

**APPENDIX D**

**AIR QUALITY DATA AND  
GLOBAL CLIMATE CHANGE DATA**

Yolo-Solano AQMD  
Odor Complaints All of Yolo County  
1/1/2006 to 1/23/2009

FACILITY	DATE	CITY	TYPE
J.S.V.P.	11/2/2006		Odor
	6/19/2007		Odor
	9/11/2006	Davis	Odor
	5/23/2008	Davis	Odor
	11/17/2008	Davis	Odor
	11/9/2006	Dunnigan	Odor
	5/18/2007	Dunnigan	Odor
	10/26/2007	West Sacramento	Odor
	10/6/2008	West Sacramento	Odor
	10/15/2008	West Sacramento	Odor
	10/16/2008	West Sacramento	Odor
	10/21/2008	West Sacramento	Odor
	10/21/2008	West Sacramento	Odor
	10/23/2008	West Sacramento	Odor
	10/27/2008	West Sacramento	Odor
	5/15/2006	Winters	Odor
	8/23/2006	Winters	Odor
	10/26/2006	Woodland	Odor
	11/22/2006	Woodland	Odor
	11/22/2006	Woodland	Odor
	12/6/2006	Woodland	Odor
	4/13/2007	Woodland	Odor
	10/3/2007	Woodland	Odor
	10/26/2007	Woodland	Odor
	11/18/2007	Woodland	Odor
	2/12/2008	Woodland	Odor
	4/9/2008	Woodland	Odor
	4/9/2008	Woodland	Odor
	4/13/2008	Woodland	Odor
	1/14/2008	Woodland	Odor
	2/12/2008	Woodland	Odor
	4/17/2008	Woodland	Odor
	8/31/2007	Woodland	Odor
5/14/2008	Woodland	Odor	
Pure Roast Coffee Co.	12/3/2008	Woodland	Odor
Puroast Coffe	12/3/2008	Woodland	Odor
Agriform	12/11/2008	Woodland	Odor
Agriform	12/11/2008	Woodland	Odor
	12/20/2007	Zamora	Odor

Yolo-Solano AQMD  
Odor Complaints Unincorporated Yolo County  
1/1/2006 to 01/22/2009

FACILITY	DATE	CITY	TYPE
	11/9/2006	Dunnigan	Odor
	5/18/2007	Dunnigan	Odor
	5/15/2006	Winters	Odor
	8/23/2006	Winters	Odor
	12/20/2007	Zamora	Odor

Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: C:\Documents and Settings\JPaukovits\My Documents\CYK0701 Yolo County GP\URBEMIS\Yolo County GP - Existing (revised).urb924

Project Name: Yolo County GP

Project Location: Yolo County

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)	220.77	136.20	377.79	0.80	40.31	38.81	165,397.83

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)	3,296.72	5,130.13	39,577.52	24.66	4,401.15	877.05	2,490,251.70

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)	3,517.49	5,266.33	39,955.31	25.46	4,441.46	915.86	2,655,649.53

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Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

<u>Source</u>	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
Natural Gas	9.59	131.05	103.19	0.00	0.24	0.24	158,527.26
Hearth	27.04	4.82	245.14	0.80	39.99	38.49	6,823.21
Landscape	5.30	0.33	29.46	0.00	0.08	0.08	47.36
Consumer Products	64.85						
Architectural Coatings	113.99						
<b>TOTALS (tons/year, unmitigated)</b>	<b>220.77</b>	<b>136.20</b>	<b>377.79</b>	<b>0.80</b>	<b>40.31</b>	<b>38.81</b>	<b>165,397.83</b>

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

<u>Source</u>	<u>ROG</u>	<u>NOX</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM25</u>	<u>CO2</u>
Single family housing	143.82	220.84	1,731.81	1.06	188.71	37.64	107,251.24
General office building	2,075.97	3,265.33	25,121.67	15.67	2,799.18	557.75	1,582,642.86
General light industry	1,076.93	1,643.96	12,724.04	7.93	1,413.26	281.66	800,357.60
<b>TOTALS (tons/year, unmitigated)</b>	<b>3,296.72</b>	<b>5,130.13</b>	<b>39,577.52</b>	<b>24.66</b>	<b>4,401.15</b>	<b>877.05</b>	<b>2,490,251.70</b>

Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Single family housing	2,421.00	9.57	dwelling units	7,263.00	69,506.91	594,263.22
General office building		11.01	1000 sq ft	93,937.14	1,034,247.94	8,816,963.88
General light industry		6.97	1000 sq ft	70,567.20	491,853.39	4,451,273.28
					1,595,608.24	13,862,500.38

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	45.2	1.8	97.8	0.4
Light Truck < 3750 lbs	13.8	3.6	87.0	9.4
Light Truck 3751-5750 lbs	20.3	1.5	98.0	0.5
Med Truck 5751-8500 lbs	9.0	1.1	98.9	0.0
Lite-Heavy Truck 8501-10,000 lbs	2.2	0.0	72.7	27.3
Lite-Heavy Truck 10,001-14,000 lbs	0.8	0.0	50.0	50.0
Med-Heavy Truck 14,001-33,000 lbs	2.3	4.3	13.0	82.7
Heavy-Heavy Truck 33,001-60,000 lbs	1.1	0.0	0.0	100.0
Other Bus	0.0	0.0	0.0	0.0
Urban Bus	0.0	0.0	0.0	0.0
Motorcycle	4.4	77.3	22.7	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	0.8	12.5	75.0	12.5

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	10.8	7.3	7.3
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	10.0	10.0
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
General office building				35.0	17.5	47.5
General light industry				50.0	25.0	25.0

Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: C:\Documents and Settings\JPaukovits\My Documents\CYK0701 Yolo County GP\URBEMIS\Yolo County Draft General Plan (revised) - Commercial Only.urb924

Project Name: Yolo County GP

Project Location: Yolo County

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)	9.37	15.62	13.26	0.00	0.03	0.03	18,744.37

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)	90.30	86.75	919.06	2.10	378.45	72.60	213,879.56

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)	99.67	102.37	932.32	2.10	378.48	72.63	232,623.93



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Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

<u>Source</u>	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
Natural Gas	1.13	15.62	13.12	0.00	0.03	0.03	18,744.12
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscape	0.01	0.00	0.14	0.00	0.00	0.00	0.25
Consumer Products	0.00						
Architectural Coatings	8.23						
<b>TOTALS (tons/year, unmitigated)</b>	<b>9.37</b>	<b>15.62</b>	<b>13.26</b>	<b>0.00</b>	<b>0.03</b>	<b>0.03</b>	<b>18,744.37</b>

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

<u>Source</u>	<u>ROG</u>	<u>NOX</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM25</u>	<u>CO2</u>
General office building	90.30	86.75	919.06	2.10	378.45	72.60	213,879.56
<b>TOTALS (tons/year, unmitigated)</b>	<b>90.30</b>	<b>86.75</b>	<b>919.06</b>	<b>2.10</b>	<b>378.45</b>	<b>72.60</b>	<b>213,879.56</b>

Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2030 Season: Annual

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreeage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
General office building		11.01	1000 sq ft	12,838.44	141,351.23	1,205,019.28
					141,351.23	1,205,019.28

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	45.4	0.0	100.0	0.0
Light Truck < 3750 lbs	13.7	0.0	98.5	1.5
Light Truck 3751-5750 lbs	20.6	0.0	100.0	0.0
Med Truck 5751-8500 lbs	9.1	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	2.2	0.0	81.8	18.2
Lite-Heavy Truck 10,001-14,000 lbs	0.8	0.0	50.0	50.0
Med-Heavy Truck 14,001-33,000 lbs	2.3	0.0	17.4	82.6
Heavy-Heavy Truck 33,001-60,000 lbs	0.7	0.0	0.0	100.0
Other Bus	0.0	0.0	0.0	0.0
Urban Bus	0.0	0.0	0.0	0.0
Motorcycle	4.3	34.9	65.1	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	0.8	0.0	87.5	12.5

Travel Conditions

	Residential			Commuter	Commercial	
	Home-Work	Home-Shop	Home-Other		Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	10.8	7.3	7.3

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	10.0	10.0
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
General office building				35.0	17.5	47.5

Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: C:\Documents and Settings\JPaukovits\My Documents\CYK0701 Yolo County GP\URBEMIS\Yolo County Draft General Plan (revised).urb924

Project Name: Yolo County GP

Project Location: Yolo County

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)	358.19	66.24	854.97	2.43	121.80	117.25	85,446.11

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)	379.31	351.78	3,770.94	8.58	1,537.51	295.16	871,417.31

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)	737.50	418.02	4,625.91	11.01	1,659.31	412.41	956,863.42

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Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

<u>Source</u>	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
Natural Gas	3.91	50.60	21.59	0.00	0.10	0.10	64,578.39
Hearth	82.39	14.64	744.61	2.43	121.47	116.92	20,725.15
Landscape	16.03	1.00	88.77	0.00	0.23	0.23	142.57
Consumer Products	196.97						
Architectural Coatings	58.89						
<b>TOTALS (tons/year, unmitigated)</b>	<b>358.19</b>	<b>66.24</b>	<b>854.97</b>	<b>2.43</b>	<b>121.80</b>	<b>117.25</b>	<b>85,446.11</b>

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

<u>Source</u>	<u>ROG</u>	<u>NOX</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM25</u>	<u>CO2</u>
Single family housing	128.43	119.65	1,293.22	2.91	520.86	100.05	295,892.59
General light industry	250.88	232.13	2,477.72	5.67	1,016.65	195.11	575,524.72
<b>TOTALS (tons/year, unmitigated)</b>	<b>379.31</b>	<b>351.78</b>	<b>3,770.94</b>	<b>8.58</b>	<b>1,537.51</b>	<b>295.16</b>	<b>871,417.31</b>

Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2030 Season: Annual

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Single family housing	4,419.20	8.79	dwelling units	22,061.00	193,916.19	1,657,925.27
General light industry		6.97	1000 sq ft	51,313.68	357,656.34	3,236,789.91
					551,572.53	4,894,715.18

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	45.4	0.0	100.0	0.0
Light Truck < 3750 lbs	13.7	0.0	98.5	1.5
Light Truck 3751-5750 lbs	20.6	0.0	100.0	0.0
Med Truck 5751-8500 lbs	9.1	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	2.2	0.0	81.8	18.2
Lite-Heavy Truck 10,001-14,000 lbs	0.8	0.0	50.0	50.0
Med-Heavy Truck 14,001-33,000 lbs	2.3	0.0	17.4	82.6
Heavy-Heavy Truck 33,001-60,000 lbs	0.7	0.0	0.0	100.0
Other Bus	0.0	0.0	0.0	0.0
Urban Bus	0.0	0.0	0.0	0.0
Motorcycle	4.3	34.9	65.1	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	0.8	0.0	87.5	12.5

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	10.8	7.3	7.3
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	10.0	10.0
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
General light industry				50.0	25.0	25.0

Title : Yolo - 2005 Existing (VMT Threshold)  
 Version : Emfac2007 V2.3 Nov 1 2006 \*\* WIS Enabled \*\*  
 Run Date : 2009/04/08 15:20:17  
 Scen Year: 2005 -- All model years in the range 1965 to 2005 selected  
 Season : Annual  
 Area : Yolo County  
 I/M Stat : Enhanced Interim (2005)  
 Emissions: Tons Per Day

	LDA-NCAT	LDA-CAT	LDA-DSL	LDA-TOT	LDT1-NCAT	LDT1-CAT	LDT1-DSL	LDT1-TOT	ALL-TOT
Vehicles	194	6635	42	6870	118	1727	216	2061	14879
VMT/1000	4	250	1	255	2	63	8	73	573
Trips	809	42125	248	43182	502	10919	1358	12778	106415
Reactive Organic Gas Emissions									
Run Exh	0.02	0.02	0	0.05	0.01	0.01	0	0.02	0.2
Idle Exh	0	0	0	0	0	0	0	0	0.01
Start Ex	0.01	0.04	0	0.04	0	0.01	0	0.01	0.11
Total Ex	0.03	0.06	0	0.09	0.02	0.02	0	0.04	0.32
Diurnal	0	0.01	0	0.01	0	0	0	0	0.02
Hot Soak	0	0.01	0	0.01	0	0	0	0	0.02
Running	0.02	0.03	0	0.05	0.01	0.01	0	0.02	0.12
Resting	0	0	0	0	0	0	0	0	0.01
Total	0.05	0.11	0	0.16	0.03	0.04	0	0.06	0.49
Carbon Monoxide Emissions									
Run Exh	0.35	0.81	0	1.16	0.21	0.3	0	0.52	3.55
Idle Exh	0	0	0	0	0	0	0	0	0.02
Start Ex	0.03	0.38	0	0.41	0.02	0.13	0	0.14	1.2
Total Ex	0.38	1.2	0	1.57	0.23	0.43	0	0.66	4.77
Oxides of Nitrogen Emissions									
Run Exh	0.02	0.1	0	0.12	0.01	0.03	0.01	0.06	1.34
Idle Exh	0	0	0	0	0	0	0	0	0.04
Start Ex	0	0.02	0	0.03	0	0.01	0	0.01	0.09
Total Ex	0.02	0.12	0	0.14	0.01	0.04	0.01	0.07	1.47
Carbon Dioxide Emissions (000)									
Run Exh	0	0.1	0	0.1	0	0.03	0	0.04	0.35
Idle Exh	0	0	0	0	0	0	0	0	0
Start Ex	0	0	0	0	0	0	0	0	0.01
Total Ex	0	0.11	0	0.11	0	0.03	0	0.04	0.36
PM10 Emissions									
Run Exh	0	0	0	0	0	0	0	0	0.04
Idle Exh	0	0	0	0	0	0	0	0	0
Start Ex	0	0	0	0	0	0	0	0	0
Total Ex	0	0	0	0	0	0	0	0	0.05
TireWear	0	0	0	0	0	0	0	0	0.01
BrakeWr	0	0	0	0	0	0	0	0	0.01
Total	0	0.01	0	0.01	0	0	0	0	0.06
Lead	0	0	0	0	0	0	0	0	0
SOx	0	0	0	0	0	0	0	0	0.01
Fuel Consumption (000 gallons)									
Gasoline	0.29	11.02	0	11.3	0.17	3.41	0	3.59	26.73
Diesel	0	0	0.04	0.04	0	0	0.26	0.26	9.56



Title : Yolo 2030 GP (VMT Threshold)  
 Version : Emfac2007 V2.3 Nov 1 2006 \*\* WIS Enabled \*\*  
 Run Date : 2009/04/01 13:26:05  
 Scen Year: 2030 -- All model years in the range 1986 to 2030 selected  
 Season : Annual  
 Area : Yolo County  
 I/M Stat : Enhanced Interim (2005)  
 Emissions: Tons Per Day

	LDA-NCAT	LDA-CAT	LDA-DSL	LDA-TOT	LDT1-NCAT	LDT1-CAT	LDT1-DSL	LDT1-TOT	ALL-TOT
Vehicles	0	16801	4	16805	0	5000	52	5052	36099
VMT/1000	0	593	0	593	0	170	1	171	1263
Trips	0	104182	18	104199	0	30506	245	30751	256879
Reactive Organic Gas Emissions									
Run Exh	0	0.01	0	0.01	0	0	0	0	0.08
Idle Exh	0	0	0	0	0	0	0	0	0.01
Start Ex	0	0.01	0	0.01	0	0	0	0	0.04
Total Ex	0	0.01	0	0.01	0	0.01	0	0.01	0.12
Carbon Monoxide Emissions									
Run Exh	0	0.35	0	0.35	0	0.13	0	0.13	1.48
Idle Exh	0	0	0	0	0	0	0	0	0.03
Start Ex	0	0.12	0	0.12	0	0.05	0	0.05	0.52
Total Ex	0	0.47	0	0.47	0	0.18	0	0.18	2.03
Oxides of Nitrogen Emissions									
Run Exh	0	0.03	0	0.03	0	0.01	0	0.01	0.32
Idle Exh	0	0	0	0	0	0	0	0	0.06
Start Ex	0	0.01	0	0.01	0	0	0	0	0.06
Total Ex	0	0.03	0	0.03	0	0.01	0	0.02	0.45
Carbon Dioxide Emissions (000)									
Run Exh	0	0.24	0	0.24	0	0.09	0	0.09	0.73
Idle Exh	0	0	0	0	0	0	0	0	0
Start Ex	0	0.01	0	0.01	0	0	0	0	0.02
Total Ex	0	0.25	0	0.25	0	0.09	0	0.09	0.75
PM10 Emissions									
Run Exh	0	0.01	0	0.01	0	0	0	0	0.03
Idle Exh	0	0	0	0	0	0	0	0	0
Start Ex	0	0	0	0	0	0	0	0	0
Total Ex	0	0.01	0	0.01	0	0	0	0	0.04
TireWear									
Run Exh	0	0.01	0	0.01	0	0	0	0	0.01
Idle Exh	0	0.01	0	0.01	0	0	0	0	0.02
Start Ex	0	0	0	0	0	0	0	0	0
Total Ex	0	0.02	0	0.02	0	0.01	0	0.01	0.07
Lead									
Run Exh	0	0	0	0	0	0	0	0	0
Idle Exh	0	0	0	0	0	0	0	0	0
Start Ex	0	0	0	0	0	0	0	0	0.01
SOx									
Run Exh	0	0	0	0	0	0	0	0	0
Idle Exh	0	0	0	0	0	0	0	0	0
Start Ex	0	0	0	0	0	0	0	0	0
Fuel Consumption (000 gallons)									
Gasoline	0	25.31	0	25.31	0	9.15	0	9.15	60.83
Diesel	0	0	0	0	0	0	0.04	0.04	14.61

Title : Yolo 1983 GP (VMT Threshold)  
 Version : Emfac2007 V2.3 Nov 1 2006 \*\* WIS Enabled \*\*  
 Run Date : 2009/04/01 13:20:50  
 Scen Year: 2030 -- All model years in the range 1986 to 2030 selected  
 Season : Annual  
 Area : Yolo County  
 I/M Stat : Enhanced Interim (2005)  
 Emissions: Tons Per Day

	LDA-NCAT	LDA-CAT	LDA-DSL	LDA-TOT	LDT1-NCAT	LDT1-CAT	LDT1-DSL	LDT1-TOT	LDT2-NCAT	ALL-TOT
Vehicles	0	11829	3	11831	0	3520	37	3557	0	25415
VMT/1000	0	417	0	417	0	120	1	120	0	889
Trips	0	73348	12	73360	0	21477	172	21650	0	180852
Reactive Organic Gas Emissions										
Run Exh	0	0	0	0	0	0	0	0	0	0.06
Idle Exh	0	0	0	0	0	0	0	0	0	0
Start Ex	0	0.01	0	0.01	0	0	0	0	0	0.03
Total Ex	0	0.01	0	0.01	0	0	0	0	0	0.09
Diurnal	0	0	0	0	0	0	0	0	0	0.01
Hot Soak	0	0.01	0	0.01	0	0	0	0	0	0.02
Running	0	0.02	0	0.02	0	0.01	0	0.01	0	0.07
Resting	0	0	0	0	0	0	0	0	0	0.01
Total	0	0.04	0	0.04	0	0.02	0	0.02	0	0.19
Carbon Monoxide Emissions										
Run Exh	0	0.25	0	0.25	0	0.09	0	0.09	0	1.04
Idle Exh	0	0	0	0	0	0	0	0	0	0.02
Start Ex	0	0.09	0	0.09	0	0.03	0	0.03	0	0.37
Total Ex	0	0.33	0	0.33	0	0.12	0	0.12	0	1.43
Oxides of Nitrogen Emissions										
Run Exh	0	0.02	0	0.02	0	0.01	0	0.01	0	0.23
Idle Exh	0	0	0	0	0	0	0	0	0	0.05
Start Ex	0	0	0	0	0	0	0	0	0	0.04
Total Ex	0	0.02	0	0.02	0	0.01	0	0.01	0	0.32
Carbon Dioxide Emissions (000)										
Run Exh	0	0.17	0	0.17	0	0.06	0	0.06	0	0.51
Idle Exh	0	0	0	0	0	0	0	0	0	0
Start Ex	0	0.01	0	0.01	0	0	0	0	0	0.01
Total Ex	0	0.17	0	0.17	0	0.06	0	0.06	0	0.53
PM10 Emissions										
Run Exh	0	0.01	0	0.01	0	0	0	0	0	0.02
Idle Exh	0	0	0	0	0	0	0	0	0	0
Start Ex	0	0	0	0	0	0	0	0	0	0
Total Ex	0	0.01	0	0.01	0	0	0	0	0	0.03
TireWear	0	0	0	0	0	0	0	0	0	0.01
BrakeWr	0	0.01	0	0.01	0	0	0	0	0	0.01
Total	0	0.02	0	0.02	0	0	0	0	0	0.05
Lead	0	0	0	0	0	0	0	0	0	0
SOx	0	0	0	0	0	0	0	0	0	0.01
Fuel Consumption (000 gallons)										
Gasoline	0	17.82	0	17.82	0	6.44	0	6.44	0	42.83
Diesel	0	0	0	0	0	0	0.03	0.03	0	10.28

Title : Yolo 2030 GP - Rural Sustainability (VMT Threshold)  
 Version : Emfac2007 V2.3 Nov 1 2006 \*\* WIS Enabled \*\*  
 Run Date : 2009/04/01 13:29:59  
 Scen Year: 2030 -- All model years in the range 1986 to 2030 selected  
 Season : Annual  
 Area : Yolo County  
 I/M Stat : Enhanced Interim (2005)  
 Emissions: Tons Per Day

