



BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

BAAQMD CEQA Guidelines Update

**Joint Policy Committee
May 21, 2010**

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Bay Area Air Quality Management District

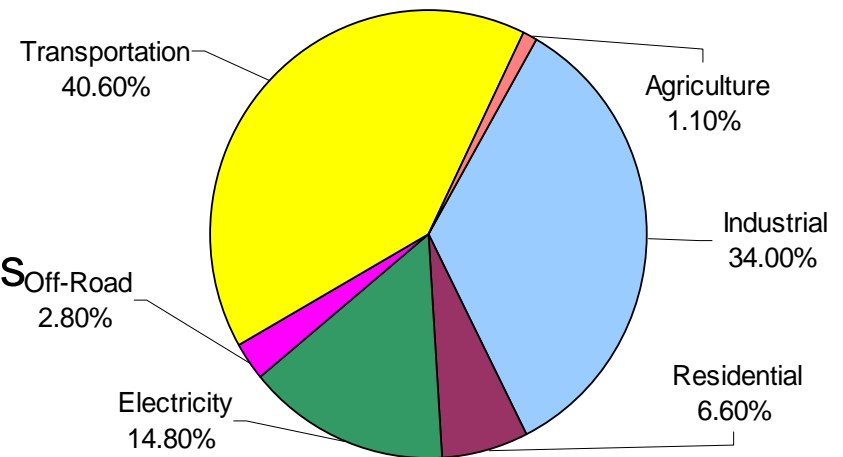
Why Update the CEQA Guidelines?

- Provide guidance to local lead agencies
- Include thresholds of significance, analytical tools, mitigation measures
- Last published 1999, update needed
 - Attain health-based air quality standards for ozone and fine PM
 - Reduce health impacts from toxic air contaminants and fine PM
 - Highest exposures to toxics & fine PM near roadways, heavy industry
 - GHG reductions needed to achieve SB 375, AB 32, Governor's Executive Order
- Goal: encourage air quality beneficial land use
 - Support infill, TOD, mixed use
 - Minimize public health impacts of new development

Transportation, Land Use and Air Quality

- Motor vehicles are largest source of air pollution in Bay Area
 - ozone, PM, toxics, GHGs
- Continuing challenges: exceed health based AQ standards; local impacts; GHGs
- California vehicle fleet is very clean—need to reduce vehicle use
- Promote strategies that support livable communities
 - Infill, mixed use, TOD
 - Support MTC, ABAG, local programs
 - Integrate AQ into local planning

2007 Greenhouse Gas Emissions
By Source for SF Bay Area

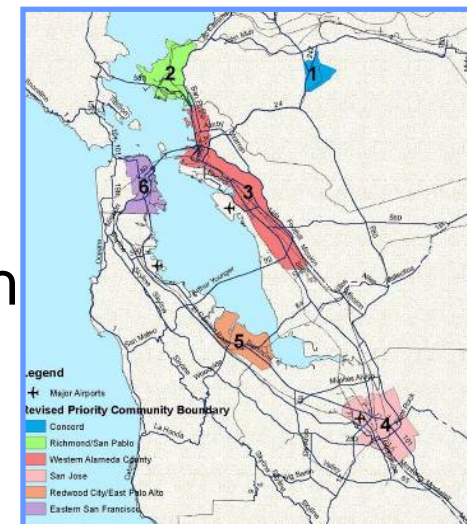


Proposed GHG Thresholds

- Address critical void
 - No thresholds for GHGs in CEQA currently exist
 - Legal scrutiny by AG, environmental groups
- Based on AB 32 and Scoping Plan – allows statewide consistency
- 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/yr (residents & employees)
- Credit for lower vehicle use/efficiencies of infill, mixed use projects
- Thresholds will be revisited if/when State guidance available
- Consistent w/Office of Planning & Research State CEQA Guidelines
- Provides certainty: legally defensible approach, level playing field

Local Community Risks and Hazards

- CARE program identifies 6 priority communities in Bay Area
 - High emissions, concentrations of toxics & vulnerable populations
- Address new sources of pollution *and* new receptors near existing sources (eg, freeways)
- Thresholds address:
 - Cancer risk
 - Fine particulate matter
 - Cumulative impacts
- Promote infill, while protecting residents
- Use caution planning residential near high emissions – busy freeways, refineries, etc.
- Potential conflicts may often be resolved through site specific analysis and reasonable mitigation
- Encourage community risk reduction plans



Community Risk Reduction Plans

- Supports community wide planning approach to reduce cumulative impacts
- Collaborative effort between local governments and Air District
- Progress
 - Report at Air District Board retreat February 2010
 - Discuss with CARE Task Force Feb. 11
 - Developed draft Guidelines for CRRP elements
 - Posted May 3
 - Review with regional agencies
 - Review with CARE Task Force May 19
 - Contract for local emission inventories – to Air District Executive Committee May 24
 - Initiate pilot projects with San Jose, San Francisco
 - Air District has budgeted funds for local government assistance with CRRPs

Extensive Outreach

- Since January 6 Air District Board meeting
 - 10 local government workshops
 - 2 public workshops
 - Presentations to key officials and staff
 - MTC & ABAG
 - Mayors' conferences
 - Bay Area Planning Directors
 - 40+ meetings with local officials, staff, stakeholders
 - Telephone calls, email updates, website, etc.
- Prior to January 6
 - 9 workshops, 8 Board meetings, CARE Task Force, numerous presentations and meetings

Summary of Workshop Comments & Feedback

- Technical questions re: analytical methods
- Questions whether outlying projects, poorly served by transit, meet GHG thresholds
- Concerns about impact on infill projects
- Interest in offsite mitigation program
- Interest in training for GHG and risk analysis
- Technical tools, case studies very helpful
- Staff conclusions
 - Only minor revisions to thresholds needed
 - Proceed with technical tools and training ASAP

