

## **APPENDIX D**

### **Potential Cancer Risk Isopleths by Part and by Category**

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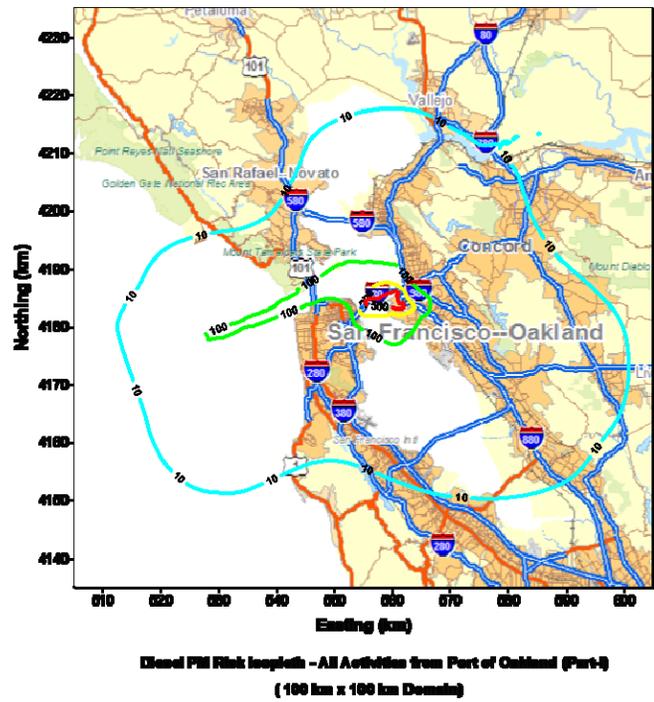
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## **PART- I: PORT OF OAKLAND**

**Figure D-1: Diesel PM Potential Cancer Risk Isopleth – All Activities from Port of Oakland (Part-I)**



**Figure D-2: Diesel PM Potential Cancer Risk Isopleth – All Activities from the Port (Part-I)**

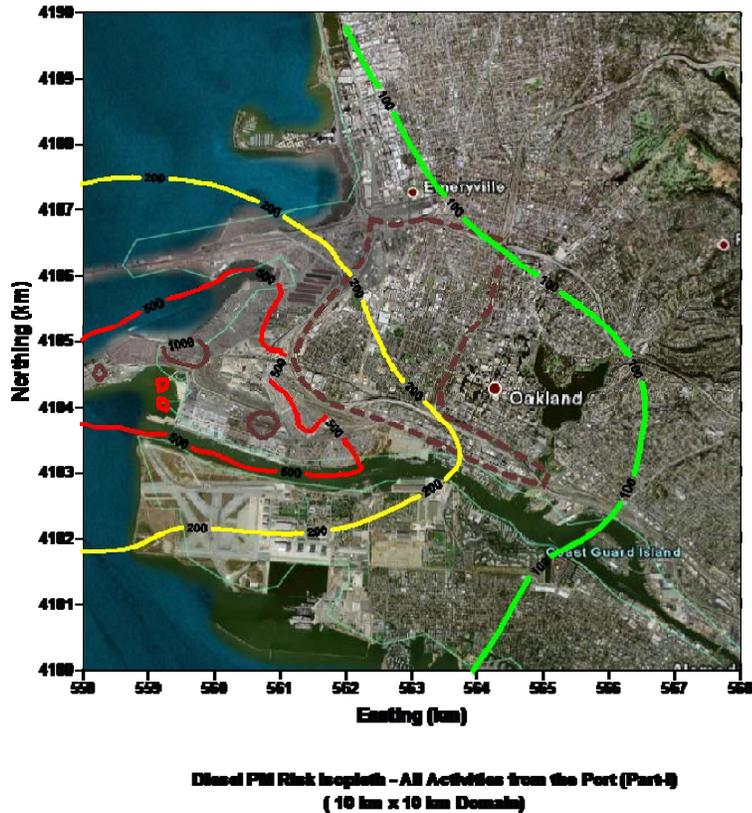
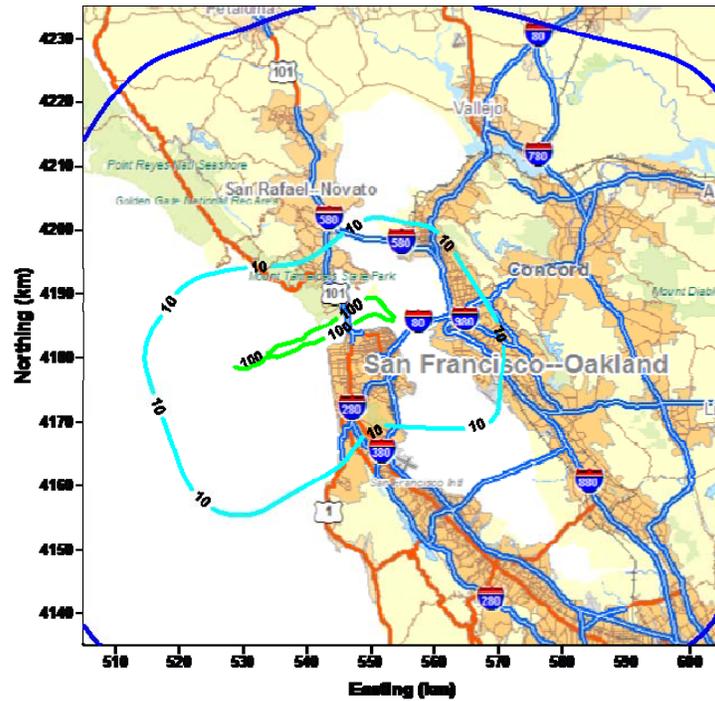






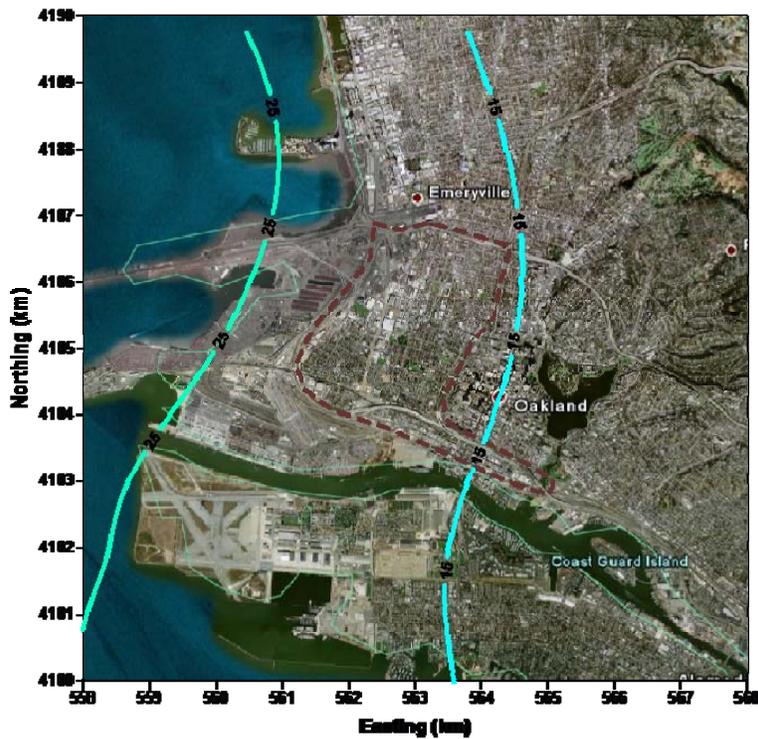


Figure D-9: Diesel PM Potential Cancer Risk for OGV' Transiting for Part-I



Diesel PM Cancer Risk from OGV's Transiting for Part I  
(100 km x 100 km Domain)

Figure D-10: Diesel PM Potential Cancer Risk from OGV Transiting for Part-I



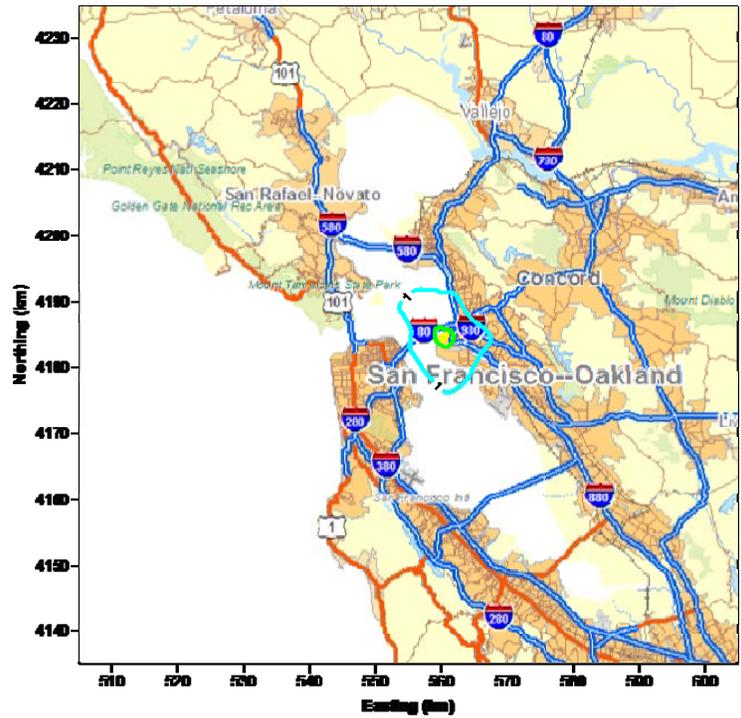
Diesel PM Cancer Risk from OGV Transiting for Part I  
(10 km x 10 km Domain)