	LDA-NCAT	LDA-CAT	LDA-DSL	LDA-TOT	LDT1-NCAT	LDT1-CAT	LDT1-DSL	LDT1-TOT	LDT2-NCAT	ALL-TOT
Vehicles	0	13857	3	13860	0	4124	43	4167	0	29774
VMT/1000	0	489	0	489	0	140	1	141	0	1042
Trips	0	85928	15	85942	0	25161	202	25363	0	211871
Reactive Organic Gas Emissions										
Run Exh	0	0	0	0	0	0	0	0	0	0.07
Idle Exh	0	0	0	0	0	0	0	0	0	0
Start Ex	0	0.01	0	0.01	0	0	0	0	0	0.03
Total Ex	0	0.01	0	0.01	0	0	0	0	0	0.1
Diurnal	0	0	0	0	0	0	0	0	0	0.01
Hot Soak	0	0.01	0	0.01	0	0	0	0	0	0.02
Running	0	0.02	0	0.02	0	0.01	0	0.01	0	0.08
Resting	0	0	0	0	0	0	0	0	0	0.01
Total	0	0.04	0	0.04	0	0.02	0	0.02	0	0.22
Carbon Monoxide Emissions										
Run Exh	0	0.29	0	0.29	0	0.1	0	0.1	0	1.22
Idle Exh	0	0	0	0	0	0	0	0	0	0.03
Start Ex	0	0.1	0	0.1	0	0.04	0	0.04	0	0.43
Total Ex	0	0.39	0	0.39	0	0.15	0	0.15	0	1.67
Oxides of Nitrogen Emissions										
Run Exh	0	0.02	0	0.02	0	0.01	0	0.01	0	0.27
Idle Exh	0	0	0	0	0	0	0	0	0	0.05
Start Ex	0	0	0	0	0	0	0	0	0	0.05
Total Ex	0	0.03	0	0.03	0	0.01	0	0.01	0	0.37
Carbon Dioxide Emissions (000)										
Run Exh	0	0.2	0	0.2	0	0.07	0	0.07	0	0.6
Idle Exh	0	0	0	0	0	0	0	0	0	0
Start Ex	0	0.01	0	0.01	0	0	0	0	0	0.02
Total Ex	0	0.2	0	0.2	0	0.07	0	0.07	0	0.62
PM10 Emissions										
Run Exh	0	0.01	0	0.01	0	0	0	0	0	0.03
Idle Exh	0	0	0	0	0	0	0	0	0	0
Start Ex	0	0	0	0	0	0	0	0	0	0
Total Ex	0	0.01	0	0.01	0	0	0	0	0	0.03
TireWear	0	0	0	0	0	0	0	0	0	0.01
BrakeWr	0	0.01	0	0.01	0	0	0	0	0	0.01
Total	0	0.02	0	0.02	0	0.01	0	0.01	0	0.05
Lead	0	0	0	0	0	0	0	0	0	0
SOx	0	0	0	0	0	0	0	0	0	0.01
Fuel Consumption (000 gallons)										
Gasoline	0	20.88	0	20.88	0	7.54	0	7.54	0	50.18
Diesel	0	0	0	0	0	0	0.03	0.03	0	12.05

Title : Yolo - Market (VMT Threshold)  
 Version : Emfac2007 V2.3 Nov 1 2006 \*\* WIS Enabled \*\*  
 Run Date : 2009/04/01 13:42:00  
 Scen Year: 2030 -- All model years in the range 1986 to 2030 selected  
 Season : Annual  
 Area : Yolo County  
 I/M Stat : Enhanced Interim (2005)  
 Emissions: Tons Per Day

	LDA-NCAT	LDA-CAT	LDA-DSL	LDA-TOT	LDT1-NCAT	LDT1-CAT	LDT1-DSL	LDT1-TOT	LDT2-NCAT	ALL-TOT
Vehicles	0	25384	5	25389	0	7554	79	7633	0	54540
VMT/1000	0	896	0	896	0	257	2	258	0	1908
Trips	0	157402	27	157429	0	46090	370	46460	0	388105
Reactive Organic Gas Emissions										
Run Exh	0	0.01	0	0.01	0	0	0	0	0	0.12
Idle Exh	0	0	0	0	0	0	0	0	0	0.01
Start Ex	0	0.01	0	0.01	0	0	0	0	0	0.06
Total Ex	0	0.02	0	0.02	0	0.01	0	0.01	0	0.19
Carbon Monoxide Emissions										
Run Exh	0	0.53	0	0.53	0	0.19	0	0.19	0	2.23
Idle Exh	0	0	0	0	0	0	0	0	0	0.05
Start Ex	0	0.19	0	0.19	0	0.07	0	0.07	0	0.78
Total Ex	0	0.71	0	0.71	0	0.27	0	0.27	0	3.07
Oxides of Nitrogen Emissions										
Run Exh	0	0.04	0	0.04	0	0.02	0	0.02	0	0.49
Idle Exh	0	0	0	0	0	0	0	0	0	0.1
Start Ex	0	0.01	0	0.01	0	0	0	0	0	0.1
Total Ex	0	0.05	0	0.05	0	0.02	0	0.02	0	0.68
Carbon Dioxide Emissions (000)										
Run Exh	0	0.36	0	0.36	0	0.13	0	0.13	0	1.1
Idle Exh	0	0	0	0	0	0	0	0	0	0.01
Start Ex	0	0.01	0	0.01	0	0	0	0	0	0.03
Total Ex	0	0.37	0	0.37	0	0.13	0	0.14	0	1.14
PM10 Emissions										
Run Exh	0	0.01	0	0.01	0	0	0	0	0	0.05
Idle Exh	0	0	0	0	0	0	0	0	0	0
Start Ex	0	0	0	0	0	0	0	0	0	0
Total Ex	0	0.01	0	0.01	0	0	0	0	0	0.05
TireWear										
Run Exh	0	0.01	0	0.01	0	0	0	0	0	0.02
Idle Exh	0	0.01	0	0.01	0	0	0	0	0	0.03
Start Ex	0	0	0	0	0	0	0	0	0	0
Total Ex	0	0.03	0	0.03	0	0.01	0	0.01	0	0.1
Fuel Consumption (000 gallons)										
Gasoline	0	38.24	0	38.24	0	13.82	0	13.82	0	91.91
Diesel	0	0	0	0	0	0	0.05	0.05	0	22.07

## Greenhouse Gas Emissions Worksheet

Project Parameters	
	<b>2008</b>
Vehicles (trips/day)	106,415
Electricity used (MWh/year)	1,800,000
(mscf/year)	5,800.0
Solid Waste (tons/year)	24,000

MWh = Megawatt hour  
mscf = million standard cubic feet

Emission Source	Emissions (metric tons per year)				Percent of Total
	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub> e	
Agriculture	--	--	--	879,977	47.8%
Vehicles <sup>(1)</sup>	119,184	13.24	13	123,390	6.7%
Electricity Production	500,000	6	3	501,030	27.2%
Natural Gas Combustion	320,000	6	6	320,000	17.4%
Propane	--	--	--	9,444	0.5%
Solid Waste	--	--	--	2,400	0.1%
Wastewater	--	--	--	11	0.0%
Other Area Sources <sup>(2)</sup>	6,231	--	--	6,231	0.3%
<b>Total Annual Emissions</b>	<b>945,420</b>	<b>25</b>	<b>22</b>	<b>1,842,480</b>	<b>100.0%</b>

Note: Numbers in table may not appear to add up correctly due to rounding of all numbers to two significant digits.

(1) CO<sub>2</sub> emissions for Vehicles from EMFAC 2007 outputs.

(2) Includes CO<sub>2</sub> emissions for hearth combustion and landscaping equipment from URBEMIS 2007 outputs.

Global warming potentials (GWPs) are used to compare the abilities of different GHGs to trap heat in the atmosphere. GWPs are based on the radiative efficiency (heat-absorbing ability) of each gas relative to that of CO<sub>2</sub>, as well as the decay rate of each gas (the amount removed from the atmosphere over a given number of years) relative to that of CO<sub>2</sub>. The GWP provides a construct for converting emissions of various gases into a common measure, which allows climate analysts to aggregate the radiative impacts of various GHGs into a uniform measure denominated in carbon or CO<sub>2</sub> equivalents. The generally accepted authority on GWPs is the Intergovernmental Panel on Climate Change (IPCC). In 2007, the IPCC updated its estimates of GWPs for key GHGs. The table below lists the GWPs to calculate carbon dioxide equivalents (CO<sub>2</sub>e)

### Global Warming Potential

Gas	Atmospheric Lifetime (years)	Global Warming Potential (100 year time horizon)
Carbon Dioxide	50-200	1
Methane	12 ± 3	25
Nitrous Oxide	120	298
HFC-23	264	14800
HFC-134a	14.6	1430
HFC-152a	1.5	124
PFC: Tetrafluoromethane (CF <sub>4</sub> )	50000	7390
PFC: Hexafluoromethane (C <sub>2</sub> F <sub>6</sub> )	10000	12200
Sulfur Hexafluoride (SF <sub>6</sub> )	3200	22800

## Electricity Emissions Worksheet

### Commercial Electricity Usage (2003 data):

Commercial Building Type	Electricity Consumption per Building by Building Type	Electricity Consumption per Square Foot by Building Type	Project Info (either # of bldgs or total sf, not both)		Annual Electricity Consumption
	thousand kWh	kWh	# of bldgs	total sf	MWh
All Buildings	226	<b>14</b>			0
Mercantile	327	<b>17.8</b>			0
Enclosed and Strip Malls	718	<b>21.1</b>			0
Retail (Other than Mall)	139	14.3			0
Education	283	<b>10.7</b>			0
Food Sales	276	49.4			0
Food Service	213	<b>31.8</b>			0
Health Care (All)	564	<b>20.1</b>			0
Inpatient Health	6,628	27.5			0
Outpatient Health	168	16.1			0
Lodging	483	<b>11.9</b>			0
Office	256	<b>14.6</b>			0
Other	510	22.5			1,744,000
Public Assembly	179	12.5			0
Public Order and Safety	237	15.3			0
Religious Worship	49	4.9			0
Service	73	<b>8</b>			0
Vacant	42	2.4			0
Warehouse and Storage	154	<b>5.9</b>			0

Note: Health Care (All) includes both "Inpatient Health" and "Outpatient Health".

Source: Energy Information Administration, [www.eia.doe.gov/emeu/cbeccs/cbeccs2003/detailed\\_tables\\_2003/detailed\\_tables\\_2003.html](http://www.eia.doe.gov/emeu/cbeccs/cbeccs2003/detailed_tables_2003/detailed_tables_2003.html), Table C14A - Bold valu

### Residential Energy Usage (2001 data):

	Mountain	Pacific	Total US.	Project Info # of units	Annual Consumption MWh
	Single Family	9,926	7,622	10,656	
Apartments (2-4 Units)			7,176		0
Apartments (5 or more Units)			6,204		0
Mobile Home			12,469		0
Total Residential (kWh)					0

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

	CO <sub>2</sub>			CH <sub>4</sub>	N <sub>2</sub> O
Electricity production emission factors for CA	lb/kWh	short tons/MWh	tons/MWh	lb/MWh	lb/MWh
U.S. Average	0.61	0.303	0.275	0.0067	0.0037
	1.34	0.668	0.606	0.0111	0.0192

Source: Energy Information Administration, Updated State-and Regional-level Greenhouse Gas Emission Factors for Electricity (March 2002), <http://www.eia.doe.gov/pub/oiaf/1605/cdrom/pdf/e-supdoc.pdf>. (<http://www.eia.doe.gov/oiaf/1605/ee-factors.html> accessed 4/14/2008)

## Water Usage Emissions Worksheet

**Enter the project usage in row 13 either directly or use the calculator below.**

**kWh/MG**

Project Location in California

Northern       Southern

**Select the appropriate location:**

Water Supply and Conveyance	150	8,900
Water Treatment	100	100
Water Distribution	1,200	1,200
Wastewater Treatment	2,500	2,500
Totals	3,950	12,700

From California's Water Energy Relationship, CEC 2005

325,900 gallons/acre-feet

Project total usage<sup>(1)</sup> 6,375.0 acre-feet/year

Water Supply and Conveyance	311,642	kWh/year
Water Treatment	207,761	kWh/year
Water Distribution	2,493,135	kWh/year
Wastewater Treatment	5,194,031	kWh/year
Total	8,206,569	kWh/year

(1) Assumes that 4 percent of annual water usage is for industrial, commercial and residential use per Section IV.H Utilities of the Draft EIR.

## Natural Gas Emissions Worksheet

### Commercial Natural Gas Usage (2003 data):

Commercial Building Type	Natural Gas Consumption per Building by Type	Natural Gas Consumption per Square Foot by Building Type	Project Info (enter values on Electricity worksheet)		Annual Natural Gas Consumption
	thousand cf	cf	# of bldgs	total sf	thousand cf
All Buildings	782	<b>29.2</b>	0	0	0
Mercantile	653	<b>19.7</b>	0	0	0
Enclosed and Strip Malls	1142	33.4	0	0	0
Retail (Other than Mall)	362	<b>11.4</b>	0	0	0
Education	1223	<b>34.8</b>	0	0	0
Food Sales	383	50.2	0	0	0
Food Service	870	141.2	0	0	0
Health Care (All)	3283	<b>68.7</b>	0	0	0
Inpatient Health	28,222	109.8	0	0	0
Outpatient Health	574	50.2	0	0	0
Lodging	2432	<b>31.5</b>	0	0	0
Office	535	<b>14.2</b>	0	0	0
Other	1885	67.6	0	0	5,803,851
Public Assembly	678	36.4	0	0	0
Public Order and Safety	771	43.7	0	0	0
Religious Worship	362	30.3	0	0	0
Service	481	54.1	0	0	0
Vacant	557	23	0	0	0
Warehouse and Storage	687	23.4	0	0	0

Note: Health Care (All) includes both "Inpatient Health" and "Outpatient Health".

Source: Energy Information Administration, [www.eia.doe.gov/emeu/cbecs/cbecs2003/detailed\\_tables\\_2003/detailed\\_tables\\_2003.html](http://www.eia.doe.gov/emeu/cbecs/cbecs2003/detailed_tables_2003/detailed_tables_2003.html), Table C24A - Bold values from Table C29A.

### Residential Energy Usage (2001 data):

				Project Info	Annual Consumption
	Mountain	Pacific	Total US.	# of units	thousand cf
Single Family	67	48	70	0	0
Apartments (2-4 Units) <sup>(1)</sup>		48		0	0
Apartments (5 or more Units)			28	0	0
Mobile Home			58	0	0
Total Natural Gas Usage					0

(1) Single family natural gas consumption was used to represent 2-4 Unit Apartments, as the total U.S. number (70 thousand cf) would exceed the Pacific region single-family home consumption rates. Single-family and 2-4 Unit Apartments have consistent total U.S. consumption rates, so it is reasonable that regional rates would be consistent as well.

Source: Table CE1-12c. Total Energy Consumption in U.S. Households by West Census Region, 2001 (<http://www.eia.doe.gov/emeu/recs/recs2001/detailcetbls.html>)

	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O
Natural gas combustion	1b/10 <sup>6</sup> scf	1b/10 <sup>6</sup> scf	1b/10 <sup>6</sup> scf
	120,000	2.3	2.2

Source: EPA AP-42 Vol I Chapter 1.4, Table 1.4-2

Project Data - Therms <sup>(1)</sup>	59,837,707
Convert Therms to BTU	5,983,770,700,000
Convert BTU to cubic feet	5,803,851,309
Thousand cubic feet	5,803,851.31

(1) California Energy Commission, 2009. Natural Gas Consumption by County. <http://ecdms.energy.ca.gov/gasbycounty.asp>.



## Solid Waste Emissions Worksheet

Total Square Footage - Office	
Disposal Rate (dry tons/sq. ft./year) <sup>(1)</sup>	0.0108
Office Waste (Dry Tons/Year)	0
Total Square Footage - Retail	
Disposal Rate (dry tons/sq. ft./year) <sup>(1)</sup>	0.0024
Retail Waste (Dry Tons/Year)	0
Total Residences	
Disposal Rate (dry tons/unit/year) <sup>(3)</sup>	1.17
Residential Waste (Dry Tons/Year)	0
Total Waste (Dry Tons/Year)	23,825.00
CO <sub>2</sub> e Metric Tons/Year	2,401.56
Metric Tons of CO <sub>2</sub> e/Wet Ton of Waste <sup>(4)</sup>	0.12
Wet Tons/Dry Tons	0.84

(1) California Integrated Waste Management Board, 2009. Estimated Solid Waste Generation Rates for Commercial Establishments. Available at <http://www.ciwmb.ca.gov/wastechar/wastegenrates/Commercial.htm>.

(2) U.S. Environmental Protection Agency. 2006. *Solid Waste Management and Greenhouse Gases: A Life-Cycle Assessment of Emissions and Sinks*, Exhibit 6-4. September.

(3) California Integrated Waste Management Board, 2009. Estimated Solid Waste Generation Rates for Residential Developments. Available at <http://www.ciwmb.ca.gov/wastechar/wastegenrates/Residential.htm>

(4) U.S. Environmental Protection Agency. 2006. *Solid Waste Management and Greenhouse Gases: A Life-Cycle Assessment of Emissions and Sinks*, Exhibit 6-6. September.

## Greenhouse Gas Emissions Worksheet

Project Parameters	
	<b>2030</b>
Vehicles (trips/day)	256,879
Electricity used (MWh/year)	2,100,000
(mscf/year)	7,000.0
Solid Waste (tons/year)	32,000

MWh = Megawatt hour  
mscf = million standard cubic feet

Emission Source	Emissions (metric tons per year)				Percent of Total
	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub> e	
Construction	--	--	--	6,865	0.3%
Agriculture	--	--	--	885,432	41.3%
Vehicles <sup>(1)</sup>	248,299	6.6	33	258,300	12.1%
Electricity Production	580,000	6.4	3.5	581,200	27.1%
Natural Gas Combustion <sup>(1)</sup>	380,000	7.3	7	380,000	17.7%
Propane	--	--	--	9,444	0.4%
Solid Waste	--	--	--	3,200	0.1%
Wastewater	--	--	--	24	0.0%
Other Area Sources <sup>(2)</sup>	18,928	--	--	18,928	0.9%
<b>Total Annual Emissions</b>	<b>1,227,200</b>	<b>20</b>	<b>44</b>	<b>2,143,390</b>	<b>100.0%</b>

Note: Numbers in table may not appear to add up correctly due to rounding of all numbers to two significant digits.

(1) CO<sub>2</sub> emissions for Vehicles from EMFAC 2007 outputs.

(2) Includes CO<sub>2</sub> emissions for hearth combustion and landscaping equipment from URBEMIS 2007 outputs.

### Global Warming Potential

Gas	Atmospheric Lifetime (years)	Global Warming Potential (100 year time horizon)
Carbon Dioxide	50-200	1
Methane	12 ± 3	25
Nitrous Oxide	120	298
HFC-23	264	14800
HFC-134a	14.6	1430
HFC-152a	1.5	124
PFC: Tetrafluoromethane (CF <sub>4</sub> )	50000	7390
PFC: Hexafluoromethane (C <sub>2</sub> F <sub>6</sub> )	10000	12200
Sulfur Hexafluoride (SF <sub>6</sub> )	3200	22800

## Electricity Emissions Worksheet

### Commercial Electricity Usage (2003 data):

Commercial Building Type	Electricity Consumption per Building by Building Type	Electricity Consumption per Square Foot by Building Type	Project Info (either # of bldgs or total sf, not both)		Annual Electricity Consumption
	thousand kWh	kWh	# of bldgs	total sf	MWh
All Buildings	226	<b>14</b>			0
Mercantile	327	<b>17.8</b>			0
Enclosed and Strip Malls	718	<b>21.1</b>			0
Retail (Other than Mall)	139	14.3			0
Education	283	<b>10.7</b>			0
Food Sales	276	49.4			0
Food Service	213	<b>31.8</b>			0
Health Care (All)	564	<b>20.1</b>			0
Inpatient Health	6,628	27.5			0
Outpatient Health	168	16.1			0
Lodging	483	<b>11.9</b>			0
Office	256	<b>14.6</b>			0
Other <sup>(1)</sup>	510	22.5			2,118,827
Public Assembly	179	12.5			0
Public Order and Safety	237	15.3			0
Religious Worship	49	4.9			0
Service	73	<b>8</b>			0
Vacant	42	2.4			0
Warehouse and Storage	154	<b>5.9</b>			0

Note: Health Care (All) includes both "Inpatient Health" and "Outpatient Health".

Source: Energy Information Administration, [www.eia.doe.gov/emeu/cbecs/cbecs2003/detailed\\_tables\\_2003/detailed\\_tables\\_2003.html](http://www.eia.doe.gov/emeu/cbecs/cbecs2003/detailed_tables_2003/detailed_tables_2003.html), Table C14A - Bold value:

(1) Assumes that energy use increases 33.68 MWh with implementation of the Draft General Plan per Section IV.H Utilities of the Draft EIR.

### Residential Energy Usage (2001 data):

	Mountain	Pacific	Total US.	Project Info # of units	Annual Consumption MWh
	Single Family	9,926	7,622	10,656	
Apartments (2-4 Units)			7,176		0
Apartments (5 or more Units)			6,204		0
Mobile Home			12,469		0
Total Residential (kWh)					0

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 2001 Residential Energy Consumption Survey.