Potential Effect on Infill, TOD

- GHG thresholds
 - Acknowledge efficiencies of infill – take credit for lower trip rates, energy efficiency, etc.
 - GHG efficiency threshold supports larger infill projects
- Risk and hazards thresholds
 - Extensive outreach to local gov't to improve understanding, receive feedback
 - Community risk reduction plans integrate with local planning activities
 - Extensive technical support documents assist evaluations
 - Case studies confirm thresholds are achievable, while health protective
 - Many projects pass screen level evaluations
 - Many additional projects pass with more site specific analysis and/or reasonable mitigation

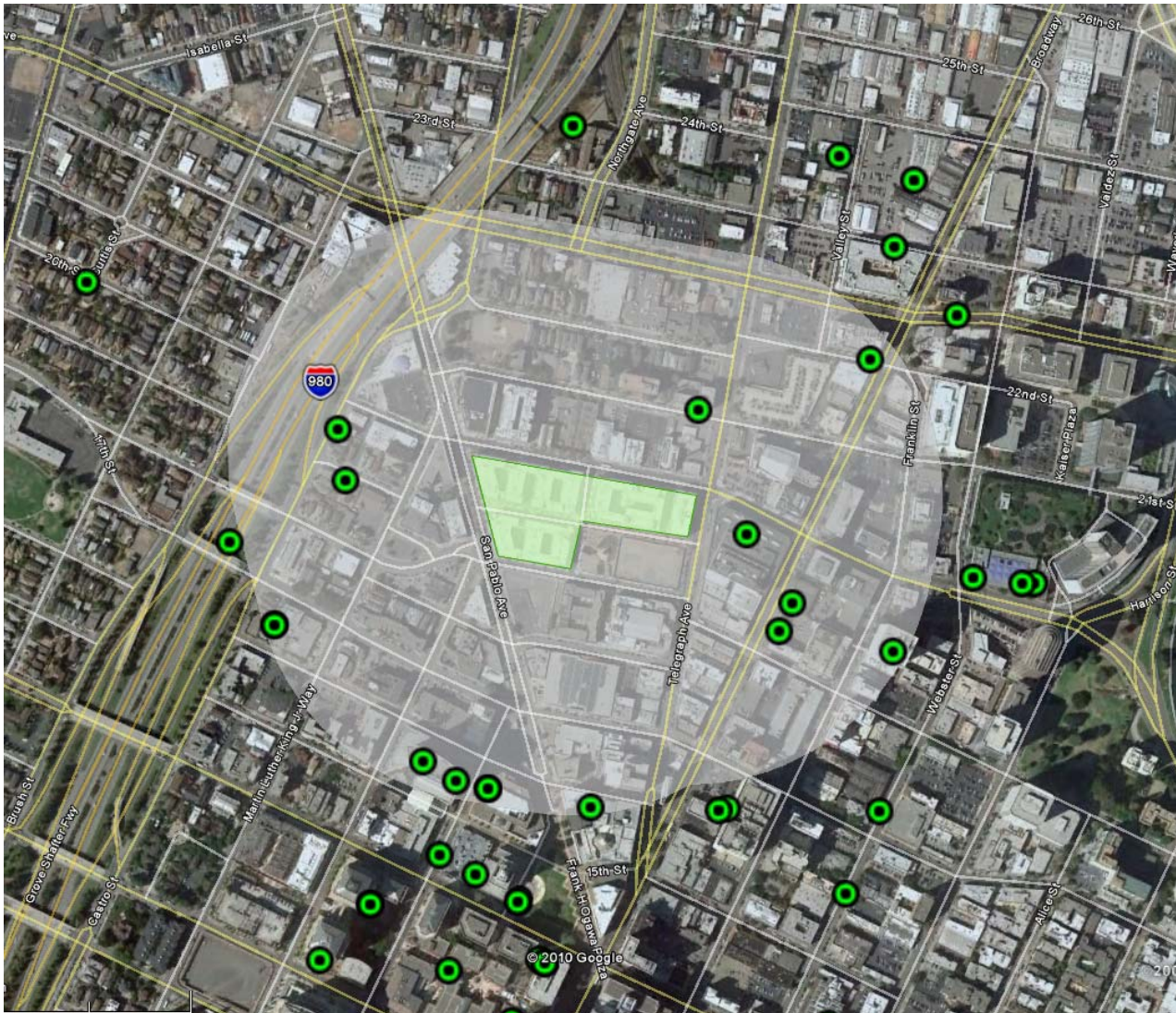
Technical Tools & Training

- Guidelines & technical support documents posted May 3
- Documents and Tools
 - GHG Off-Model Spreadsheet Calculator for projects
 - GHG Reduction Strategy Guidance
 - Offsite Mitigation Program Guidance
 - GHG Mitigation Measure Quantification
 - Detailed Phased Modeling Methodology
 - Roadway Risk Screening Tables
 - Stationary Source Risk Screening Tables
 - Construction Risk Screening Spreadsheet
 - Community Risk Reduction Plan Guidance
- Training & support
 - URBEMIS/GHG off-model training classes - May
 - Risk & hazard evaluation training – June/July
 - Technical assistance during project review - ongoing

Case Studies

- Staff conducted case studies to test thresholds and demonstrate technical tools
- Demonstrate that infill projects meet GHG thresholds
- Efficiency based GHG threshold supports infill projects, even large projects
- Plan-based GHG threshold promotes comprehensive strategy
- Infill projects pass risk/hazard threshold, either through screening or more refined analysis or feasible mitigation