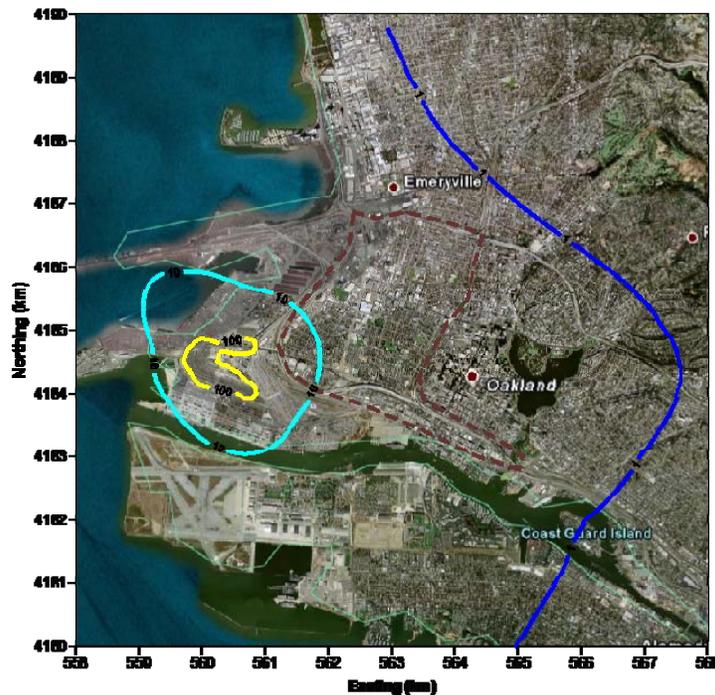


**Figure D-17: Diesel PM Potential Cancer Risk Isopleth from Port Locomotive Activity**



**DPM Risk Isopleth from Port Locomotive Activity (DPM = 2 TPY)  
(100 km x 100 km Domain)**

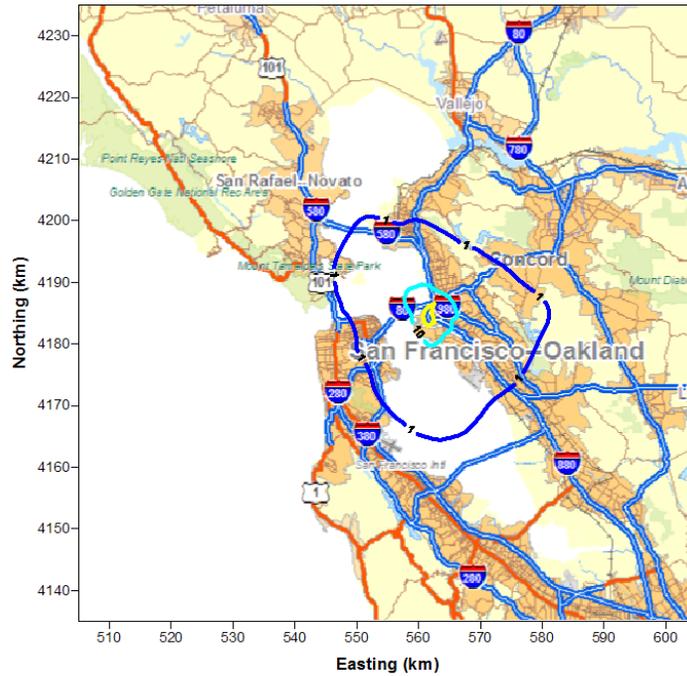
**Figure D-18: Diesel PM Potential Cancer Risk Isopleth Around West Oakland Community from Port Locomotive Activity**



**DPM Risk Isopleth around West Oakland Community from Port Locomotive Activity (DPM = 2 TPY)**

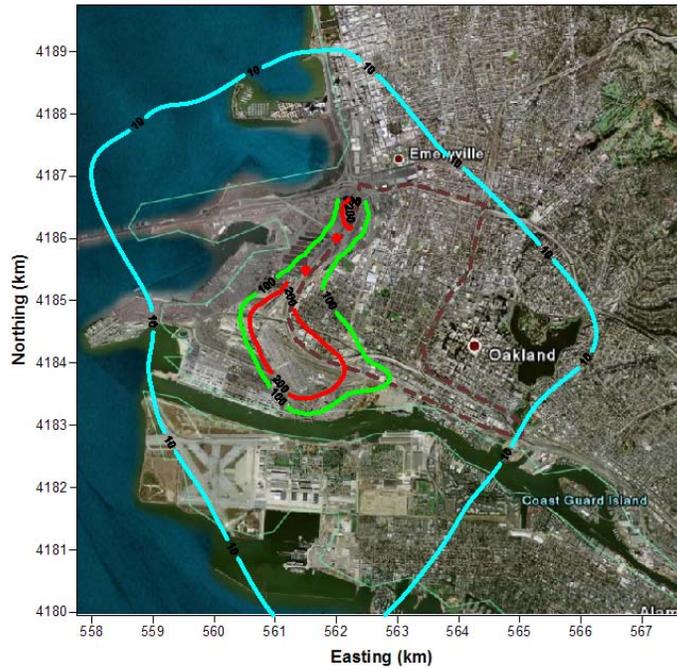
## **PART-II: UNION PACIFIC RAILYARD -OAKLAND**

**Figure D-19: Diesel PM Potential Cancer Risk from UP Locomotives for Part-II**



**Diesel PM Cancer Risk from UP Locomotives for Part-II**  
(100 km x 100 km Receptor Domain, DPM = 11 TPY)

**Figure D-20: Diesel PM Potential Cancer Risk from UP Railyard (Part-II)**



**Potential Diesel PM Cancer Risk from UP Railyard (Part-II)**  
(10 km x 10 km Domain, DPM = 11 TPY)

**PART-III: THE COMMUNITY NEAR THE PORT OF  
OAKLAND**

Figure D-21: Diesel PM Potential Cancer Risk from All Off-Port Activity for Part-II

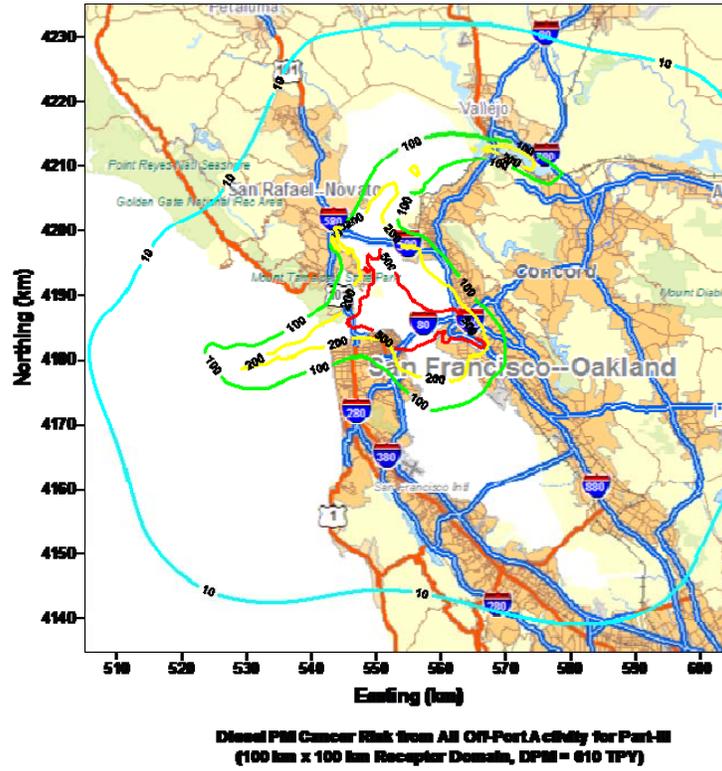


Figure D-22: Diesel PM Potential Cancer Risk from All Off-Port Activity for Part-II

