Annex 4C. Wastewater Treatment and Discharge (IPCC 4D)
to the Technical Support Document for the 2000-2009 California's Greenhouse Gas Emissions Inventory

Back to main document: http://www.arb.ca.gov/cc/inventory/doc/methods_00-09/ghg_inventory_00-09_technical_support_document.pdf

Variables Used in the Emissions Estimation Equations

Values last updated on Wednesday, October 26, 2011

IPCC category = 4D1 — Wastewater Treatment and Discharge - Domestic Wastewater Treatment and Discharge

► ***Sector = Wastewater Treatment : Domestic Wastewater : Anaerobic Digesters >***

Activity = Biogas production

- Variable Name -	- Year -	- Value and Units -	- Reference -
Biogas production	2000	7,905,215,411 cf	Calculation, see text
Biogas production	2001	7,945,739,504 cf	Calculation, see text
Biogas production	2002	8,007,545,719 cf	Calculation, see text
Biogas production	2003	8,063,463,506 cf	Calculation, see text
Biogas production	2004	8,103,286,584 cf	Calculation, see text
Biogas production	2005	8,127,169,401 cf	Calculation, see text
Biogas production	2006	8,131,991,214 cf	Calculation, see text
Biogas production	2007	8,125,334,546 cf	Calculation, see text
Biogas production	2008	8,130,484,455 cf	Calculation, see text
Biogas production	2009	8,134,615,747 cf	Calculation, see text
Digester gas production rate	2000	1 cf / person / day	USEPA, 2011b
Digester gas production rate	2001	1 cf / person / day	USEPA, 2011b
Digester gas production rate	2002	1 cf / person / day	USEPA, 2011b
Digester gas production rate	2003	1 cf / person / day	USEPA, 2011b
Digester gas production rate	2004	1 cf / person / day	USEPA, 2011b
Digester gas production rate	2005	1 cf / person / day	USEPA, 2011b
Digester gas production rate	2006	1 cf / person / day	USEPA, 2011b
Digester gas production rate	2007	1 cf / person / day	USEPA, 2011b
Digester gas production rate	2008	1 cf / person / day	USEPA, 2011b
Digester gas production rate	2009	1 cf / person / day	USEPA, 2011b
Methane destruction efficiency	2000	0.99	USEPA, 2011b
Methane destruction efficiency	2001	0.99	USEPA, 2011b
Methane destruction efficiency	2002	0.99	USEPA, 2011b
Methane destruction efficiency	2003	0.99	USEPA, 2011b
Methane destruction efficiency	2004	0.99	USEPA, 2011b
Methane destruction efficiency	2005	0.99	USEPA, 2011b
Methane destruction efficiency	2006	0.99	USEPA, 2011b
Methane destruction efficiency	2007	0.99	USEPA, 2011b
Methane destruction efficiency	2008	0.99	USEPA, 2011b
Methane destruction efficiency	2009	0.99	USEPA, 2011b
Per capita wastewater flow	2000	100 gal / person / day	USEPA, 2011b
Per capita wastewater flow	2001	100 gal / person / day	USEPA, 2011b
Per capita wastewater flow	2002	100 gal / person / day	USEPA, 2011b
Per capita wastewater flow	2003	100 gal / person / day	USEPA, 2011b
Per capita wastewater flow	2004	100 gal / person / day	USEPA, 2011b
Per capita wastewater flow	2005	100 gal / person / day	USEPA, 2011b
Per capita wastewater flow	2006	100 gal / person / day	USEPA, 2011b
Per capita wastewater flow	2007	100 gal / person / day	USEPA, 2011b
Per capita wastewater flow	2008	100 gal / person / day	USEPA, 2011b
Per capita wastewater flow	2009	100 gal / person / day	USEPA, 2011b
Proportion of CH4 in biogas	2000	0.65	USEPA, 2011b
Proportion of CH4 in biogas	2001	0.65	USEPA, 2011b
Proportion of CH4 in biogas	2002	0.65	USEPA, 2011b
Proportion of CH4 in biogas	2003	0.65	USEPA, 2011b

Proportion of CH4 in biogas	2004	0.65	USEPA, 2011b
Proportion of CH4 in biogas	2005	0.65	USEPA, 2011b
Proportion of CH4 in biogas	2006	0.65	USEPA, 2011b
Proportion of CH4 in biogas	2007	0.65	USEPA, 2011b
Proportion of CH4 in biogas	2008	0.65	USEPA, 2011b
Proportion of CH4 in biogas	2009	0.65	USEPA, 2011b
Wastewater flow to plants with anaerobic digesters	2000	2,164,374,467 gal / day	ARB, 2011 (itself)
Wastewater flow to plants with anaerobic digesters	2001	2,175,469,586 gal / day	ARB, 2011 (itself)
Wastewater flow to plants with anaerobic digesters	2002	2,192,391,553 gal / day	ARB, 2011 (itself)
Wastewater flow to plants with anaerobic digesters	2003	2,207,701,323 gal / day	ARB, 2011 (itself)
Wastewater flow to plants with anaerobic digesters	2004	2,218,604,512 gal / day	ARB, 2011 (itself)
Wastewater flow to plants with anaerobic digesters	2005	2,225,143,405 gal / day	ARB, 2011 (itself)
Wastewater flow to plants with anaerobic digesters	2006	2,226,463,573 gal / day	ARB, 2011 (itself)
Wastewater flow to plants with anaerobic digesters	2007	2,224,641,039 gal / day	ARB, 2011 (itself)
Wastewater flow to plants with anaerobic digesters	2008	2,226,051,036 gal / day	ARB, 2011 (itself)
Wastewater flow to plants with anaerobic digesters	2009	2,227,182,145 gal / day	ARB, 2011 (itself)