Case Study: The Uptown, Oakland



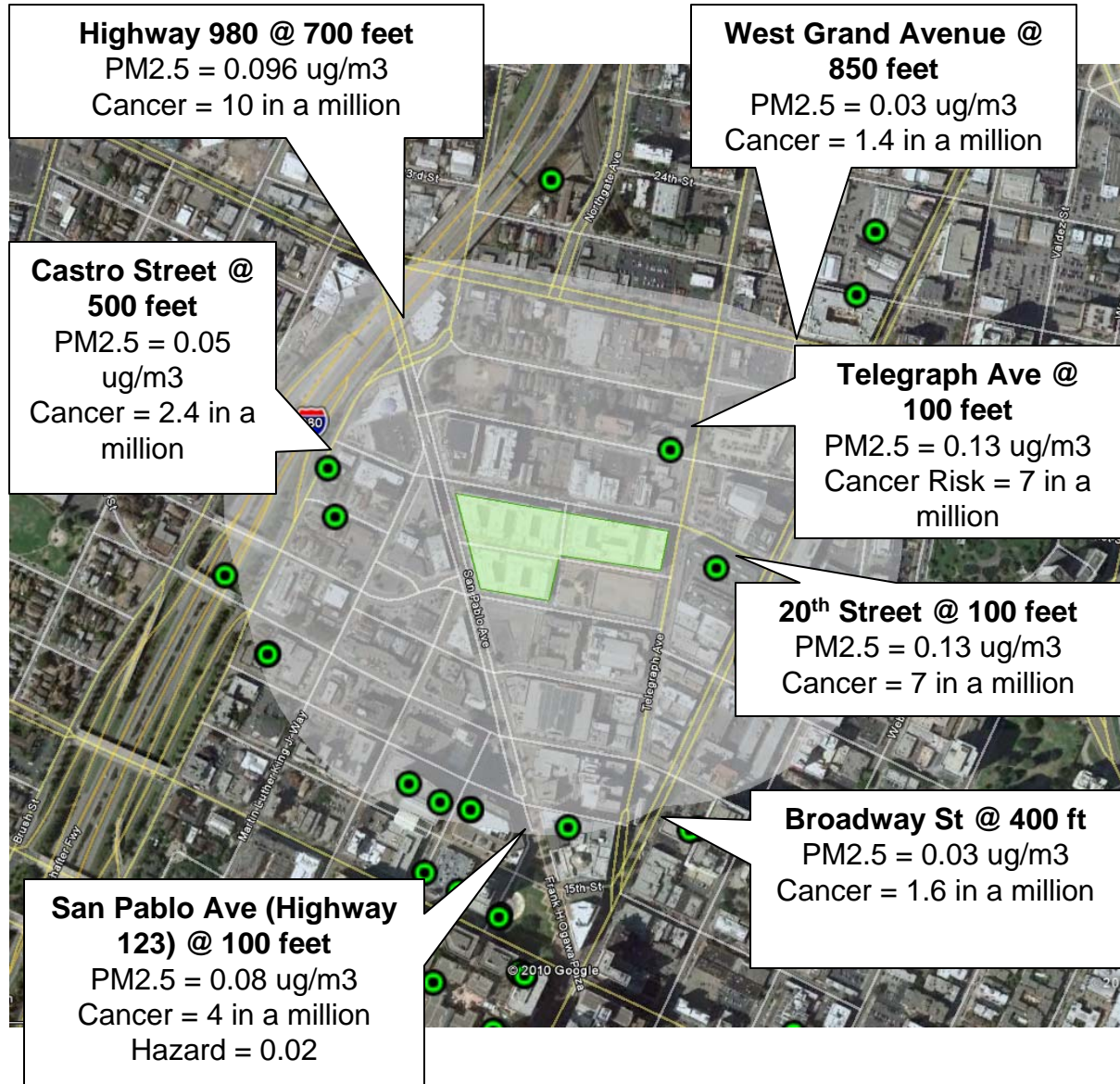
Project characteristics:
700 multifamily units,
14,000 sq. ft. retail,
downtown Oakland

