

Attachment B-1  
**Supplemental Air Quality Calculations**

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## Supplemental Calculations for Section 4.1 - Air Quality

Table 4.1-1

Air Quality Conformity Emissions (tons per day)

SIP Year	Year	ROG				NO <sub>x</sub>			
		SIP Budget	Approved Plan	Proposed Amendment	Change from approved Plan	SIP Budget	Approved Plan	Proposed Amendment	Change from approved Plan
2020 SIP	2023	13.6	13.5	13.4	-0.1	19.3	17.2	17.3	0.1
	2025	12.6	12.1	12.2	0.1	18	15.5	15.8	0.3
	2026	12.1	11.4	11.6	0.2	17.3	14.7	15	0.3
	2029	11	10.2	10.3	0.1	15.9	13.4	13.5	0.1
	2032	10	9.3	9.2	-0.1	15.1	12.6	12.6	0
	2035	10	8.6	8.5	-0.1	15.1	12.3	12.2	-0.1
	2040	10	7.4	7.3	-0.1	15.1	11.7	11.6	-0.1
	2050	10	6.8	6.7	-0.1	15.1	12	11.9	-0.1

**Table 4.1-2**

**Proposed Amendment Emission Estimates Prior to Mitigation**

Emission Category	Emissions (tons per day)					
	ROG	NO <sub>x</sub>	CO	PM10	PM2.5	SO <sub>x</sub>
<b>2016</b>						
On-Road Sources	6.4	33.5	141.9	13.5	3.6	0.4
Freight Rail	0.0	0.8	0.2	0	0	0
Passenger Rail	0.1	1.4	0	0.1	0	0
Total 2016	6.5	35.7	142.1	13.6	3.7	0.4
2016 Approved Plan	6.5	35.3	145.3	13.6	3.7	0.4
Change from Approved Plan <sup>[1]</sup>	0	0.4	-3.2	0	0	0
<b>2025</b>						
On-Road Sources	2.4	11.7	66.1	13.2	3.2	0.3
Freight Rail	0	0.5	0.2	0	0	0
Passenger Rail	0	0.3	0	0	0	0.1
Total 2025	2.4	12.5	66.3	13.2	3.2	0.3
2025 Approved Plan	2.4	12	67.4	13.1	3.2	0.3
Change from Approved Plan	0	0.5	-1.1	0.1	0	0
Net Change From 2016	-4.1	-23.2	-75.8	-0.4	-0.5	0

<b>2035</b>						
On-Road Sources	1.8	8.6	52.5	13.5	3.3	0.2
Freight Rail	0	0.3	0.3	0	0	0
Passenger Rail	0	0.6	0	0	0	0.1
Total 2035	1.8	9.5	52.8	13.5	3.3	0.4
2035 Approved Plan	1.8	8.8	53.7	13.4	3.2	0.4
Change from Approved Plan	0	0.7	-0.9	0.1	0.1	0
Net Change From 2016	-4.7	-26.2	-89.3	-0.1	-0.4	- 0.0
<b>2050</b>						
On-Road Sources	1.6	8.3	50	13.9	3.3	0.2
Freight Rail	0	0.3	0.3	0	0	0
Passenger Rail	0.1	1.4	0	0	0	0.3
Total 2050	1.7	10	50.3	13.9	3.4	0.5
2050 Approved Plan	1.7	9.2	51.4	13.8	3.4	0.5
Change from Approved Plan	0	0.8	-1.1	0.1	0	0
Net Change From 2016	-4.8	-25.7	-91.8	0.3	-0.3	0.1

**Table 4.1-3****Proposed Amendment Emission Estimates After Mitigation for 2050**

Emission Category	Emissions (tons per day)					
	ROG	NO <sub>x</sub>	CO	PM10	PM2.5	SO <sub>x</sub>
2050 Mitigated						
On-Road Sources <sup>1</sup>	1.6	8.3	50	13.9	3.4	0.3
Freight Rail <sup>1</sup>	0	0.3	0.3	0	0	0
Passenger Rail <sup>2</sup>	0	0.8	0	0	0	0.2
Total 2050	1.7	9.4	50.3	13.9	3.4	0.4
Approved Plan 2050	1.7	8.5	51.4	13.8	3.3	0.4
Change from Approved Plan	0	0.9	-1.1	0.1	0.1	0
Net Change From 2016	-4.8	-26.3	-91.8	0.3	-0.3	0

<sup>1</sup> Onroad and Freight Rail emissions are unchanged from the unmitigated emission estimates shown in Table 4.1-2.