► *Sector = Wastewater Treatment : Domestic Wastewater : Centralized Aerobic >*

Activity = California population

- Variable Name -	*- Year -*	*- Value and Units -*	*- Reference -*
California population	2000	33,873,086 person	CDOF, 2011
California population	2001	34,256,789 person	CDOF, 2011
California population	2002	34,725,516 person	CDOF, 2011
California population	2003	35,163,609 person	CDOF, 2011
California population	2004	35,570,847 person	CDOF, 2011
California population	2005	35,869,173 person	CDOF, 2011
California population	2006	36,116,202 person	CDOF, 2011
California population	2007	36,399,676 person	CDOF, 2011
California population	2008	36,704,375 person	CDOF, 2011
California population	2009	36,966,713 person	CDOF, 2011
Maximum methane production capacity	2000	0.6 g / g	USEPA, 2011b
Maximum methane production capacity	2001	0.6 g / g	USEPA, 2011b
Maximum methane production capacity	2002	0.6 g / g	USEPA, 2011b
Maximum methane production capacity	2003	0.6 g / g	USEPA, 2011b
Maximum methane production capacity	2004	0.6 g / g	USEPA, 2011b
Maximum methane production capacity	2005	0.6 g / g	USEPA, 2011b
Maximum methane production capacity	2006	0.6 g / g	USEPA, 2011b
Maximum methane production capacity	2007	0.6 g / g	USEPA, 2011b
Maximum methane production capacity	2008	0.6 g / g	USEPA, 2011b
Maximum methane production capacity	2009	0.6 g / g	USEPA, 2011b
Methane correction for aerobic not well managed	2000	0.3	USEPA, 2011b
Methane correction for aerobic not well managed	2001	0.3	USEPA, 2011b
Methane correction for aerobic not well managed	2002	0.3	USEPA, 2011b
Methane correction for aerobic not well managed	2003	0.3	USEPA, 2011b
Methane correction for aerobic not well managed	2004	0.3	USEPA, 2011b
Methane correction for aerobic not well managed	2005	0.3	USEPA, 2011b
Methane correction for aerobic not well managed	2006	0.3	USEPA, 2011b
Methane correction for aerobic not well managed	2007	0.3	USEPA, 2011b
Methane correction for aerobic not well managed	2008	0.3	USEPA, 2011b
Methane correction for aerobic not well managed	2009	0.3	USEPA, 2011b
Per capita biological organic demand (BOD5)	2000	90 g / person / day	USEPA, 2011b
Per capita biological organic demand (BOD5)	2001	90 g / person / day	USEPA, 2011b
Per capita biological organic demand (BOD5)	2002	90 g / person / day	USEPA, 2011b
Per capita biological organic demand (BOD5)	2003	90 g / person / day	USEPA, 2011b
Per capita biological organic demand (BOD5)	2004	90 g / person / day	USEPA, 2011b

Per capita biological organic demand (BOD5)	2005	90 g / person / day	USEPA, 2011b
Per capita biological organic demand (BOD5)	2006	90 g / person / day	USEPA, 2011b
Per capita biological organic demand (BOD5)	2007	90 g / person / day	USEPA, 2011b
Per capita biological organic demand (BOD5)	2008	90 g / person / day	USEPA, 2011b
Per capita biological organic demand (BOD5)	2009	90 g / person / day	USEPA, 2011b
Proportion aerobic	2000	0.941	USEPA, various years
Proportion aerobic	2001	0.943	USEPA, various years
Proportion aerobic	2002	0.945	USEPA, various years
Proportion aerobic	2003	0.947	USEPA, various years
Proportion aerobic	2004	0.949	USEPA, various years
Proportion aerobic	2005	0.951	USEPA, various years
Proportion aerobic	2006	0.953	USEPA, various years
Proportion aerobic	2007	0.955	USEPA, various years
Proportion aerobic	2008	0.957	USEPA, various years
Proportion aerobic	2009	0.959	USEPA, various years
Proportion aerobic with primary treatment	2000	0.757	USEPA, various years
Proportion aerobic with primary treatment	2001	0.767	USEPA, various years
Proportion aerobic with primary treatment	2002	0.778	USEPA, various years
Proportion aerobic with primary treatment	2003	0.788	USEPA, various years
Proportion aerobic with primary treatment	2004	0.798	USEPA, various years
Proportion aerobic with primary treatment	2005	0.808	USEPA, various years
Proportion aerobic with primary treatment	2006	0.819	USEPA, various years
Proportion aerobic with primary treatment	2007	0.829	USEPA, various years
Proportion aerobic with primary treatment	2008	0.839	USEPA, various years
Proportion aerobic with primary treatment	2009	0.849	USEPA, various years
Proportion aerobic without primary treatment	2000	0.243	USEPA, various years
Proportion aerobic without primary treatment	2001	0.233	USEPA, various years
Proportion aerobic without primary treatment	2002	0.223	USEPA, various years
Proportion aerobic without primary treatment	2003	0.212	USEPA, various years
Proportion aerobic without primary treatment	2004	0.202	USEPA, various years
Proportion aerobic without primary treatment	2005	0.192	USEPA, various years
Proportion aerobic without primary treatment	2006	0.182	USEPA, various years
Proportion aerobic without primary treatment	2007	0.171	USEPA, various years
Proportion aerobic without primary treatment	2008	0.161	USEPA, various years
Proportion aerobic without primary treatment	2009	0.151	USEPA, various years
Proportion centrally treated	2000	0.9	CWTRC, 2003
Proportion centrally treated	2001	0.9	CWTRC, 2003
Proportion centrally treated	2002	0.9	CWTRC, 2003
Proportion centrally treated	2003	0.9	CWTRC, 2003
Proportion centrally treated	2004	0.9	CWTRC, 2003
Proportion centrally treated	2005	0.9	CWTRC, 2003
Proportion centrally treated	2006	0.9	CWTRC, 2003
Proportion centrally treated	2007	0.9	CWTRC, 2003
Proportion centrally treated	2008	0.9	CWTRC, 2003
Proportion centrally treated	2009	0.9	CWTRC, 2003
Proportion of BOD removed in primary treatment	2000	0.325	USEPA, 2011b
Proportion of BOD removed in primary treatment	2001	0.325	USEPA, 2011b
Proportion of BOD removed in primary treatment	2002	0.325	USEPA, 2011b
Proportion of BOD removed in primary treatment	2003	0.325	USEPA, 2011b
Proportion of BOD removed in primary treatment	2004	0.325	USEPA, 2011b
Proportion of BOD removed in primary treatment	2005	0.325	USEPA, 2011b
Proportion of BOD removed in primary treatment	2006	0.325	USEPA, 2011b
Proportion of BOD removed in primary treatment	2007	0.325	USEPA, 2011b
Proportion of BOD removed in primary treatment	2008	0.325	USEPA, 2011b
Proportion of BOD removed in primary treatment	2009	0.325	USEPA, 2011b

Proportion of operations not well managed	2000	0	USEPA, 2011b
Proportion of operations not well managed	2001	0	USEPA, 2011b
Proportion of operations not well managed	2002	0	USEPA, 2011b
Proportion of operations not well managed	2003	0	USEPA, 2011b
Proportion of operations not well managed	2004	0	USEPA, 2011b
Proportion of operations not well managed	2005	0	USEPA, 2011b
Proportion of operations not well managed	2006	0	USEPA, 2011b
Proportion of operations not well managed	2007	0	USEPA, 2011b
Proportion of operations not well managed	2008	0	USEPA, 2011b
Proportion of operations not well managed	2009	0	USEPA, 2011b

► *Sector = Wastewater Treatment : Domestic Wastewater : Centralized Anaerobic >*