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

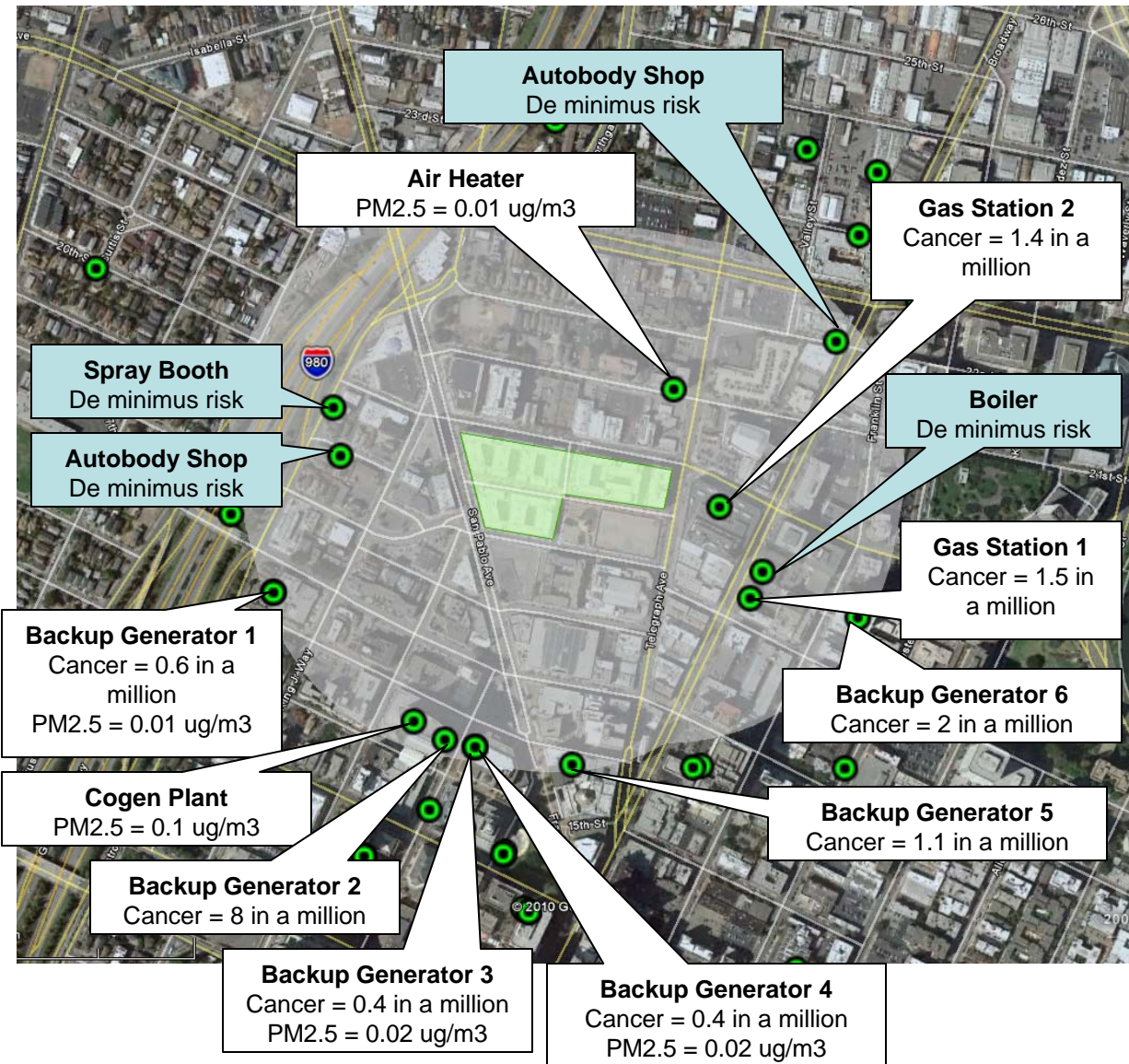
Roadway Impacts Near The Uptown



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	

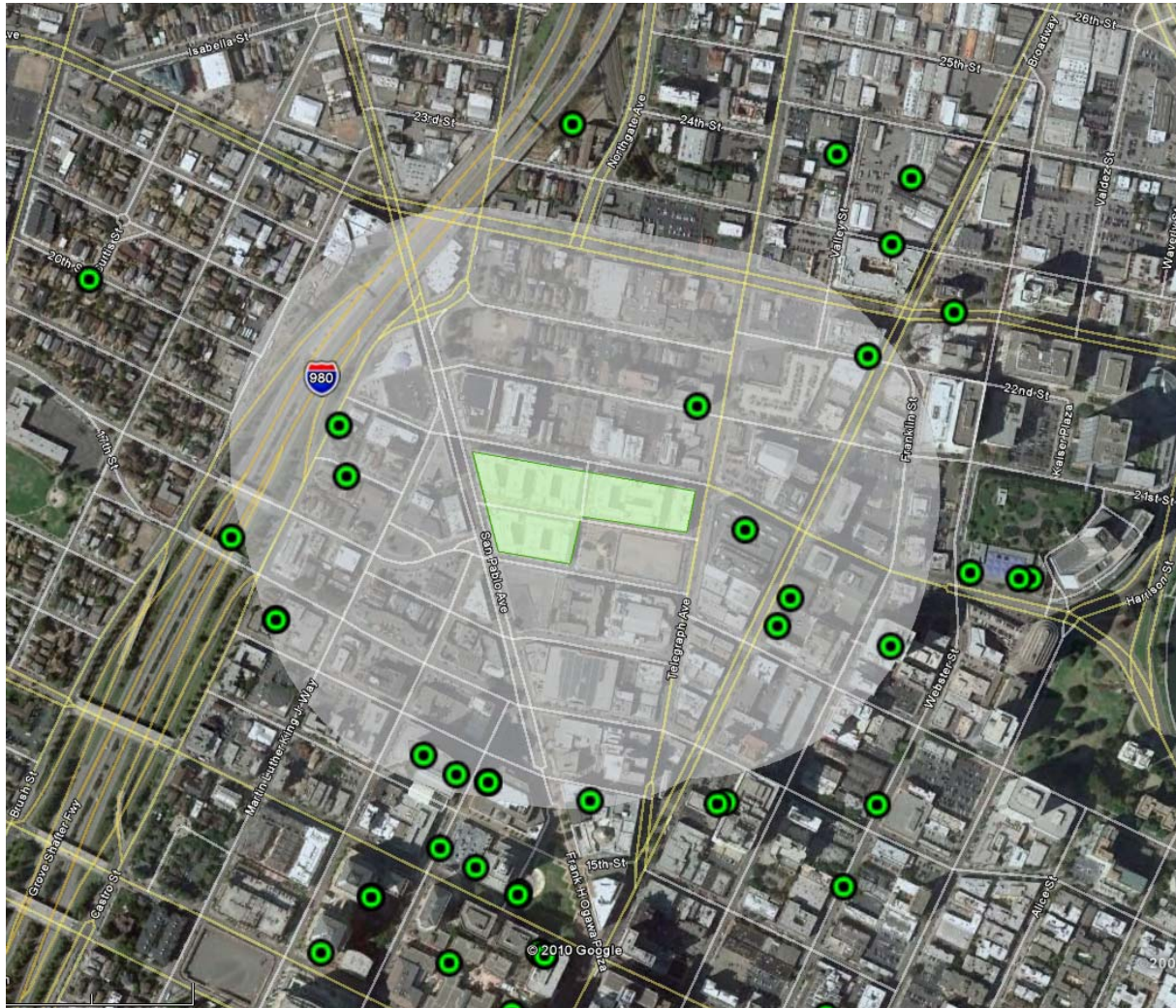
Permitted Sources Near The Uptown



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	