	CO <sub>2</sub>			CH <sub>4</sub>	N <sub>2</sub> O
	lb/kWh	short tons/MWh	tons/MWh	lb/MWh	lb/MWh
Electricity production emission factors for CA	0.61	0.303	0.275	0.0067	0.0037
U.S. Average	1.34	0.668	0.606	0.0111	0.0192

Source: Energy Information Administration, Updated State-and Regional-level Greenhouse Gas Emission Factors for Electricity (March 2002), <http://www.eia.doe.gov/pub/oiaf/1605/cdrom/pdf/e-supdoc.pdf>. (<http://www.eia.doe.gov/oiaf/1605/ee-factors.html> accessed 4/14/2008)

## Water Usage Emissions Worksheet

**Enter the project usage in row 13 either directly or use the calculator below.**

**kWh/MG**

Project Location in California

Select the appropriate location:
 Northern     Southern

Water Supply and Conveyance	150	8,900
Water Treatment	100	100
Water Distribution	1,200	1,200
Wastewater Treatment	2,500	2,500
<b>Totals</b>	<b>3,950</b>	<b>12,700</b>

From California's Water Energy Relationship, CEC 2005

325,900 gallons/acre-feet

Project total usage<sup>(1), (2)</sup>      21,567.4 acre-feet/year

Water Supply and Conveyance	1,054,320	kWh/year
Water Treatment	702,880	kWh/year
Water Distribution	8,434,561	kWh/year
Wastewater Treatment	17,572,002	kWh/year
<b>Total</b>	<b>27,763,762</b>	<b>kWh/year</b>

(1) Assumes that 4 percent of annual water usage is for industrial, commercial and residential use per Section IV.H Utilities of the Draft EIR.

(2) Assumes that water usage increases by 9,592 acre-feet per year with implementation of the Draft General Plan.

## Natural Gas Emissions Worksheet

### Commercial Natural Gas Usage (2003 data):

Commercial Building Type	Natural Gas Consumption per Building by Building Type	Natural Gas Consumption per Square Foot by Building Type	Project Info (enter values on Electricity worksheet)		Annual Natural Gas Consumption
	thousand cf	cf	# of bldgs	total sf	thousand cf
All Buildings	782	<b>29.2</b>	0	0	0
Mercantile	653	<b>19.7</b>	0	0	0
Enclosed and Strip Malls	1142	33.4	0	0	0
Retail (Other than Mall)	362	<b>11.4</b>	0	0	0
Education	1223	<b>34.8</b>	0	0	0
Food Sales	383	50.2	0	0	0
Food Service	870	141.2	0	0	0
Health Care (All)	3283	<b>68.7</b>	0	0	0
Inpatient Health	28,222	109.8	0	0	0
Outpatient Health	574	50.2	0	0	0
Lodging	2432	<b>31.5</b>	0	0	0
Office	535	<b>14.2</b>	0	0	0
Other	1885	67.6	0	0	6,985,599
Public Assembly	678	36.4	0	0	0
Public Order and Safety	771	43.7	0	0	0
Religious Worship	362	30.3	0	0	0
Service	481	54.1	0	0	0
Vacant	557	23	0	0	0
Warehouse and Storage	687	23.4	0	0	0

Note: Health Care (All) includes both "Inpatient Health" and "Outpatient Health".

Source: Energy Information Administration, [www.eia.doe.gov/emeu/cbeccs/cbeccs2003/detailed\\_tables\\_2003/detailed\\_tables\\_2003.html](http://www.eia.doe.gov/emeu/cbeccs/cbeccs2003/detailed_tables_2003/detailed_tables_2003.html), Table C24A - Bold values from Table C29A.

### Residential Energy Usage (2001 data):

				Project Info	Annual Consumption
	Mountain	Pacific	Total US.	# of units	thousand cf
Single Family	67	48	70	0	0
Apartments (2-4 Units) <sup>(1)</sup>		48		0	0
Apartments (5 or more Units)			28	0	0
Mobile Home			58	0	0
Total Natural Gas Usage					0

(1) Single family natural gas consumption was used to represent 2-4 Unit Apartments, as the total U.S. number (70 thousand cf) would exceed the Pacific region single-family home consumption rates. Single-family and 2-4 Unit Apartments have consistent total U.S. consumption rates, so it is reasonable that regional rates would be consistent as well.

Source: Table CE1-12c. Total Energy Consumption in U.S. Households by West Census Region, 2001 (<http://www.eia.doe.gov/emeu/recs/recs2001/detailcetbls.html>)

	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O
Natural gas combustion	lb/10 <sup>6</sup> scf	lb/10 <sup>6</sup> scf	lb/10 <sup>6</sup> scf
	120,000	2.3	2.2

Source: EPA AP-42 Vol I Chapter 1.4, Table 1.4-2

Project Data - Therms <sup>(1)</sup>	59,837,707
Convert Therms to BTU	5,983,770,700,000
Convert BTU to cubic feet	5,803,851,309
Thousand cubic feet	5,803,851.31
Project Data - Additional Therms <sup>(2)</sup>	12,183,814
Convert Therms to BTU	1,218,381,447,000
Convert BTU to cubic feet	1,181,747,281
Thousand cubic feet	1,181,747.28
Total (Thousand cubic feet)	6,985,598.59

(1) California Energy Commission, 2009. Natural Gas Consumption by County. <http://ecdms.energy.ca.gov/gasbycounty.asp>.

(2) Additional therms calculated by projecting per capita consumption rates with increase population growth that results from implementation of the Draft General Plan.

## Solid Waste Emissions Worksheet

Total Square Footage - Office	
Disposal Rate (dry tons/sq. ft./year) <sup>(1)</sup>	0.0108
Office Waste (Dry Tons/Year)	0
Total Square Footage - Retail	
Disposal Rate (dry tons/sq. ft./year) <sup>(1)</sup>	0.0024
Retail Waste (Dry Tons/Year)	0
Total Residences	
Disposal Rate (dry tons/unit/year) <sup>(3)</sup>	1.17
Residential Waste (Dry Tons/Year)	0
Total Waste (Dry Tons/Year) <sup>(4)</sup>	32,200.00
CO <sub>2</sub> e Metric Tons/Year	3,245.76
Metric Tons of CO <sub>2</sub> e/Wet Ton of Waste <sup>(5)</sup>	0.12
Wet Tons/Dry Tons	0.84

(1) California Integrated Waste Management Board, 2009. Estimated Solid Waste Generation Rates for Commercial Establishments. Available at <http://www.ciwmb.ca.gov/wastechar/wastegenrates/Commercial.htm>.

(2) U.S. Environmental Protection Agency, 2006. *Solid Waste Management and Greenhouse Gases: A Life-Cycle Assessment of Emissions and Sinks*, Exhibit 6-4. September.

(3) California Integrated Waste Management Board, 2009. Estimated Solid Waste Generation Rates for Residential Developments. Available at <http://www.ciwmb.ca.gov/wastechar/wastegenrates/Residential.htm>

(4) Assumes that solid waste generation increases by 8,375 tons per year with implementation of the Draft General Plan.

(5) U.S. Environmental Protection Agency, 2006. *Solid Waste Management and Greenhouse Gases: A Life-Cycle Assessment of Emissions and Sinks*, Exhibit 6-6. September.

## Summary of Agricultural GHG Emissions

	<b>2007</b>	<b>2030</b>
<b>Livestock Emissions</b>	211,418.54	211,418.54
<b>Rice</b>	45,175.06	61,472.64
<b>Fuel and Off-Road Equipment</b>	222,058.97	214,385.23
<b>Nitrogen Emissions<sup>(1)</sup></b>	318,803.97	315,635.65
<b>Water</b>	82,520.00	82,520.00
<b>Total Agricultural Emissions</b>	<b>879,976.54</b>	<b>885,432.06</b>

(1) Includes fertilizer use, crop residue and N-fixing crops.

## Agricultural Livestock Emissions

	2007	2030	Enteric Fermentation	Manure Management		Total Emissions
			Emissions Factor (g CH <sub>4</sub> /head)	Emissions Factor (g CH <sub>4</sub> /head)	Emissions Factor (g N <sub>2</sub> O/head)	
<b>Cattle</b>	17,000	17,000	73,800.00	2,158.00	-	<b>32,282.15</b>
<b>Hogs</b>	577	577	1,500.00	28,165.00	30.80	<b>5,363.80</b>
<b>Poultry</b>	1,241	1,241		17.60	0.56	<b>324.24</b>
<b>Sheep &amp; Lamb</b>	9,290	9,290	8,000.00	781.00	6.61	<b>116,660.57</b>
<b>Horses</b>	1,776	1,776	18,000.00	5,386.00	-	<b>5,150.16</b>
<b>Goats</b>	1,300	1,300	5,000.00	375.00	-	<b>51,637.63</b>
<b>Total</b>						<b>211,418.54</b>

Note: Emission factors from CARB, 2009. *Documentation of California's Greenhouse Gas Inventory*. [http://www.arb.ca.gov/cc/inventory/doc/doc\\_index.php](http://www.arb.ca.gov/cc/inventory/doc/doc_index.php)

### Global Warming Potential

Gas	Atmospheric Lifetime (years)	Global Warming Potential
Carbon Dioxide	50-200	1
Methane	12 ± 3	25
Nitrous Oxide	120	298
HFC-23	264	14800
HFC-134a	14.6	1430
HFC-152a	1.5	124
PFC: Tetrafluoromethane (CF <sub>4</sub> )	50000	7390
PFC: Hexafluoromethane (C <sub>2</sub> F <sub>6</sub> )	10000	12200
Sulfur Hexafluoride (SF <sub>6</sub> )	3200	22800



## Rice Emissions

2007 Acres	2030 Acres	Emissions Factor (g CH <sub>4</sub> /ha)	Acres/Hectare	Total Emissions (2007)	Total Emissions (2030)
36,600	49,804	122,000	0.40	45,175.06	61,472.64

Note: Emission factors from CARB, 2009. *Documentation of California's Greenhouse Gas Inventory*. [http://www.arb.ca.gov/cc/inventory/doc/doc\\_index.php](http://www.arb.ca.gov/cc/inventory/doc/doc_index.php)

Gas	Atmospheric Lifetime (years)	Global Warming
Carbon Dioxide	50-200	1
Methane	12 ± 3	25
Nitrous Oxide	120	298
HFC-23	264	14800
HFC-134a	14.6	1430
HFC-152a	1.5	124
PFC: Tetrafluoromethane (CF <sub>4</sub> )	50000	7390
PFC: Hexafluoromethane (C <sub>2</sub> F <sub>6</sub> )	10000	12200
Sulfur Hexafluoride (SF <sub>6</sub> )	3200	22800

## Percentage of CO<sub>2</sub>eq Emissions from Agricultural Fuel Use

	<u>Agricultural Acreage</u>	<u>2004 CO<sub>2</sub>eq<sup>(1)</sup></u>	<u>2020 CO<sub>2</sub>eq<sup>(1)</sup></u>
California	9,464,647	4,630,000	4,470,000
Yolo County	453,933	222,059	214,385

Note: The ratio of Yolo County crop acreage to California crop acreage was used to apportion statewide GHG emissions from agricultural fuel use to Yolo County accordingly.

(1) California Air Resources Board. 2008. Climate Change Proposed Scoping Plan: a framework for change. October

**Crop Residue/N-Fixing Crops<sup>(1)</sup>**

**Fertilizer Use**

	2007 Acreage	Acreage Lost	2030 Acreage	2007	2030	N <sub>2</sub> O ef factor	unit	2007 Total N2O Emissions	2030 Total N2O Emissions
<b>Fruit &amp; Nut Crops</b>									
Almonds	9,698	319.1	9,379			0.0017	tonnes/ha-yr	1,969.76	1,904.94
Grapes, Wine (White)	11,898	131.7	11,766			0.0017	tonnes/ha-yr	2,416.60	2,389.85
Prunes, Dried	2,064		2,064			0.0017	tonnes/ha-yr	419.22	419.22
Walnuts, All	7,851	76.3	7,775			0.0017	tonnes/ha-yr	1,594.61	1,579.11
Miscellaneous	1,347	5.7	1,341			0.0017	tonnes/ha-yr	273.59	272.43
<b>Field Crops</b>									
Corn, Field	11,596	279.6	11,316	1,116.11	1,089.20	0.0017	tonnes/ha-yr	3,471.37	3,387.68
Hay, Alfalfa	53,959	435.0	53,524	254,121.62	252,073.16	0.0017	tonnes/ha-yr	265,081.21	262,944.41
Hay, Grain	11,168		11,168	4,730.66	4,730.66	0.0017	tonnes/ha-yr	6,998.99	6,998.99
Safflower	9,033	160.4	8,873			0.0017	tonnes/ha-yr	1,834.69	1,802.12
Sunflower	28,136	171.7	27,964			0.0017	tonnes/ha-yr	5,714.69	5,679.82
Wheat	35,613	788.3	34,825	3,726.47	3,643.98	0.0017	tonnes/ha-yr	10,959.81	10,717.21
Miscellaneous	26,029	528.6	25,500			0.0017	tonnes/ha-yr	5,286.74	5,179.38
<b>Vegetable Crops</b>									
Melons, Honeydews	1,256	45.7	1,210			0.0017	tonnes/ha-yr	255.11	245.81
Tomatoes, Processing	42,149	2,024.6	40,124			0.0017	tonnes/ha-yr	8,560.87	8,149.65
Miscellaneous	3,561	8.1	3,553			0.0017	tonnes/ha-yr	723.27	721.64
<b>Organic Production</b>									
Total	5,932	0.2	5,932			0.0017	tonnes/ha-yr	1,204.85	1,204.81
<b>Nursery Products</b>									
Propagative Stock	340		340			0.0017	tonnes/ha-yr	69.06	69.06
Nursery Stock	152	0.2	152			0.0017	tonnes/ha-yr	30.87	30.84
<b>Seed Crops</b>									
Small Grain	6,000		6,000			0.0017	tonnes/ha-yr	1,218.66	1,218.66
Other	1,016		1,016			0.0017	tonnes/ha-yr	206.36	206.36
<b>Non-Certified Seed</b>									
Pasture and Grass	760		760			0.0017	tonnes/ha-yr	154.36	154.36
Vine Seed	1,085		1,085			0.0017	tonnes/ha-yr	220.37	220.37
Other	684		684			0.0017	tonnes/ha-yr	138.93	138.93
Pasture, Irrigated	13,000		13,000			0	tonnes/ha-yr		
Pasture, Dry	135,775	726.6	135,048			0	tonnes/ha-yr		
<b>Grand Total</b>	<b>420,102</b>	<b>5,702</b>	<b>414,400</b>					<b>318,803.97</b>	<b>315,635.65</b>

(1) Crop Residue and N-Fixing Emissions based on methodology and data provided in the Technical Support Document for California's 1990-2004 Greenhouse Gas Emissions Inventory and 1990 Emissions Level, April 21, 2009.



# Yolo County Propane Emissions

	Usage (gallons)	Emission Factors (lb/1,000 gal)			Emissions (lbs)			Emissions (Metric Tons)			
		CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub> eq
Propane	1,630,000	12,500	0.20	0.90	20,375,000	326	1,467.00	9,241.94	0.15	0.67	9,443.94

(1) Usage based on data provided in Section IV.H Utilities and Energy

(2) U.S. Environmental Protection Agency, 2008. AP 42, Fifth Edition, Volume I Chapter 1: External Combustion Sources (1.5 Liquefied Petroleum Gas Combustion). July.

(3) A metric ton is equivalent to approximately 1.1 tons.

## Global Warming Potential

Gas	Atmospheric Lifetime	Global Warming Potential
Carbon Dioxide	50-200	1
Methane	12 ± 3	25
Nitrous Oxide	120	298
HFC-23	264	14800
HFC-134a	14.6	1430
HFC-152a	1.5	124
PFC: Tetrafluoromethane (CF <sub>4</sub> )	50000	7390
PFC: Hexafluoromethane (C <sub>2</sub> F <sub>6</sub> )	10000	12200
Sulfur Hexafluoride (SF <sub>6</sub> )	3200	22800

Source: IPCC, 2007. Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the IPCC.

**Wastewater Generation - GHG Emissions**

	Existing Wastewater	Projected Wastewater from Residential Uses (gpd) <sup>a</sup>	Projected Wastewater from Commercial/Industrial Uses <sup>b</sup>	Total Additional Wastewater Generated at Buildout	Total Wastewater Generated at Buildout	Existing Total CO <sub>2</sub> eq (tonnes/yr) <sup>c</sup>	2030 Draft GP Total CO <sub>2</sub> e (tonnes/yr) <sup>c</sup>
Dunnigan		1,732,800	701,520	2,434,320	2,434,320		4.93
Knights Landing	80,000	295,650	91,819	387,469	467,469	0.16	0.95
Madison	90,000	313,050	118,992	432,042	522,042	0.18	1.06
Esparto		315,150	47,064	362,214	362,214		0.73
Capay Valley		11,100	113,220	124,320	124,320		0.25
Clarksburg		4,575	0	4,575	4,575		0.01
Monument Hills		5,250	16,872	22,122	22,122		0.04
Yolo		11,700	17,760	29,460	29,460		0.06
Zamora		2,925	12,432	15,357	15,357		0.03
Remaining Unincorporated	5,400,000	329,550	2,278,608	2,608,158	8,008,158	10.95	16.23
<i>Total</i>	<i>5,570,000</i>	<i>3,021,750</i>	<i>3,398,287</i>	<i>6,420,037</i>	<i>11,990,037</i>	<i>11.29</i>	<i>24.31</i>

<sup>a</sup> Assumes a wastewater generation rate of 75 gpd per resident. From: Marin County, 2007. op. cit.

<sup>b</sup> Assumes a wastewater generation rate of 888 gpd per acre for commercial uses. Based on the assumption that wastewater is 75 percent of total water use (1,185 gpd per acre).

<sup>c</sup> EPA estimates that you indirectly emit 0.00447 pounds of greenhouse gases per gallon of water (<http://local-warming.blogspot.com/2008/10/save-water-save-greenhouse-gas.html>)

Title : Yolo 2030 GP - GCC (VMT Threshold)  
 Version : Emfac2007 V2.3 Nov 1 2006 \*\* WIS Enabled \*\*  
 Run Date : 2009/04/01 13:24:43  
 Scen Year: 2030 -- All model years in the range 1986 to 2030 selected  
 Season : Annual  
 Area : Yolo County  
 I/M Stat : Enhanced Interim (2005)  
 Emissions: Tons Per Day

	LDA-NCAT	LDA-CAT	LDA-DSL	LDA-TOT	LDT1-NCAT	LDT1-CAT	LDT1-DSL	LDT1-TOT	LDT2-NCAT	ALL-TOT
Vehicles	0	16801	4	16805	0	5000	52	5052	0	36099
VMT/1000	0	593	0	593	0	170	1	171	0	1263
Trips	0	104182	18	104199	0	30506	245	30751	0	256879
Methane Emissions										
Run Exh	0	0	0	0	0	0	0	0	0	0.02
Idle Exh	0	0	0	0	0	0	0	0	0	0
Start Ex	0	0	0	0	0	0	0	0	0	0
Total Ex	0	0	0	0	0	0	0	0	0	0.02
Carbon Monoxide Emissions										
Run Exh	0	0.35	0	0.35	0	0.13	0	0.13	0	1.48
Idle Exh	0	0	0	0	0	0	0	0	0	0.03
Start Ex	0	0.12	0	0.12	0	0.05	0	0.05	0	0.52
Total Ex	0	0.47	0	0.47	0	0.18	0	0.18	0	2.03
Oxides of Nitrogen Emissions										
Run Exh	0	0.03	0	0.03	0	0.01	0	0.01	0	0.32
Idle Exh	0	0	0	0	0	0	0	0	0	0.06
Start Ex	0	0.01	0	0.01	0	0	0	0	0	0.06
Total Ex	0	0.03	0	0.03	0	0.01	0	0.02	0	0.45
Carbon Dioxide Emissions (000)										
Run Exh	0	0.24	0	0.24	0	0.09	0	0.09	0	0.73
Idle Exh	0	0	0	0	0	0	0	0	0	0
Start Ex	0	0.01	0	0.01	0	0	0	0	0	0.02
Total Ex	0	0.25	0	0.25	0	0.09	0	0.09	0	0.75
PM10 Emissions										
Run Exh	0	0.01	0	0.01	0	0	0	0	0	0.03
Idle Exh	0	0	0	0	0	0	0	0	0	0
Start Ex	0	0	0	0	0	0	0	0	0	0
Total Ex	0	0.01	0	0.01	0	0	0	0	0	0.04
TireWear										
Run Exh	0	0.01	0	0.01	0	0	0	0	0	0.01
Idle Exh	0	0.01	0	0.01	0	0	0	0	0	0.02
Start Ex	0	0	0	0	0	0	0	0	0	0
Total Ex	0	0.02	0	0.02	0	0.01	0	0.01	0	0.07
Fuel Consumption (000 gallons)										
Gasoline	0	25.31	0	25.31	0	9.15	0	9.15	0	60.83
Diesel	0	0	0	0	0	0	0.04	0.04	0	14.61

## Greenhouse Gas Emissions Worksheet

Project Parameters	
	<b>2030</b>
Vehicles (trips/day)	180,852
Electricity used (MWh/year)	1,800,000
(mscf/year)	6,100.0
Solid Waste (tons/year)	24,000

MWh = Megawatt hour  
mscf = million standard cubic feet

Emission Source	Emissions (metric tons per year)				Percent of Total
	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub> e	
Construction	--	--	--	6,865	0%
Agriculture	--	--	--	885,432	46%
Vehicles <sup>(1)</sup>	175,465	58.4	24	184,080	10%
Electricity Production	500,000	5.5	3	501,030	26%
Natural Gas Combustion <sup>(1)</sup>	330,000	6.4	6.1	330,000	17%
Propane	--	--	--	9,444	0%
Solid Waste	--	--	--	2,400	0%
Other Area Sources <sup>(2)</sup>	6,231	--	--	6,231	0%
<b>Total Annual Emissions</b>	<b>1,000,000</b>	<b>70</b>	<b>33</b>	<b>1,925,500</b>	<b>100%</b>

Note: Numbers in table may not appear to add up correctly due to rounding of all numbers to two significant digits.