Activity = California population

- Variable Name -	- Year -	- Value and Units -	- Reference -
California population	2000	33,873,086 person	CDOF, 2011
California population	2001	34,256,789 person	CDOF, 2011
California population	2002	34,725,516 person	CDOF, 2011
California population	2003	35,163,609 person	CDOF, 2011
California population	2004	35,570,847 person	CDOF, 2011
California population	2005	35,869,173 person	CDOF, 2011
California population	2006	36,116,202 person	CDOF, 2011
California population	2007	36,399,676 person	CDOF, 2011
California population	2008	36,704,375 person	CDOF, 2011
California population	2009	36,966,713 person	CDOF, 2011
Maximum methane production capacity	2000	0.6 g / g	USEPA, 2011b
Maximum methane production capacity	2001	0.6 g / g	USEPA, 2011b
Maximum methane production capacity	2002	0.6 g / g	USEPA, 2011b
Maximum methane production capacity	2003	0.6 g / g	USEPA, 2011b
Maximum methane production capacity	2004	0.6 g / g	USEPA, 2011b
Maximum methane production capacity	2005	0.6 g / g	USEPA, 2011b
Maximum methane production capacity	2006	0.6 g / g	USEPA, 2011b
Maximum methane production capacity	2007	0.6 g / g	USEPA, 2011b
Maximum methane production capacity	2008	0.6 g / g	USEPA, 2011b
Maximum methane production capacity	2009	0.6 g / g	USEPA, 2011b
Methane correction factor for anaerobic systems	2000	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2001	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2002	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2003	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2004	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2005	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2006	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2007	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2008	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2009	0.8	USEPA, 2011b
Per capita biological organic demand (BOD5)	2000	90 g / person / day	USEPA, 2011b
Per capita biological organic demand (BOD5)	2001	90 g / person / day	USEPA, 2011b
Per capita biological organic demand (BOD5)	2002	90 g / person / day	USEPA, 2011b
Per capita biological organic demand (BOD5)	2003	90 g / person / day	USEPA, 2011b
Per capita biological organic demand (BOD5)	2004	90 g / person / day	USEPA, 2011b
Per capita biological organic demand (BOD5)	2005	90 g / person / day	USEPA, 2011b
Per capita biological organic demand (BOD5)	2006	90 g / person / day	USEPA, 2011b
Per capita biological organic demand (BOD5)	2007	90 g / person / day	USEPA, 2011b
Per capita biological organic demand (BOD5)	2008	90 g / person / day	USEPA, 2011b
Per capita biological organic demand (BOD5)	2009	90 g / person / day	USEPA, 2011b
Proportion anaerobic	2000	0.059	USEPA, various years

Proportion anaerobic	2001	0.057	USEPA, various years
Proportion anaerobic	2002	0.055	USEPA, various years
Proportion anaerobic	2003	0.053	USEPA, various years
Proportion anaerobic	2004	0.051	USEPA, various years
Proportion anaerobic	2005	0.049	USEPA, various years
Proportion anaerobic	2006	0.047	USEPA, various years
Proportion anaerobic	2007	0.045	USEPA, various years
Proportion anaerobic	2008	0.043	USEPA, various years
Proportion anaerobic	2009	0.041	USEPA, various years
Proportion anaerobic with primary treatment	2000	0.598	USEPA, various years
Proportion anaerobic with primary treatment	2001	0.61	USEPA, various years
Proportion anaerobic with primary treatment	2002	0.623	USEPA, various years
Proportion anaerobic with primary treatment	2003	0.635	USEPA, various years
Proportion anaerobic with primary treatment	2004	0.647	USEPA, various years
Proportion anaerobic with primary treatment	2005	0.659	USEPA, various years
Proportion anaerobic with primary treatment	2006	0.672	USEPA, various years
Proportion anaerobic with primary treatment	2007	0.684	USEPA, various years
Proportion anaerobic with primary treatment	2008	0.696	USEPA, various years
Proportion anaerobic with primary treatment	2009	0.708	USEPA, various years
Proportion anaerobic without primary treatment	2000	0.402	USEPA, various years
Proportion anaerobic without primary treatment	2001	0.39	USEPA, various years
Proportion anaerobic without primary treatment	2002	0.378	USEPA, various years
Proportion anaerobic without primary treatment	2003	0.365	USEPA, various years
Proportion anaerobic without primary treatment	2004	0.353	USEPA, various years
Proportion anaerobic without primary treatment	2005	0.341	USEPA, various years
Proportion anaerobic without primary treatment	2006	0.329	USEPA, various years
Proportion anaerobic without primary treatment	2007	0.316	USEPA, various years
Proportion anaerobic without primary treatment	2008	0.304	USEPA, various years
Proportion anaerobic without primary treatment	2009	0.292	USEPA, various years
Proportion centrally treated	2000	0.9	CWTRC, 2003
Proportion centrally treated	2001	0.9	CWTRC, 2003
Proportion centrally treated	2002	0.9	CWTRC, 2003
Proportion centrally treated	2003	0.9	CWTRC, 2003
Proportion centrally treated	2004	0.9	CWTRC, 2003
Proportion centrally treated	2005	0.9	CWTRC, 2003
Proportion centrally treated	2006	0.9	CWTRC, 2003
Proportion centrally treated	2007	0.9	CWTRC, 2003
Proportion centrally treated	2008	0.9	CWTRC, 2003
Proportion centrally treated	2009	0.9	CWTRC, 2003
Proportion of BOD removed in primary treatment	2000	0.325	USEPA, 2011b
Proportion of BOD removed in primary treatment	2001	0.325	USEPA, 2011b
Proportion of BOD removed in primary treatment	2002	0.325	USEPA, 2011b
Proportion of BOD removed in primary treatment	2003	0.325	USEPA, 2011b
Proportion of BOD removed in primary treatment	2004	0.325	USEPA, 2011b
Proportion of BOD removed in primary treatment	2005	0.325	USEPA, 2011b
Proportion of BOD removed in primary treatment	2006	0.325	USEPA, 2011b
Proportion of BOD removed in primary treatment	2007	0.325	USEPA, 2011b
Proportion of BOD removed in primary treatment	2008	0.325	USEPA, 2011b
Proportion of BOD removed in primary treatment	2009	0.325	USEPA, 2011b

► ***Sector = Wastewater Treatment : Domestic Wastewater : Effluent Emissions >***

Activity = California population

- Variable Name -	*- Year -*	*- Value and Units -*	*- Reference -*
California population	2000	33,873,086 person	CDOF, 2011
California population	2001	34,256,789 person	CDOF, 2011