<sup>2</sup> Passenger Rail emissions assume a 46 percent decrease in fuel consumption in 2035.

Emission Category	Emissions (tons per day)					
	ROG	NO <sub>x</sub>	CO	PM10	PM2.5	SO <sub>x</sub>
Unmitigated Passenger Rail (from Table 4.1-2)	0.1	1.4	0	0	0	0.3
46% Reduction from MM AQ-2b	0.0	0.6	0.0	0.0	0.0	0.1
Mitigated Passenger Rail <sup>3</sup>	0.0	0.8	0.0	0.0	0.0	0.2

<sup>3</sup> Totals may not add up due to rounding.

**Table 4.1-4****Summary of Incremental PM2.5 Concentrations, 2025**

Standard	Maximum Incremental Concentration ( $\mu\text{g}/\text{m}^3$ )			Area of Threshold Exceedance (acres)			Significant Impact?
	Proposed Amendment	Approved Plan	Change from Approved Plan	Proposed Amendment	Approved Plan	Change from Approved Plan	
PM2.5 Annual CAAQS	0	0.6	-0.6	0	0	0	No
PM2.5 24-hr NAAQS	0	1	-1	0	0	0	No
PM2.5 Annual NAAQS	0	1	-1	0	0	0	No

**Table 4.1-5****Summary of Incremental PM10 Concentrations, 2025**

Standard	Maximum Incremental Concentration ( $\mu\text{g}/\text{m}^3$ )			Area of Threshold Exceedance (acres)			Significant Impact?
	Proposed Amendment	Approved Plan	Change from Approved Plan	Proposed Amendment	Approved Plan	Change from Approved Plan	
PM10 24-hr NAAQS	5	4	1	0	0	0	No
PM10 Annual CAAQS	1	2	-1	28	33	-5	Yes <sup>1</sup>
PM10 24-hour CAAQS	6	6	0	0	1	-1	No

**Table 4.1-6****Summary of Incremental PM2.5 Concentrations, 2035**

Standard	Maximum Incremental Concentration ( $\mu\text{g}/\text{m}^3$ )			Area of Threshold Exceedance (acres)			Significant Impact?
	Proposed Amendment	Approved Plan	Change from Approved Plan	Proposed Amendment	Approved Plan	Change from Approved Plan	
PM2.5 Annual CAAQS	1	0.6	0.4	0	0	0	No
PM2.5 24-hr NAAQS	1	1	0	0	0	0	No
PM2.5 Annual NAAQS	0.5	1	-0.5	0	0	0	No

**Table 4.1-7****Summary of Incremental PM10 Concentrations, 2035**

Standard	Maximum Incremental Concentration ( $\mu\text{g}/\text{m}^3$ )			Area of Threshold Exceedance (acres)			Significant Impact?
	Proposed Amendment	Approved Plan	Change from Approved Plan	Proposed Amendment	Approved Plan	Change from Approved Plan	
PM10 24-hr NAAQS	10	10	0	0	0	0	No
PM10 Annual CAAQS	3	3	0	136	113	23	Yes <sup>1</sup>
PM10 24-hour CAAQS	14	14	0	0	6	-6	No