(1) CO<sub>2</sub> emissions for Vehicles and Natural Gas from URBEMIS 2007 outputs, if available.

(2) Includes CO<sub>2</sub> emissions for hearth combustion and landscaping equipment from URBEMIS 2007 outputs.

Global warming potentials (GWPs) are used to compare the abilities of different GHGs to trap heat in the atmosphere. GWPs are based on the radiative efficiency (heat-absorbing ability) of each gas relative to that of CO<sub>2</sub>, as well as the decay rate of each gas (the amount removed from the atmosphere over a given number of years) relative to that of CO<sub>2</sub>. The GWP provides a construct for converting emissions of various gases into a common measure, which allows climate analysts to aggregate the radiative impacts of various GHGs into a uniform measure denominated in carbon or CO<sub>2</sub> equivalents. The generally accepted authority on GWPs is the Intergovernmental Panel on Climate Change (IPCC). In 2007, the IPCC updated its estimates of GWPs for key GHGs. The table below lists the GWPs to calculate carbon dioxide equivalents (CO<sub>2</sub>e)

### Global Warming Potential

Gas	Atmospheric Lifetime (years)	Global Warming Potential (100 year time horizon)
Carbon Dioxide	50-200	1
Methane	12 ± 3	25
Nitrous Oxide	120	298
HFC-23	264	14800
HFC-134a	14.6	1430
HFC-152a	1.5	124
PFC: Tetrafluoromethane (CF <sub>4</sub> )	50000	7390
PFC: Hexafluoromethane (C <sub>2</sub> F <sub>6</sub> )	10000	12200
Sulfur Hexafluoride (SF <sub>6</sub> )	3200	22800



Title : Yolo 1983 GP - GCC (VMT Threshold)  
 Version : Emfac2007 V2.3 Nov 1 2006 \*\* WIS Enabled \*\*  
 Run Date : 2009/04/01 13:11:28  
 Scen Year: 2030 -- All model years in the range 1986 to 2030 selected  
 Season : Annual  
 Area : Yolo County  
 I/M Stat : Enhanced Interim (2005)  
 Emissions: Tons Per Day

	LDA-NCAT	LDA-CAT	LDA-DSL	LDA-TOT	LDT1-NCAT	LDT1-CAT	LDT1-DSL	LDT1-TOT	LDT2-NCAT	ALL-TOT
Vehicles	0	11829	3	11831	0	3520	37	3557	0	25415
VMT/1000	0	417	0	417	0	120	1	120	0	889
Trips	0	73348	12	73360	0	21477	172	21650	0	180852
Methane Emissions										
Run Exh	0	0	0	0	0	0	0	0	0	0.01
Idle Exh	0	0	0	0	0	0	0	0	0	0
Start Ex	0	0	0	0	0	0	0	0	0	0
Total Ex	0	0	0	0	0	0	0	0	0	0.01
Diurnal	0	0	0	0	0	0	0	0	0	0
Hot Soak	0	0	0	0	0	0	0	0	0	0
Running	0	0	0	0	0	0	0	0	0	0
Resting	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0.01
Carbon Monoxide Emissions										
Run Exh	0	0.25	0	0.25	0	0.09	0	0.09	0	1.04
Idle Exh	0	0	0	0	0	0	0	0	0	0.02
Start Ex	0	0.09	0	0.09	0	0.03	0	0.03	0	0.37
Total Ex	0	0.33	0	0.33	0	0.12	0	0.12	0	1.43
Oxides of Nitrogen Emissions										
Run Exh	0	0.02	0	0.02	0	0.01	0	0.01	0	0.23
Idle Exh	0	0	0	0	0	0	0	0	0	0.05
Start Ex	0	0	0	0	0	0	0	0	0	0.04
Total Ex	0	0.02	0	0.02	0	0.01	0	0.01	0	0.32
Carbon Dioxide Emissions (000)										
Run Exh	0	0.17	0	0.17	0	0.06	0	0.06	0	0.51
Idle Exh	0	0	0	0	0	0	0	0	0	0
Start Ex	0	0.01	0	0.01	0	0	0	0	0	0.01
Total Ex	0	0.17	0	0.17	0	0.06	0	0.06	0	0.53
PM10 Emissions										
Run Exh	0	0.01	0	0.01	0	0	0	0	0	0.02
Idle Exh	0	0	0	0	0	0	0	0	0	0
Start Ex	0	0	0	0	0	0	0	0	0	0
Total Ex	0	0.01	0	0.01	0	0	0	0	0	0.03
TireWear	0	0	0	0	0	0	0	0	0	0.01
BrakeWr	0	0.01	0	0.01	0	0	0	0	0	0.01
Total	0	0.02	0	0.02	0	0	0	0	0	0.05
Lead	0	0	0	0	0	0	0	0	0	0
SOx	0	0	0	0	0	0	0	0	0	0.01
Fuel Consumption (000 gallons)										
Gasoline	0	17.82	0	17.82	0	6.44	0	6.44	0	42.83
Diesel	0	0	0	0	0	0	0.03	0.03	0	10.28

## Greenhouse Gas Emissions Worksheet

Project Parameters	
	<b>2030</b>
Vehicles (trips/day)	211,871
Electricity used (MWh/year)	1,800,000
(mscf/year)	6,100.0
Solid Waste (tons/year)	24,000

MWh = Megawatt hour  
mscf = million standard cubic feet

Emission Source	Emissions (metric tons per year)				Percent of Total
	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub> e	
Construction	--	--	--	6,865	0%
Agriculture	--	--	--	885,432	45%
Vehicles <sup>(1)</sup>	205,261	6.6	28	213,770	11%
Electricity Production	500,000	5.5	3	501,030	26%
Natural Gas Combustion <sup>(1)</sup>	330,000	6.4	6.1	330,000	17%
Propane	--	--	--	9,444	0%
Solid Waste	--	--	--	2,400	0%
Other Area Sources <sup>(2)</sup>	6,231	--	--	6,231	0%
<b>Total Annual Emissions</b>	<b>1,000,000</b>	<b>19</b>	<b>37</b>	<b>1,955,200</b>	<b>100%</b>

Note: Numbers in table may not appear to add up correctly due to rounding of all numbers to two significant digits.

(1) CO<sub>2</sub> emissions for Vehicles and Natural Gas from URBEMIS 2007 outputs, if available.

(2) Includes CO<sub>2</sub> emissions for hearth combustion and landscaping equipment from URBEMIS 2007 outputs.

Global warming potentials (GWPs) are used to compare the abilities of different GHGs to trap heat in the atmosphere. GWPs are based on the radiative efficiency (heat-absorbing ability) of each gas relative to that of CO<sub>2</sub>, as well as the decay rate of each gas (the amount removed from the atmosphere over a given number of years) relative to that of CO<sub>2</sub>. The GWP provides a construct for converting emissions of various gases into a common measure, which allows climate analysts to aggregate the radiative impacts of various GHGs into a uniform measure denominated in carbon or CO<sub>2</sub> equivalents. The generally accepted authority on GWPs is the Intergovernmental Panel on Climate Change (IPCC). In 2007, the IPCC updated its estimates of GWPs for key GHGs. The table below lists the GWPs to calculate carbon dioxide equivalents (CO<sub>2</sub>e)

### Global Warming Potential

Gas	Atmospheric Lifetime (years)	Global Warming Potential (100 year time horizon)
Carbon Dioxide	50-200	1
Methane	12 ± 3	25
Nitrous Oxide	120	298
HFC-23	264	14800
HFC-134a	14.6	1430
HFC-152a	1.5	124
PFC: Tetrafluoromethane (CF <sub>4</sub> )	50000	7390
PFC: Hexafluoromethane (C <sub>2</sub> F <sub>6</sub> )	10000	12200
Sulfur Hexafluoride (SF <sub>6</sub> )	3200	22800

Title : Yolo - Rural - GCC (VMT Threshold)  
 Version : Emfac2007 V2.3 Nov 1 2006 \*\* WIS Enabled \*\*  
 Run Date : 2009/04/01 13:39:51  
 Scen Year: 2030 -- All model years in the range 1986 to 2030 selected  
 Season : Annual  
 Area : Yolo County  
 I/M Stat : Enhanced Interim (2005)  
 Emissions: Tons Per Day

	LDA-NCAT	LDA-CAT	LDA-DSL	LDA-TOT	LDT1-NCAT	LDT1-CAT	LDT1-DSL	LDT1-TOT	LDT2-NCAT	ALL-TOT
Vehicles	0	13857	3	13860	0	4124	43	4167	0	29774
VMT/1000	0	489	0	489	0	140	1	141	0	1042
Trips	0	85928	15	85942	0	25161	202	25363	0	211871
Methane Emissions										
Run Exh	0	0	0	0	0	0	0	0	0	0.01
Idle Exh	0	0	0	0	0	0	0	0	0	0
Start Ex	0	0	0	0	0	0	0	0	0	0
Total Ex	0	0	0	0	0	0	0	0	0	0.02
Diurnal	0	0	0	0	0	0	0	0	0	0
Hot Soak	0	0	0	0	0	0	0	0	0	0
Running	0	0	0	0	0	0	0	0	0	0
Resting	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0.02
Carbon Monoxide Emissions										
Run Exh	0	0.29	0	0.29	0	0.1	0	0.1	0	1.22
Idle Exh	0	0	0	0	0	0	0	0	0	0.03
Start Ex	0	0.1	0	0.1	0	0.04	0	0.04	0	0.43
Total Ex	0	0.39	0	0.39	0	0.15	0	0.15	0	1.67
Oxides of Nitrogen Emissions										
Run Exh	0	0.02	0	0.02	0	0.01	0	0.01	0	0.27
Idle Exh	0	0	0	0	0	0	0	0	0	0.05
Start Ex	0	0	0	0	0	0	0	0	0	0.05
Total Ex	0	0.03	0	0.03	0	0.01	0	0.01	0	0.37
Carbon Dioxide Emissions (000)										
Run Exh	0	0.2	0	0.2	0	0.07	0	0.07	0	0.6
Idle Exh	0	0	0	0	0	0	0	0	0	0
Start Ex	0	0.01	0	0.01	0	0	0	0	0	0.02
Total Ex	0	0.2	0	0.2	0	0.07	0	0.07	0	0.62
PM10 Emissions										
Run Exh	0	0.01	0	0.01	0	0	0	0	0	0.03
Idle Exh	0	0	0	0	0	0	0	0	0	0
Start Ex	0	0	0	0	0	0	0	0	0	0
Total Ex	0	0.01	0	0.01	0	0	0	0	0	0.03
TireWear	0	0	0	0	0	0	0	0	0	0.01
BrakeWr	0	0.01	0	0.01	0	0	0	0	0	0.01
Total	0	0.02	0	0.02	0	0.01	0	0.01	0	0.05
Lead	0	0	0	0	0	0	0	0	0	0
SOx	0	0	0	0	0	0	0	0	0	0.01
Fuel Consumption (000 gallons)										
Gasoline	0	20.88	0	20.88	0	7.54	0	7.54	0	50.18
Diesel	0	0	0	0	0	0	0.03	0.03	0	12.05

## Greenhouse Gas Emissions Worksheet

Project Parameters	
	<b>2030</b>
Vehicles (trips/day)	388,105
Electricity used (MWh/year)	1,800,000
(mscf/year)	6,100.0
Solid Waste (tons/year)	24,000

MWh = Megawatt hour  
mscf = million standard cubic feet

Emission Source	Emissions (metric tons per year)				Percent of Total
	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub> e	
Construction	--	--	--	6,865	0%
Agriculture	--	--	--	885,432	39%
Vehicles <sup>(1)</sup>	377,415	6.6	51	392,780	17%
Electricity Production	500,000	5.5	3	576,185	26%
Natural Gas Combustion <sup>(1)</sup>	330,000	6.4	6.1	379,500	17%
Propane	--	--	--	9,444	0%
Solid Waste	--	--	--	2,400	0%
Other Area Sources <sup>(2)</sup>	6,231	--	--	6,231	0%
<b>Total Annual Emissions</b>	<b>1,200,000</b>	<b>19</b>	<b>60</b>	<b>2,258,800</b>	<b>100%</b>

Note: Numbers in table may not appear to add up correctly due to rounding of all numbers to two significant digits.

(1) CO<sub>2</sub> emissions for Vehicles and Natural Gas from URBEMIS 2007 outputs, if available.

(2) Includes CO<sub>2</sub> emissions for hearth combustion and landscaping equipment from URBEMIS 2007 outputs.

Global warming potentials (GWPs) are used to compare the abilities of different GHGs to trap heat in the atmosphere. GWPs are based on the radiative efficiency (heat-absorbing ability) of each gas relative to that of CO<sub>2</sub>, as well as the decay rate of each gas (the amount removed from the atmosphere over a given number of years) relative to that of CO<sub>2</sub>. The GWP provides a construct for converting emissions of various gases into a common measure, which allows climate analysts to aggregate the radiative impacts of various GHGs into a uniform measure denominated in carbon or CO<sub>2</sub> equivalents. The generally accepted authority on GWPs is the Intergovernmental Panel on Climate Change (IPCC). In 2007, the IPCC updated its estimates of GWPs for key GHGs. The table below lists the GWPs to calculate carbon dioxide equivalents (CO<sub>2</sub>e)

### Global Warming Potential

Gas	Atmospheric Lifetime (years)	Global Warming Potential (100 year time horizon)
Carbon Dioxide	50-200	1
Methane	12 ± 3	25
Nitrous Oxide	120	298
HFC-23	264	14800
HFC-134a	14.6	1430
HFC-152a	1.5	124
PFC: Tetrafluoromethane (CF <sub>4</sub> )	50000	7390
PFC: Hexafluoromethane (C <sub>2</sub> F <sub>6</sub> )	10000	12200
Sulfur Hexafluoride (SF <sub>6</sub> )	3200	22800

Title : Yolo - Market - GCC (VMT Threshold)  
 Version : Emfac2007 V2.3 Nov 1 2006 \*\* WIS Enabled \*\*  
 Run Date : 2009/04/01 13:47:04  
 Scen Year: 2030 -- All model years in the range 1986 to 2030 selected  
 Season : Annual  
 Area : Yolo County  
 I/M Stat : Enhanced Interim (2005)  
 Emissions: Tons Per Day

	LDA-NCAT	LDA-CAT	LDA-DSL	LDA-TOT	LDT1-NCAT	LDT1-CAT	LDT1-DSL	LDT1-TOT	LDT2-NCAT	MCY-CAT	MCY-DSL	MCY-TOT	ALL-TOT
Vehicles	0	25384	5	25389	0	7554	79	7633	0	1515	0	2279	54540
VMT/1000	0	896	0	896	0	257	2	258	0	13	0	19	1908
Trips	0	157402	27	157429	0	46090	370	46460	0	3029	0	4558	388105
Methane Emissions													
Run Exh	0	0.01	0	0.01	0	0	0	0	0	0	0	0	0.02
Idle Exh	0	0	0	0	0	0	0	0	0	0	0	0	0
Start Ex	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Ex	0	0.01	0	0.01	0	0	0	0	0	0	0	0.01	0.03
Diurnal	0	0	0	0	0	0	0	0	0	0	0	0	0
Hot Soak	0	0	0	0	0	0	0	0	0	0	0	0	0
Running	0	0	0	0	0	0	0	0	0	0	0	0	0
Resting	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0.01	0	0.01	0	0	0	0	0	0	0	0.01	0.03
Carbon Monoxide Emissions													
Run Exh	0	0.53	0	0.53	0	0.19	0	0.19	0	0.14	0	0.62	2.23
Idle Exh	0	0	0	0	0	0	0	0	0	0	0	0	0.05
Start Ex	0	0.19	0	0.19	0	0.07	0	0.07	0	0.04	0	0.06	0.78
Total Ex	0	0.71	0	0.71	0	0.27	0	0.27	0	0.18	0	0.67	3.07
Oxides of Nitrogen Emissions													
Run Exh	0	0.04	0	0.04	0	0.02	0	0.02	0	0.02	0	0.03	0.49
Idle Exh	0	0	0	0	0	0	0	0	0	0	0	0	0.1
Start Ex	0	0.01	0	0.01	0	0	0	0	0	0	0	0	0.1
Total Ex	0	0.05	0	0.05	0	0.02	0	0.02	0	0.02	0	0.03	0.68
Carbon Dioxide Emissions (000)													
Run Exh	0	0.36	0	0.36	0	0.13	0	0.13	0	0	0	0	1.1
Idle Exh	0	0	0	0	0	0	0	0	0	0	0	0	0.01
Start Ex	0	0.01	0	0.01	0	0	0	0	0	0	0	0	0.03
Total Ex	0	0.37	0	0.37	0	0.13	0	0.14	0	0	0	0	1.14
PM10 Emissions													
Run Exh	0	0.01	0	0.01	0	0	0	0	0	0	0	0	0.05
Idle Exh	0	0	0	0	0	0	0	0	0	0	0	0	0
Start Ex	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Ex	0	0.01	0	0.01	0	0	0	0	0	0	0	0	0.05
TireWear	0	0.01	0	0.01	0	0	0	0	0	0	0	0	0.02
BrakeWr	0	0.01	0	0.01	0	0	0	0	0	0	0	0	0.03
Total	0	0.03	0	0.03	0	0.01	0	0.01	0	0	0	0	0.1
Lead	0	0	0	0	0	0	0	0	0	0	0	0	0
SOx	0	0	0	0	0	0	0	0	0	0	0	0	0.01
Fuel Consumption (000 gallons)													
Gasoline	0	38.24	0	38.24	0	13.82	0	13.82	0	0.37	0	0.55	91.91
Diesel	0	0	0	0	0	0	0.05	0.05	0	0	0	0	22.07

## DRAFT GENERAL PLAN CLIMATE CHANGE POLICIES

### LAND USE

- Policy LU-2.1 The intent of this policy is to protect existing farm operations from impacts related to the encroachment of urban uses. The expertise of the County Agricultural Commissioner shall be used in applying this policy. Urban development shall bear the primary burden of this policy. Ensure that development will not have a significant adverse effect on the economic viability or constrain the lawful practices of adjoining or nearby agricultural operations, except for land within the Sphere of Influence (SOI) around a city or within the growth boundary of an unincorporated community. New urban (non-agricultural) development should be setback a minimum of 300 feet from adjoining agricultural land where possible, but special circumstances can be considered by the decision-making body. The buffer area shall generally be designated Open Space (OS), but may also be designated Public and Quasi-Public (PQ) or Parks and Recreation (PR) based on applicable circumstances. Agricultural buffers are not required for planned urban growth elsewhere within a growth boundary because the agricultural-urban interface will be temporary until full build-out occurs. 🌍
- Policy LU-2.3 Manage agricultural parcels of less than 20 acres, including antiquated subdivisions where appropriate, to create compatibility with surrounding agricultural uses to the greatest extent possible, including: 1) discourage residential development; 2) encourage lot mergers to achieve larger parcel sizes; 3) encourage clustering of units either within parcels or near existing homes on adjoining parcels to preserve farmland and natural resources; 4) encourage transfers of development rights to areas where additional farm dwellings are desired (e.g. organic farms that are labor intensive); 5) encourage deed restrictions, site design and development themes that support the agricultural use of the land; and 6) aggressively limit the impact of residential development where it does occur. 🌍
- Policy LU-2.5 Vigorously conserve, preserve, and enhance the productivity of the agricultural lands in areas outside of adopted community growth boundaries and outside of city SOIs. 🌍
- Policy LU-3.1 Direct all of the County's residential growth to designated areas within the cities and within the growth boundaries of existing unincorporated communities, as depicted on the Land Use Diagram in Figure LU-1, with the exception of individual farm dwellings (houses allowed on agricultural land), other allowed units (e.g. second units, ancillary dwellings, houses allowed in mixed-use commercial areas, etc.) and housing allowed on existing residentially designated land. 🌍
- Policy LU-3.5 Locate and design services and infrastructure to only serve existing and planned land uses. Actions that will induce growth beyond planned levels are prohibited. 🌍
- Policy LU-3.8 Prohibit the designation of new urban development in places with one or more of the following characteristics: 🌍
- Areas without adequate emergency services and utility capacity and where there are no capital improvement plans to pay for and construct new facilities that can accommodate the proposed development.
  - Areas where there are significant hazards and where there are no plans to adequately mitigate the risk (e.g. floodplains, high fire hazard areas, unstable soils, known seismic faults, etc.).
  - Areas where there are significant natural resources (e.g. groundwater recharge, wildlife habitat, mineral or timber resources, scenic areas, etc.).
  - Areas not contiguous to existing urban development.