California population	2002	34,725,516 person	CDOF, 2011
California population	2003	35,163,609 person	CDOF, 2011
California population	2004	35,570,847 person	CDOF, 2011
California population	2005	35,869,173 person	CDOF, 2011
California population	2006	36,116,202 person	CDOF, 2011
California population	2007	36,399,676 person	CDOF, 2011
California population	2008	36,704,375 person	CDOF, 2011
California population	2009	36,966,713 person	CDOF, 2011
CA population served by biological denitrification	2000	312,121 Person	ARB, 2011 (itself)
CA population served by biological denitrification	2001	312,463 Person	ARB, 2011 (itself)
CA population served by biological denitrification	2002	313,771 Person	ARB, 2011 (itself)
CA population served by biological denitrification	2003	314,997 Person	ARB, 2011 (itself)
CA population served by biological denitrification	2004	291,428 Person	ARB, 2011 (itself)
CA population served by biological denitrification	2005	291,206 Person	ARB, 2011 (itself)
CA population served by biological denitrification	2006	290,447 Person	ARB, 2011 (itself)
CA population served by biological denitrification	2007	289,850 Person	ARB, 2011 (itself)
CA population served by biological denitrification	2008	289,602 Person	ARB, 2011 (itself)
CA population served by biological denitrification	2009	289,314 Person	ARB, 2011 (itself)
Effluent water emission factor	2000	5.000E-03 g / g	USEPA, 2011b
Effluent water emission factor	2001	5.000E-03 g / g	USEPA, 2011b
Effluent water emission factor	2002	5.000E-03 g / g	USEPA, 2011b
Effluent water emission factor	2003	5.000E-03 g / g	USEPA, 2011b
Effluent water emission factor	2004	5.000E-03 g / g	USEPA, 2011b
Effluent water emission factor	2005	5.000E-03 g / g	USEPA, 2011b
Effluent water emission factor	2006	5.000E-03 g / g	USEPA, 2011b
Effluent water emission factor	2007	5.000E-03 g / g	USEPA, 2011b
Effluent water emission factor	2008	5.000E-03 g / g	USEPA, 2011b
Effluent water emission factor	2009	5.000E-03 g / g	USEPA, 2011b
Fraction of nitrogen in protein	2000	0.16 g / g	USEPA, 2011b
Fraction of nitrogen in protein	2001	0.16 g / g	USEPA, 2011b
Fraction of nitrogen in protein	2002	0.16 g / g	USEPA, 2011b
Fraction of nitrogen in protein	2003	0.16 g / g	USEPA, 2011b
Fraction of nitrogen in protein	2004	0.16 g / g	USEPA, 2011b
Fraction of nitrogen in protein	2005	0.16 g / g	USEPA, 2011b
Fraction of nitrogen in protein	2006	0.16 g / g	USEPA, 2011b
Fraction of nitrogen in protein	2007	0.16 g / g	USEPA, 2011b
Fraction of nitrogen in protein	2008	0.16 g / g	USEPA, 2011b
Fraction of nitrogen in protein	2009	0.16 g / g	USEPA, 2011b
Industrial and commercial codischarge factor	2000	1.25	USEPA, 2011b
Industrial and commercial codischarge factor	2001	1.25	USEPA, 2011b
Industrial and commercial codischarge factor	2002	1.25	USEPA, 2011b
Industrial and commercial codischarge factor	2003	1.25	USEPA, 2011b
Industrial and commercial codischarge factor	2004	1.25	USEPA, 2011b
Industrial and commercial codischarge factor	2005	1.25	USEPA, 2011b
Industrial and commercial codischarge factor	2006	1.25	USEPA, 2011b
Industrial and commercial codischarge factor	2007	1.25	USEPA, 2011b
Industrial and commercial codischarge factor	2008	1.25	USEPA, 2011b
Industrial and commercial codischarge factor	2009	1.25	USEPA, 2011b
Non-consumption protein factor	2000	1.4	USEPA, 2011b
Non-consumption protein factor	2001	1.4	USEPA, 2011b
Non-consumption protein factor	2002	1.4	USEPA, 2011b
Non-consumption protein factor	2003	1.4	USEPA, 2011b
Non-consumption protein factor	2004	1.4	USEPA, 2011b
Non-consumption protein factor	2005	1.4	USEPA, 2011b
Non-consumption protein factor	2006	1.4	USEPA, 2011b

Non-consumption protein factor	2007	1.4	USEPA, 2011b
Non-consumption protein factor	2008	1.4	USEPA, 2011b
Non-consumption protein factor	2009	1.4	USEPA, 2011b
Protein consumption rate	2000	31,600 g / person / year	USEPA, 2011b
Protein consumption rate	2001	32,100 g / person / year	USEPA, 2011b
Protein consumption rate	2002	31,300 g / person / year	USEPA, 2011b
Protein consumption rate	2003	31,300 g / person / year	USEPA, 2011b
Protein consumption rate	2004	31,600 g / person / year	USEPA, 2011b
Protein consumption rate	2005	32,100 g / person / year	USEPA, 2011b
Protein consumption rate	2006	32,100 g / person / year	USEPA, 2011b
Protein consumption rate	2007	32,200 g / person / year	USEPA, 2011b
Protein consumption rate	2008	32,400 g / person / year	USEPA, 2011b
Protein consumption rate	2009	32,500 g / person / year	USEPA, 2011b
Sewage sludge N not entering aquatic environment	2000	29.7 Gg (thousand tonnes)	ARB, 2011 (itself)
Sewage sludge N not entering aquatic environment	2001	30.08 Gg (thousand tonnes)	ARB, 2011 (itself)
Sewage sludge N not entering aquatic environment	2002	30.55 Gg (thousand tonnes)	ARB, 2011 (itself)
Sewage sludge N not entering aquatic environment	2003	30.99 Gg (thousand tonnes)	ARB, 2011 (itself)
Sewage sludge N not entering aquatic environment	2004	31.38 Gg (thousand tonnes)	ARB, 2011 (itself)
Sewage sludge N not entering aquatic environment	2005	32.28 Gg (thousand tonnes)	ARB, 2011 (itself)
Sewage sludge N not entering aquatic environment	2006	32.67 Gg (thousand tonnes)	ARB, 2011 (itself)
Sewage sludge N not entering aquatic environment	2007	33.03 Gg (thousand tonnes)	ARB, 2011 (itself)
Sewage sludge N not entering aquatic environment	2008	33.43 Gg (thousand tonnes)	ARB, 2011 (itself)
Sewage sludge N not entering aquatic environment	2009	33.82 Gg (thousand tonnes)	ARB, 2011 (itself)