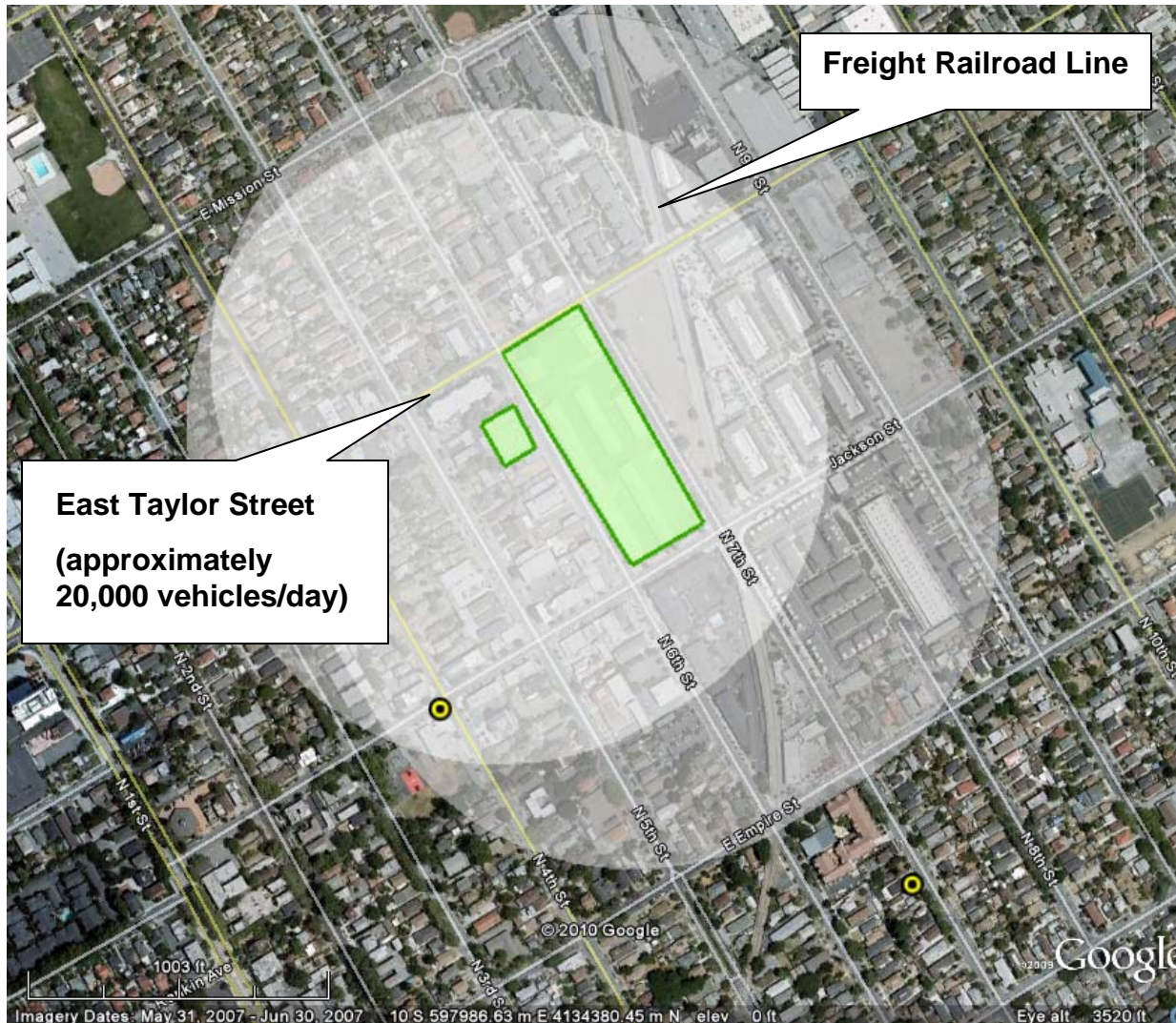
Cumulative Impacts Near The Uptown



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: Japantown Redevelopment Project, San Jose



Project characteristics:
600 apartments, 30,000 sq. ft. retail, near downtown San Jose