Land Use Continued

- Policy LU-3.10 Prohibit the creation of a ring of rural residential development around existing growth boundaries. 🌐
- Policy LU-6.5 Encourage schools and other special districts to locate new schools and other appropriate service facilities within the growth boundaries of the unincorporated communities. 🌐
- Policy LU-6.6 Encourage independent special districts to locate offices and other facilities (where appropriate) within the downtown areas of the communities being served. 🌐
- Policy LU-6.11 Coordinate with the City of Davis to explore mutual opportunities regarding the following projects:
- a) Special needs housing, including housing for seniors in the area north of Covell Boulevard and west of State Route 113.
  - b) Land uses that complement UC Davis, the University Retirement Community, Sutter-Davis Hospital and other nearby social services in the area north of Covell Boulevard and west of State Route 113.
  - c) Alternatives for the Binning Estates project, including the clustering of residential units and increased densities. 🌐
  - d) Extension of water and sewer infrastructure to the Binning Farms community.
  - e) Life science, biotechnology and related research uses along the Interstate 80 corridor.
  - f) Commercial and mixed uses at Covell Boulevard/Pole Line Road and coordinated planning with the Hunt Wesson site.
- Policy LU-7.2 Support and participate in countywide, regional and other multi-agency planning efforts related to housing, tourism, air quality, open space, green infrastructure, recreation, agriculture, habitat conservation, energy, emergency preparedness and flood protection. 🌐
- Policy CC-1.3 Protect the rural night sky as an important scenic feature to the greatest feasible extent where lighting is needed.
- Policy CC-1.7 Reinforce the growth boundaries for each community through appropriate mechanisms including greenbelts, buffers, conservation easements and other community separators. 🌐
- Policy CC-1.11 Require the development of open space corridors, bicycle paths and trails integrating waterways, scenic areas and County parks where appropriate, in collaboration with affected land owners as a part of project approval. The intent is to connect each community and city and other special places and corridors, throughout the County. 🌐
- Policy CC-2.3 Include open space corridors and trails throughout each community to provide off-street bicycle and pedestrian access, as well as connections to intra-county corridors and trails. 🌐
- Policy CC-2.4 Emphasize the unincorporated communities as retail, service and employment centers for local residents, as well as residents of surrounding rural (agricultural) areas. Where

- appropriate, include economic development in the unincorporated communities that serves intra-county and regional tourism. 🌐
- Policy CC-2.5 Plan future land uses within communities so that more dense/intense uses are located within the downtown area and/or at neighborhood centers, transitioning to less dense/intense uses at the growth boundary edge. There is no intent to create or allow a ring of “transitional” rural residential development outside the growth boundaries. 🌐
- Policy CC-2.6 Encourage infill development and the appropriate redevelopment of vacant and underutilized properties within existing unincorporated communities and prioritize infill projects over development on land at the planned community edge. 🌐
- Policy CC-2.7 Provide for higher density housing and mixed-use development in the downtown areas of the unincorporated communities to support commercial uses, create more pedestrian travel, extend activity into the evening, increase the variety of housing opportunities to include affordable and special needs housing, enhance safety, reduce traffic and support regular, frequent fixed-route transit service. 🌐
- Policy CC-2.8 Encourage a range of commercial, civic and cultural uses in the downtown areas of the unincorporated communities to encourage pedestrian travel, extend activity into the evening hours and create activities that involve all ages and groups. This shall include a diversity of retail uses within downtown areas, including retail shops that serve daily household needs, essential services and tourism, such as a bank or post office, lodging, restaurants and entertainment. 🌐
- Policy CC-2.9 Locate County offices and other civic facilities in the downtown area of the unincorporated communities, whenever possible. 🌐
- Policy CC-2.10 Strive to achieve a minimum jobs/housing balance of 1.2 jobs for every dwelling unit on average within each unincorporated community. 🌐
- Policy CC-2.11 Strive to achieve a match between the prices of dwelling units and the salaries of the jobs provided within each unincorporated community. 🌐
- Policy CC-2.12 Strive to create an average yield community wide of 16 jobs per acre for industrial, commercial and other job-generating land uses. 🌐
- Policy CC-2.14 Encourage local hiring and buying practices within local communities and within the County as a whole, including County operations, where legally and economically feasible. 🌐
- Policy CC-2.15 Develop all services, parks, buffers and infrastructure within identified community growth boundaries. Mitigation lands for the loss of agricultural land and wildlife habitat are the only component of community development that are allowed to be located outside of the growth boundaries. 🌐
- Policy CC-2.16 Require the following sustainable design standards as appropriate for projects located within the growth boundaries of the unincorporated communities: 🌐
- A. Imaginative and comprehensive planning that seeks to make best use of existing community features and fully integrate new development.
  - B. Compact and cohesive communities that promote walking, bicycling and public transit.
  - C. Well defined neighborhoods served by parks, schools, greenbelts and trails.



- D. The fiscal impacts of development projects shall be revenue neutral or positive in terms of impacts to the County General Fund. Appropriate exceptions for socially beneficial projects such as affordable housing, parks, etc. may be allowed.
- E. Distinct neighborhood focal points such as a park and/or school and/or small neighborhood-serving retail site.
- F. Narrow streets lined with evenly-spaced trees of the same or alternating species forming a shade canopy.
- G. Vertical curbs and sidewalks separated from the street by landscaping.
- H. Street lighting and trail lighting, as appropriate, at a scale appropriate for pedestrians and bicycles.
- I. Maximum block lengths of 600 feet.
- J. Schools within walking distance of a majority of the homes served.
- K. A wide range of housing types, densities, sizes and affordability.
- L. Where housing is not near the downtown area, allow small neighborhood commercial nodes that provide retail and small office opportunities for neighborhood residents with the goal of accommodating routine daily needs within walking distance of most residents.
- M. Incorporate a grid street network that provides safe and efficient travel for all modes throughout the community with multiple connections to exterior routes.
- N. Orient the grid pattern of new streets to align north/south and east/west, to give a sense of place and direction in new community areas, as well as to maximize solar access.
- O. Downtown streets shall have parking on both sides.
- P. Downtown areas shall have one or more civic nodes such as a central park, town square, fountain plaza, etc.
- Q. Homes that do not back onto roads, parks, schools, greenbelts, trails, or water bodies. Instead, homes that front on these features shall access by way of single-loaded streets or other designs to improve public aesthetics and neighborhood security.
- R. Development regulations and design standards shall emphasize healthy community design and safe neighborhoods.
- S. Avoid noise walls to the greatest possible extent.
- T. Entry features shall be provided at all main community entrances and exits and shall announce the community by name.
- U. Except for parking provided onsite for individual residential lots, parking shall be located to the rear of the facility being served and screened from public view. Parking shall be landscaped to achieve a minimum of 50 percent shading.
- V. Development and incorporation of community art and activities.
- W. Encourage specific land uses and designs that support community diversity.
- X. Protect and preserve to the greatest feasible extent creeks, riparian areas and other biological values within or adjoining an area.
- Y. Incorporate low-water use appliances, drought tolerant landscaping and other water efficient features.
- Z. Provide convenient and secure bicycle parking in downtown areas.

- AA. To the greatest possible extent, avoid cul-de-sacs that create barriers for pedestrian and bicycle access to adjacent areas.
- BB. Include recharging stations, preferred parking, and other incentives for alternative energy vehicles.
- CC. Limit the amount of turf in yards for new residential developments to a maximum of 25 percent of the yard area.
- DD. Require the installation of low output sprinklers, such as drip, soaker hoses, and microspray in new residential development whenever possible.
  - A. Use recycling systems for chillers and cooling towers.
  - B. Demonstrate adherence to LEED Neighborhood Design Standards or the equivalent, for new development, including Specific Plans.
  - C. Demonstrate consistency with the County's Greenhouse Gas Emissions Reduction/Climate Action Plan(s), upon adoption.











Policy CC-3.3

Ensure that jobs are created concurrent with housing. Include requirements to ensure a reasonable ongoing balance between housing and jobs and/or other mechanisms to constrain housing to stay balanced with job creation through buildout of the area. Each phase of housing shall be required to be accompanied by balanced job-generating development. Strive to match overall wages to home prices. 🌐

Policy CC-3.5

In addition to Table LU-10, achieve the following within the Dunnigan Specific Plan growth boundary:

- A. Ensure the creation of a centrally located downtown area through the community planning process. 🌐
- B. Locate housing away from Interstate 5 and connect new residential neighborhoods to the Hardwood Subdivision. Smaller lots and higher densities shall be located on the valley floor, while larger lots and lower densities shall be located in the poorer hill soils. Schools should be centrally located. 🌐
- C. Concentrate commercial and industrial uses between Interstate 5 and County Road 99W.
- D. Continue to concentrate new commercial trucking uses at the County Road 8 and Interstate 5 interchange.
  - E. Plan future land uses to direct the majority of new trips onto the County Road 6/Interstate 5 interchange, instead of the County Road 8/Interstate 5 interchange. This works to buffer the interchange of Interstates 5 and 505, keeps dense and intense land uses close to the existing downtown and makes the most efficient use of transportation infrastructure funds, since the County Road 6 interchange will require improvements regardless of the mix of land uses planned for Dunnigan.
- F. Avoid biological impacts to sensitive species and habitats, to the greatest feasible extent and fully mitigated where they occur, particularly inside designated critical habitat for the California tiger salamander.
- G. Preserve the Tehama-Colusa Canal as Dunnigan's western boundary and as an important source of future water. Plan for development outside of the federal-designated critical habitat for the California tiger salamander, located to the northwest. Maintain Bird Creek as Dunnigan's southern boundary and as an important riparian habitat and open space area. Maintain the County Road 99W (railroad tracks) as the eastern boundary, with the exception of Old Town.
- H. Develop an internal road system that directs local trips to local roadways, rather than the freeways, to the greatest practical extent. 🌐

- I. Reserve locations for future rail stations to promote rail connectivity to other cities. 
- Policy CC-3.7 In addition to Table LU-10, achieve the following within the Knights Landing Specific Plan growth boundary:
- A. Ensure that the downtown area remains the community's primary commercial center. 
- Policy CC-3.8 The following development capacities shall guide development of the Knights Landing Specific Plan (see Figure LU-5, Knights Landing Conceptual Sketch):
- In addition to Table LU-10, achieve the following within the Madison Specific Plan growth boundary:
- A. Policies to ensure the creation of a downtown area will be required. 
  - B. The sewer ponds shall be moved and improved.
  - C. Workforce housing shall be the focus of the residential development. 
- Policy CC-4.1 Reduce dependence upon fossil fuels, extracted underground metals, minerals and other non-renewable resources by: 
- Requiring projects to take advantage of shade, prevailing winds, landscaping and sun screens to reduce energy use.
  - Encouraging projects to use regenerative energy heating and cooling source alternatives to fossil fuels.
  - Encouraging projects to select building materials that require less energy-intensive production methods and long-distance transport, in compliance with Leadership in Energy and Environmental Design (LEED) or equivalent standards.
- Policy CC-4.2 Reduce dependence upon chemicals and unnatural substances through encouraging: 
- Use of chemical-free and toxic-free building materials.
  - Landscape design standards that minimize the use of pesticides and herbicides.
- Policy CC-4.3 Reduce activities that encroach upon nature, through: 
- Reuse of existing buildings and sites for development.
  - Compact and clustered residential development, including reduced minimum lot sizes.
  - Reduction or elimination of impervious paving materials.
  - Development patterns that respect natural systems such as watersheds and wildlife corridors.
- Policy CC-4.4 Encourage all new construction to be zero-net energy by combining building energy efficiency design features with on-site clean distributed generation so as to result in no net purchases from the electricity or gas grid. 
- Policy CC-4.5 Encourage individual and community-based wind and solar energy systems (micro-grids). 
- Policy CC-4.6 Encourage all new residences to exceed Title 24 energy standards by at least 15 percent, and encourage all new commercial buildings to exceed Title 24 by at least 20 percent. 

Land Use Continued

- Policy CC-4.7      Require energy efficient design for all buildings. 🌐
- Policy CC-4.8      Require measures to minimize “heat islands” by requiring light-colored and reflective roofing materials and paint; light colored roads and parking lots; extensive numbers of shade trees in parking lots; and shade trees and/or overhangs on the south and west sides of new or renovated buildings. 🌐
- Policy CC-4.9      Encourage construction and other heavy equipment vehicles (e.g. mining, agriculture, etc.) to use retrofit emission control devices. 🌐
- Policy CC-4.10     Require project design to demonstrate adherence to sustainable and neo-traditional design as described in the Ahwahnee Principles and as provided in the SACOG Blueprint, including any amendments or successor documents thereto. 🌐
- Policy CC-4.12     Require “green” design, construction and operation including: 🌐
- A.    Site planning sensitive to the natural environment.
  - B.    Efficiency in resource use (including energy, water, raw materials and land).
  - C.    Building reuse and adaptive reuse.
  - D.    Selection of materials and products based on their life-cycle environmental impacts.
  - E.    Use of materials and products with recycled content.
  - F.    Use of materials provided from within the region.
  - G.    Recycling of construction and demolition waste.
  - H.    Reduction in the use of toxic and harmful substances in the manufacturing of materials and during construction.
  - I.    Use of passive and active solar strategies and efficient heating and cooling technologies.
  - K.    Reduction in water use for buildings and landscaping.
  - L.    Light pollution reduction to protect “dark skies”.
  - M.    Improvements to interior and exterior environments leading to increased health, comfort and productivity.
  - N.    Facility maintenance and operational practices that reduce or eliminate harmful effects on people and the natural environment during occupancy.
  - O.    Water reuse systems.
  - P.    Other systems to capture energy sources that would otherwise be wasted.
- Policy CC-4.13     Strongly encourage LEED certification for all public, private and existing buildings and LEED-Neighborhood Design (ND) for other applicable projects, particularly within the Specific Plan areas. 🌐
- Policy CC-4.21     Discourage gated and/or walled communities.
- Policy CC-4.22     Encourage and promote multi-story and mixed-use buildings within the downtown areas of the unincorporated communities. 🌐
- Policy CC-4.23     Except for approved plazas, seating areas and entry nooks, buildings in downtown areas shall have zero front setbacks and on-site parking shall be to the rear of the lot. 🌐

Land Use Continued

- Policy CC-4.27 Downtown architecture shall have a pedestrian scale, with varied and articulated facades. Entries must be oriented to the sidewalk. Front facades shall include numerous windows and covered arcades. 🌐
- Policy CC-4.31 Encourage clustering of allowed residential units to protect resources and/or improve efficiency of services. 🌐
- Policy CC-4.32 Emphasize the use of regionally native drought-tolerant plants for landscaping where appropriate. 🌐
- Policy CC-4.33 Encourage mixed uses on vacant and underutilized land designated for development, particularly ancillary residential units and childcare facilities. 🌐
- Policy CC-4.34 Encourage mixed use development in commercial areas in order to create ancillary residential opportunities, particularly in the upper floors of multi-story buildings. 🌐
- Policy CC-4.35 Encourage the location of ancillary employee services (including childcare, restaurants, banking facilities and convenience markets) at employment centers, for the purpose of reducing midday vehicle trips. 🌐
- Action CC-A11 Adopt a “Green Building Program” to promote green building standards. Require energy efficient appliances and equipment in all new development. (Policy CC-4.13, Policy CC-4.14) 🌐  
Responsibility: Planning and Public Works Department  
Timeframe: 2011/2012
- Action CC-A24 Evaluate parking standards to minimize land devoted to parking. (Policy CC-4.3, Policy CC-4.13) 🌐  
Responsibility: Planning and Public Works Department  
Timeframe: 2010/2011
- Action CC-A29 Develop and enforce bike parking standards and design criteria for all land uses identified in zoning code, including number of spaces, location and type of facilities. (Policy CC-2.16) 🌐  
Responsibility: Planning and Public Works Department  
Timeframe: 2009/2010
- Action CC-A30 Amend the County Code to remove the Williamson Act as a basis for the Agricultural Preserve Zone. (Policy LU-2.5) (Policy CC-4.3, Policy CC-4.11, Policy CC-4.15) 🌐  
Responsibility: Planning and Public Works Department  
Timeframe: 2010/2011
- Action CC-A33 Reduce permitting requirements and costs for projects that incorporate green design features and construction. (Policy CC-4.12) 🌐  
Responsibility: Planning and Public Works Department  
Timeframe: 2009/2010
- Action CC-A35 Identify and provide incentives for infill over peripheral development. (Policy CC-2.6) 🌐  
Responsibility: Planning and Public Works Department  
Timeframe: 2010/2011

## CIRCULATION ELEMENT

- Policy CI-1.2 Preserve and continue to develop a fully-connected grid-based circulation system that distributes traffic evenly and avoids excessive concentrations of traffic in any given area. 🌐
- Policy CI-1.3 Reduce the total vehicle miles of travel (VMT) per household by making efficient use of existing transportation facilities and by providing for more direct routes for pedestrians and bicyclists through the implementation of “smart growth” and sustainable planning principles. 🌐
- Policy CI-2.1 Where feasible and need or demand are evident, when constructing or modifying roadways, plan for use of the roadway space by all users, including automobiles, trucks, alternative energy vehicles, agricultural equipment, transit, bicyclists and pedestrians. 🌐
- Policy CI-2.2 Encourage employers (including the County) to provide transit subsidies, bicycle facilities, alternative work schedules, ridesharing, telecommuting and work-at-home programs, employee education and preferential parking for carpools/vanpools. 🌐
- Policy CI-2.3 Ensure that, wherever feasible, public transit and alternative mode choices are a viable and attractive alternative to the use of single-occupant motor vehicles. 🌐
- Policy CI-2.4 The comfort, convenience, and safety of bicyclists and pedestrians are as important as, and should be balanced to the greatest feasible extent with, those same values for drivers.
- Policy CI-3.2 Identify specific level of service policies within Specific Plans and Community Area Plans based on the following conditions: 🌐
- Development shall occur consistent with applicable Land Use and Community Character Element policies.
  - Development shall provide transit, bike and pedestrian facilities and amenities consistent with the applicable Circulation Element policies.
  - New development shall utilize a grid pattern for local roadways.
  - Level of service shall not be allowed to worsen beyond LOS E within the proposed Dunnigan Specific Plan except where specified in Policy CI-3.1.
  - Level of service shall not be allowed to worsen beyond LOS E within the proposed Knights Landing Specific Plan except where specified in Policy CI-3.1.
  - Level of service shall not be allowed to worsen beyond LOS E within the proposed Madison Specific Plan except where specified in Policy CI-3.1.
  - Level of service shall not be allowed to worsen beyond LOS E within the Esparto Community Plan except where specified in Policy CI-3.1.
  - Level of service shall not be allowed to worsen beyond LOS D within all other Community Plans and Specific Plans except where specified in Policy CI-3.1.
- Where roadways improvements are not needed due to the adoption of a lower level of service as described in Policy CI-3.1, developers shall be required to construct equivalent circulation and safety improvements for other modes of travel.
- Roadways shall be designed to reduce VMT.
- Policy CI-3.3 A) Consider the following objectives when making decisions to expand or modify the State highway system in Yolo County:
- Minimize impacts to the environment.

- Minimize increases in greenhouse gases and air pollutants.
- Minimize increases in VMT.
- Minimize long-distance commute trips.
- Fully utilize existing capacity while maintaining stable flows and speeds.

Provide facilities for all users including pedestrians, bicyclists, carpool users and transit riders. 🌐

B) Consider the following objectives when making decisions to expand the County road system in Yolo County:

- Minimize impacts to the environment.
- Promote designs that result in a decrease of greenhouse gases and air pollutants.
- Promote designs that decrease Vehicle Miles Traveled (VMT) and long-distance commute trips.
- Fully utilize existing capacity in accordance with adopted Levels of Service.
- Provide facilities for all users including pedestrians, bicyclists, carpool users and transit riders, where appropriate. 🌐

Policy CI-3.5

Establish and implement additional programs to maintain established levels of service at intersections and along roadway segments as circumstances warrant, including the following:

- Collect and analyze traffic volume data and monitor current intersection and roadway segment levels of service on a regular basis. Use this information to update and refine the Yolo County General Plan travel-forecasting model so that estimates of future conditions are based upon local travel behavior and trends.
- Consider, on a case-by-case basis, how to shift travel demand away from the peak period, especially in those situations where peak traffic problems result from a few major generators (e.g. outlying employment locations). 🌐
- Perform routine, ongoing evaluation of the efficiency of the urban street traffic control system; with emphasis on traffic signal timing, phasing and coordination to optimize traffic flow along arterial corridors. Use traffic control systems to increase traffic efficiency (e.g. timing and phasing for turn movements, peak period and off-peak signal timing plans).