**Table 4.1-8****Summary of Incremental PM2.5 Concentrations, 2050**

Standard	Maximum Incremental Concentration ( $\mu\text{g}/\text{m}^3$ )			Area of Threshold Exceedance (acres)			Significant Impact?
	Proposed Amendment	Approved Plan	Change from Approved Plan	Proposed Amendment	Approved Plan	Change from Approved Plan	
PM2.5 Annual CAAQS	1	0.7	0.3	0	0	0	No
PM2.5 24-hr NAAQS	1	2	-1	0	0	0	No
PM2.5 Annual NAAQS	0.6	1	-0.4	0	0	0	No

**Table 4.1-9****Summary of Incremental PM10 Concentrations, 2050**

Standard	Maximum Incremental Concentration ( $\mu\text{g}/\text{m}^3$ )			Area of Threshold Exceedance (acres)			Significant Impact?
	Proposed Amendment	Approved Plan	Change from Approved Plan	Proposed Amendment	Approved Plan	Change from Approved Plan	
PM10 24-hr NAAQS	9	10	-1	0	0	0	No
PM10 Annual CAAQS	4	4	0	303	273	30	Yes <sup>1</sup>
PM10 24-hour CAAQS	13	15	-2	2	2	0	Yes <sup>2</sup>

**Table 4.1-10a**  
**Summary of Cancer Health Risk, 2025**

Receptor Type	2016		2025	
	Maximum Cancer Risk (per million)	Area of Threshold Exceedance (acres)	Maximum Incremental Cancer Risk (per million)	Incremental Area of Threshold Exceedance (acres)
Existing Sources				
Residential	444	7,555	-5	0
Recreational	14	20	0	0
School	11	2	0	0
New Sources				
Residential	--	--	53	2
Recreational	--	--	1	0
School	--	--	0	0
New Land Uses				
Residential	--	--	149	964
Recreational	--	--	18	2
School	--	--	3	0

**Approved Plan**  
**Summary of Cancer Health Risk, 2025**

Receptor Type	2016		2025	
	Maximum Cancer Risk (per million)	Area of Threshold Exceedance (acres)	Maximum Incremental Cancer Risk (per million)	Incremental Area of Threshold Exceedance (acres)
Existing Sources				
Residential	447	7,563	-5	0
Recreational	13	24	0	0
School	11	2	0	0
New Sources				
Residential	--	--	54	7
Recreational	--	--	3	0
School	--	--	0	0
New Land Uses				
Residential	--	--	149	948
Recreational	--	--	0	0
School	--	--	0	0

**Table 4.1-10b**

**Change in Cancer Health Risk from Approved Plan, 2025**

Receptor Type	2016		2025	
	Maximum Cancer Risk (per million)	Area of Threshold Exceedance (acres)	Maximum Incremental Cancer Risk (per million)	Incremental Area of Threshold Exceedance (acres)
Existing Sources				
Residential	-3	-8	0	0
Recreational	1	-4	0	0
School	0	0	0	0
New Sources				
Residential	--	--	-1	-5
Recreational	--	--	-2	0
School	--	--	0	0
New Land Uses				
Residential	--	--	0	16
Recreational	--	--	18	2
School	--	--	3	0

**Table 4.1-11****Summary of Cumulative Health Risk, 2025**

Receptor Type	2016		2025		2025 vs. 2016	
	Maximum Cumulative Cancer Risk (per million)	Area of Threshold Exceedance (acres)	Maximum Cumulative Cancer Risk (per million)	Area of Threshold Exceedance (acres)	Change in Maximum Cumulative Cancer Risk (per million)	Change in Area of Threshold Exceedance (acres)
Residential	1,015	7,537	934	7,400	-81	-137
Approved Plan	1,015	7,570	946	7,439	-69	-131
Change from Approved Plan	0	-33	-12	-39	-12	-6