► *Sector = Wastewater Treatment : Domestic Wastewater : Plant Emissions >*

Activity = California population

- Variable Name -	- Year -	- Value and Units -	- Reference -
California population	2000	33,873,086 person	CDOF, 2011
California population	2001	34,256,789 person	CDOF, 2011
California population	2002	34,725,516 person	CDOF, 2011
California population	2003	35,163,609 person	CDOF, 2011
California population	2004	35,570,847 person	CDOF, 2011
California population	2005	35,869,173 person	CDOF, 2011
California population	2006	36,116,202 person	CDOF, 2011
California population	2007	36,399,676 person	CDOF, 2011
California population	2008	36,704,375 person	CDOF, 2011
California population	2009	36,966,713 person	CDOF, 2011
CA population served by biological denitrification	2000	312,121 Person	ARB, 2011 (itself)
CA population served by biological denitrification	2001	312,463 Person	ARB, 2011 (itself)
CA population served by biological denitrification	2002	313,771 Person	ARB, 2011 (itself)
CA population served by biological denitrification	2003	314,997 Person	ARB, 2011 (itself)
CA population served by biological denitrification	2004	291,428 Person	ARB, 2011 (itself)
CA population served by biological denitrification	2005	291,206 Person	ARB, 2011 (itself)
CA population served by biological denitrification	2006	290,447 Person	ARB, 2011 (itself)
CA population served by biological denitrification	2007	289,850 Person	ARB, 2011 (itself)
CA population served by biological denitrification	2008	289,602 Person	ARB, 2011 (itself)
CA population served by biological denitrification	2009	289,314 Person	ARB, 2011 (itself)
Emission factor w/o nitrification denitrification	2000	3.2 g / person	USEPA, 2011b
Emission factor w/o nitrification denitrification	2001	3.2 g / person	USEPA, 2011b
Emission factor w/o nitrification denitrification	2002	3.2 g / person	USEPA, 2011b
Emission factor w/o nitrification denitrification	2003	3.2 g / person	USEPA, 2011b
Emission factor w/o nitrification denitrification	2004	3.2 g / person	USEPA, 2011b
Emission factor w/o nitrification denitrification	2005	3.2 g / person	USEPA, 2011b
Emission factor w/o nitrification denitrification	2006	3.2 g / person	USEPA, 2011b
Emission factor w/o nitrification denitrification	2007	3.2 g / person	USEPA, 2011b

Emission factor w/o nitrification denitrification	2008	3.2 g / person	USEPA, 2011b
Emission factor w/o nitrification denitrification	2009	3.2 g / person	USEPA, 2011b
Emission factor with nitrification denitrification	2000	7 g / person	USEPA, 2011b
Emission factor with nitrification denitrification	2001	7 g / person	USEPA, 2011b
Emission factor with nitrification denitrification	2002	7 g / person	USEPA, 2011b
Emission factor with nitrification denitrification	2003	7 g / person	USEPA, 2011b
Emission factor with nitrification denitrification	2004	7 g / person	USEPA, 2011b
Emission factor with nitrification denitrification	2005	7 g / person	USEPA, 2011b
Emission factor with nitrification denitrification	2006	7 g / person	USEPA, 2011b
Emission factor with nitrification denitrification	2007	7 g / person	USEPA, 2011b
Emission factor with nitrification denitrification	2008	7 g / person	USEPA, 2011b
Emission factor with nitrification denitrification	2009	7 g / person	USEPA, 2011b
Fraction using wastewater treatment plants	2000	0.9	CWTRC, 2003
Fraction using wastewater treatment plants	2001	0.9	CWTRC, 2003
Fraction using wastewater treatment plants	2002	0.9	CWTRC, 2003
Fraction using wastewater treatment plants	2003	0.9	CWTRC, 2003
Fraction using wastewater treatment plants	2004	0.9	CWTRC, 2003
Fraction using wastewater treatment plants	2005	0.9	CWTRC, 2003
Fraction using wastewater treatment plants	2006	0.9	CWTRC, 2003
Fraction using wastewater treatment plants	2007	0.9	CWTRC, 2003
Fraction using wastewater treatment plants	2008	0.9	CWTRC, 2003
Fraction using wastewater treatment plants	2009	0.9	CWTRC, 2003
Industrial and commercial codischarge factor	2000	1.25	USEPA, 2011b
Industrial and commercial codischarge factor	2001	1.25	USEPA, 2011b
Industrial and commercial codischarge factor	2002	1.25	USEPA, 2011b
Industrial and commercial codischarge factor	2003	1.25	USEPA, 2011b
Industrial and commercial codischarge factor	2004	1.25	USEPA, 2011b
Industrial and commercial codischarge factor	2005	1.25	USEPA, 2011b
Industrial and commercial codischarge factor	2006	1.25	USEPA, 2011b
Industrial and commercial codischarge factor	2007	1.25	USEPA, 2011b
Industrial and commercial codischarge factor	2008	1.25	USEPA, 2011b
Industrial and commercial codischarge factor	2009	1.25	USEPA, 2011b

► *Sector = Wastewater Treatment : Domestic Wastewater : Septic Systems >*

Activity = California population

- Variable Name -	- Year -	- Value and Units -	- Reference -
California population	2000	33,873,086 person	CDOF, 2011
California population	2001	34,256,789 person	CDOF, 2011
California population	2002	34,725,516 person	CDOF, 2011
California population	2003	35,163,609 person	CDOF, 2011
California population	2004	35,570,847 person	CDOF, 2011
California population	2005	35,869,173 person	CDOF, 2011
California population	2006	36,116,202 person	CDOF, 2011
California population	2007	36,399,676 person	CDOF, 2011
California population	2008	36,704,375 person	CDOF, 2011
California population	2009	36,966,713 person	CDOF, 2011
Maximum methane production capacity	2000	0.6 g / g	USEPA, 2011b
Maximum methane production capacity	2001	0.6 g / g	USEPA, 2011b
Maximum methane production capacity	2002	0.6 g / g	USEPA, 2011b
Maximum methane production capacity	2003	0.6 g / g	USEPA, 2011b
Maximum methane production capacity	2004	0.6 g / g	USEPA, 2011b
Maximum methane production capacity	2005	0.6 g / g	USEPA, 2011b
Maximum methane production capacity	2006	0.6 g / g	USEPA, 2011b
Maximum methane production capacity	2007	0.6 g / g	USEPA, 2011b
Maximum methane production capacity	2008	0.6 g / g	USEPA, 2011b