Policy CI-3.6

Incorporate the concept of “complete” streets<sup>1</sup> which requires more complete consideration of all users of the street. Develop roadway cross-sections for community and rural areas, addressing the following factors as applicable: number of travel lanes,

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<sup>1</sup> Complete streets include facilities and designs that enable safe access for all users (i.e. pedestrians, bicyclists, motorists, and transit riders) of all ages and abilities. Characteristics of complete streets include the following:

- A comprehensive, integrated, connected network.
- Balanced design to accommodate walking, cycling, transit, driving, parking, and deliveries.
- “Activating the street” with a variety of uses and activities that create a varied streetscape.
- Activating the street with design that relates well to the land uses bordering the street and allows for continuous activity.
- Pedestrian and biking facilities that promote safety and maximize access to bordering land uses.
- Aesthetically designed street lights that provide sufficient illumination of sidewalks.
- Consistent landscaping that includes street trees and landscaped medians and sidewalks.
- Sustainable design that minimizes runoff, minimizes heat island effects, responds to climate demands, and conserves scarce resources.
- Well maintained facilities.

lane width, medians, drainage control, shoulder width, parking lanes, bike lanes, fire and emergency response standards, curb and gutter design, landscaped strip and sidewalk width. In general it is intended that roadway cross-sections in the county be as narrow as possible (particularly in community areas) while still meeting recommended safety standards, the requirements of the General Plan, and the needs of users. 🌐

- Policy CI-3.8 Encourage development that is compact, so as to promote the efficient use of existing transportation facilities consistent with Policy CI-3.1. 🌐
- Policy CI-3.11 Require new development to finance and construct all off-site circulation improvements necessary to mitigate a project's transportation impacts (including public transit, pedestrian and bicycle mobility, safety and level of service-related impacts). 🌐
- Policy CI-3.12 Collect the fair share cost of all feasible transportation improvements necessary to reduce the severity of cumulative transportation impacts (including public transit, pedestrian and bicycle mobility, safety and level of service-related impacts). 🌐
- Policy CI-3.15 Provide for greater street connectivity and efficient movement of all transportation modes by: 🌐
- Encourage roundabouts as an alternative intersection control.
  - Requiring bicycle and pedestrian connections from cul-de-sacs to adjacent streets, trails, or bicycle paths.
  - Encouraging a grid-based system.
  - Incorporating traffic calming measures where appropriate.
- Policy CI-3.17 County roadways shall be limited to a maximum of four lanes. 🌐
- Policy CI-4.1 Avoid or mitigate environmental impacts from the construction and/or operation of the transportation system. 🌐
- Policy CI-4.2 Support regional air quality and greenhouse gas objectives through effective management of the county's transportation system. 🌐
- Policy CI-4.3 Reduce dependence upon fossil fuels through: 🌐
- Reduction of vehicle trips and vehicle miles traveled by requiring compact, infill and mixed use development.
  - Use of alternatives to the drive-alone automobile, including walking, bicycling and public transit.
  - Use of vehicles powered by renewable/alternative fuel sources.
  - Local street designs that encourage pedestrian and bicycle use and discourage high speed traffic.
  - Street designs that support/enhance access between neighborhoods and to neighborhood-based commercial developments.
  - Promotion of ride sharing and car sharing programs.
  - Use of LED traffic lights.
  - Encourage development of the infrastructure necessary to support clean alternative fuel vehicles and electric vehicles.



- Emerging technologies related to goods movement activities at truck stops, loading terminals, airports and rail facilities.

- Policy CI-4.4 Support and encourage low emission or non-polluting forms of transportation. 🌐
- Policy CI-5.1 Work with local and regional agencies to implement a regional bikeway and/or alternative energy vehicle system that connects the cities, larger unincorporated communities and scenic areas. Implement a dedicated multi-purpose bikeway between Woodland and Davis as part of this effort. 🌐
- Policy CI-5.2 Create a complete bikeway and sidewalk system within each community, including the completion of existing systems. Create walkways and bikeways that connect existing paths where feasible, and that connect to grocery stores, parks, and other community features. 🌐
- Policy CI-5.4 Establish a looped off-street trail system in each community. 🌐
- Policy CI-5.5 Integrate bicycle, pedestrian and transit facilities into new developments. 🌐
- Policy CI-5.6 Establish a network of off-street multi-purpose trails countywide and encourage their use for commute, recreational and other trips. 🌐
- Policy CI-5.8 Include sidewalks and bikeways on newly constructed or modified bridges and overpasses, where feasible. 🌐
- Policy CI-5.9 Strive to incorporate bikeways and sidewalks with modifications or upgrades to existing roadways consistent with the Bicycle Transportation Plan. 🌐
- Policy CI-5.10 Institute requirements for the establishment and maintenance of extensive tree canopy over community roadways to create shade. 🌐
- Policy CI-5.11 Protect abandoned rail corridors for re-use as trails and other forms of alternative transportation. 🌐
- Policy CI-5.12 Support development of facilities that link bicyclists and pedestrians with other modes of transportation. 🌐
- Policy CI-5.13 Establish pedestrian areas in conjunction with the development, redevelopment and design of mixed-use neighborhoods, schools, parks and community downtowns. Incorporate the following minimum design elements into pedestrian areas: 🌐
- Intersection bulb-outs to reduce walking distances across streets.
  - Pedestrian facilities at all signalized intersection approaches, including mid-street refuges, where appropriate.
  - Vertical curbs, detached sidewalks and tree-lined streets.
  - Adequate lighting for bicycle and pedestrian access.
  - Wide sidewalks in downtown areas that allow for multiple uses, including outdoor dining.
  - Grid-based street pattern.
  - Community entry points (gateways).
  - Bicycle and pedestrian connections from cul-de-sacs to adjacent streets.

## Circulation Element Continued

- Policy CI-5.14 Strive to ensure that bikeway and sidewalk networks within communities are at least as efficient (e.g., miles traveled, connectivity, etc.) as the network for motorists. 🌐
- Policy CI-5.15 Develop and design a system of bikeways and sidewalks that promote safe bicycle riding and walking for transportation and recreation, with particular emphasis on establishing a network of safe routes from residential areas to schools. 🌐
- Policy CI-5.16 Construct and maintain bikeways and sidewalks in a manner that minimizes conflicts between bicyclists, pedestrians and motorists. 🌐
- Policy CI-6.1 Ensure that residents of unincorporated communities have convenient transit service to employment centers, county service centers, other government centers including the courts and other regional destinations, as funding allows. Work with YCTD to provide fixed route and/or commuter bus service as appropriate. 🌐
- Policy CI-6.2 Require new development to situate transit stops and hubs at locations that are convenient and accessible to transit users based on coordination with YCTD. 🌐
- Policy CI-6.3 Require the design of transit stops and hubs to include upgraded amenities such as sheltered stops, benches and lighting based on coordination with YCTD. 🌐
- Policy CI-6.4 Support convenient and efficient public transportation to workplaces, government services, shopping and other destinations. 🌐
- Policy CI-6.5 Integrate transit stops into new residential and employment center developments. 🌐
- Policy CI-6.6 Support YCTD in establishing, expanding and improving a balanced public transportation system, integrated with Sacramento Regional Transit. 🌐
- Policy CI-6.7 Support multi-modal stations at appropriate locations to integrate transit with other transportation modes. 🌐
- Policy CI-6.8 Work with regional leadership to ensure the continued development of a regional transit system, including coordination with SACOG, YCTD, and the cities of Yolo County in updating regional transit plans. 🌐
- Policy CI-6.9 Encourage the development of facilities for convenient transfers between transportation systems (e.g. rail-to-bus, bus-to-bus). 🌐
- Policy CI-6.10 Coordinate and encourage Caltrans and YCTD to identify and implement park-and-ride sites with convenient access to public transit. 🌐
- Policy CI-6.11 Require new development to include design elements that promote transit use, such as:  
🌐
- Locating sheltered bus stops near neighborhood focal points.
  - Locating transit routes on streets serving medium-high density development whenever feasible.
  - Linking neighborhoods to bus stops through continuous bikeways and sidewalks.
  - Providing direct bicycle and pedestrian access to transit stops, park-and-ride lots, alternative fuel stations, bicycle racks, train access (e.g. Dunnigan, Yolo and Zamora), public docks for water taxis (Clarksburg, Elkhorn and Knights Landing) and airport shuttles (Elkhorn).

## Circulation Element Continued

- Policy CI-6.12 Encourage YCTD to implement future express bus, light rail, rapid transit, commuter rail, or other transit services if development densities occur to support such service. 🌐
- Policy CI-10.2 Work with West Sacramento to re-use the abandoned railroad that extends from the city limits to Clarksburg for the proposed California Delta Trail System. 🌐
- Action CI-A2 Develop and adopt transportation impact guidelines that consider all modes of travel and define, at a minimum, the need for transportation impact studies, analysis methodology and CEQA significance criteria. (Policy CI-3.1, Policy CI-3.2, Policy CI-3.4, Policy CI-3.5) 🌐  
Responsibility: Planning and Public Works Department  
Timeframe: 2009/2010
- Action CI-A3 Update the Bicycle Transportation Plan, including the California Delta Trail, a dedicated multi-purpose bikeway between Woodland and Davis and other potential routes along levees, abandoned railroads, waterways, transmission right-of-ways and willing landowners. (Policy CI-5.1, Policy CI-5.2, Policy CI-5.6, Policy CI-5.11, Policy CI-5.15) 🌐  
Responsibility: Planning and Public Works Department  
Timeframe: 2014, 2019, 2024, 2029
- Action CI-A4 Pursue funding for construction and maintenance of bikeways and sidewalks, including off-road bikeways where feasible. (Policy CI-2.1, Policy CI-2.3, Policy CI-5.1, Policy CI-5.2, Policy CI-5.4) 🌐  
Responsibility: Planning and Public Works Department  
Timeframe: Ongoing
- Action CI-A6 Develop a transit plan as a part of each Specific Plan. Condition future development to provide right-of-way or public easements for identified transportation and circulation facilities including bikeways, trails and transit facilities. The transit plan shall include future targets for public transportation ridership, levels of service and measurable steps to achieve the targets. Ensure implementation through the Dunnigan Specific Plan, and other applicable specific plans in each community. (Policy CI-2.1, Policy CI-2.2, Policy CI-2.3, Policy CI-5.1, Policy CI-5.5, Policy CI-5.6, Policy CI-5.8, Policy CI-5.11, Policy CI-5.12, Policy CI-5.14, Policy CI-5.15, Policy CI-6.1, Policy CI-6.2, Policy CI-6.5, Policy CI-6.9, Policy CI-6.11) 🌐  
Responsibility: Planning and Public Works Department  
Timeframe: Ongoing
- Action CI-A7 Develop and maintain a priority program to construct bikeways, especially off-road bikeways, in conjunction with roadway projects, consistent with the county's Bicycle Transportation Plan. Implementation of the program should consider available funding for construction and maintenance. (Policy CI-2.1, Policy CI-2.3, Policy CI-5.1, Policy CI-5.4, Policy CI-5.6, Policy CI-5.9) 🌐  
Responsibility: Planning and Public Works Department  
Timeframe: 2010/2011
- Action CI-A14 Prepare and adopt roadway cross-sections that accommodate all users (e.g. vehicles, trucks, bicycles, pedestrians, alternative fuel vehicles, agricultural equipment, etc.) The standards shall be flexible to allow for different mixes of users depending on the surrounding land use(s). For instance, roadway cross-sections in a farming area would differ from those in either residential neighborhoods or downtown mixed use areas. (Policy CI-3.6, Policy CI-3.7, Policy CI-5.2) 🌐  
Responsibility: Planning and Public Works  
Timeframe: 2009/2010
- Action CI-A15 Develop Specific Plan circulation guidelines including requirements for content and minimum standards, including but not limited to roadway cross-sections, intersection improvements, public transportation and bicycle and pedestrian circulation. Incorporate

- the concept of “complete” streets. Establish Specific Plan requirements for focused sub-area travel demand forecasting models. (Policy CI-3.6, Policy CI-3.7) 🌐
- Action CI-A21 Amend the Facilities and Service Authorization (FSA) fee to include alternative transportation modes, including transit capital improvements, park and ride lots and/or pedestrian and bicycle facilities. (Policy CI-4.2, Policy CI-4.3, Policy CI-4.4, Policy CI-5.2, Policy CI-5.4, Policy CI-5.6) 🌐  
Responsibility: County Administrator’s Office, Planning and Public Works Department  
Timeframe: 2010/2011
- Action CI-A22 Create special districts in Specific Plan areas and other areas where appropriate to fund operation and maintenance of alternative transportation modes, with an emphasis on public transit. (Policy CI-4.2, Policy CI-4.3, Policy CI-4.4, Policy CI-5.2, Policy CI-5.4, Policy CI-5.6) 🌐  
Responsibility: Planning and Public Works Department  
Timeframe: 2011/2012
- Action CI-A26 Analyze the potential for the Sacramento River Train to operate as a commuter line between Woodland and West Sacramento. (Policy CI-6.4, Policy CI-6.12) 🌐  
Responsibility: Planning and Public Works Department  
Timeframe: 2013/201
- Action CI-A27 In conjunction with implementation of Action CI-A14 and CI-A15, conduct a study of the existing street network to identify streets that can be more complete based upon adopted cross-sections, other applicable design standards, and the policies of the General Plan. (Policy CI-3.6, Policy CI-5.2) 🌐  
Responsibility: Planning and Public Works Department  
Timeframe: 2010/2011
- Action CI-A28 Identify priority travel and/or commute routes in the County and regularly measure travel times for transit, bicyclists, and automobiles. The study should be focused on setting and improving priority for the various modes as appropriate, based on General Plan policies. (Policy CI-1.3, Policy CI-2.1, Policy CI-2.4, Policy CI-3.2, Policy CI-3.3) 🌐  
Responsibility: Planning and Public Works Department  
Timeframe: Every five years starting in 2010

## PUBLIC FACILITIES

- Policy PF-2.1 Improve stormwater runoff quality and reduce impacts to groundwater and surface water resources. 🌐
- Policy PF-3.4 Create greenbelts to connect schools, community parks, and residential areas in unincorporated communities wherever possible. Connect community parks to existing trails, walkways, and bikeways where feasible. 🌐
- Policy PF-3.6 Construct neighborhood and community parks within walking and bicycling distance of residential areas. 🌐
- Action PF-A2 Revise County permitting requirements to include requirements for permitting small package wastewater systems to facilitate clustering of homes and preservation of agricultural land. Examine appropriate funding mechanisms to address adequate maintenance and to monitor effluent quality. (Policy PF-1.2, Policy PF-1.4) 🌐  
Responsibility: Health Department  
Timeframe: 2010/2011
- Action PF-A17 Incorporate sustainable management into park development and maintenance practices including: the use of local materials and native plants; designs that minimize the need for fossil fuel-powered maintenance equipment; integrated pest management; and recycling/composting areas, where appropriate. (Policy PF-3.2) 🌐  
Responsibility: Parks and Resources Department  
Timeframe: 2010/2011
- Action PF-A23 Ensure that new development in Dunnigan includes a satellite Sheriff's station and related facilities, established and (to the extent feasible) maintained through the use of development impact fees, development agreements, special districts, and/or other enforceable mechanisms. (Policy PF-4.1, Policy PF-4.2, Policy PF-4.3) 🌐  
Responsibility: Planning and Public Works Department, Sheriff-Coroner Department, General Services Department  
Timeframe: Ongoing
- Policy PF-5.3 Require assertive fire protection measures in all development to supplement limited rural fire district resources. 🌐
- Policy PF-5.7 Encourage fire districts to support narrow streets and other desirable community design features promoted by this General Plan. 🌐
- Policy PF-5.8 Anticipate and adapt to potential changes in frequency and severity of wildfires resulting from predicted effects of global warming. 🌐
- Action PF-A28 Amend the County Code to incorporate measures such as fire-safe building materials, clear spaces and fuel reduction, fire breaks, and fire suppression systems for all new development located in high fire hazard areas. (Policy PF-5.3) 🌐  
Responsibility: Planning and Public Works Department  
Timeframe: 2010/2011
- Policy PF-6.1 Encourage school districts to service each community with local schools, where feasible. 🌐

## Public Facilities Continued

- Policy PF-6.2 Work to ensure that schools serving new development are constructed concurrent with the needs of the community, to the extent allowed by State law. 🌐
- Policy PF-6.5 Support infrastructure and programs that encourage children to safely walk or ride a bicycle to school. 🌐
- Action PF-A34 Integrate school facilities with adjoining community parks and recreation facilities, wherever possible, and encourage the joint use of facilities. (Policy PF-6.4, Policy PF-6.5) 🌐  
Responsibility: School Districts, Planning and Public Works Department, Planning and Public Works Department  
Timeframe: Ongoing
- Action PF-A32 Locate school sites in Specific Plan areas central to the population being served. (Policy PF-6.1, Policy PF-6.4) 🌐  
Responsibility: School Districts  
Timeframe: Ongoing
- Action PF-A33 Coordinate with school districts to ensure that school sites have safe access and trails that encourage walking or bicycling to schools. Develop a Safe Routes to School program in each community. (Policy PF-6.3, Policy PF-6.4) 🌐  
Responsibility: Planning and Public Works Department  
Timeframe: Ongoing
- Action PF-A34 Coordinate with school districts to ensure that school sites have safe access and trails that encourage walking or bicycling to schools. Develop a Safe Routes to School program in each community. (Policy PF-6.3, Policy PF-6.4) 🌐  
Responsibility: Planning and Public Works Department  
Timeframe: Ongoing
- Policy PF-7.1 Develop and maintain library facilities and/or services in every city and community where services are not otherwise provided. New public library service should be established in communities with populations of 5,000 or more. 🌐
- Policy PF-7.2 Locate library facilities in areas easily accessible by motorized vehicles, bicycles and other non-motorized vehicles, pedestrians, and public transportation, such as downtown shopping areas or neighborhood business districts. 🌐
- Policy PF-8.1 Encourage the location of childcare facilities in areas with compatible land uses and character, such as employment centers, homes, schools, community centers, and recreation facilities. 🌐
- Policy PF-A37 Design libraries to include space for meeting rooms and other uses that support the concept of the library as a community-gathering place. (Policy PF-7.3) 🌐  
Responsibility: Library Department  
Timeframe: Ongoing
- Action PF-A39 Amend the County Code to allow for the establishment of dependent care facilities in all appropriate residential, commercial, and public/quasi-public zones. (Policy PF-8.1) 🌐  
Responsibility: Planning and Public Works Department  
Timeframe: 2011/2012
- Action PF-A44 Work with school districts and civic organizations to use schools as community centers to provide a range of services, including extended childcare programs. (Policy PF-8.3) 🌐  
Responsibility: First 5 Yolo Children and Family Commission  
Timeframe: Ongoing

## Public Facilities Continued

- Policy PF-9.1 Meet or exceed State waste diversion requirements. 🌐
- Policy PF-9.5 Promote technologies, including biomass or biofuels, that allow the use of solid waste as an alternative energy source. 🌐
- Policy PF-9.7 Solid waste franchisees shall support the smart growth policies for community design contained in this General Plan. This may result in restrictions on collection vehicle size in order to support narrow streets and other desirable community features. 🌐
- Policy PF-9.8 Require salvage, reuse or recycling of construction and demolition materials and debris at all construction sites. 🌐
- Policy PF-9.9 Encourage use of salvaged and recycled materials in construction. 🌐
- Policy PF-9.11 Expand opportunities for energy and/or fuel production resulting from the solid waste disposal process. 🌐
- Action PF-A47 Develop a program to encourage local businesses and farms to: 1) expand their diversion, reuse and recycling efforts including proper recycling or disposal of universal and hazardous wastes; 2) increase their use of recycled materials; and 3) reduce the amount of materials used to package products manufactured in the county. (Policy PF-9.1) 🌐  
Responsibility: Planning and Public Works Department  
Timeframe: Ongoing
- Action PF-A48 Distribute public education materials to residents on solid waste source reduction, recycling, composting, and the proper handling of universal and household hazardous waste, and to businesses and farms on source reduction, recycling, composting, and the proper handling of universal and hazardous wastes. (Policy PF-9.1) 🌐  
Responsibility: Planning and Public Works Department  
Timeframe: Ongoing
- Action PF-A49 Develop new and/or expand current diversion and recycling programs for residential, commercial, office, educational, agricultural, and recreational uses. (Policy PF-9.1) 🌐  
Responsibility: Planning and Public Works Department  
Timeframe: Ongoing
- Action PF-A54 Partner with the private sector to operate waste-related diversion, recycling facilities, LFG and energy production facilities or provide other landfill-related commodities and services at the landfill, or to agriculture-related facilities located on surrounding properties, whenever practicable. (Policy PF-9.3) 🌐  
Responsibility: Planning and Public Works Department  
Timeframe: Ongoing
- Action PF-A55 Research technological strategies and implement the cost-effective strategies to reclaim and reuse capacity of the landfill facility. (Policy PF-9.2, Policy PF-9.3, Policy PF-9.4) 🌐  
Responsibility: Planning and Public Works Department  
Timeframe: Ongoing
- Action PF-A57 Reduce methane emissions from the landfill by closing the filled units, expanding bioreactor operations and the landfill gas collection system to future landfill units; and continuing the use of the landfill gas for energy or fuel. (Policy PF-9.3) 🌐  
Responsibility: Planning and Public Works Department  
Timeframe: Ongoing