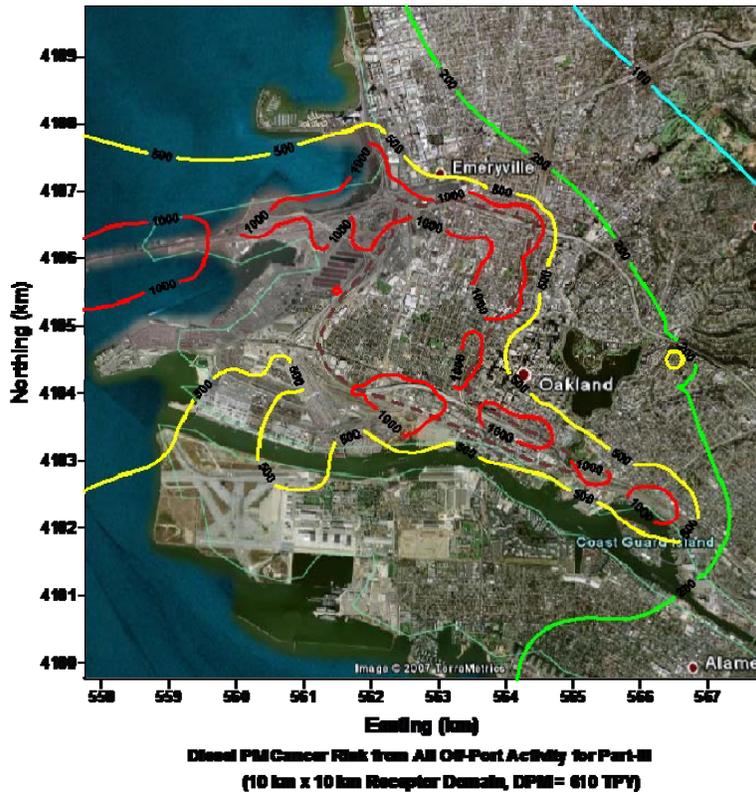
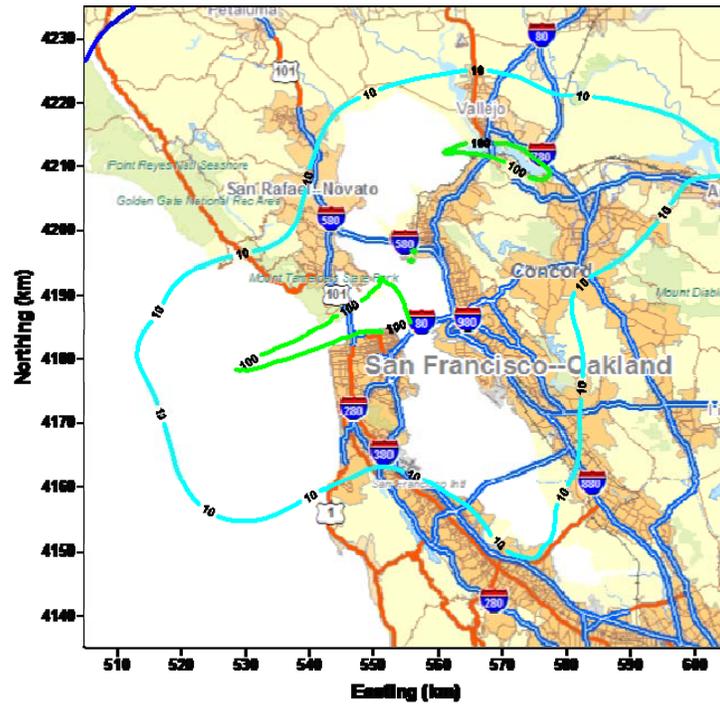


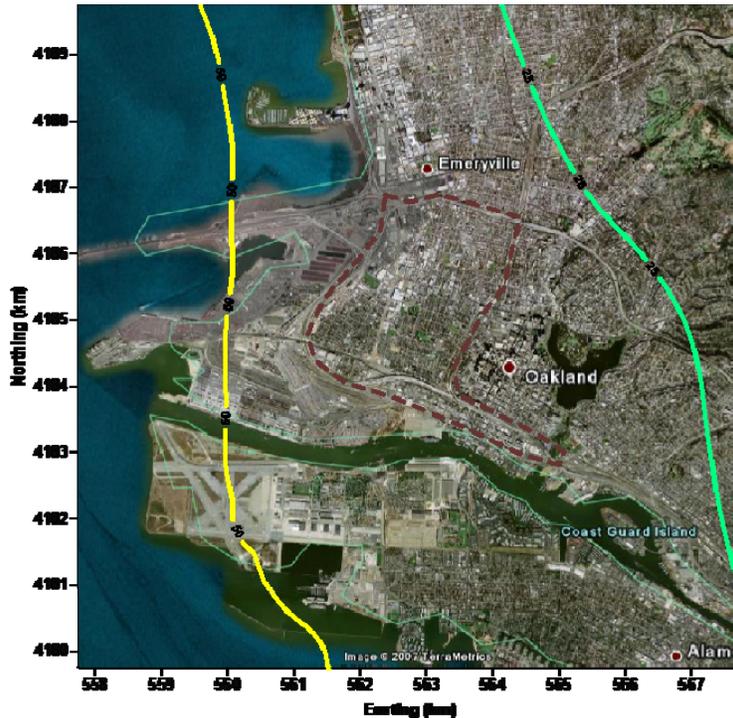


Figure D-25: Diesel PM Potential Cancer Risk from Off-Port OGV Transiting and Hotelling for Part-III



Diesel PM Cancer Risk from Off-Port OGV Transiting and Hotelling for Part-III  
(100 km x 100 km Receptor Domain, DPM = 218 TPY)

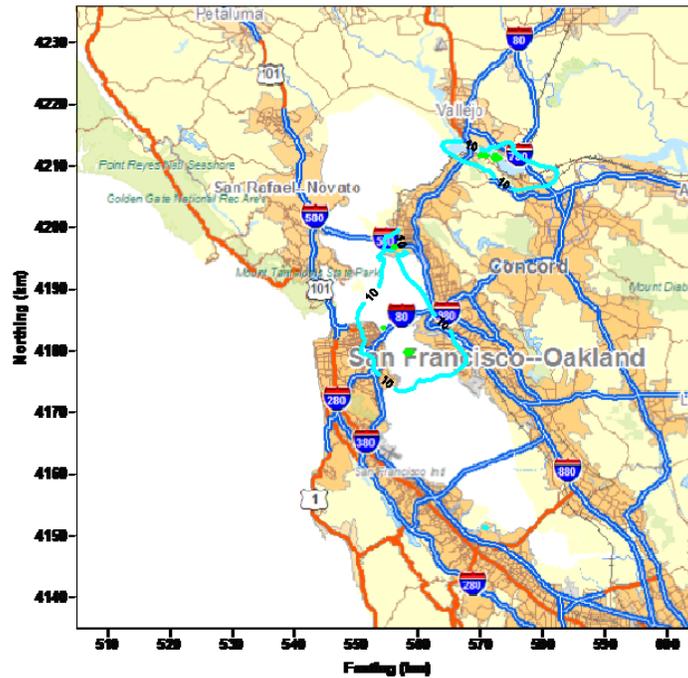
Figure D-26: Diesel PM Potential Cancer Risk from Off-Port OGV Transiting and Hotelling for Part-III



DPM Cancer Risk from Off-Port OGV Transiting and Hotelling for Part-III  
(100 km x 100 km Receptor Domain, DPM = 218 TPY)

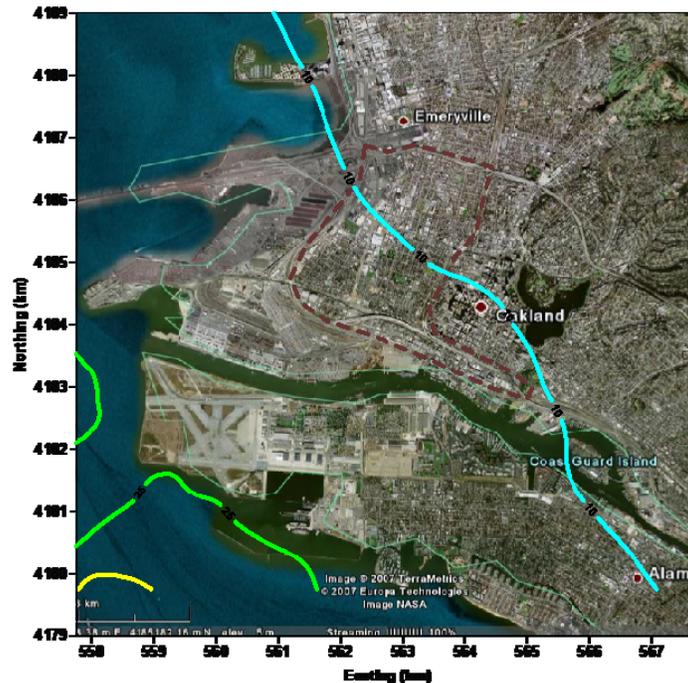


**Figure D-29: Diesel PM Potential Cancer Risk Isopleth from Off-Port OGV Hotelling and Anchoring**



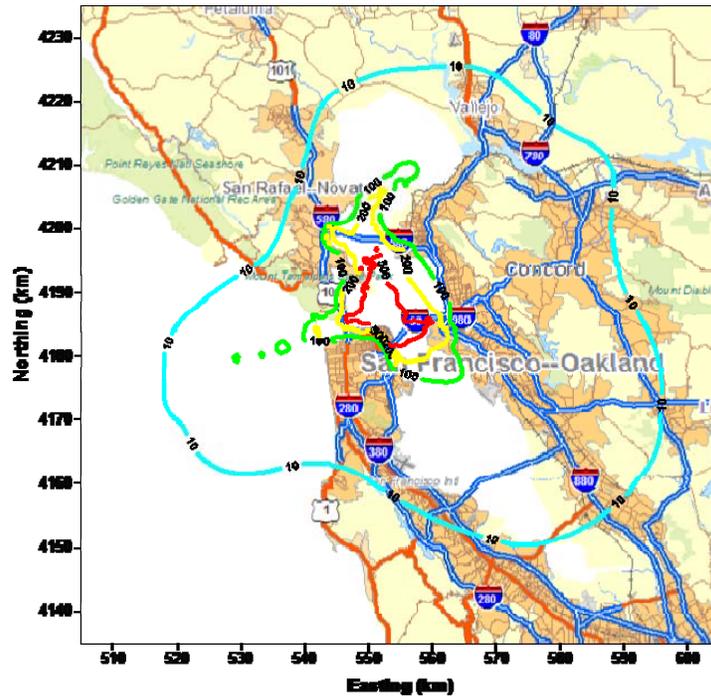
**DPM Risk Isopleth from Off-Port OGV Hotelling and Anchoring  
(100 km x 100 km Receptor Domain, DPM = 40 TPY)**