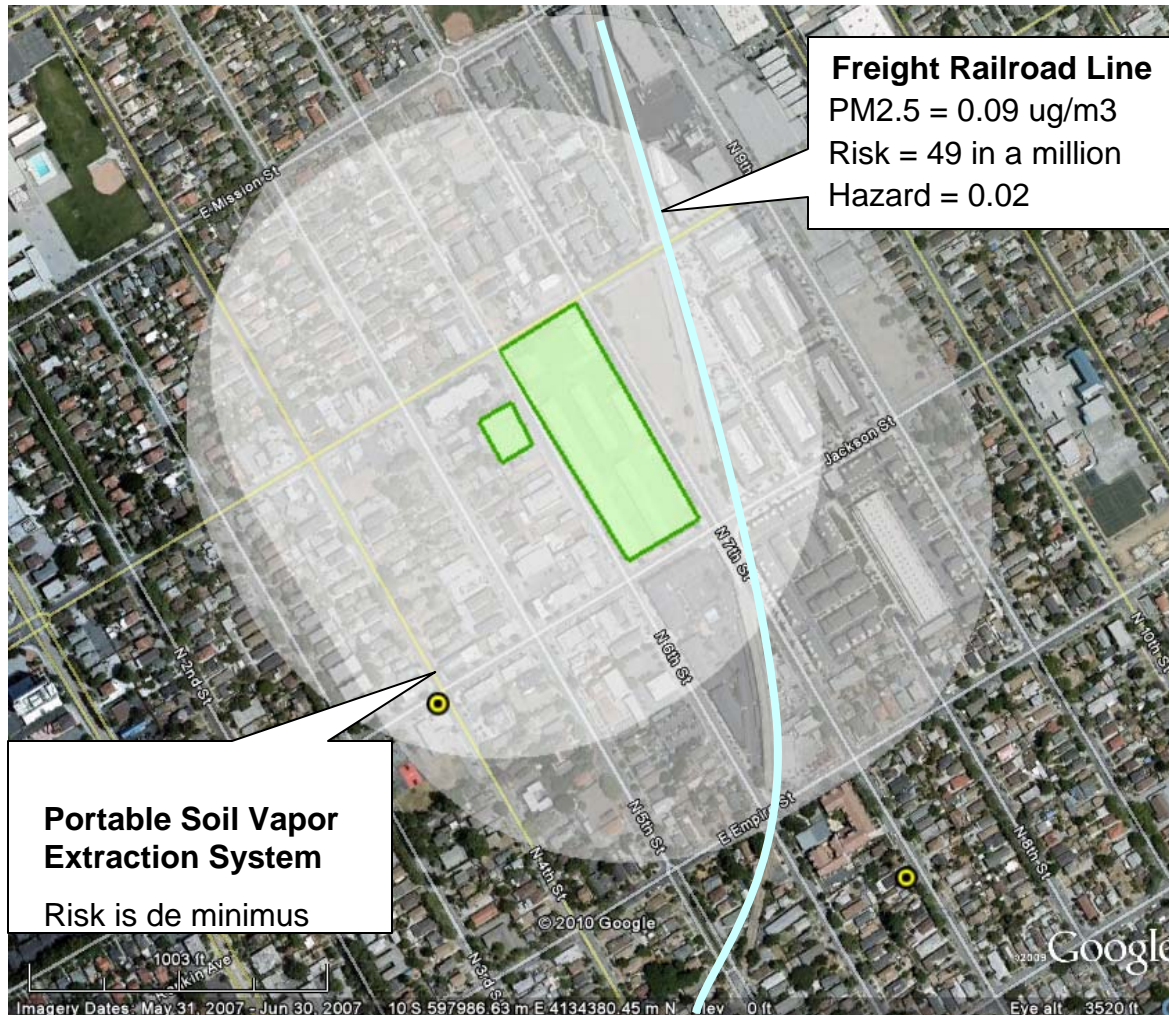
Step 1 – Determine 1,000 foot radius

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 - freight rail line

Preliminary Screening, Conservative Assumptions: Japantown Redevelopment Project



E. Taylor Street Impacts
 (assumed 20,000 vehicles/day):

Type	100 feet from roadway	CEQA Threshold
PM2.5	0.22	0.3
Risk	1.8	10
Hazard	Below 0.01	1

Freight Rail Line Impacts:

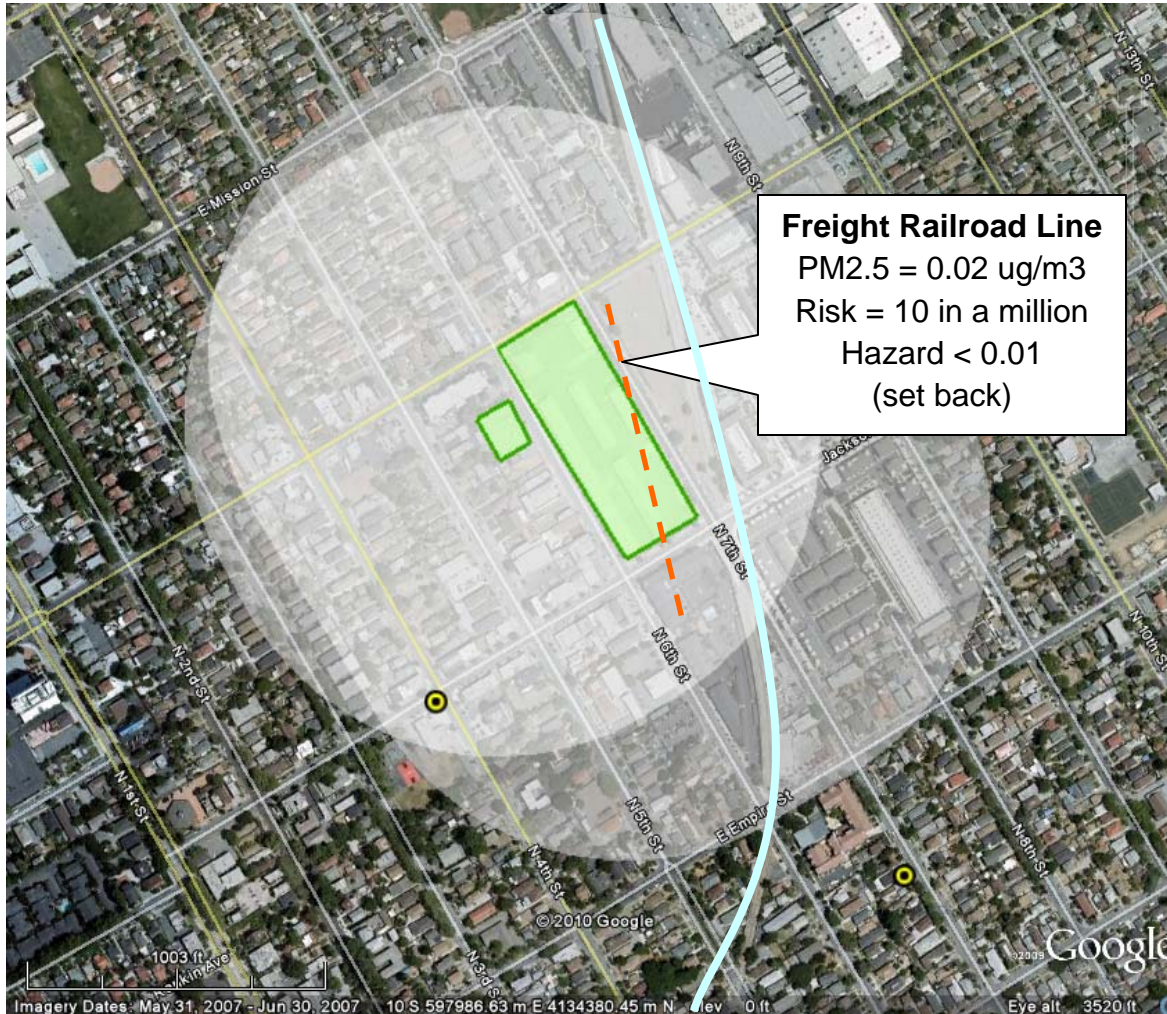
Type	100 feet from railroad	CEQA Threshold
PM2.5	0.09	0.3
Risk	49	10
Hazard	0.02	1