**Table 4.1-12**

**Summary of Toxic Air Contaminants Tons per Year, 2025**

<b>Year</b>	<b>Butadiene1,3</b>	<b>Acetaldehyde</b>	<b>Acrolein</b>	<b>Benzene</b>	<b>Ethyl Benzene</b>	<b>Formaldehyde</b>	<b>Naphthalene</b>	<b>PAH</b>	<b>DPM</b>
2016	0.023	0.11	0.012	0.25	0.12	0.22	0.023	0.027	0.55
2025	0.002	0.032	0.0028	0.1	0.041	0.077	0.0064	0.0077	0.1
2025 Approved Plan	0.002	0.032	0.0029	0.1	0.041	0.079	0.0065	0.00004	0.093
Change vs. 2016	-91%	-71%	-77%	-60%	-66%	-65%	-72%	-71%	-82%
Change from Approved Plan	0	0	-0.0001	0	0	-0.002	-0.0001	0.0076	0.007

**Table 4.1-13a**  
**Summary of Noncancer Hazards, 2025**

Receptor Type	2016 Maximum Hazard Index		Maximum Incremental Change vs. 2016		Incremental Area of Threshold Exceedance (acres)	
	Acute Hazard	Chronic Hazard	Acute Hazard	Chronic Hazard	Acute Hazard	Chronic Hazard
<b>Existing Sources</b>						
Residential	7.1	52.8	-0.1	-0.6	0	0
Recreational	2.3	40	-0.2	-0.8	0	0
School	1.4	25	0	0	0	0
<b>New Sources</b>						
Residential	--	--	0.2	5.2	0	2
Recreational	--	--	0.1	1.7	0	7
School	--	--	0	0	0	0
<b>New Land Uses</b>						
Residential	--	--	2.1	15.1	3	963
Recreational	--	--	0.7	9.5	0	56
School	--	--	0.3	5.9	0	7

**Approved Plan**  
**Summary of Noncancer Hazards, 2025**

Receptor Type	2016 Maximum Hazard Index		Maximum Incremental Change vs. 2016		Incremental Area of Threshold Exceedance (acres)	
	Acute Hazard	Chronic Hazard	Acute Hazard	Chronic Hazard	Acute Hazard	Chronic Hazard
<b>Existing Sources</b>						
Residential	6.9	52.9	-0.1	-0.6	0	0
Recreational	2.3	37	-0.1	-0.8	0	0
School	1.5	24.9	0	0	0	0
<b>New Sources</b>						
Residential	--	--	0.2	5.4	0	7
Recreational	--	--	0.3	6.8	0	5
School	--	--	0	0	0	0
<b>New Land Uses</b>						
Residential	--	--	2.1	14.9	5	950
Recreational	--	--	0	0	0	0
School	--	--	0	0	0	0

**Table 4.1-13b**

**Change in Noncancer Hazards from Approved Plan, 2025**

Receptor Type	2016 Maximum Hazard Index		Maximum Incremental Change vs. 2016		Incremental Area of Threshold Exceedance (acres)	
	Acute Hazard	Chronic Hazard	Acute Hazard	Chronic Hazard	Acute Hazard	Chronic Hazard
<b>Existing Sources</b>						
Residential	0.2	-0.1	0	0	0	0
Recreational	0	3	-0.1	0	0	0
School	-0.1	0.1	0	0	0	0
<b>New Sources</b>						
Residential	--	--	0	-0.2	0	-5
Recreational	--	--	-0.2	-5.1	0	2
School	--	--	0	0	0	0
<b>New Land Uses</b>						
Residential	--	--	0	0.2	-2	13
Recreational	--	--	0.7	9.5	0	56
School	--	--	0.3	5.9	0	7

**Table 4.1-14a**  
**Summary of Cancer Health Risk, 2035**

Receptor Type	2016		2035	
	Maximum Cancer Risk (per million)	Area of Threshold Exceedance (acres)	Maximum Incremental Cancer Risk (per million)	Incremental Area of Threshold Exceedance (acres)
Existing Sources				
Residential	444	7,555	-6	0
Recreational	14	20	0	0
School	11	2	0	0
New Sources				
Residential	--	--	114	1,292
Recreational	--	--	2	0
School	--	--	0	0
New Land Uses				
Residential	--	--	137	1,201
Recreational	--	--	18	2
School	--	--	2	0