Maximum methane production capacity	2009	0.6 g / g	USEPA, 2011b
Methane correction factor for septic systems	2000	0.5	USEPA, 2011b
Methane correction factor for septic systems	2001	0.5	USEPA, 2011b
Methane correction factor for septic systems	2002	0.5	USEPA, 2011b
Methane correction factor for septic systems	2003	0.5	USEPA, 2011b
Methane correction factor for septic systems	2004	0.5	USEPA, 2011b
Methane correction factor for septic systems	2005	0.5	USEPA, 2011b
Methane correction factor for septic systems	2006	0.5	USEPA, 2011b
Methane correction factor for septic systems	2007	0.5	USEPA, 2011b
Methane correction factor for septic systems	2008	0.5	USEPA, 2011b
Methane correction factor for septic systems	2009	0.5	USEPA, 2011b
Per capita biological organic demand (BOD5)	2000	90 g / person / day	USEPA, 2011b
Per capita biological organic demand (BOD5)	2001	90 g / person / day	USEPA, 2011b
Per capita biological organic demand (BOD5)	2002	90 g / person / day	USEPA, 2011b
Per capita biological organic demand (BOD5)	2003	90 g / person / day	USEPA, 2011b
Per capita biological organic demand (BOD5)	2004	90 g / person / day	USEPA, 2011b
Per capita biological organic demand (BOD5)	2005	90 g / person / day	USEPA, 2011b
Per capita biological organic demand (BOD5)	2006	90 g / person / day	USEPA, 2011b
Per capita biological organic demand (BOD5)	2007	90 g / person / day	USEPA, 2011b
Per capita biological organic demand (BOD5)	2008	90 g / person / day	USEPA, 2011b
Per capita biological organic demand (BOD5)	2009	90 g / person / day	USEPA, 2011b
Proportion in septic systems	2000	0.1	CWTRC, 2003
Proportion in septic systems	2001	0.1	CWTRC, 2003
Proportion in septic systems	2002	0.1	CWTRC, 2003
Proportion in septic systems	2003	0.1	CWTRC, 2003
Proportion in septic systems	2004	0.1	CWTRC, 2003
Proportion in septic systems	2005	0.1	CWTRC, 2003
Proportion in septic systems	2006	0.1	CWTRC, 2003
Proportion in septic systems	2007	0.1	CWTRC, 2003
Proportion in septic systems	2008	0.1	CWTRC, 2003
Proportion in septic systems	2009	0.1	CWTRC, 2003

IPCC category = 4D2 — Wastewater Treatment and Discharge - Industrial Wastewater Treatment and Discharge

► *Sector = Manufacturing : Wastewater Treatment : Fugitives >*

Activity = Fugitive emissions

- Variable Name -	*- Year -*	*- Value and Units -*	*- Reference -*
Fugitive emissions	2000	Not used in estimates	None, see text
Fugitive emissions	2001	Not used in estimates	None, see text
Fugitive emissions	2002	Not used in estimates	None, see text
Fugitive emissions	2003	Not used in estimates	None, see text
Fugitive emissions	2004	Not used in estimates	None, see text
Fugitive emissions	2005	Not used in estimates	None, see text
Fugitive emissions	2006	Not used in estimates	None, see text
Fugitive emissions	2007	Not used in estimates	None, see text
Fugitive emissions	2008	Not used in estimates	None, see text
Fugitive emissions	2009	Not used in estimates	None, see text

► *Sector = Oil & Gas Extraction : Wastewater Treatment : Fugitives >*

Activity = Fugitive emissions

- Variable Name -	*- Year -*	*- Value and Units -*	*- Reference -*
Fugitive emissions	2000	Not used in estimates	None, see text
Fugitive emissions	2001	Not used in estimates	None, see text
Fugitive emissions	2002	Not used in estimates	None, see text
Fugitive emissions	2003	Not used in estimates	None, see text

Fugitive emissions	2004	Not used in estimates	None, see text
Fugitive emissions	2005	Not used in estimates	None, see text
Fugitive emissions	2006	Not used in estimates	None, see text
Fugitive emissions	2007	Not used in estimates	None, see text
Fugitive emissions	2008	Not used in estimates	None, see text
Fugitive emissions	2009	Not used in estimates	None, see text

► Sector = Petroleum Marketing : Wastewater Treatment : Fugitives >

Activity = Fugitive emissions

- Variable Name -	- Year -	- Value and Units -	- Reference -
Fugitive emissions	2000	Not used in estimates	None, see text
Fugitive emissions	2001	Not used in estimates	None, see text
Fugitive emissions	2002	Not used in estimates	None, see text
Fugitive emissions	2003	Not used in estimates	None, see text
Fugitive emissions	2004	Not used in estimates	None, see text
Fugitive emissions	2005	Not used in estimates	None, see text
Fugitive emissions	2006	Not used in estimates	None, see text
Fugitive emissions	2007	Not used in estimates	None, see text
Fugitive emissions	2008	Not used in estimates	None, see text
Fugitive emissions	2009	Not used in estimates	None, see text

► Sector = Wastewater Treatment : Industrial Wastewater >

Activity = Production processed - Apples

- Variable Name -	- Year -	- Value and Units -	- Reference -
Production processed - Apples	2000	231,540 tonne	USDA, 2011a
Production processed - Apples	2001	222,460 tonne	USDA, 2011a
Production processed - Apples	2002	208,840 tonne	USDA, 2011a
Production processed - Apples	2003	199,760 tonne	USDA, 2011a
Production processed - Apples	2004	161,170 tonne	USDA, 2011a
Production processed - Apples	2005	161,170 tonne	USDA, 2011a
Production processed - Apples	2006	161,170 tonne	USDA, 2011a
Production processed - Apples	2007	156,630 tonne	USDA, 2011a
Production processed - Apples	2008	163,440 tonne	USDA, 2011a
Production processed - Apples	2009	120,310 tonne	USDA, 2011a
Chemical oxygen demand (COD)	2000	2.06 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2001	2.06 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2002	2.06 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2003	2.06 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2004	2.06 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2005	2.06 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2006	2.06 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2007	2.06 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2008	2.06 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2009	2.06 g / l	ARB, 2011 (itself)
Maximum methane production capacity	2000	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2001	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2002	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2003	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2004	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2005	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2006	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2007	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2008	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2009	0.25 g / g	USEPA, 2011b
Methane correction factor for anaerobic systems	2000	0.8	USEPA, 2011b

Methane correction factor for anaerobic systems	2001	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2002	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2003	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2004	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2005	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2006	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2007	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2008	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2009	0.8	USEPA, 2011b
Proportion of COD treated anaerobically	2000	0.05	USEPA, 2011b
Proportion of COD treated anaerobically	2001	0.05	USEPA, 2011b
Proportion of COD treated anaerobically	2002	0.05	USEPA, 2011b
Proportion of COD treated anaerobically	2003	0.05	USEPA, 2011b
Proportion of COD treated anaerobically	2004	0.05	USEPA, 2011b
Proportion of COD treated anaerobically	2005	0.05	USEPA, 2011b
Proportion of COD treated anaerobically	2006	0.05	USEPA, 2011b
Proportion of COD treated anaerobically	2007	0.05	USEPA, 2011b
Proportion of COD treated anaerobically	2008	0.05	USEPA, 2011b
Proportion of COD treated anaerobically	2009	0.05	USEPA, 2011b
Wastewater outflow rate	2000	3,660 l / tonne	USEPA, 2011b
Wastewater outflow rate	2001	3,660 l / tonne	USEPA, 2011b
Wastewater outflow rate	2002	3,660 l / tonne	USEPA, 2011b
Wastewater outflow rate	2003	3,660 l / tonne	USEPA, 2011b
Wastewater outflow rate	2004	3,660 l / tonne	USEPA, 2011b
Wastewater outflow rate	2005	3,660 l / tonne	USEPA, 2011b
Wastewater outflow rate	2006	3,660 l / tonne	USEPA, 2011b
Wastewater outflow rate	2007	3,660 l / tonne	USEPA, 2011b
Wastewater outflow rate	2008	3,660 l / tonne	USEPA, 2011b
Wastewater outflow rate	2009	3,660 l / tonne	USEPA, 2011b