**Figure D-30: Diesel PM Potential Cancer Risk from Off-Port OGV Hotelling for Part-III**



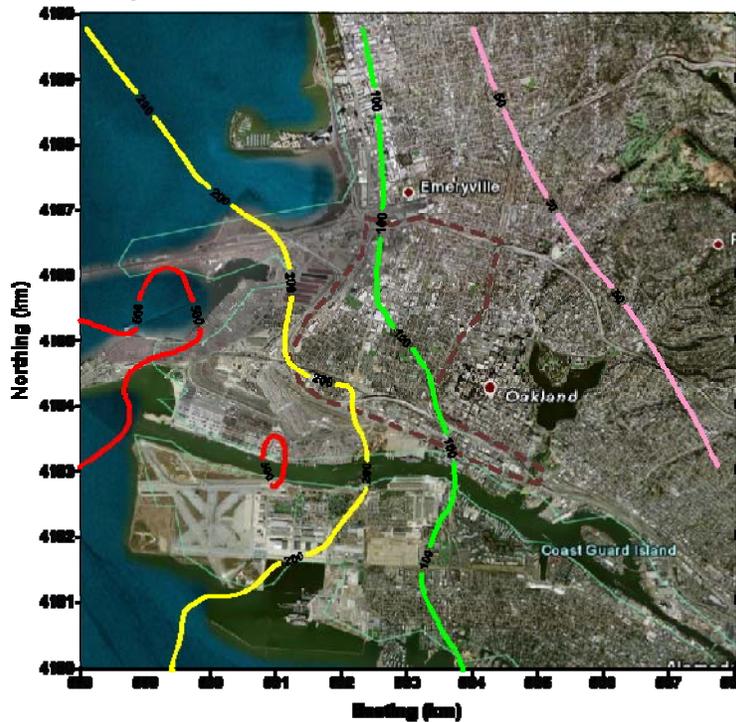
**DPM Cancer Risk from Off-Port OGV Hotelling for Part-III  
(10 km x 10 km Receptor Domain, DPM = 40 TPY)**

**Figure D-31: Diesel PM Potential Cancer Risk from Off-Port Commercial Harbor Craft Activity**



**Estimated Diesel PM Cancer Risk from Off-Port Harbor Craft Activity  
(100 km x 100 km Receptor Domain, DPM = 278 TPY)**

**Figure D-32: Diesel PM Potential Cancer Risk from Off-Port Commercial Harbor Craft Activity**



**Estimated Diesel PM Cancer Risk from Off-Port Harbor Craft Activity  
(10 km x 10 km Receptor Domain, DPM = 278 TPY)**



Figure D-35: Diesel PM Potential Cancer Risk from Cargo Handling Equipment for Part-III

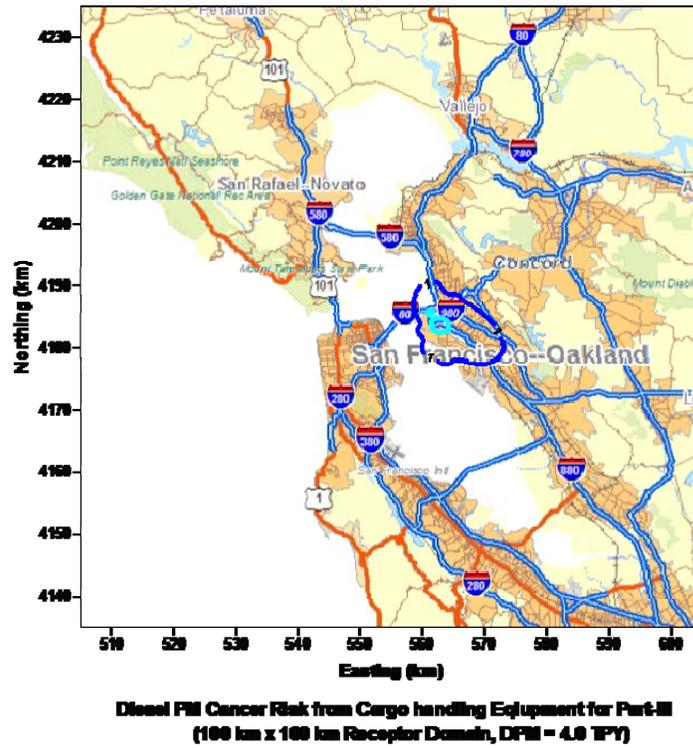


Figure D-36: Diesel PM Potential Cancer Risk from Cargo Handling Equipment for Part-III

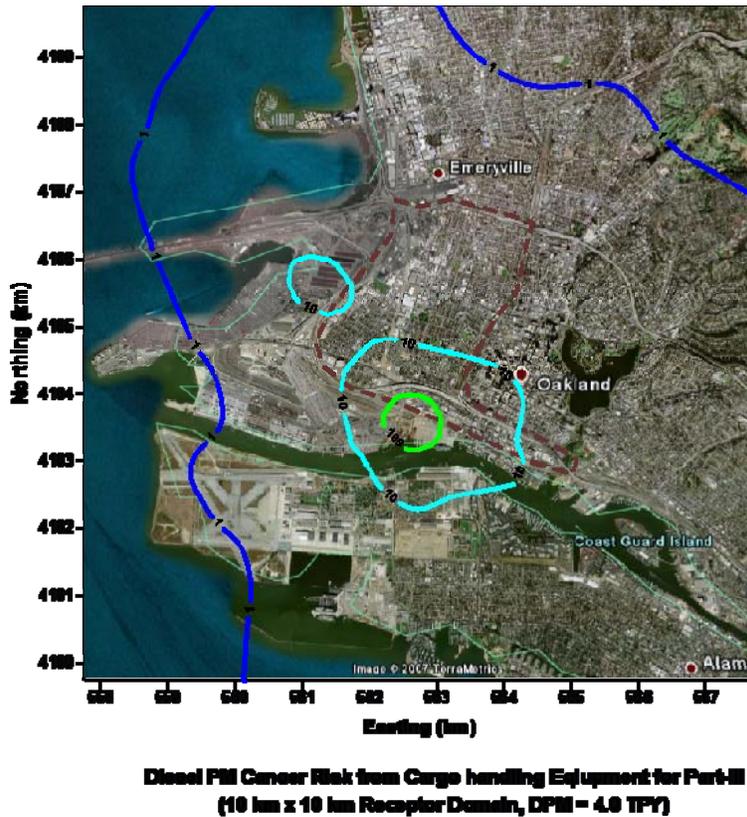


Figure D-37: Diesel PM Potential Cancer Risk from Off-Port Locomotive Activity for Part-III

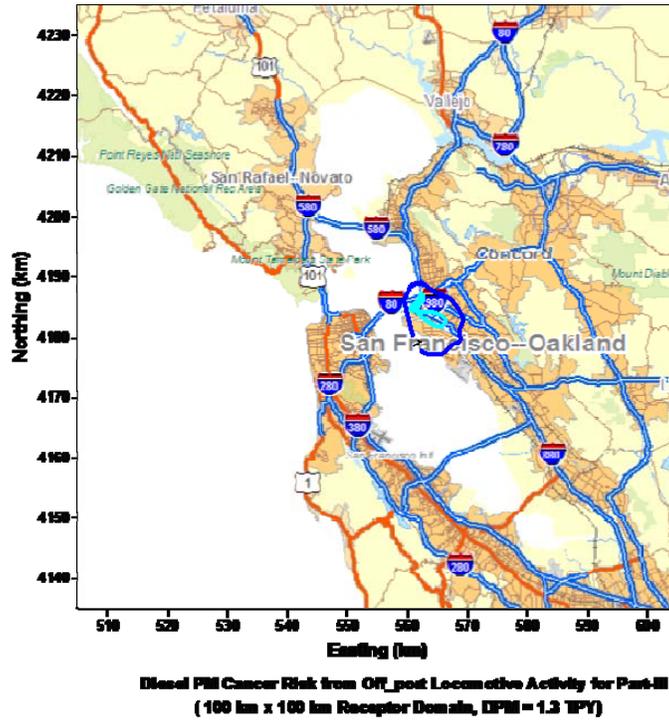


Figure D-38: Diesel PM Potential Cancer Risk from Off-Port Locomotive Activity for Part-III