**Approved Plan**  
**Summary of Cancer Health Risk, 2035**

Receptor Type	2016		2035	
	Maximum Cancer Risk (per million)	Area of Threshold Exceedance (acres)	Maximum Incremental Cancer Risk (per million)	Incremental Area of Threshold Exceedance (acres)
Existing Sources				
Residential	447	7,563	-6	0
Recreational	13	24	0	0
School	11	2	0	0
New Sources				
Residential	--	--	132	1,261
Recreational	--	--	2	0
School	--	--	0	0
New Land Uses				
Residential	--	--	137	1,155
Recreational	--	--	0	0
School	--	--	0	0



**Table 4.1-14b**

**Change in Cancer Health Risk from Approved Plan, 2035**

Receptor Type	2016		2035	
	Maximum Cancer Risk (per million)	Area of Threshold Exceedance (acres)	Maximum Incremental Cancer Risk (per million)	Incremental Area of Threshold Exceedance (acres)
Existing Sources				
Residential	-3	-8	0	0
Recreational	-1	-5	0	0
School	0	0	0	0
New Sources				
Residential	--	--	-18	31
Recreational	--	--	0	0
School	--	--	0	0
New Land Uses				
Residential	--	--	0	46
Recreational	--	--	18	2
School	--	--	2	0

**Table 4.1-15****Summary of Cumulative Health Risk, 2035**

Receptor Type	2016		2035		2035 vs. 2016	
	Maximum Cumulative Cancer Risk	Area of Threshold Exceedance (acres)	Maximum Cumulative Cancer Risk	Area of Threshold Exceedance (acres)	Change in Maximum Cumulative Cancer Risk	Change In Area of Threshold Exceedance (acres)
Residential	1,015	7,537	915	7,217	-100	-320
Approved Plan	1,015	7,570	928	7,214	-87	-356
Change from Approved Plan	0	-33	-13	3	-13	36

**Table 4.1-16**

**Summary of Toxic Air Contaminants Emissions per Year, 2035**

<b>Year</b>	<b>Butadiene1,3</b>	<b>Acetaldehyde</b>	<b>Acrolein</b>	<b>Benzene</b>	<b>Ethyl Benzene</b>	<b>Formaldehyde</b>	<b>Naphthalene</b>	<b>PAH</b>	<b>DPM</b>
2016	0.023	0.11	0.012	0.25	0.12	0.22	0.023	0.027	0.55
2035	0.0001	0.025	0.002	0.075	0.028	0.055	0.0046	0.005	0.092
2035 Approved Plan	0.0001	0.025	0.002	0.075	0.028	0.055	0.0046	0.00002	0.078
Change vs. 2016	-100%	-77%	-83%	-70%	-77%	-75%	-80%	-81%	-83%
Change from Approved Plan	0	0	0	0	0	-0.002	-0.0001	0.005	0.014

**Table 4.1-17a**  
**Summary of Noncancer Hazards, 2035**

Receptor Type	2016 Maximum Hazard Index		Maximum Incremental Change vs. 2016		Incremental Area of Threshold Exceedance (acres)	
	Acute Hazard	Chronic Hazard	Acute Hazard	Chronic Hazard	Acute Hazard	Chronic Hazard
<b>Existing Sources</b>						
Residential	7.1	52.8	-0.1	-0.7	0	0
Recreational	2.3	40	-0.2	-0.9	0	0
School	1.4	25	0	0	0	0
<b>New Sources</b>						
Residential	-	-	0.5	12.3	0	1,280
Recreational	-	-	0.1	3.3	0	130
School	-	-	0	0	0	0
<b>New Land Uses</b>						
Residential	-	-	1.3	10.9	1	992
Recreational	-	-	0.2	6	0	49
School	-	-	0.2	3.9	0	11