Activity = Production processed - Citrus fruit

- Variable Name -	*- Year -*	*- Value and Units -*	*- Reference -*
Production processed - Citrus fruit	2000	3,138,911 tonne	USDA, 2011a
Production processed - Citrus fruit	2001	2,902,059 tonne	USDA, 2011a
Production processed - Citrus fruit	2002	2,639,374 tonne	USDA, 2011a
Production processed - Citrus fruit	2003	3,204,877 tonne	USDA, 2011a
Production processed - Citrus fruit	2004	2,591,931 tonne	USDA, 2011a
Production processed - Citrus fruit	2005	3,187,852 tonne	USDA, 2011a
Production processed - Citrus fruit	2006	3,141,226 tonne	USDA, 2011a
Production processed - Citrus fruit	2007	2,491,098 tonne	USDA, 2011a
Production processed - Citrus fruit	2008	3,008,068 tonne	USDA, 2011a
Production processed - Citrus fruit	2009	2,682,050 tonne	USDA, 2011a
Chemical oxygen demand (COD)	2000	0.476 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2001	0.476 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2002	0.476 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2003	0.476 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2004	0.476 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2005	0.476 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2006	0.476 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2007	0.476 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2008	0.476 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2009	0.476 g / l	ARB, 2011 (itself)
Maximum methane production capacity	2000	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2001	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2002	0.25 g / g	USEPA, 2011b

Maximum methane production capacity	2003	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2004	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2005	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2006	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2007	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2008	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2009	0.25 g / g	USEPA, 2011b
Methane correction factor for anaerobic systems	2000	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2001	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2002	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2003	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2004	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2005	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2006	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2007	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2008	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2009	0.8	USEPA, 2011b
Proportion of COD treated anaerobically	2000	0.05	USEPA, 2011b
Proportion of COD treated anaerobically	2001	0.05	USEPA, 2011b
Proportion of COD treated anaerobically	2002	0.05	USEPA, 2011b
Proportion of COD treated anaerobically	2003	0.05	USEPA, 2011b
Proportion of COD treated anaerobically	2004	0.05	USEPA, 2011b
Proportion of COD treated anaerobically	2005	0.05	USEPA, 2011b
Proportion of COD treated anaerobically	2006	0.05	USEPA, 2011b
Proportion of COD treated anaerobically	2007	0.05	USEPA, 2011b
Proportion of COD treated anaerobically	2008	0.05	USEPA, 2011b
Proportion of COD treated anaerobically	2009	0.05	USEPA, 2011b
Wastewater outflow rate	2000	10,110 l / tonne	USEPA, 2011b
Wastewater outflow rate	2001	10,110 l / tonne	USEPA, 2011b
Wastewater outflow rate	2002	10,110 l / tonne	USEPA, 2011b
Wastewater outflow rate	2003	10,110 l / tonne	USEPA, 2011b
Wastewater outflow rate	2004	10,110 l / tonne	USEPA, 2011b
Wastewater outflow rate	2005	10,110 l / tonne	USEPA, 2011b
Wastewater outflow rate	2006	10,110 l / tonne	USEPA, 2011b
Wastewater outflow rate	2007	10,110 l / tonne	USEPA, 2011b
Wastewater outflow rate	2008	10,110 l / tonne	USEPA, 2011b
Wastewater outflow rate	2009	10,110 l / tonne	USEPA, 2011b

Activity = Production processed - Non-citrus fruit

- Variable Name -	*- Year -*	*- Value and Units -*	*- Reference -*
Production processed - Non-citrus fruit	2000	10,650,704 tonne	USDA, 2011a
Production processed - Non-citrus fruit	2001	9,443,836 tonne	USDA, 2011a
Production processed - Non-citrus fruit	2002	10,134,460 tonne	USDA, 2011a
Production processed - Non-citrus fruit	2003	9,396,256 tonne	USDA, 2011a
Production processed - Non-citrus fruit	2004	9,239,036 tonne	USDA, 2011a
Production processed - Non-citrus fruit	2005	10,245,890 tonne	USDA, 2011a
Production processed - Non-citrus fruit	2006	9,144,713 tonne	USDA, 2011a
Production processed - Non-citrus fruit	2007	9,988,463 tonne	USDA, 2011a
Production processed - Non-citrus fruit	2008	10,479,310 tonne	USDA, 2011a
Production processed - Non-citrus fruit	2009	10,329,871 tonne	USDA, 2011a
Chemical oxygen demand (COD)	2000	1.81 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2001	1.81 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2002	1.81 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2003	1.81 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2004	1.81 g / l	ARB, 2011 (itself)

Chemical oxygen demand (COD)	2005	1.81 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2006	1.81 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2007	1.81 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2008	1.81 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2009	1.81 g / l	ARB, 2011 (itself)
Maximum methane production capacity	2000	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2001	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2002	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2003	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2004	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2005	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2006	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2007	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2008	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2009	0.25 g / g	USEPA, 2011b
Methane correction factor for anaerobic systems	2000	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2001	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2002	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2003	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2004	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2005	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2006	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2007	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2008	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2009	0.8	USEPA, 2011b
Proportion of COD treated anaerobically	2000	0.05	USEPA, 2011b
Proportion of COD treated anaerobically	2001	0.05	USEPA, 2011b
Proportion of COD treated anaerobically	2002	0.05	USEPA, 2011b
Proportion of COD treated anaerobically	2003	0.05	USEPA, 2011b
Proportion of COD treated anaerobically	2004	0.05	USEPA, 2011b
Proportion of COD treated anaerobically	2005	0.05	USEPA, 2011b
Proportion of COD treated anaerobically	2006	0.05	USEPA, 2011b
Proportion of COD treated anaerobically	2007	0.05	USEPA, 2011b
Proportion of COD treated anaerobically	2008	0.05	USEPA, 2011b
Proportion of COD treated anaerobically	2009	0.05	USEPA, 2011b
Wastewater outflow rate	2000	12,417 l / tonne	USEPA, 2011b
Wastewater outflow rate	2001	12,417 l / tonne	USEPA, 2011b
Wastewater outflow rate	2002	12,417 l / tonne	USEPA, 2011b
Wastewater outflow rate	2003	12,417 l / tonne	USEPA, 2011b
Wastewater outflow rate	2004	12,417 l / tonne	USEPA, 2011b
Wastewater outflow rate	2005	12,417 l / tonne	USEPA, 2011b
Wastewater outflow rate	2006	12,417 l / tonne	USEPA, 2011b
Wastewater outflow rate	2007	12,417 l / tonne	USEPA, 2011b
Wastewater outflow rate	2008	12,417 l / tonne	USEPA, 2011b
Wastewater outflow rate	2009	12,417 l / tonne	USEPA, 2011b