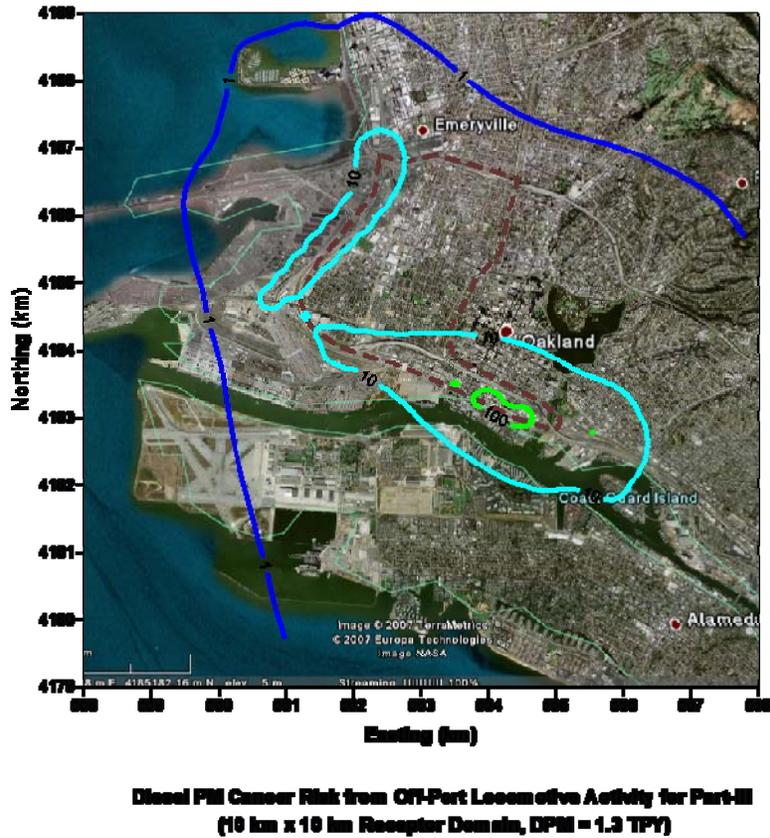
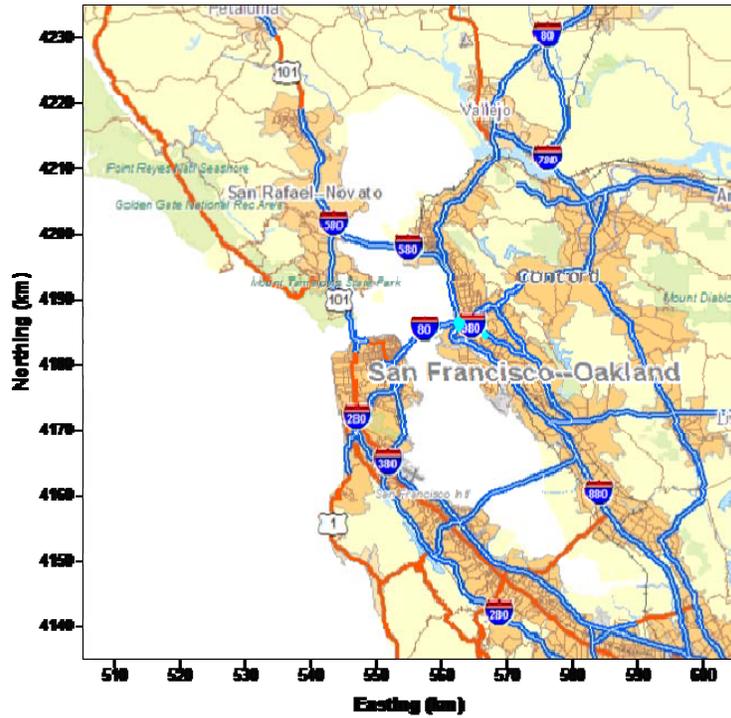
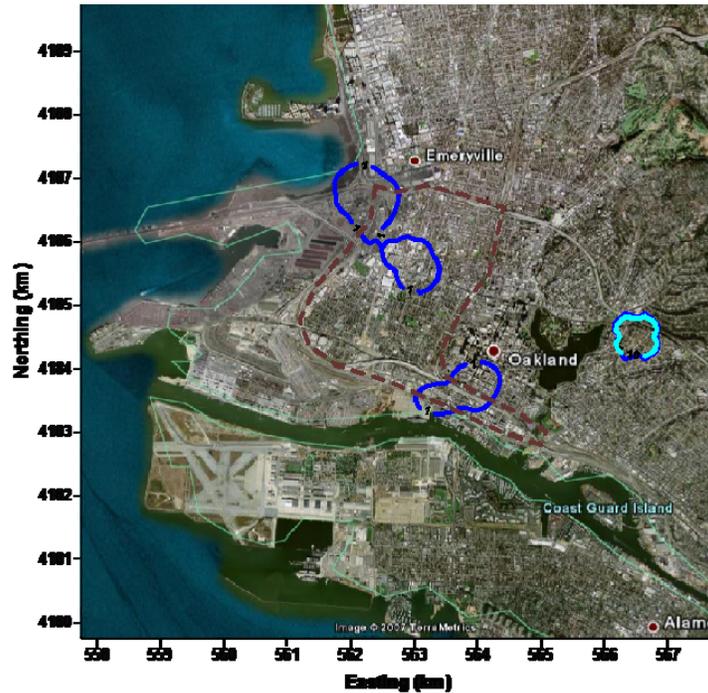


Figure D-39: Diesel PM Potential Cancer Risk from Stationary Sources Part-III



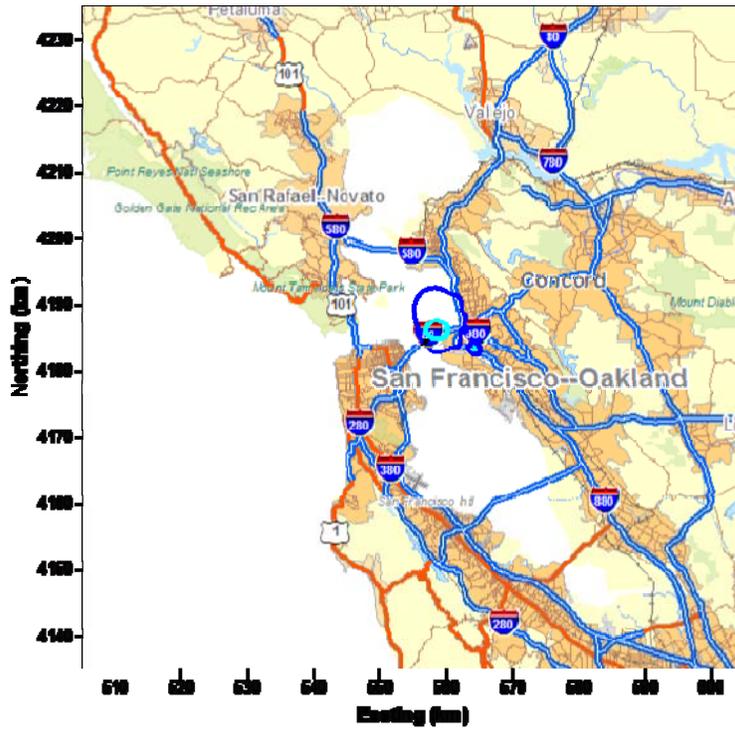
Diesel PM Cancer Risk from Stationary Sources for Part-III  
(100 km x 100 km Receptor Domain, DP<sub>PM</sub> = 0.2 TPY)

Figure D-40: Diesel PM Potential Cancer Risk from Stationary Sources for Part-III



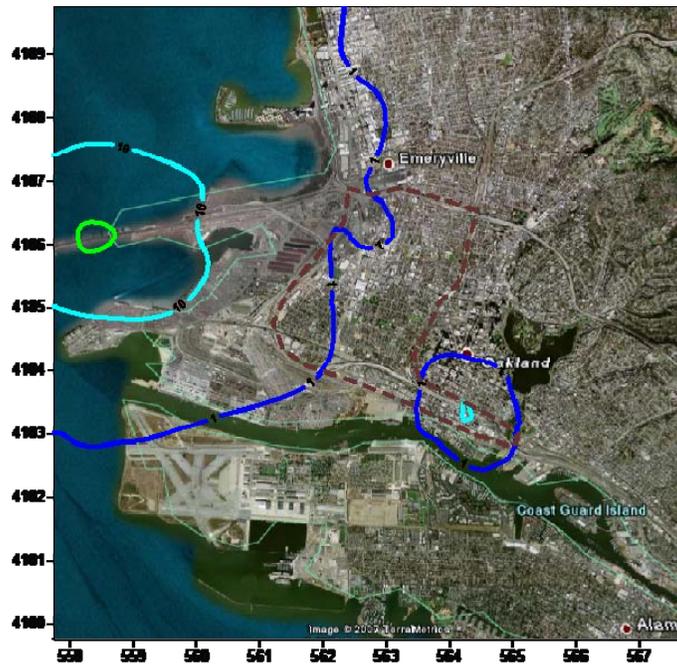
Diesel PM Cancer Risk from Stationary Sources for Part-III  
(10 km x 10 km Receptor Domain, DP<sub>PM</sub> = 0.2 TPY)

Figure D-41: Diesel PM Potential Cancer Risk from Bay Bridge Construction for Part-III



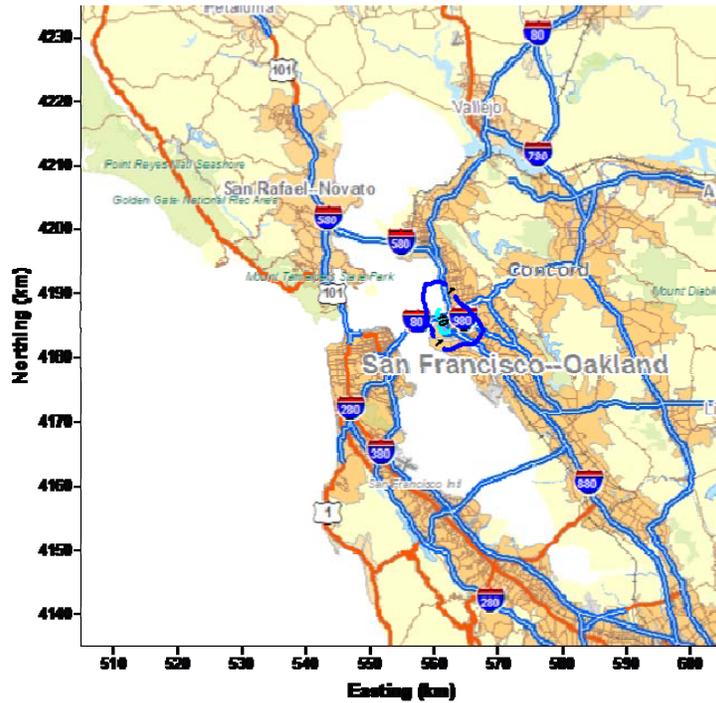
**Diesel PM Cancer Risk from Bay Bridge Construction for Part-III  
(100 km x 100 km Receptor Domain, DPM = 12.7 TPY for 9 Years)**