## Public Facilities Continued

- Policy PF-10.1 Pursuant to AB 117 (Statutes of 2002) explore “community choice aggregation” as a means of facilitating the purchase of electrical energy at the local level for community needs. 🌐
- Policy PF-10.2 Streamline the permitting process for the production of energy alternatives (including but not limited to photovoltaic, solar, wind, biofuels, and biomass) to reduce dependency on fossil fuels. 🌐
- Policy PF-10.3 Provide financial and regulatory incentives for the installation of alternative energy and alternative energy conservation measures in all development approvals. 🌐
- Action PF-A63 Conduct a feasibility study regarding the applicability of “community choice aggregation” in Yolo County. (Policy PF-10.1) 🌐  
Responsibility: County Administrator’s Office  
Timeframe: 2011/2012
- Action PF-A64 Amend the County Code to streamline permitting requirements for small community power systems that utilize clean resource-based renewable energy (e.g. wind, solar, and biodiesel). (Policy PF 10-1) 🌐  
Responsibility: Planning and Public Works Department  
Timeframe: 2010/2011
- Action PF-A65 Amend the Master Fee Resolution to reduce permit fees for small alternative energy projects. (Policy PF 10-1) 🌐  
Responsibility: Planning and Public Works Department  
Timeframe: 2010/2011
- Action PF-A65 Subsidize residential improvements for older homes that result in energy conservation.  
Responsibility: County Administrator’s Office  
Timeframe: Ongoing
- Policy PF-11.2 Encourage expanded coverage and enhanced quality for communication technology, such as mobile connectivity, high-speed wireless internet access, and emergency communication systems. 🌐
- Action PF-A68 Promote, and require where feasible, use of sustainable renewable energy sources to power homes, businesses, agriculture, and infrastructure. (Policy PF-11.1) 🌐  
Responsibility: Planning and Public Works Department  
Timeframe: Ongoing
- Policy PF-12.1 Design, construct, and operate County facilities to be environmentally sustainable, and beneficial to the community and/or region. 🌐
- Policy PF-12.2 Use life cycle analysis (taking into consideration all costs involved in production, transport, and disposal of a product) in decision making for materials and construction techniques. 🌐
- Policy PF-12.3 Design, construct, and operate facilities that employ renewable energy resources, or reduce the use of fossil fuel for their operations and transport needs. 🌐
- Policy PF-12.4 Encourage the development of governmental and civic facilities (e.g. school yards, special district meeting rooms, etc.) that can accommodate multiple community uses. 🌐
- Policy PF-12.6 Provide the public facilities and services necessary to meet community needs, in an efficient manner. 🌐
- Policy PF-12.11 Centralize government facilities in consolidated satellite service centers when community populations reach appropriate thresholds. 🌐



## AGRICULTURE

- Policy AG-1.2 Maintain parcel sizes outside of the community growth boundaries large enough to sustain viable agriculture and discourage conversion to non-agricultural home sites. 🌐
- Policy AG-1.3 Prohibit the division of agricultural land for non-agricultural uses. 🌐
- Policy AG-1.5 Strongly discourage the conversion of agricultural land for other uses. No lands shall be considered for redesignation from Agricultural or open space to another land use designation unless all of the following findings can be made: 🌐
- A. There is a public need or net community benefit derived from the conversion of the land that outweighs the need to protect the land for long-term agricultural use.
  - B. There are no feasible alternative locations for the proposed project that are either designated for non-agricultural land uses or are less productive agricultural lands.
  - C. The use would not have a significant adverse effect on existing or potential agricultural production on surrounding lands designated Agriculture.
- Policy AG-1.6 Continue to mitigate at a ratio of no less than 1:1 the conversion of farm land and/or the conversion of land designated or zoned for agriculture, to urban uses. 🌐
- Policy AG-1.8 The intent of this policy is to protect existing farm operations from impacts related to the encroachment of urban uses. The expertise of the County Agricultural Commissioner shall be used in applying this policy. Urban development shall bear the primary burden of this policy. Ensure that development will not have a significant adverse effect on the economic viability or constrain the lawful practices of adjoining or nearby agricultural operations, except for land within the Sphere of Influence (SOI) around a city or within the growth boundary of an unincorporated community. New urban (non-agricultural) development shall be setback a minimum of 300 feet from adjoining agricultural land where possible, but special circumstances can be considered by the decision-making body. The buffer area shall generally be designated Open Space (OS), but may also be designated Public and Quasi-Public (PQ) or Parks and Recreation (PR) based on applicable circumstances. Agricultural buffers are not required for planned urban growth elsewhere within a growth boundary because the agricultural-urban interface will be temporary until full build-out occurs. 🌐
- Policy AG-1.10 Work with the Local Agency Formation Commission (LAFCO) on issues of mutual concern including agricultural preservation policies and the establishment and maintenance of logical boundaries for service districts that support existing and planned community growth. 🌐
- Policy AG-1.11 Protect agricultural lands from urban encroachment by limiting the extension of urban service facilities and infrastructure, particularly sewers. 🌐
- Policy AG-1.12 Maintain growth boundaries around existing communities and neighborhoods to encourage urban infill development and protect adjoining agricultural lands. 🌐
- Policy AG-1.13 Prohibit new residential or suburban subdivisions in areas designated for agricultural use. 🌐

## Agriculture Continued

- Policy AG-1.18 Encourage the coordinated placement of agricultural conservation easements on land most threatened by development, particularly those lands located close to cities and unincorporated communities. 🌍
- Policy AG-2.1 Protect areas identified as significantly contributing to groundwater recharge from uses that would reduce their ability to recharge or would threaten the quality of the underlying aquifers. 🌍
- Policy AG-2.2 Preserve water resources for agriculture, both in quantity and quality, from competition with development, mitigation banks and/or interests from outside of the County. 🌍
- Policy AG-2.4 Encourage the agricultural community to utilize Best Management Practices in the application and use of water resources. 🌍
- Policy AG-2.6 Work with appropriate local, State and federal agencies to conserve, study and improve soils. Promote participation in programs that reduce soil erosion and increase soil productivity. 🌍
- Policy AG-2.7 Encourage farmers and agricultural businesses to prepare for opportunities and adversities that may result from climate change. 🌍
- Policy AG-2.12 Encourage farmers to employ agricultural practices that supplement rather than deplete topsoil and conserve or minimize water use. 🌍
- Policy AG-2.13 Promote wildlife-friendly farm practices, such as tailwater ponds, native species/grasslands restoration in field margins, hedgerows, ditch management for riparian habitat, restoration of riparian areas in manner consistent with ongoing water delivery systems, reduction of pesticides, incorporating winter stubble and summer fallow, etc. 🌍
- Policy AG-2.14 Recognize the valuable role that agriculture plays in mitigating the effects of climate change, including permanent crops that sequester carbon for long periods of time and the use of farming methods that reduce the use of fossil fuels and pesticides. 🌍
- Policy AG-3.6 Strongly encourage cities to share in the responsibility for providing adequate sites to accommodate farm labor housing. 🌍
- Policy AG-3.7 Support the development of local suppliers for agricultural goods and services, including small-scale and/or mobile processing facilities and distribution centers for locally produced foods. 🌍
- Policy AG-3.13 Support farmers in diversifying their products to produce and market healthful foods, specialty ethnic foods and foods needed and desired by local consumers. 🌍
- Policy AG-5.1 Promote markets for locally and regionally grown and/or prepared food and other products and services. 🌍
- Policy AG-5.4 Encourage neighborhood grocery stores, farmers markets, community gardens and food assistance programs to increase their use of locally grown/prepared goods. 🌍
- Policy AG-5.6 Encourage institutions, such as schools, hospitals, colleges, government agencies, businesses and private food outlets such as grocery stores and restaurants, to provide foods produced locally and in the region. 🌍
- Policy AG-5.7 Provide opportunities within each unincorporated town for community gardens and farmers markets. 🌍

- Policy AG-5.8 Promote an ecologically sustainable food system. 🌐
- Action AG-A1 Amend the Agricultural Mitigation Ordinance to direct agricultural mitigation to areas that promote open space connectivity and are in close proximity to existing growth boundaries for the communities and cities within the County. (Policy AG-1.12, Policy AG-1.8, Policy AG-1.18, Policy CC-1.7) 🌐
- Action AG-A4 Consider development of a local and/or regional conservation bank to provide credits associated with crops and/or land uses that sequester carbon or greenhouse gas pollutants. (Policy AG-1.18, Policy AG-2.7, Policy AG-2.16) 🌐  
Responsibility: Planning and Public Works Department  
Timeframe: Ongoing
- Action AG-A6 Work with agricultural interests to develop farm dwelling site criteria. Proposed homes that comply with the criteria would be issued building permits, while those that are not consistent with the criteria would require prior approval of a use permit. Criteria would apply to both the primary and the ancillary home and may include the following:
- Size and mass of the home(s).
  - Location of the home(s) to avoid areas of excessive slope, higher quality agricultural soils, native vegetation, flooding, lack of water availability, or other physical constraints.
  - Location of the home(s) within the property to avoid restricting the extent of pesticide/herbicide spray on adjoining farms operations.
  - Approval of a stewardship plan demonstrating how the property would be farmed.
  - Cluster homes in a location within the parcel with the least impact to agricultural operations. New farm dwellings may be clustered in proximity to existing homes on adjoining properties.
  - Consideration of an agricultural conservation easement deed restriction or similar instrument on all or a portion of the remainder of the property, outside of any home site(s).
  - Requirement of a Use Permit for home sites on less than 20 acres.
  - Recordation of a deed notice acknowledging the potential for nuisances to occur, such as dust, agricultural chemical applications, etc.
  - Recordation of a “rural oath” acknowledging the County’s right-to-farm ordinance. (Policy AG-1.7) 🌐
- Responsibility: Planning and Public Works Department, Agriculture Department  
Timeframe: 2009/2010
- Action AG-A9 Create opportunities for incubator farms with willing landowners, consisting of small leased parcels on land protected under conservation easement. Provide opportunities for joint access to shared equipment and irrigation. Ensure that leases mandate active agricultural production. (Policy AG-1.14, Policy AG-1.21) 🌐  
Responsibility: Agriculture Department, Planning and Public Works Department  
Timeframe: 2010/2011
- Action AG-A10 Work with the UC Cooperative Extension to develop technical assistance programs that may include: monitoring of changes in natural cycles; discouraging methane producing practices where feasible alternatives exist; encouraging methane recovery; and promoting farming practices that capture and store more carbon in the soil. (Policy AG-2.7, Policy AG-2.16) 🌐  
Responsibility: Agriculture Department  
Timeframe: Ongoing

## Agriculture Continued

- Action AG-A11 Work to site a refrigeration and consolidation unit in an appropriate location. This would allow farmers to bring their produce to one location where trucks could pick up a full load and deliver to their destination, reducing the need for trucks to go to individual farms to pick up small loads. (Policy AG-3.7, Policy AG-3.10, Policy AG-3.11, Policy AG-4.18) 🌐  
Responsibility: County Administrator's Office, Agriculture Department  
Timeframe: 2011/2012
- Action AG-A13 Reduce development restrictions for new and/or expanded agricultural processing, on-site agricultural sales, and bioenergy production. (Policy AG-3.2, Policy AG-3.16, Policy AG-3.19) 🌐  
Responsibility: Planning and Public Works Department, County Administrator's Office, Health Department  
Timeframe: 2010/2011
- Policy ED-1.4 Encourage the telecommunications industry to install and maintain high-speed high-capacity telephone and Internet service throughout the county so that businesses can effectively compete. 🌐
- Policy ED-3.2 Provide support to make infill development attractive for private developers. 🌐
- Policy ED-3.3 Create jobs in tandem with housing. Strive for a minimum ratio of 1.2 permanent jobs per home and seek to match local wages with community housing prices. 🌐
- Policy ED-3.6 Encourage the development of retail establishments that will reduce resident spending outside the County for retail purchases, services and entertainment. 🌐
- Policy ED-5.1 Assist businesses in reducing their dependence upon non-renewable resources, such as fossil fuels. 🌐
- Policy ED-5.2 Work with businesses to reduce the quantity and improve the quality of their waste stream and to ensure that waste is disposed of properly. 🌐
- Policy ED-5.3 Encourage businesses and research that support sustainability and contribute to the emerging "green" economy. 🌐
- Policy ED-5.4 Encourage businesses to exceed clean air standards, whenever possible. 🌐
- Policy ED-5.5 Promote Yolo County businesses by encouraging residents and government agencies to obtain their goods and services locally. 🌐
- Policy ED-5.7 Encourage appropriate home-based occupations, "cottage" industries, telecommuting, and telepresence to reduce fuel consumption and traffic and improve air quality. 🌐
- Policy ED-5.8 Promote the use of recycled materials and/or by-products of other businesses, to reduce the consumption of virgin raw materials. 🌐
- Policy ED-5.9 Support reductions in the use of hazardous materials and require businesses to employ proper disposal and recycling mechanisms. 🌐
- Policy ED-5.10 Require the re-use of processed water for landscaping and other appropriate activities, where feasible. 🌐
- Action ED-A9 Implement zoning and design guidelines to facilitate the location of appropriately scaled retail and service businesses, offices, public services and public gathering places in downtowns that include both daytime and nighttime activities. (Policy ED-3.1) 🌐

Agriculture Continued

- Responsibility: Planning and Public Works Department  
Timeframe: Ongoing
- Action ED-A11 Assist local businesses and community groups in forming business investment districts, Main Street programs and local development corporations. (Policy ED-3.1, Policy ED-3.6) 🌐  
Responsibility: County Administrator's Office  
Timeframe: Ongoing
- Action ED-A13 Develop guidelines for the adaptive reuse of commercial, industrial and office buildings on infill sites, including the use of multi-story buildings as "live/work" spaces. (Policy ED-3.2) 🌐  
Responsibility: Planning and Public Works Department  
Timeframe: 2011/2012
- Action ED-A15 Establish redevelopment areas, where appropriate, so that the resulting tax increment can be effectively used for downtown improvements and development projects. (Policy ED-3.2) 🌐  
Responsibility: County Administrator's Office  
Timeframe: 2011/2012
- Action ED-A19 Provide flexibility for development in downtown areas through mixed use and planned development zoning standards. (Policy ED-3.1, Policy ED-3.2) 🌐  
Responsibility: Planning and Public Works Department  
Timeframe: 2009/2010
- Action ED-A26 Provide incentives (e.g. live-work spaces, reduced parking requirements, carpooling, etc.) to reduce employee and product transport vehicle trips. (Policy ED-5.1) 🌐  
Responsibility: Planning and Public Works Department  
Timeframe: Ongoing

## CONSERVATION AND OPEN SPACE

- Policy CO-1.2      Develop a connected system of recreational trails to link communities and parks throughout the county. 🌐
- Policy CO-1.3      Create a network of regional parks and open space corridors that highlight unique natural resources and recreational opportunities for a variety of users. 🌐
- Policy CO-1.4      Provision of an appropriate level of public facilities and infrastructure shall be a priority for all County park facilities.
- Policy CO-1.5      Establish future resource parks close to population centers, where feasible. 🌐
- Policy CO-1.11     Coordinate the development of recreation areas and public open space with regional trail planning. 🌐
- Policy CO-1.15     Support efforts to acquire either fee title or easements on additional open space areas adjoining existing protected natural resource areas to increase the size, connectivity, and buffering of existing habitat. 🌐
- Policy CO-1.22     Emphasize the use of native grasses, shrubs and trees as the primary focus of landscaping within resource parks and other open spaces. 🌐
- Action CO-A1      Update the Parks Master Plan as necessary to implement the goals, policies, and actions of relevant portions of the Conservation and Open Space Element. 🌐 (Policy CO-1.1, Policy CO-1.2, Policy CO-1.3, Policy CO-1.12, Policy CO-1.25, Policy CO-1.26)  
Responsibility: Parks and Resources Department  
Timeframe: 2010/2011
- Action CO-A2      Establish permanent areas of agriculture and open space between cities and unincorporated towns to ensure the continued distinctiveness of each community. 🌐 (Policy CO-1.2)  
Responsibility: Planning and Public Works Department, parks and Resources Department  
Timeframe: 2012/2013
- Action CO-A3      Seek to acquire voluntary easements to ensure connectivity with the conservation areas established through the Blue Ridge Berryessa Natural Area Conservation Partnership. 🌐 (Policy CO-1.1, Policy CO-1.3, Policy CO-1.8, Policy CO-1.16, Policy CO-1.19)  
Responsibility: Parks and Resources Department  
Timeframe: Ongoing
- Action CO-A6      Connect the future Bay Delta Trail system, the future trail system in the lower Yolo Bypass, and the future Cache Creek Parkway system and link those trails to the American River Bikeway system in Sacramento County. 🌐 (Policy CO-1.1, Policy CO-1.3, Policy CO-1.12, Policy CO-1.19, Policy CO-1.29)  
Responsibility: Parks and Resources Department  
Timeframe: 2029/2030
- Action CO-A7      Prioritize the construction of multi-use trails that provide links between already established trails and bicycle routes. 🌐 (Policy CO-1.1, Policy CO-1.2, Policy CO-1.4)  
Responsibility: Parks and Resources Department  
Timeframe: Ongoing
- Policy CO-2.20     Promote the use of oak woodlands conservation banks to mitigate for both development impacts and greenhouse gas emissions under the proposed State carbon credit program. 🌐

Conservation and Open Space continued

- Policy CO-2.26 Support the use of organic farming methods to minimize the use of products such as pesticides, fuels and fertilizers that degrade habitat and harm plants and wildlife. 🌍
- Policy CO-2.23 Support efforts to coordinate the removal of non-native, invasive vegetation within watersheds and replacement with native plants. 🌍
- Action CO-A29 Adopt a heritage tree preservation ordinance. 🌍 (Policy CO-2.17, Policy CO-2.37)  
Responsibility: Parks and Resources Department  
Timeframe: 2010/2011
- Action CO-A30 Develop a program to encourage landowners to restore degraded creek resources by:  
 Removing exotic species and establishing native riparian vegetation. 🌍  
 Managing the upland areas of watersheds to control erosion and overgrazing.  
 Adding exclusionary fencing to keep livestock out of streams and stream bank areas.  
(Policy CO-2.4, Policy CO-2.5, Policy CO-2.9, Policy CO-2.14, Policy CO-2.25)  
Responsibility: Parks and Resources Department  
Timeframe: 2011/2012
- Action CO-A40 Encourage recycling of aggregate materials and products. 🌍 (Policy CO-3.1)  
Responsibility: Parks and Resources Department, Planning and Public Works Department  
Timeframe: Ongoing
- Policy CO-4.3 Encourage owners of historic resources to preserve and rehabilitate their properties. 🌍
- Policy CO-5.1 Coordinate with water purveyors and water users to manage supplies to avoid long-term overdraft, water quality degradation, land subsidence and other potential problems. 🌍
- Policy CO-5.2 Support projects that provide reliable and sustainable surface water from a variety of energy efficient sources. Sources should be sufficient to serve existing and planned land uses in prolonged drought periods and protect natural resources and surface water flows. 🌍
- Policy CO-5.3 Strive to manage the County's groundwater resources on a sustainable yield basis that can provide water purveyors and individual users with reliable, high quality groundwater to serve existing and planned land uses during prolonged drought periods. 🌍
- Policy CO-5.4 Support educational programs to educate the public about practices and programs to minimize water pollution and reduce water usage. 🌍
- Policy CO-5.5 Integrate balanced water management programs that emphasize multiple benefits and balance competing needs into all aspects of the planning and development process. 🌍
- Policy CO-5.10 Encourage water purveyors to develop plans for responding to droughts and the effects of global climate change, including contingency plans, the sharing of water resources to improve overall water supply reliability, and the allocation of water supply to priority users. 🌍
- Policy CO-5.15 Encourage new development and redevelopment to use reclaimed wastewater, where feasible, to augment water supplies and to conserve potable water for domestic purposes. 🌍

Conservation and Open Space continued

- Policy CO-5.16 Require significant discretionary projects to demonstrate adequate long-term and sustainable water supplies by preparing a verified water supply assessment. The assessment shall demonstrate a long-term, reliable water supply satisfactory under normal and above normal rainfall conditions, as well as drought conditions. 🌐
- Policy CO-5.18 Encourage developers to build new homes to higher water-efficiency standards than already required. 🌐
- Policy CO-5.19 Strive for “water-neutral” development with new water demand offset by efficiency improvements elsewhere in the system. Require all new developments to offset new water demands to the greatest extent feasible. 🌐
- Policy CO-5.20 Encourage water purveyors to adopt conservation pricing strategies for existing and new development.
- Action CO-A66 Work with water purveyors in the County to plan for possible changes to water supply and quality resulting from global warming. (Policy CO-5.1, Policy CO-5.2, Policy CO-5.3, Policy CO-5.10) 🌐  
Responsibility: Parks and Resources Department  
Timeframe: Ongoing
- Action CO-A75 Coordinate with local water purveyors to develop a conjunctive use program, consistent with the Integrated Regional Water Management Plan, to make the most efficient use of surface and groundwaters. (Policy CO-5.1, Policy CO-5.3) 🌐  
Responsibility: Parks and Resources Department  
Timeframe: 2010/2011
- Action CO-A78 Work with local water purveyors to develop urban and agricultural water use efficiency programs to provide a 20 percent improvement in water use efficiency throughout the county by 2030. (Policy CO-5.1, Policy CO-5.5) 🌐  
Responsibility: Parks and Resources Department  
Timeframe: 2011/2012
- Action CO-A80 Develop a County grading ordinance that maintains existing terrain, channels, and vegetation to the extent possible, in order to minimize the disruption of natural systems. (Policy CO-5.5, Policy CO-5.6) 🌐  
Responsibility: Planning and Public Works Department  
Timeframe: 2009/2010
- Action CO-A80 Adopt a Water Efficient Landscape Ordinance to require greater use of regionally native drought-tolerant vegetation, limitations on the amount of turf in residential development, computer controlled irrigation systems, and other measures as appropriate. (Policy CO-5.2, Policy CO-5.3, Policy CO-5.4) 🌐  
Responsibility: Planning and Public Works Department  
Timeframe: 2011/2012
- Action CO-A85 Coordinate with the Yolo Resources Conservation District to create educational programs to inform agencies, stakeholders, and the public about groundwater Best Management Practices for efficient water use, water conservation, and recharge. (Policy CO-5.4) 🌐  
Responsibility: Parks and Resources Department  
Timeframe: 2011/2012
- Action CO-84 Consider adoption of an ordinance requiring existing homes to be retrofitted with water efficient appliances and fixtures prior to sale. (Policy CO-5.1, Policy CO-5.2, Policy CO-5.3, Policy CO-5.5) 🌐