**Approved Plan**  
**Summary of Noncancer Hazards, 2035**

Receptor Type	2016 Maximum Hazard Index		Maximum Incremental Change vs. 2016		Incremental Area of Threshold Exceedance (acres)	
	Acute Hazard	Chronic Hazard	Acute Hazard	Chronic Hazard	Acute Hazard	Chronic Hazard
<b>Existing Sources</b>						
Residential	6.9	52.9	0	-0.8	0	0
Recreational	2.3	37	-0.1	-0.9	0	0
School	1.5	24.9	0	0	0	0
<b>New Sources</b>						
Residential	-	-	0.8	14.2	0	1,266
Recreational	-	-	0.2	4.7	0	123
School	-	-	0	0	0	0
<b>New Land Uses</b>						
Residential	-	-	1.4	13.2	2	1,161
Recreational	-	-	0	0	0	0
School	-	-	0	0	0	0

**Table 4.1-17b**

**Change in Noncancer Hazards from Approved Plan, 2035**

Receptor Type	2016 Maximum Hazard Index		Maximum Incremental Change vs. 2016		Incremental Area of Threshold Exceedance (acres)	
	Acute Hazard	Chronic Hazard	Acute Hazard	Chronic Hazard	Acute Hazard	Chronic Hazard
<b>Existing Sources</b>						
Residential	0.2	-0.1	-0.1	0.1	0	0
Recreational	0	3	-0.1	0	0	0
School	-0.1	-0.1	0	0	0	0
<b>New Sources</b>						
Residential	-	-	-0.3	-1.9	0	14
Recreational	-	-	-0.1	-1.4	0	7
School	-	-	0	0	0	0
<b>New Land Uses</b>						
Residential	-	-	0.1	2.3	-1	-169
Recreational	-	-	0.2	6	0	49
School	-	-	0.2	3.9	0	11

**Table 4.1-18a**  
**Summary of Cancer Health Risk, 2050**

Receptor Type	2016		2050	
	Maximum Cancer Risk (per million)	Area of Threshold Exceedance (acres)	Maximum Incremental Cancer Risk (per million)	Incremental Area of Threshold Exceedance (acres)
Existing Sources				
Residential	444	7,555	-5	0
Recreational	14	20	0	0
School	11	2	0	0
New Sources				
Residential	--	--	102	2,497
Recreational	--	--	18	1
School	--	--	2	0
New Land Uses				
Residential	--	--	135	1,254
Recreational	--	--	17	2
School	--	--	0	0

**Approved Plan**  
**Summary of Cancer Health Risk 2050**

Receptor Type	2016		2050	
	Maximum Cancer Risk (per million)	Area of Threshold Exceedance (acres)	Maximum Incremental Cancer Risk (per million)	Incremental Area of Threshold Exceedance (acres)
Existing Sources				
Residential	447	7,563	-5	0
Recreational	13	25	0	0
School	11	2	0	0
New Sources				
Residential	--	--	131	2,481
Recreational	--	--	3	0
School	--	--	1	0
New Land Uses				
Residential	--	--	133	1,223
Recreational	--	--	0	0
School	--	--	0	0

**Table 4.1-18b**

**Change in Cancer Health Risk from Approved Plan, 2050**

Receptor Type	2016		2050	
	Maximum Cancer Risk (per million)	Area of Threshold Exceedance (acres)	Maximum Incremental Cancer Risk (per million)	Incremental Area of Threshold Exceedance (acres)
Existing Sources				
Residential	-3	-8	0	0
Recreational	1	-5	0	0
School	0	0	0	0
New Sources				
Residential	--	--	-29	16
Recreational	--	--	15	1
School	--	--	1	0
New Land Uses				
Residential	--	--	2	31
Recreational	--	--	17	2
School	--	--	0	0

**Table 4.1-19****Summary of Cumulative Health Risk, 2050**

Receptor Type	2016		2050		2050 vs. 2016	
	Maximum Cumulative Cancer Risk	Area of Threshold Exceedance (acres)	Maximum Cumulative Cancer Risk	Area of Threshold Exceedance (acres)	Change in Maximum Cumulative Cancer Risk	Change in Area of Threshold Exceedance (acres)
Residential	1,015	7,537	912	7,167	-103	-370
Approved Plan	1,015	7,570	922	7,232	-93	-338
Change from Approved Plan	0	-33	-10	-65	-10	-32