Figure D-42: Diesel PM Potential Cancer Risk from Bay Bridge Construction for Part-III



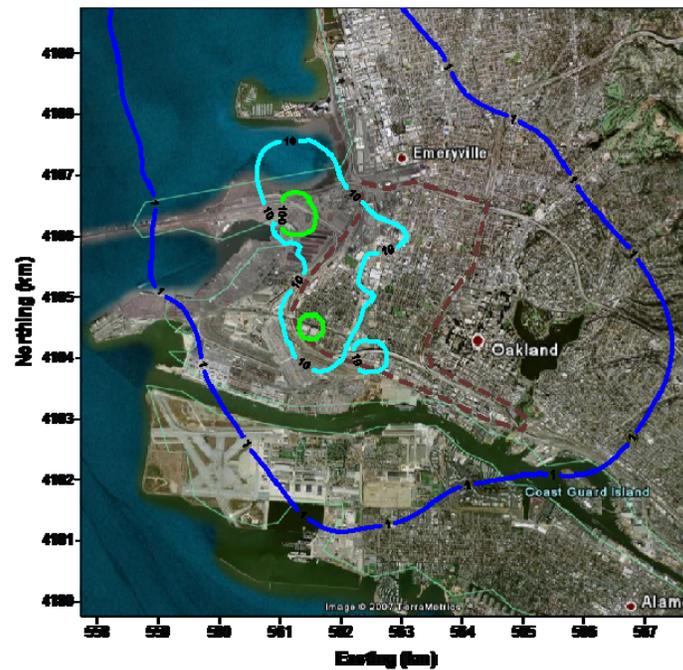
**Diesel PM Cancer Risk from Bay Bridge Construction for Part-III  
(10 km x 10 km Receptor Domain, DPM = 12.7 TPY for 9 Years)**

**Figure D-43: Diesel PM Potential Cancer Risk from Distribution Center Truck Activity for Part-III**



**Diesel PM Cancer Risk from Distribution Center Truck Activity for Part-III  
(100 km x 100 km Receptor Domain, DPM = 2.0 TPY)**

**Figure D-44: Diesel PM Potential Cancer Risk from Distribution Center Truck Activity for Part-III**



**Diesel PM Cancer Risk from Distribution Center Truck Activity for Part-III  
(10 km x 10 km Receptor Domain, DPM = 2.0 TPY)**

**POTENTIAL CANCER RISK ISOPLETH BY  
COMBINED THREE PARTS OR ALL CATEGORIES**

Figure D-45. Diesel PM Potential Cancer Risk from All Part I, II, and III Activities

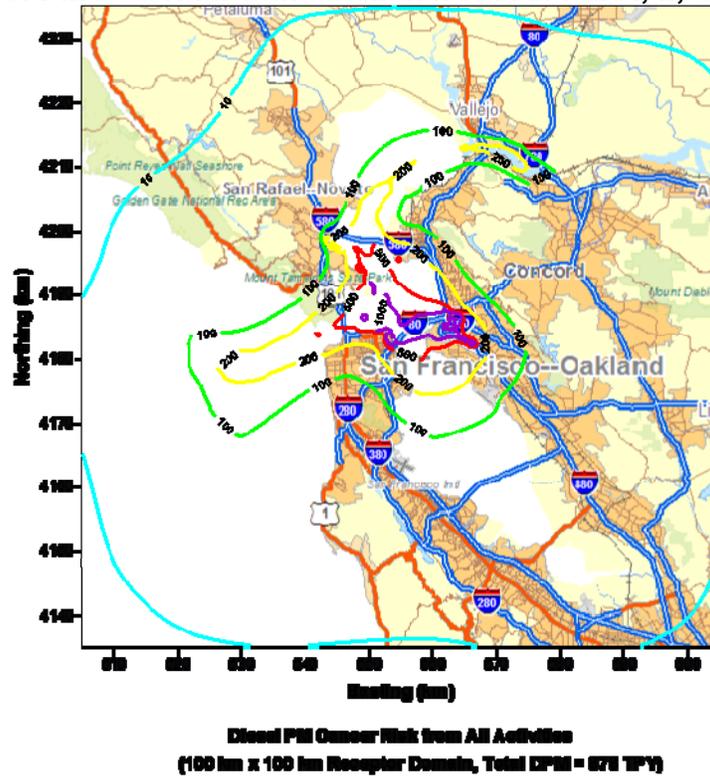
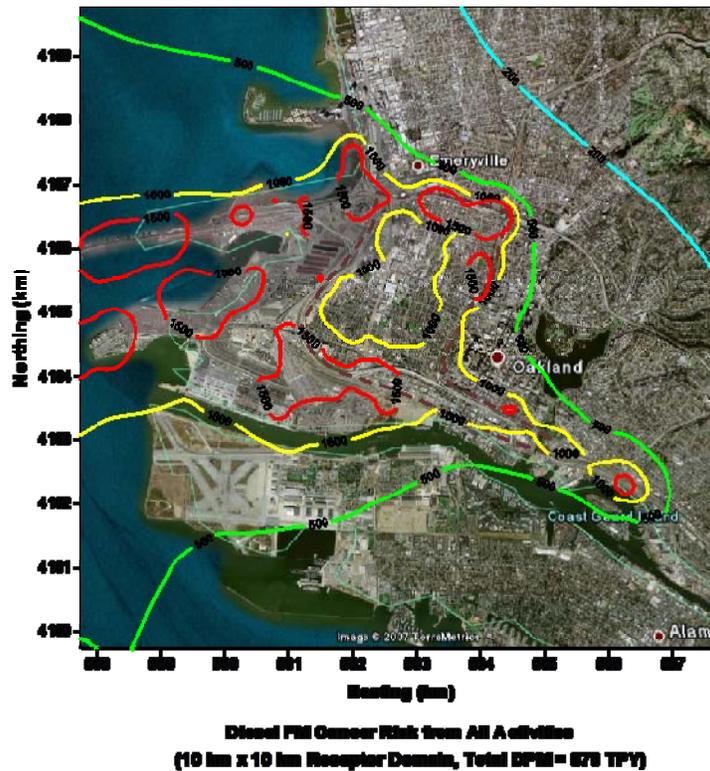


Figure D-46: Diesel PM Potential Cancer Risk from All Part I, II, and III Activities