CUMULATIVE IMPACTS:

Type	Roadway and Stationary Sources	CEQA Threshold
PM2.5	0.31	0.8
Risk	51	10
Hazard	0.02	10

NOTE: Portable soil vapor extraction system has de minimus risk and consequently, the risks were not added to the cumulative evaluation

Site Specific Analysis: Japantown Redevelopment Project



Freight Railroad Line
 PM2.5 = 0.02 ug/m3
 Risk = 10 in a million
 Hazard < 0.01
 (set back)

E.Taylor Street Impacts
 (assumed 20,000 vehicles/day):

Type	100 feet from roadway	CEQA Threshold
PM2.5	0.22	0.3
Risk	1.8	10
Hazard	Below 0.01	1

Freight Rail Line Impacts:

Type	226 feet from railroad	CEQA Threshold
PM2.5	0.02	0.3
Risk	10	10
Hazard	<0.01	1

CUMULATIVE IMPACTS:

Type	Roadway and Stationary Sources	CEQA Threshold
PM2.5	0.31	0.8
Risk	51	100
Hazard	0.02	10

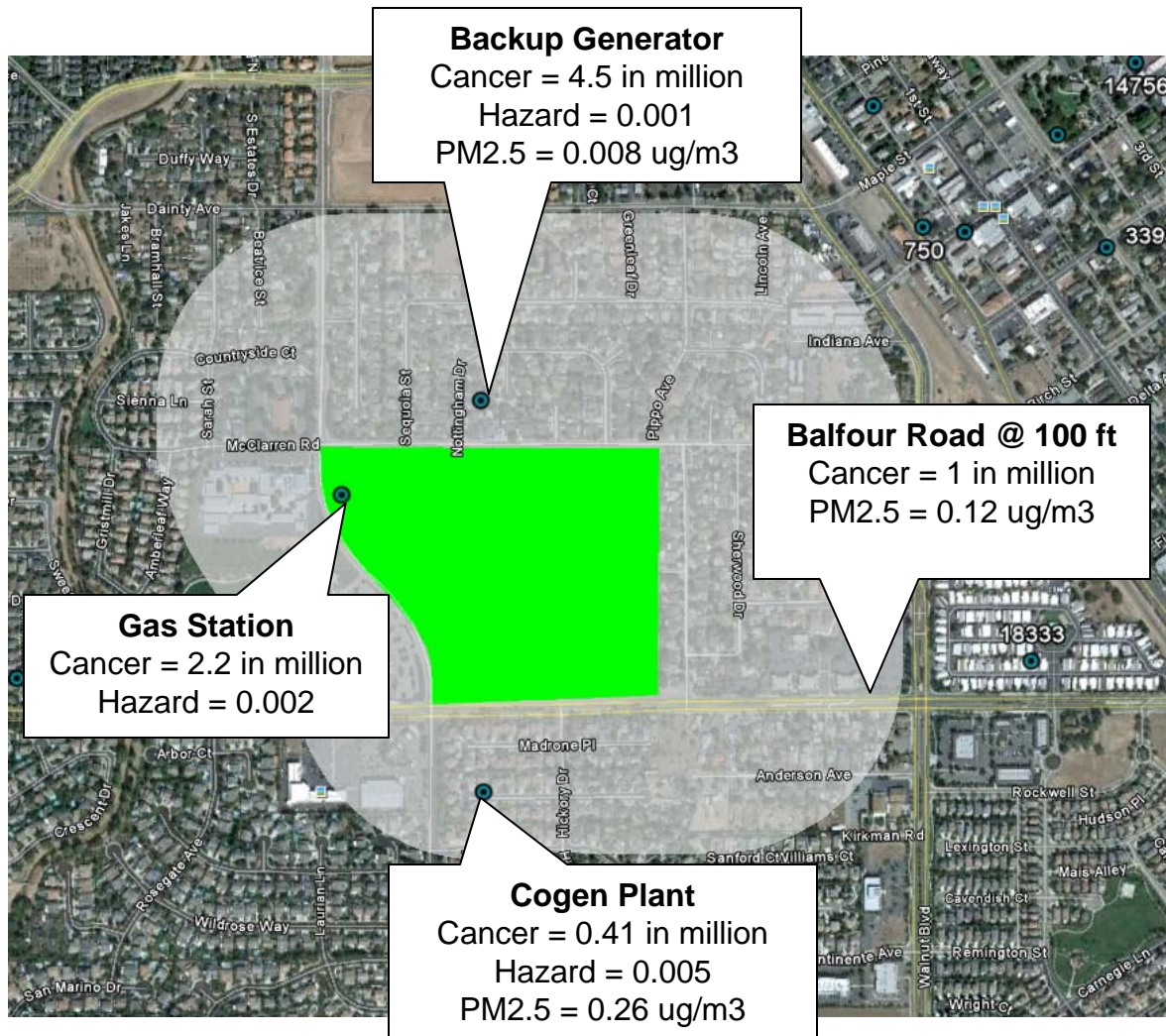
Case Study: Sciortino Ranch, Brentwood

Single Source Comparison

Source	Value	CEQA Threshold
Balfour Road		
- PM2.5	0.12	0.30
- Cancer	1	10
Generator		
- PM2.5	0.008	0.3
- Cancer	4.5	10
Cogen Plant		
- PM2.5	0.26	0.3
- Cancer	0.41	10
Gas Station		
- Cancer	2.2	10

