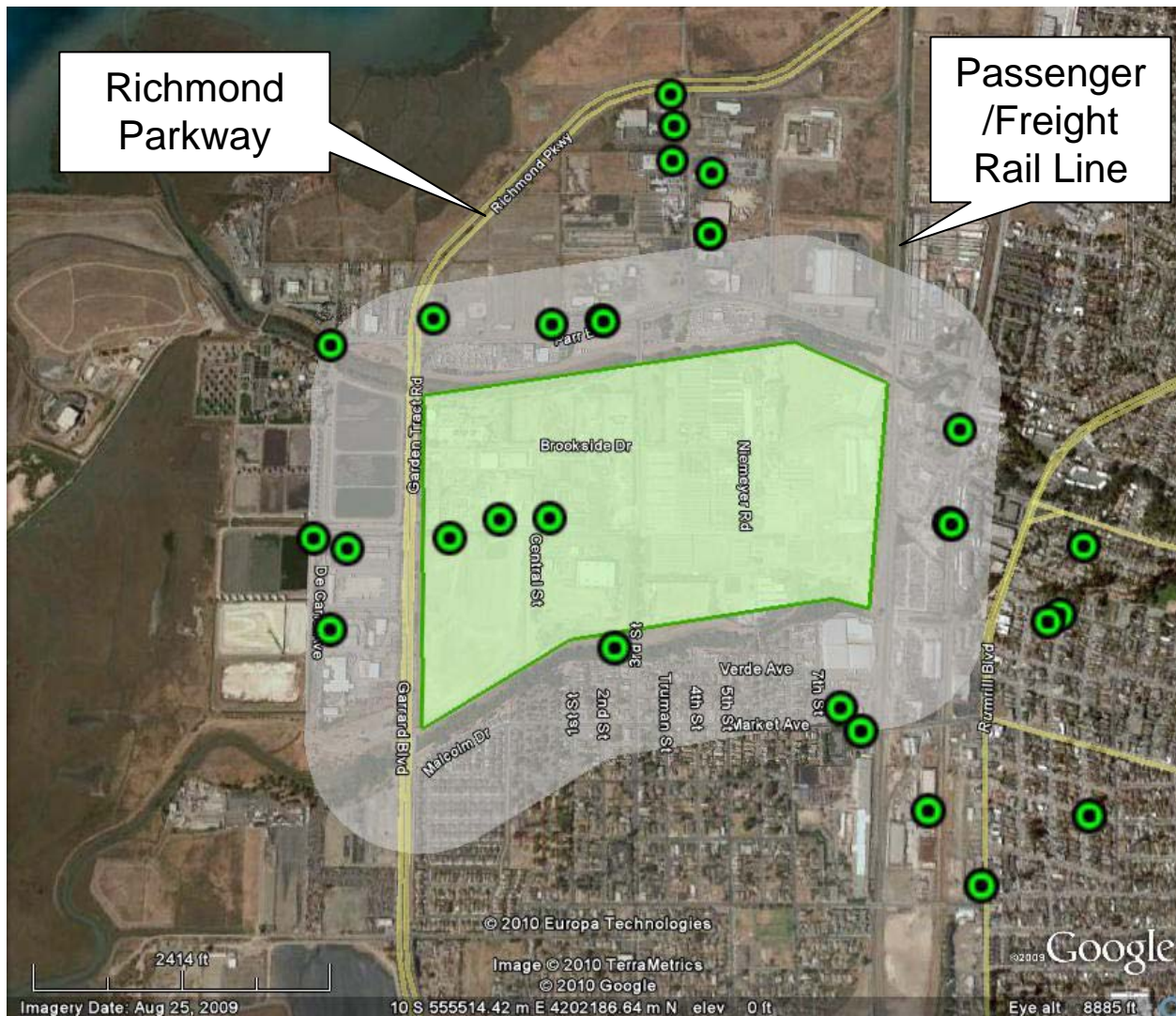
Cumulative Impacts Near The Uptown



Sources	PM2.5 (ug/m3)	CEQA Threshold
Highway	0.18	0.80
Surface Street	0.37	
Stationary Sources	0.16	
CUMULATIVE	0.71	

Source	Cancer (cases per million)	CEQA Threshold
Highway	14	100
Surface Street	19	
Stationary Sources	16	
CUMULATIVE	49	

Case Study: North Richmond Specific Plan, Contra Costa County



Step 1 – Determine 1,000 foot radius

Step 2 – Identify local roads (>10,000 vehicles/day) and freeways to be evaluated