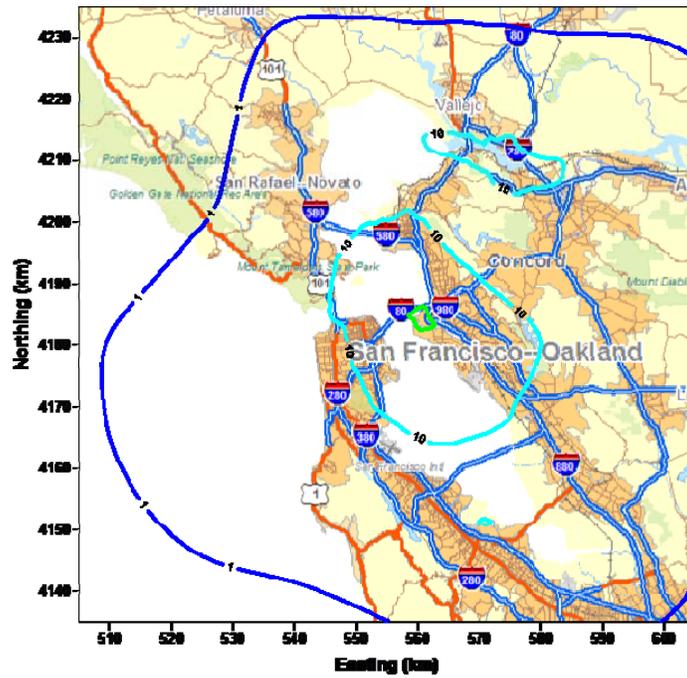


**POTENTIAL CANCER RISK ISOPLETH BY  
CATEGORIES**



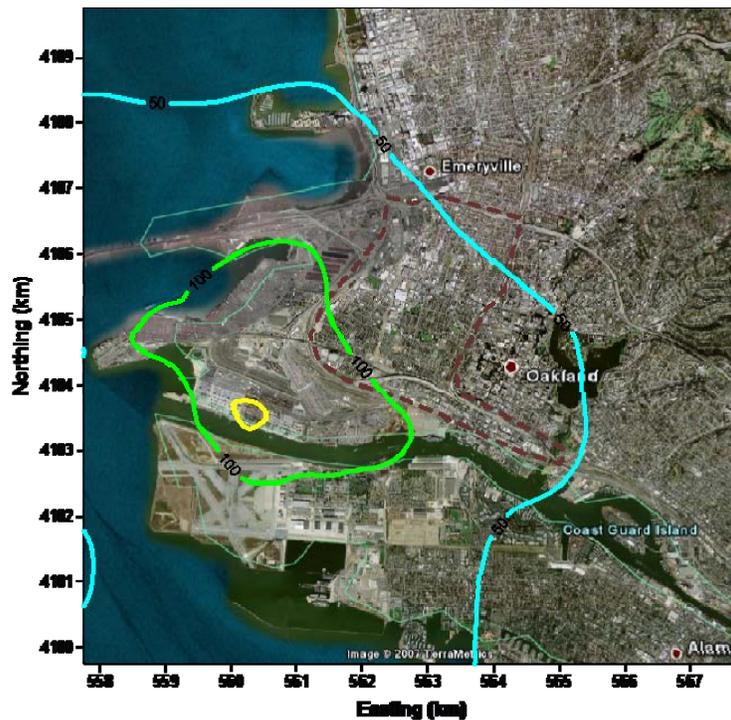


**Figure D-51: Diesel PM Potential Cancer Risk from OGV Auxiliary Engine Hotelling at the Port**



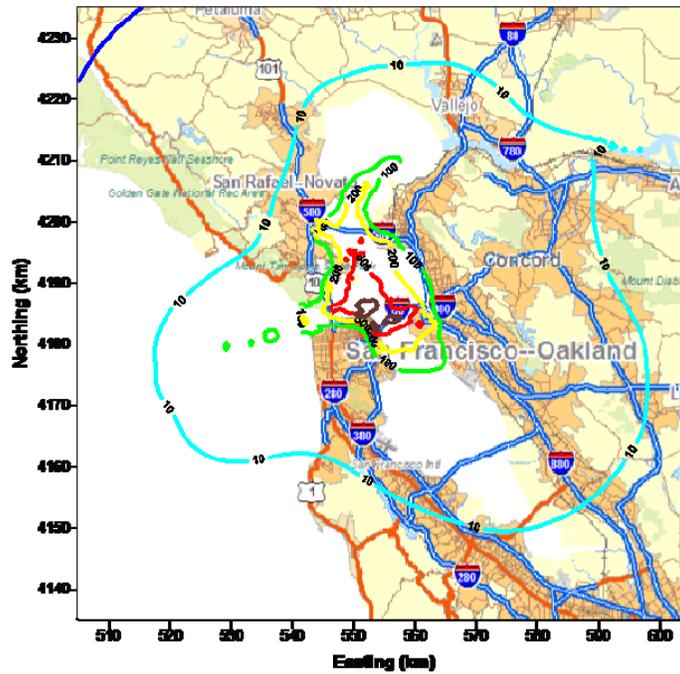
**Diesel PM Cancer Risk from OGV's Auxiliary Engine Hotelling at the Port  
(Domain = 100 km x 100 km, DPM = 102 TPY)**

**Figure D-52: Diesel PM Potential Cancer Risk from OGV Auxiliary Engine Hotelling**



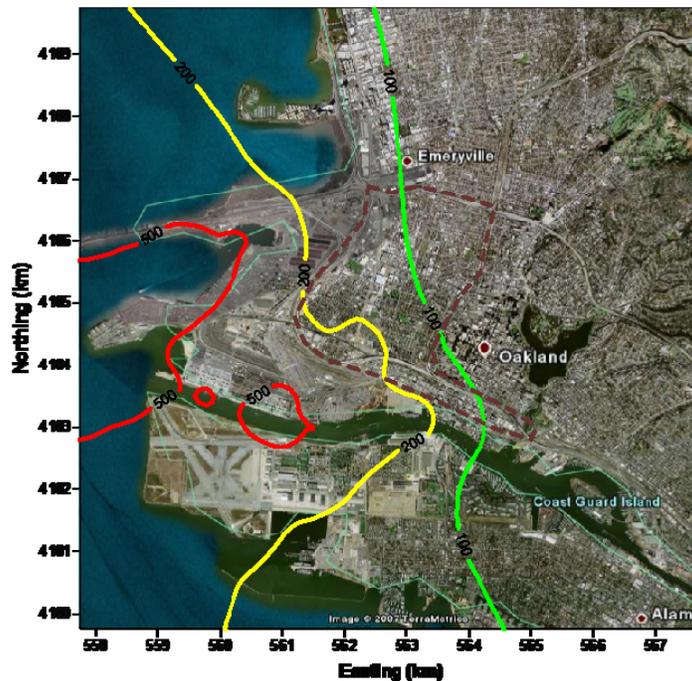
**Diesel PM Cancer Risk from OGV's Auxiliary Engine Hotelling  
(Domain = 10 km x 10 km, DPM = 102 TPY)**

**Figure D-53: Diesel PM Potential Cancer Risk from Commercial Harbor Craft Activity**



**Diesel PM Cancer Risk from Harbor Craft Activity**  
 (Domain = 100 km x 100 km, DP<sub>PM</sub> = 291 TPY)

**Figure D-54: Diesel PM Potential Cancer Risk from Commercial Harbor Craft Activity**



**Diesel PM Cancer Risk from Harbor Craft Activity**  
 (Domain = 10 km x 10 km, DP<sub>PM</sub> = 291 TPY)

Figure D-55: Diesel PM Potential Cancer Risk from All On-Road Activities

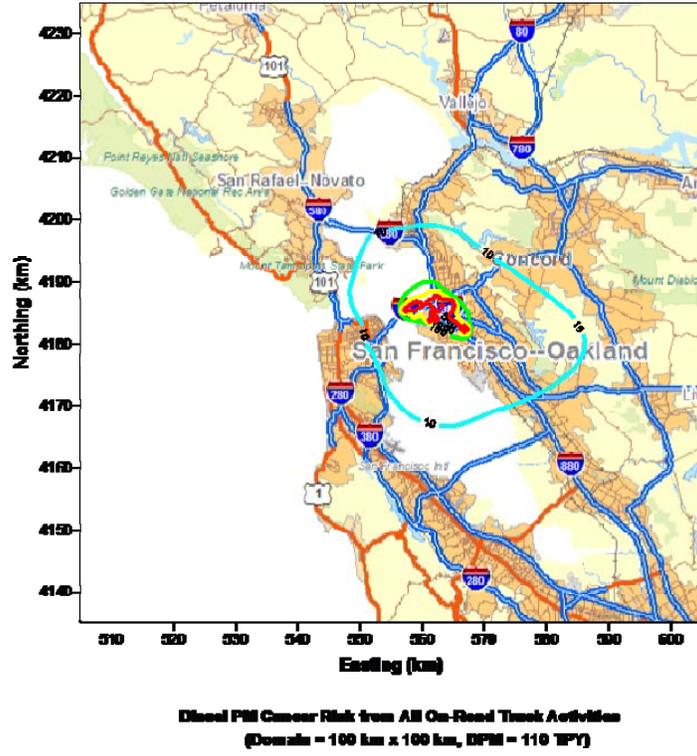
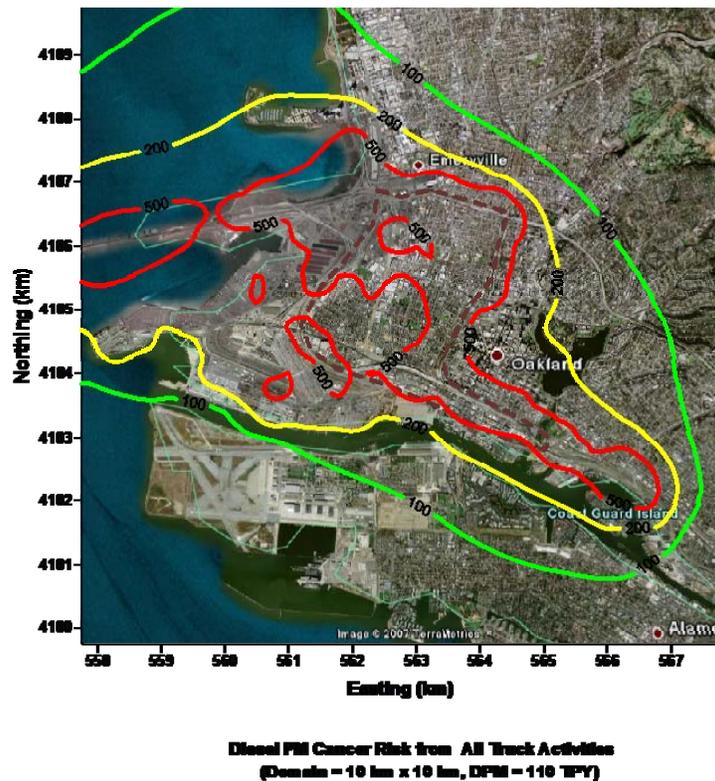
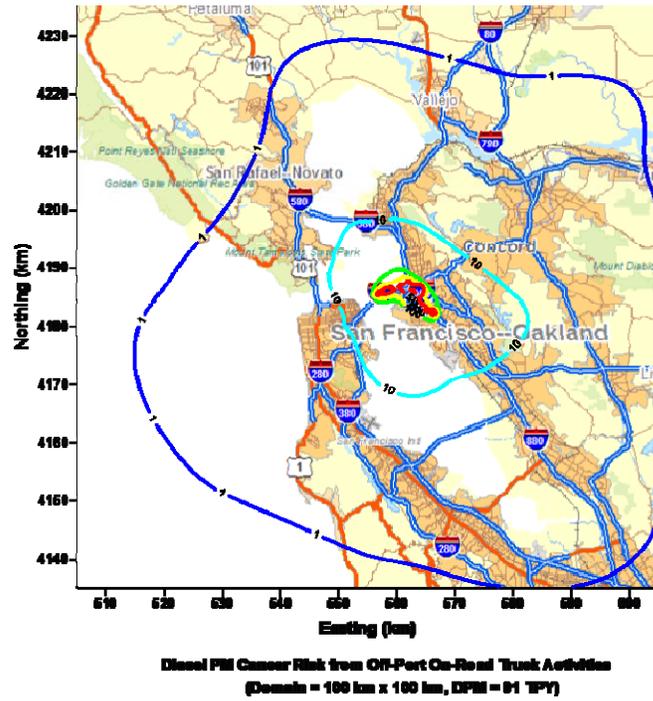