Conservation and Open Space continued

- Action CO-A87      Adopt an ordinance to allow for shared water systems to facilitate the clustering of homes and preservation of agricultural land, where an entity is established to provide maintenance or financing for maintenance of the water system. (Policy CO-5.1, Policy CO-5.2, Policy CO-5.3) 🌐  
Responsibility: Health Department  
Timeframe: 2009/2010
- Action CO-A88      Encourage roof catchment and the use of rainwater for non-potable uses to reduce the need for groundwater. (Policy CO-5.1, Policy CO-5.2, Policy CO-5.3, Policy CO-5.4) 🌐  
Responsibility: Parks and Resources Department, Planning and Public Works Department  
Timeframe: 2010/2011
- Action CO-A92      Require the implementation of Best Management Practices (BMPs) to minimize erosion, sedimentation, and water quality degradation resulting from new development and increases in impervious surfaces. (Policy CO-5.5, Policy CO-5.6) 🌐  
Responsibility: Planning and Public Works Department  
Timeframe: Ongoing
- Action CO-A93      Adopt development design standards that use low-impact development techniques that emulate the natural hydrologic regime and reduce the amount of runoff and associated pollutants. Examples include vegetated swales, landscaped detention basins, permeable paving, and green roofs. (Policy CO-5.5, Policy CO-5.6) 🌐  
Responsibility: Planning and Public Works Department  
Timeframe:2012/2013
- Policy CO-6.1      Improve air quality through land use planning decisions. 🌐
- Policy CO-6.2      Support local and regional air quality improvement efforts. 🌐
- Policy CO-6.3      Encourage employers to increase telecommuting, telepresence, provide bicycle facilities, and enhance access to public transit for employees. 🌐
- Policy CO-6.4      Engage the public in efforts to increase awareness of the health risks associated with air pollution and to take voluntary actions that reduce emissions. 🌐
- Action CO-A101      Implement the guidelines of the Transportation and Land Use Toolkit, developed by the Yolo-Solano Air Quality Management District (YSAQMD). (Policy CO-6.1, Policy CO-6.2) 🌐  
Responsibility: Planning and Public Works Department  
Timeframe: Ongoing
- Action CO-A102      Require development proposals that introduce sources of toxic air pollutants to prepare a health risk assessment and, based on the results of the assessment, establish appropriate land use buffer zones around those uses posing substantial health risks. (Policy CO-6.1) 🌐  
Responsibility: Planning and Public Works Department  
Timeframe: Ongoing
- Action CO-A102      For discretionary permits, require agricultural Best Management Practices regarding odor control, stormwater drainage, and fugitive dust control where appropriate. 🌐  
Responsibility: Agriculture Department  
Timeframe: Ongoing

Conservation and Open Space continued

- Action CO-A104      Implement the regulations and programs established by the YSAQMD to bring local air quality into attainment with State and federal standards. (Policy CO-6.1, Policy CO-6.2) 🌐  
Responsibility: Planning and Public Works Department  
Timeframe: Ongoing
- Action CO-A105      Coordinate air quality planning efforts with other local, regional and State agencies. (Policy CO-6.1, Policy CO-6.2) 🌐  
Responsibility: Planning and Public Works Department  
Timeframe: Ongoing
- Policy CO-7.1      Encourage conservation of natural gas, oil and electricity, and management of peak loads in existing land uses. 🌐
- Policy CO-7.2      Support efforts to improve energy efficiency in existing irrigation systems. 🌐
- Policy CO-7.3      Require all projects to incorporate energy-conserving design and construction techniques and features. 🌐
- Policy CO-7.4      Require the use of Energy Star certified appliances, such as water heaters, swimming pool heaters, cooking equipment, refrigerators, furnaces and boiler units, where feasible. 🌐
- Policy CO-7.5      Require all new parking lots to significantly increase shading to relieve the potential for “heat islands.” 🌐
- Policy CO-7.6      Encourage the use of building materials and methods that increase energy efficiency a minimum of 15 percent beyond State Title-24 standards for residential buildings and 20 percent beyond State Title 24 standards for commercial buildings. 🌐
- Policy CO-7.7      Support farmers and landowners in their efforts to maximize the efficiency of agricultural end uses. 🌐
- Policy CO-7.8      Increase energy efficiency and alternative energy utilization in existing buildings where feasible. 🌐
- Policy CO-7.9      Require that new site and structure designs maximize energy efficiency. 🌐
- Policy CO-7.10      Encourage residents to retrofit existing residences to maximize energy efficiency. 🌐
- Policy CO-7.11      Encourage LEED certification for public and private buildings, whenever possible. Strongly encourage LEED certification or equivalent for all public, private, and existing buildings, and strongly encourage LEED-Neighborhood Design (ND) certification or equivalent for other applicable projects, particularly within the Specific Plan areas. 🌐
- Action CO-A109      Amend the Zoning Code to streamline permitting for the production of biofuels, biomass, solar, wind and other energy alternatives to reduce dependency on fossil fuels. (Policy CO-7.1) 🌐  
Responsibility: Planning and Public Works Department  
Timeframe: 2010/2011
- Action CO-A110      Require the use of Energy Star certified appliances, such as water heaters, swimming pool heaters, cooking equipment, refrigerators, furnaces and boiler units, in all new subdivisions. (Policy CO-7.1, Policy CO-7.4) 🌐  
Responsibility: Planning and Public Works Department  
Timeframe: Ongoing

Conservation and Open Space continued

- Action CO-A111 Use development agreements to garner commitments from developers of new projects to increase the energy efficiency in existing development. . 🌐  
Responsibility: Planning and Public Works Department  
Timeframe: Ongoing
- Action CO-A112 Amend the Zoning Code to include regulations for all new parking lots to include tree plantings that will result in 50 percent shading of parking lot surface areas within 10 years. (Policy CO-7.1, Policy CO-7.5) 🌐  
Responsibility: Planning and Public Works Department  
Timeframe: 2010/2011
- Action CO-A113 Use Development Agreements and/or adopt an ordinance to require the use of building materials and methods that increase energy efficiency a minimum of 15 percent beyond State Title-24 standards for residential construction and 20 percent beyond Title 24 for commercial construction, where feasible. 🌐  
Responsibility: Planning and Public Works Department, County Counsel  
Timeframe: Ongoing
- Policy CO-8.1 Assess current greenhouse gas emission levels and adopt strategies based on scientific analysis to reduce global climate change impacts. 🌐
- Policy CO-8.2 Use the development review process to achieve measurable reductions in greenhouse gas emissions. 🌐
- Policy CO-8.3 Prepare appropriate strategies to adapt to climate change based on sound scientific understanding of the potential impacts. 🌐
- Policy CO-8.4 Encourage all businesses to take the following actions, where feasible: replace high mileage fleet vehicles with hybrid and/or alternative fuel vehicles; increase the energy efficiency of facilities; transition toward the use of renewable energy instead of non-renewable energy sources; adopt purchasing practices that promote emissions reductions and reusable materials; and increase recycling. 🌐
- Policy CO-8.5 Promote GHG emission reductions by supporting carbon efficient farming methods (e.g. methane capture systems, no-till farming, crop rotation, cover cropping); installation of renewable energy technologies; protection of grasslands, open space, oak woodlands, riparian forest and farmlands from conversion to other uses; and development of energy-efficient structures. 🌐
- Policy CO-8.6 Undertake an integrated and comprehensive approach to planning for climate change by collaborating with international, national, State, regional, and local organizations and entities. 🌐
- Policy CO-8.7 Integrate climate change planning and program implementation into County decision making. 🌐
- Policy CO-8.8 Increase public awareness about climate change and encourage county residents and businesses to become involved in activities and lifestyle changes that will aid in reduction of greenhouse gas emissions. 🌐
- Policy CO-8.9 Work with local, regional, State, and Federal jurisdictions, as well as private and non-profit organizations, to develop a regional greenhouse gas emissions inventory and emissions reduction plan. 🌐

Conservation and Open Space continued

- Action CO-A115      Develop a Greenhouse Gas (GHG) Emissions Reduction Plan and/or Climate Action Plan (CAP) for the County, to control and reduce net GHG emissions, and to address economic and social adaptation to the effects of climate change. Development of this plan(s) shall include the following steps: 1) conduct a baseline analysis (GHG emissions inventory) for 1990; 2) adopt an emissions reduction target; 3) develop strategies and actions for reducing emissions including direct offsets and fees to purchase offsets; 4) develop strategies and actions for adaptation to climate change; 5) implement strategies and actions; and 6) monitor emissions and verify results a minimum of every five years starting in 2010. Encourage collaboration with the cities to include the incorporated areas in the plan(s). Require County operations and actions, as well as land use approvals to be consistent with this plan(s). Utilize the 1982 Energy Plan as a starting point for this effort. (Policy CO-8.1) 🌐  
Responsibility: County Administrator's Office  
Timeframe: 2012/2013
- Action CO-A116      Monitor State progress in the development of GHG quantification protocol and guidance for local governments that allows for statewide uniform measurement and estimation of expected jurisdiction-wide GHG emissions. (Policy CO-8.1) 🌐  
Responsibility: Planning and Public Works Department  
Timeframe: Ongoing
- Action CO-A117      Require the implementation of cost-effective and innovative emission reduction technologies in building components and design. (Policy CO-8.2, Policy CO-8.4) 🌐  
Responsibility: Planning and Public Works Department, General Services Department  
Timeframe: Ongoing
- Action CO-A118      Adopt urban forestry practices that encourage forestation as a means of storing carbon dioxide, with the goal of doubling the tree canopy in unincorporated communities by 2030. Use appropriate protocols to assess owner eligibility to sell carbon credits. (Policy CO-8.1) 🌐  
Responsibility: Planning and Public Works Department, Parks and Resources Department  
Timeframe: 2012/2013
- Action CO-A119      Require new development to incorporate designs and/or programs to reduce travel demand and vehicle emissions. (Policy CO-8.2, Policy CO-8.4) 🌐  
Responsibility: Planning and Public Works Department  
Timeframe: Ongoing
- Action CO-A120      Require that new development incorporate alternative modes of transportation, including transit, bicycling and walking, in order to reduce vehicle emissions. (Policy CO-8.2, Policy CO-8.4) 🌐  
Responsibility: Planning and Public Works Department  
Timeframe: Ongoing
- Action CO-121      Consider the provision of Provide local housing for County employees to reduce commute travel time. (Policy CO-8.2) 🌐  
Responsibility: Planning and Public Works Department  
Timeframe: Ongoing

- Action CO-122      In conjunction with, or immediately following, preparation of the Greenhouse Gas Emissions Reduction/Climate Action Plan(s) for the County, require countywide departmental analysis of how predicted effects of climate change will affect responsibilities and resources of each department. Develop strategies and actions to addresses outcomes. (Policy CO-8.3, Policy CO-8.7) 🌐  
Responsibility: County Administrator's Office  
Timeframe: 2011/2012
- Action CO-A123      As part of the regional plan, create a greenhouse gas emissions 2009 inventory for all land uses within unincorporated Yolo County. Based on the inventory, develop a plan to Encourage incorporation of the County's Greenhouse Gas Emissions Plan/Climate Action Plan into a regional climate action plan. halt the total increase in emissions by 2010, and to reduce the 2010 total emissions level by ten percent every five years thereafter. The regional plan should strive to achieve its fair-share contribution towards a minimum 80 percent reduction in regional greenhouse gas emissions by 2050. (Policy CO-8.9) 🌐  
Responsibility: County Administrator's Office  
Timeframe: 2011/2012

## HEALTH AND SAFETY

- Action HS-A5      Require a minimum of 100-year flood protection for new construction, and strive to achieve 200-year flood protection for unincorporated communities. Where such levels of protection are not provided, require new development to adhere to the requirements of State law and the County Flood Damage Prevention Ordinance. 🌐 (Policy HS-2.1)  
Responsibility: Planning and Public Works Department  
Timeframe: Ongoing
- Action HS-A18      Coordinate with local, State and Federal agencies to define existing and potential flood problem areas, including the possible impacts associated with global climate change, and to maintain and improve levees and other flood control features. 🌐 (Policy HS-2.2)  
Responsibility: Planning and Public Works Department  
Timeframe: 2012/2013
- Action HS-A25      Pursuant to Sections 65302.9 and 65860.1 of the Government Code, amend the Zoning Ordinance and General Plan, as appropriate, to be consistent with the adopted Central Valley Flood Protection Plan. (Policy HS-2.3) 🌐  
Responsibility: Planning and Public Works Department  
Timeframe: Ongoing
- Action HS-A26      Review on an annual basis those portions of the unincorporated area that are subject to flooding, based on mapping prepared by the Federal Emergency Management Agency and/or the Department of Water Resources, and amend the General Plan as appropriate to reflect any changes. 🌐 (Policy HS-2.3)  
Responsibility: Planning and Public Works Department  
Timeframe: Ongoing
- Action HS-A27      Revise the Health and Safety Element, concurrently with the regular update to the Housing Element, to include new information regarding floodplain mapping and/or regulation. 🌐 (Policy HS-2.1, Policy HS-2.3)  
Responsibility: Planning and Public Works Department  
Timeframe: Ongoing
- Action HS-A29      Pursuant to Section 8201 of the State Water Code, develop local plans for flood protection, including analysis of financing options to construct and maintain any needed improvements, to address how 100-year floodplain protection for each community may be provided. Those communities that are economically disadvantaged and at greatest risk shall have priority in developing flood protection plans. The cities shall be consulted in development of the plans, which shall be consistent with the Central Valley Flood Protection Plan. (Policy HS-2.1, Policy HS-2.2)  
Responsibility: Parks and Resources Department, Planning and Public Works Department  
Timeframe: 2014/2015
- Action HS-A30      Maintain and update on a regular basis the County Flood Damage Prevention Ordinance, to ensure its conformity with the State Model Flood Ordinance and all Federal Emergency Management Agency requirements. 🌐 (Policy HS-2.1, Policy HS-2.3)  
Responsibility: Planning and Public Works Department  
Timeframe: Ongoing
- Action HS-A31      Require development to establish “defensible space” by providing for clearance around structures, using fire-resistant ground cover, building with fire-resistant roofing materials, and taking other appropriate measures. 🌐 (Policy HS-3.1)  
Responsibility: Planning and Public Works Department  
Timeframe: Ongoing

- Action HS-38      Require new and/or existing development to establish “defensible space” by providing for clearance around structures, using fire-resistant ground cover, building with fire-resistant roofing materials, fuel load reduction, and taking other appropriate measures. 🌐 (Policy HS-3.1)  
Responsibility: Planning and Public Works Department  
Timeframe: Ongoing
- Action HS-A40      Require land divisions within the very high and high risk Fire Hazard Severity Zones to demonstrate the following:  
  - guaranteed availability of adequate water;
  - provision of more than one access point for firefighting equipment;
  - permanent maintenance of defensible space around all buildings; and
  - use of fire-resistant materials in construction. 🌐 (Policy HS-3.1)Responsibility: Planning and Public Works Department  
Timeframe: Ongoing
- Action HS-A41      Cluster residential units located in areas of high fire risk with adequate access to maintained emergency evacuation routes to ensure adequate access for firefighting equipment and escape routes for residents in rural areas. 🌐 (Policy HS-3.1)  
Responsibility: Planning and Public Works Department  
Timeframe: Ongoing
- Policy HS-4.3      Encourage the reduction of solid and hazardous wastes generated in the county. 🌐
- Action HS-A59      Study the implications of climate change for future emergencies, including the increased risk and severity of fires; increased frequency and intensity of drought; expanded and deeper areas of flooding; and associated changes in disease vectors. 🌐 (Policy HS-6.2)  
Responsibility: Office of Emergency Services  
Timeframe: Ongoing
- Action HS-A78      Coordinate with hospitals and local physicians to expand the availability of health care services within the County’s unincorporated communities and services to all residents throughout the County, especially the medically indigent. (Policy HC-1.2, Policy HC-1.3) 🌐  
Responsibility: Health Department  
Timeframe: Ongoing
- Action HS-A78      Allow for services and housing for special populations to be linked to ensure convenient access. (Policy HS-8.4) 🌐  
Responsibility: Department of Employment and Social Services, Department of Alcohol, Drug and Mental Health Services Department, Health Department  
Timeframe: Ongoing
- Action HS-A81      Accommodate pedestrian, bicycle, and transit needs in public rights-of-way and streetscape design. (PolicyHS-81, PolicyHS-8.8) 🌐  
Responsibility: Planning and Public Works Department  
Timeframe: Ongoing
- Action HS-A82      Adopt infrastructure standards for residential neighborhoods and downtown commercial areas that are designed to decrease traffic speeds and increase pedestrian and bicycle safety. (Policy HS-8.1, PolicyHS-8.8) 🌐  
Responsibility: Planning and Public Works Department  
Timeframe: Ongoing

Health and Safety Continued

- ActionHS-A84      Emphasize pedestrian oriented neighborhoods with connected sidewalks and trails that provide convenient access to goods, services, and community resources. (PolicyHS-8.1, PolicyHS-8.8) 🌐  
Responsibility: Planning and Public Works Department  
Timeframe: Ongoing
- Action HS-A85      Promote community design that creates a compatible and integrated balance of residential density, green space, and job centers. (Policy HS-8.1) 🌐  
Responsibility: Planning and Public Works Department  
Timeframe: Ongoing
- Action HS-A86      Consider the health consequences of proposed project design, as a part of the development review process. (PolicyHS-8.1, Policy HS-8.8) 🌐  
Responsibility: Planning and Public Works Department, Health Department  
Timeframe: Ongoing
- Action HS-A87      Ensure that zoning requirements accommodate and encourage opportunities for services to be established in each community to serve vulnerable populations. (Policy HS-8.4) 🌐  
Responsibility: Planning and Public Works Department  
Timeframe: Ongoing



## HOUSING ELEMENT

Policy HO-1.3	Promote live/work uses, such as home occupations, employee housing, and caretaker accommodations. 🌐
Policy HO-5.1	Plan communities to avoid the concentration of affordable housing projects, while ensuring that affordable housing has access to needed services and amenities. 🌐
Policy HO-5.2	Strengthen neighborhoods through the maintenance and rehabilitation of existing housing stock. 🌐
Policy HO-6.1	Encourage site and building design that conserves natural resources. 🌐
Policy HO-6.2	Minimize greenhouse gas emissions by planning for the fair and efficient provision of housing through the following strategies: 🌐 <ul style="list-style-type: none"><li><input type="checkbox"/> Design communities and housing developments that are socially cohesive, reduce isolation, and foster community spirit;</li><li><input type="checkbox"/> Require a range of housing within each community that is affordable to a variety of income groups;</li><li><input type="checkbox"/> Encourage different housing types within each community to attract community residents diverse in age, family size, disability status, and culture; and</li><li><input type="checkbox"/> Locate housing near employment centers.</li></ul>
Action HO-A5	Amend the Zoning Code to identify compatible zones for live/work uses and to establish reasonable performance standards, including noise, odor, types of uses permitted, parking, fencing, and related issues. (Policy HO-1.1, Policy HO-1.3) 🌐 Responsibility: Planning and Public Works Department Timeframe: 2009/2010 Funding: General Fund
Action HO-A11	Coordinate with local businesses, housing advocacy groups, neighborhood organizations, Advisory Committees, and Chambers of Commerce to participate in building public understanding and support for workforce and special needs housing. (Policy HO-1.7) 🌐 Responsibility: County Administrator's Office, Planning and Public Works Department Timeframe: Annually Funding: General Fund
Action HO-17	Consider use of Tribal Mitigation Funds for the development of work force housing in communities along transit routes. (Policy HO-2.1, Policy HO-4.10) 🌐 Responsibility: County Administrator's Office, Planning and Public Works Department Timeframe: Annually Funding: General Fund
Action HO-A48	Coordinate affordable housing development with existing and proposed transit routes, employment centers, shopping facilities, schools, medical facilities, and other services. (Policy HO-5.1) 🌐 Responsibility: Planning and Public Works Department Timeframe: Ongoing Funding: General Fund

## Housing Continued

- Action HO-A49 Encourage well-designed mixed use residential/non-residential development where residential use is appropriate to the setting and development impacts can be mitigated, such as in and around downtown areas. (Policy HO-5.1) 🌐  
Responsibility: Planning and Public Works Department  
Timeframe: Ongoing  
Funding: General Fund
- Action HO-A61 Promote development and construction standards that provide resource conservation by encouraging housing types and designs that use sustainable materials, cost-effective energy conservation measures, and fewer resources (e.g. water, electricity, gas, etc.). (Policy HO-6.1) 🌐  
Responsibility: Planning and Public Works Department  
Timeframe: Ongoing  
Funding: General Fund
- Action HO-A62 Promote the use of sustainable energy technologies (e.g. solar and wind) housing whenever possible. (Policy HO-6.1) 🌐  
Responsibility: Planning and Public Works Department  
Timeframe: Ongoing  
Funding: General Fund
- Action HO-A63 Provide information and refer eligible property owners to programs that provide energy conservation assistance. (Policy HO-6.1) 🌐  
Responsibility: Planning and Public Works Department, County Administrator's Office  
Timeframe: Ongoing  
Funding: General Fund
- Action HO-A64 Develop site design guidelines for energy conserving development. (Policy HO-6.1) 🌐  
Responsibility: Planning and Public Works Department  
Timeframe: 2010/2011  
Funding: General Fund