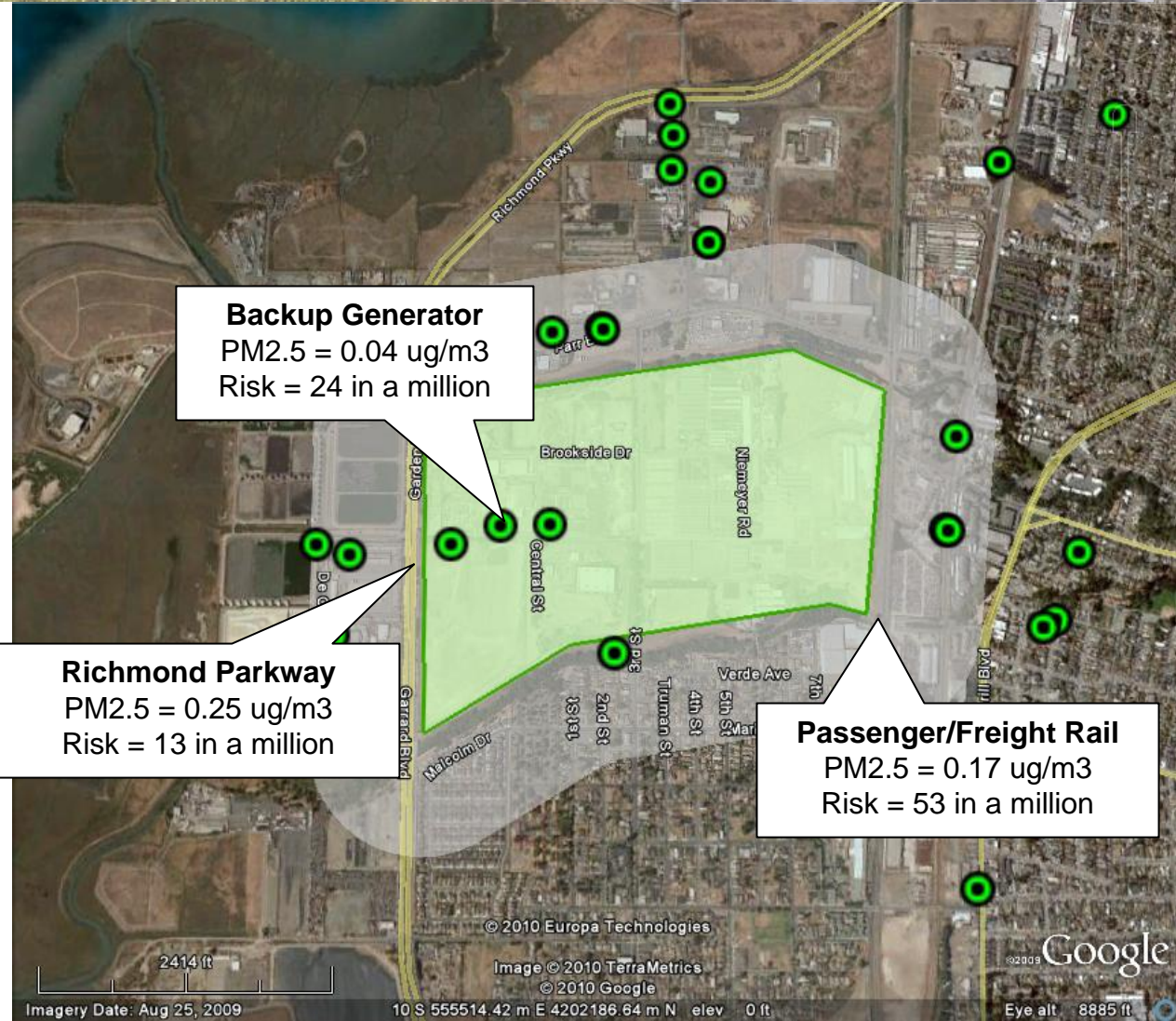
- Richmond Parkway (30,000 vehicles/day)

Step 3 – Identify local permitted sources

Step 4 – Identify other sources:

- Passenger/Freight rail lines (9 locomotives/hr)

Preliminary Screening, Conservative Assumptions: North Richmond Specific Plan



Stationary Sources:

Type	Backup Generator	CEQA Threshold
PM2.5	0.04	0.3
Risk	24	10

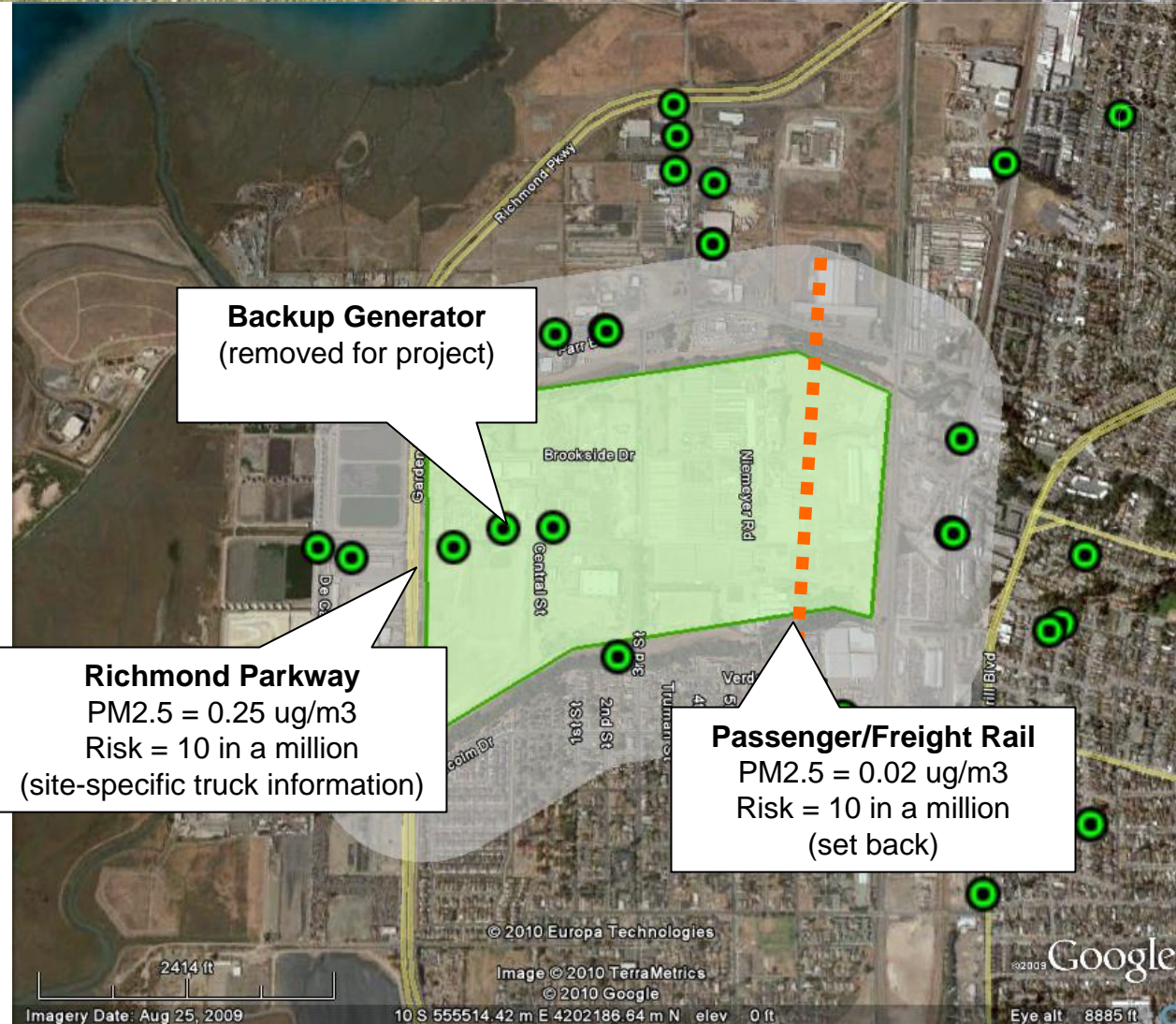
Roadway:

Type	Richmond Parkway	CEQA Threshold
PM2.5	0.25	0.3
Risk	13	10

Railroad:

Type	Rail	CEQA Threshold
PM2.5	0.17	0.30
Risk	81	10

Site Specific Analysis: North Richmond Specific Plan



Roadway:

Type	Richmond Parkway	CEQA Threshold
PM2.5	0.25	0.3
Risk	10	10

Railroad:

Type	Rail	CEQA Threshold
PM2.5	0.02	0.30
Risk	10	10

Preferred Development Concept





Next Steps

- Workshops in each county with local staff – April
- Public workshops for interested stakeholders – April
- CAPCOA HRA/Land Use Workshop – May 3
- URBEMIS/GHG off-model training - May
- Seek Air District Board approval of significance thresholds in June 2010



Questions or Comments?