Figure D-56: Diesel PM Potential Cancer Risk from All Truck Activities



**Figure D-57: Diesel PM Potential Cancer Risk from Off-Port On-Road Truck Activities**



**Figure D-58: Diesel PM Potential Cancer Risk from Off-Port's On-Road Truck Activity**

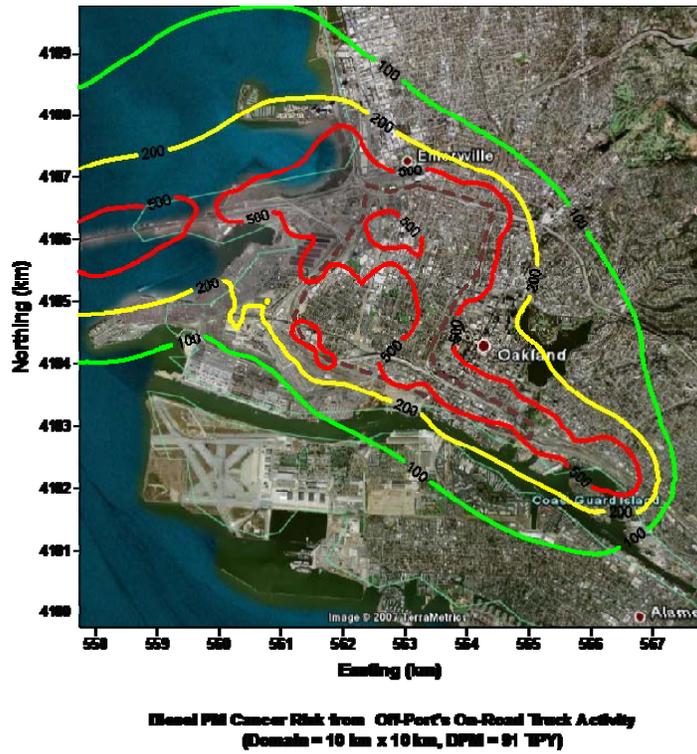
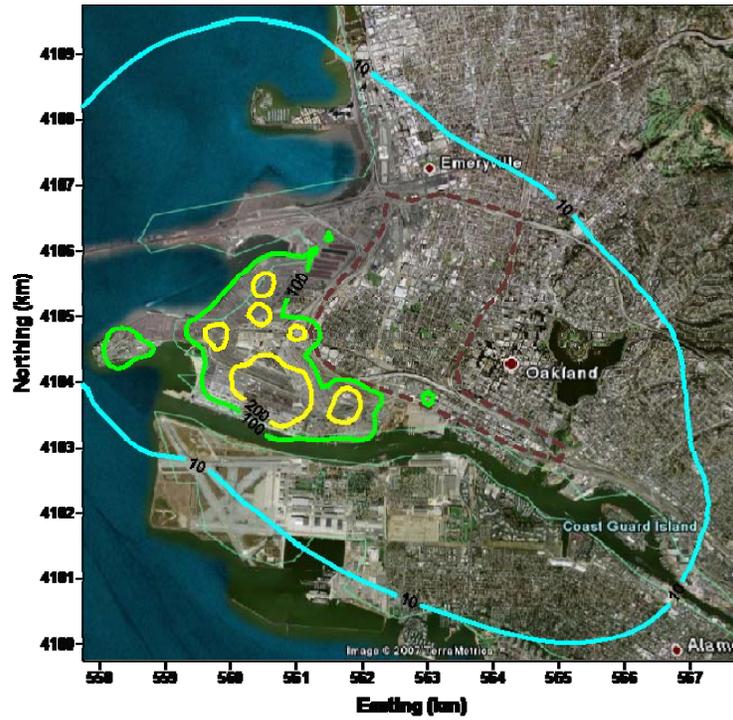


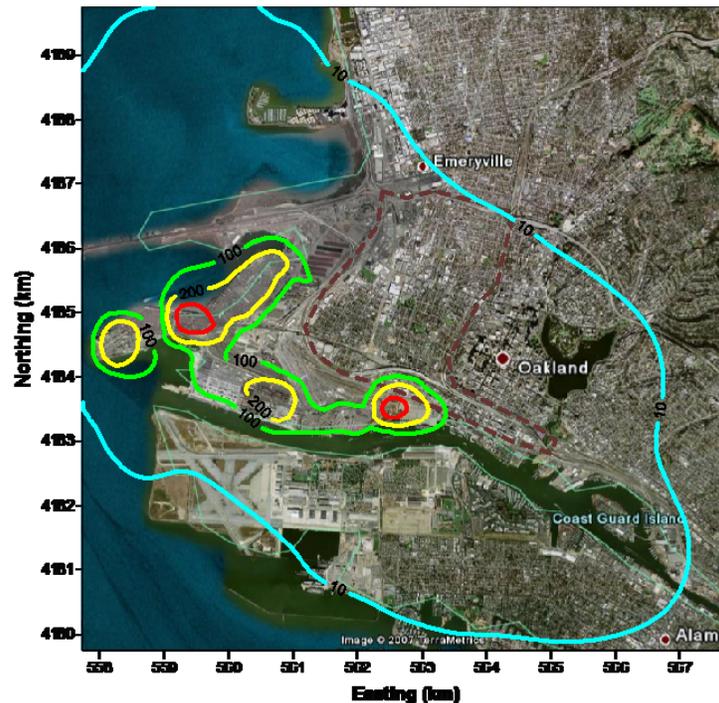


Figure D-61: Diesel PM Potential Cancer Risk from In-Port Activity



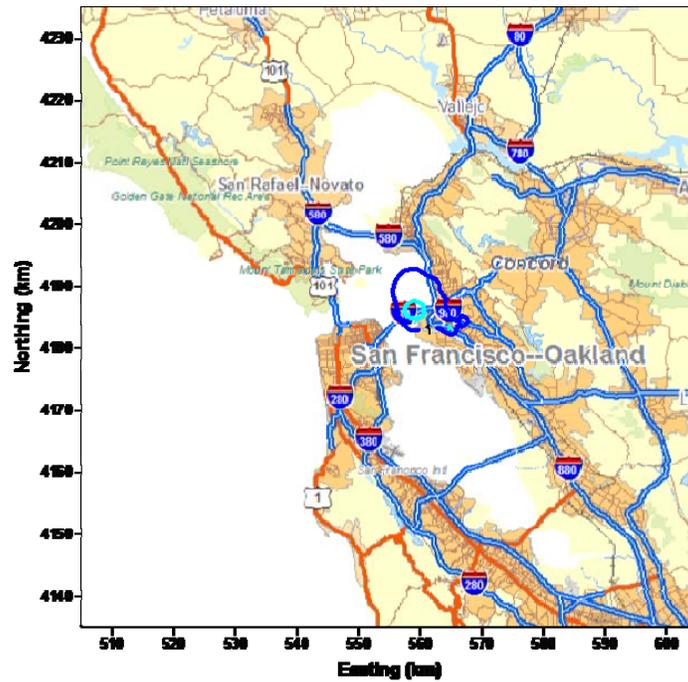
**Diesel PM Cancer Risk from In-Port Truck Activity**  
(Domain = 10 km x 10 km, DPM = 19 TPY)

Figure D-62: Diesel PM Potential Cancer Risk from Cargo Handling Equipment Activity



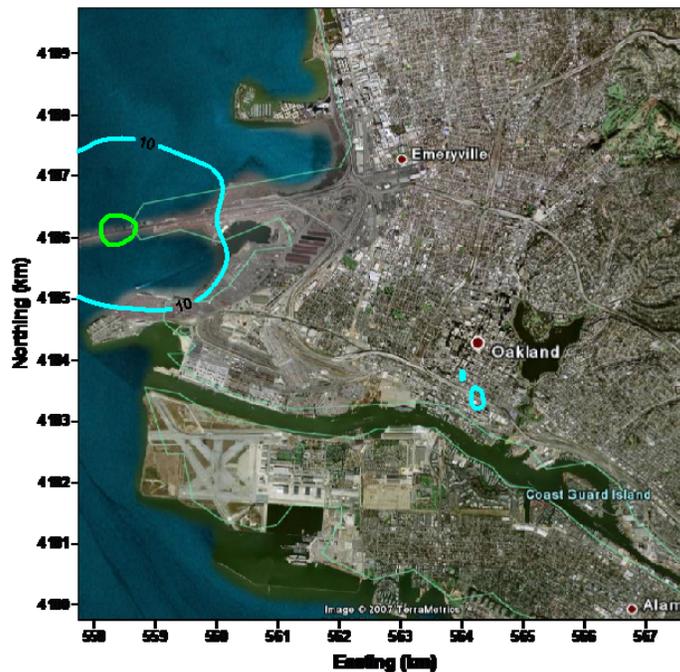
**Diesel PM Cancer Risk from Cargo Handling Equipment Activity**  
(Domain = 10 km x 10 km, DPM = 26 TPY)

Figure D-63: Diesel PM Potential Cancer Risk from Other Activities (Stationary and Construction)



Diesel PM Cancer Risk from Other Activities (Stationary and Construction)  
 (Domain = 100 km x 100 km, DPM = 13 TPY)

Figure D-64: Diesel PM Potential Cancer Risk from All Other Activities (Stationary and Construction)



Diesel PM Cancer Risk from All Other Activities (Stationary and Construction)  
 (Domain = 10 km x 10 km, DPM = 13 TPY)