**Table 4.1-20**

**Contaminants Tons per Year, 2050**

<b>Year</b>	<b>Butadiene1,3</b>	<b>Acetaldehyde</b>	<b>Acrolein</b>	<b>Benzene</b>	<b>Ethyl Benzene</b>	<b>Formaldehyde</b>	<b>Naphthalene</b>	<b>PAH</b>	<b>DPM</b>
2016	0.023	0.11	0.012	0.25	0.12	0.22	0.023	0.027	0.55
2050	0.0001	0.024	0.0018	0.067	0.025	0.055	0.0042	0.005	0.091
2050 Approved Plan	0.0001	0.024	0.0018	0.068	0.025	0.052	0.0042	0.00002	0.071
Change vs. 2016	-100%	-78%	-85%	-73%	-79%	-75%	-82%	-81%	-83%
Change from Approved Plan	0	0	0	-0.001	0	0.003	0	0.005	0.02

**Table 4.1-21a**  
**Summary of Noncancer Hazards, 2050**

Receptor Type	2016 Maximum Hazard Index		Maximum Incremental Change vs. 2016		Incremental Area of Threshold Exceedance (acres)	
	Acute Hazard	Chronic Hazard	Acute Hazard	Chronic Hazard	Acute Hazard	Chronic Hazard
<b>Existing Sources</b>						
Residential	7.1	52.8	0	-0.7	0	0
Recreational	2.3	40	-0.1	-0.9	0	0
School	1.4	25	0	0	0	0
<b>New Sources</b>						
Residential	--	--	0.5	10.7	0	2,463
Recreational	--	--	0.2	4.1	0	220
School	--	--	0.1	2.1	0	1
<b>New Land Uses</b>						
Residential	--	--	1.4	9.9	2	1,212
Recreational	--	--	0.4	5.2	0	44
School	--	--	0.1	3.2	0	22

**Approved Plan**  
**Summary of Noncancer Hazards, 2050**

Receptor Type	2016 Maximum Hazard Index		Maximum Incremental Change vs. 2016		Incremental Area of Threshold Exceedance (acres)	
	Acute Hazard	Chronic Hazard	Acute Hazard	Chronic Hazard	Acute Hazard	Chronic Hazard
<b>Existing Sources</b>						
Residential	6.9	52.9	0.5	-0.6	0	0
Recreational	2.3	37	0.2	-0.9	0	0
School	1.5	24.9	0	0	0	0
<b>New Sources</b>						
Residential	--	--	0.9	13.8	0	2,477
Recreational	--	--	0.6	4.3	0	299
School	--	--	0.2	2.2	0	1
<b>New Land Uses</b>						
Residential	--	--	1.5	11.2	2	1,218
Recreational	--	--	0	0	0	0
School	--	--	0	0	0	0

**Table 4.1-21b**

**Change in Noncancer Hazards from Approved Plan, 2050**

Receptor Type	2016 Maximum Hazard Index		Maximum Incremental Change vs. 2016		Incremental Area of Threshold Exceedance (acres)	
	Acute Hazard	Chronic Hazard	Acute Hazard	Chronic Hazard	Acute Hazard	Chronic Hazard
<b>Existing Sources</b>						
Residential	0.2	-0.1	-0.5	-0.1	0	0
Recreational	0	3	-0.3	0	0	0
School	-0.1	0.1	0	0	0	0
<b>New Sources</b>						
Residential	--	--	-0.4	-3.1	0	-14
Recreational	--	--	-0.4	-0.2	0	-79
School	--	--	-0.1	-0.1	0	0
<b>New Land Uses</b>						
Residential	--	--	-0.1	-1.3	0	-6
Recreational	--	--	0.4	5.2	0	44
School	--	--	0.1	3.2	0	22