Cumulative Comparison

From All Sources	Value	CEQA Threshold
Cancer Risk (in millions)	8.1	100
PM2.5 (ug/m3)	0.39	0.80



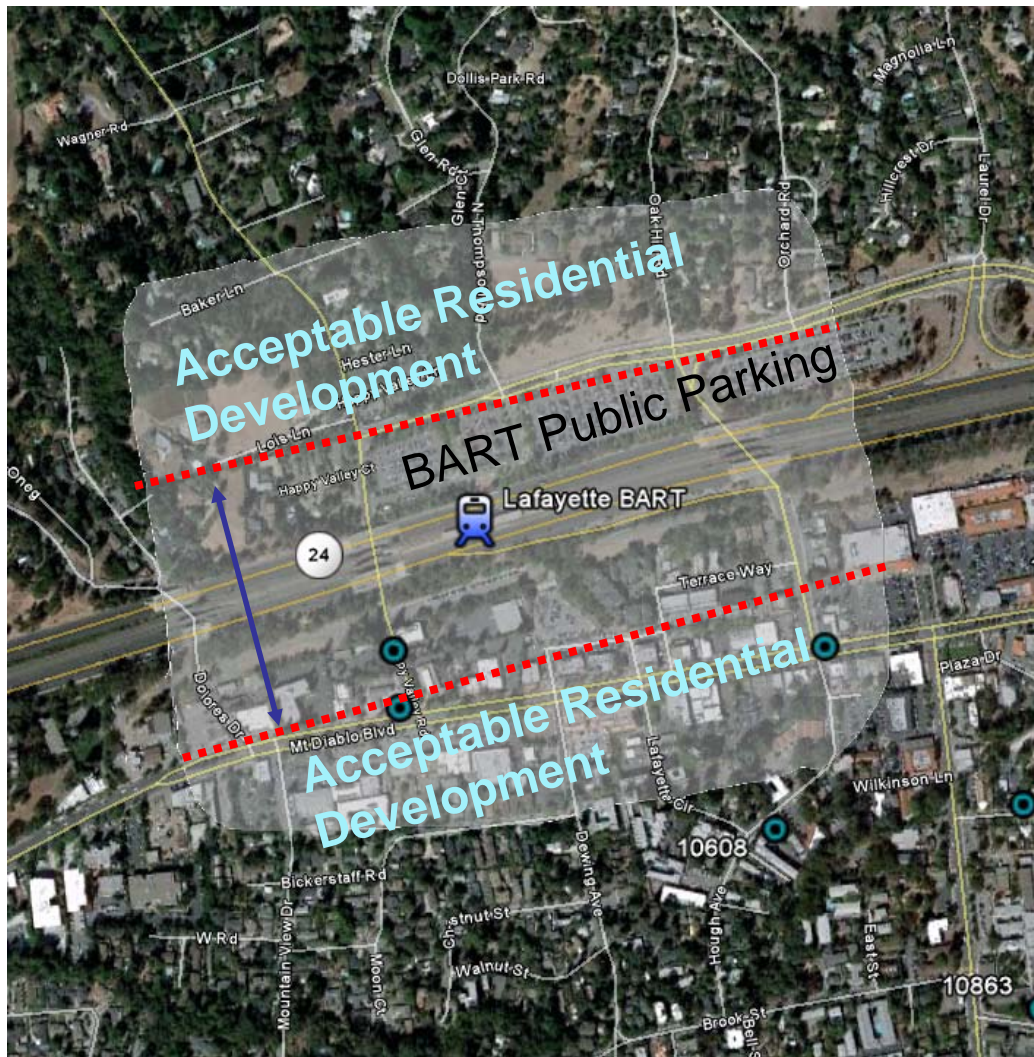
Case Study: Sciortino Ranch, Brentwood

160 single family units on 41 acres

Greenfield site, surrounded by residential and some suburban commercial

Residents: 498 Employees: 0 Service Pop: 498	<u>GHG emissions</u>
CO2e Emissions in Metric Tons	
Transportation	1,628
Electricity	434
Other (NG, water, waste)	770
Total Emissions	2,832
Metric Ton/Service Population	5.7

Case Study: Lafayette BART



Roadway Impacts:

Distance from Highway 24	100 ft	200 ft	500 ft	700 ft
PM2.5 (ug/m3)	1.1	0.56	0.28	0.21
Cancer (cases in million)	20	10	5.4	4.0

Distance that passes both PM and cancer thresholds
Distance will decrease in future years

All stationary sources within 1,000 feet meet both single source and cumulative impacts thresholds

Sources	Cancer (in millions)	CEQA Threshold
Gas Station 1	3.6	10
Gas Station 2	1.4	
Backup Generator	9.4	

GHG Case Study: Lafayette

Hypothetical project on Mt. Diablo Blvd.

50 or 100 attached units on 2 or 3 acres

Local serving retail and within ½ mile of BART

Residents: 100 units - 262; 50 units - 131 Service Pop: 100 units 262; 50 units 131	<u>GHG emissions (100 mid rise apartments)</u>	<u>GHG emissions (50 low rise apartments)</u>
CO2e Emissions in Metric Tons		
Transportation	483	261
Electricity	211	106
Other (NG, water, waste)	162	81
Total Emissions	856	448
Metric Ton/Service Population	3.3	3.4

Next Steps

- Conduct URBEMIS training for local staff – May
- Conduct risk and hazard evaluation training – June/July
- Proceed with CRRP pilot projects
- Seek Air District Board approval of significance thresholds June 2
- Air District provide technical assistance to lead agencies - ongoing