Activity = Production processed - Other vegetables

- Variable Name -	*- Year -*	*- Value and Units -*	*- Reference -*
Production processed - Other vegetables	2000	22,032,611 tonne	USDA, 2011a
Production processed - Other vegetables	2001	20,153,112 tonne	USDA, 2011a
Production processed - Other vegetables	2002	24,895,576 tonne	USDA, 2011a
Production processed - Other vegetables	2003	21,250,120 tonne	USDA, 2011a
Production processed - Other vegetables	2004	24,104,905 tonne	USDA, 2011a
Production processed - Other vegetables	2005	22,073,157 tonne	USDA, 2011a
Production processed - Other vegetables	2006	22,300,587 tonne	USDA, 2011a

Production processed - Other vegetables	2007	24,166,307 tonne	USDA, 2011a
Production processed - Other vegetables	2008	21,944,810 tonne	USDA, 2011a
Production processed - Other vegetables	2009	23,058,851 tonne	USDA, 2011a
Chemical oxygen demand (COD)	2000	1.22 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2001	1.22 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2002	1.22 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2003	1.22 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2004	1.22 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2005	1.22 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2006	1.22 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2007	1.22 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2008	1.22 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2009	1.22 g / l	ARB, 2011 (itself)
Maximum methane production capacity	2000	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2001	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2002	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2003	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2004	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2005	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2006	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2007	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2008	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2009	0.25 g / g	USEPA, 2011b
Methane correction factor for anaerobic systems	2000	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2001	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2002	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2003	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2004	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2005	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2006	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2007	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2008	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2009	0.8	USEPA, 2011b
Proportion of COD treated anaerobically	2000	0.05	USEPA, 2011b
Proportion of COD treated anaerobically	2001	0.05	USEPA, 2011b
Proportion of COD treated anaerobically	2002	0.05	USEPA, 2011b
Proportion of COD treated anaerobically	2003	0.05	USEPA, 2011b
Proportion of COD treated anaerobically	2004	0.05	USEPA, 2011b
Proportion of COD treated anaerobically	2005	0.05	USEPA, 2011b
Proportion of COD treated anaerobically	2006	0.05	USEPA, 2011b
Proportion of COD treated anaerobically	2007	0.05	USEPA, 2011b
Proportion of COD treated anaerobically	2008	0.05	USEPA, 2011b
Proportion of COD treated anaerobically	2009	0.05	USEPA, 2011b
Wastewater outflow rate	2000	8,857 l / tonne	USEPA, 2011b
Wastewater outflow rate	2001	8,857 l / tonne	USEPA, 2011b
Wastewater outflow rate	2002	8,857 l / tonne	USEPA, 2011b
Wastewater outflow rate	2003	8,857 l / tonne	USEPA, 2011b
Wastewater outflow rate	2004	8,857 l / tonne	USEPA, 2011b
Wastewater outflow rate	2005	8,857 l / tonne	USEPA, 2011b
Wastewater outflow rate	2006	8,857 l / tonne	USEPA, 2011b
Wastewater outflow rate	2007	8,857 l / tonne	USEPA, 2011b
Wastewater outflow rate	2008	8,857 l / tonne	USEPA, 2011b
Wastewater outflow rate	2009	8,857 l / tonne	USEPA, 2011b

Activity = Production processed - Potatoes

- Variable Name -	- Year -	- Value and Units -	- Reference -
Production processed - Potatoes	2000	758,634 tonne	USDA, 2011a
Production processed - Potatoes	2001	598,735 tonne	USDA, 2011a
Production processed - Potatoes	2002	774,933 tonne	USDA, 2011a
Production processed - Potatoes	2003	785,193 tonne	USDA, 2011a
Production processed - Potatoes	2004	801,809 tonne	USDA, 2011a
Production processed - Potatoes	2005	686,584 tonne	USDA, 2011a
Production processed - Potatoes	2006	687,901 tonne	USDA, 2011a
Production processed - Potatoes	2007	622,933 tonne	USDA, 2011a
Production processed - Potatoes	2008	667,562 tonne	USDA, 2011a
Production processed - Potatoes	2009	659,465 tonne	USDA, 2011a
Chemical oxygen demand (COD)	2000	2.65 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2001	2.65 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2002	2.65 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2003	2.65 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2004	2.65 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2005	2.65 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2006	2.65 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2007	2.65 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2008	2.65 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2009	2.65 g / l	ARB, 2011 (itself)
Maximum methane production capacity	2000	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2001	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2002	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2003	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2004	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2005	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2006	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2007	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2008	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2009	0.25 g / g	USEPA, 2011b
Methane correction factor for anaerobic systems	2000	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2001	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2002	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2003	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2004	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2005	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2006	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2007	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2008	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2009	0.8	USEPA, 2011b
Proportion of COD treated anaerobically	2000	0.05	USEPA, 2011b
Proportion of COD treated anaerobically	2001	0.05	USEPA, 2011b
Proportion of COD treated anaerobically	2002	0.05	USEPA, 2011b
Proportion of COD treated anaerobically	2003	0.05	USEPA, 2011b
Proportion of COD treated anaerobically	2004	0.05	USEPA, 2011b
Proportion of COD treated anaerobically	2005	0.05	USEPA, 2011b
Proportion of COD treated anaerobically	2006	0.05	USEPA, 2011b
Proportion of COD treated anaerobically	2007	0.05	USEPA, 2011b
Proportion of COD treated anaerobically	2008	0.05	USEPA, 2011b
Proportion of COD treated anaerobically	2009	0.05	USEPA, 2011b
Wastewater outflow rate	2000	10,270 l / tonne	USEPA, 2011b
Wastewater outflow rate	2001	10,270 l / tonne	USEPA, 2011b
Wastewater outflow rate	2002	10,270 l / tonne	USEPA, 2011b

Wastewater outflow rate	2003	10,270 l / tonne	USEPA, 2011b
Wastewater outflow rate	2004	10,270 l / tonne	USEPA, 2011b
Wastewater outflow rate	2005	10,270 l / tonne	USEPA, 2011b
Wastewater outflow rate	2006	10,270 l / tonne	USEPA, 2011b
Wastewater outflow rate	2007	10,270 l / tonne	USEPA, 2011b
Wastewater outflow rate	2008	10,270 l / tonne	USEPA, 2011b
Wastewater outflow rate	2009	10,270 l / tonne	USEPA, 2011b

Activity = Production processed - Poultry

- Variable Name -	- Year -	- Value and Units -	- Reference -
Production processed - Poultry	2000	745,370 tonne	USDA, 2011a
Production processed - Poultry	2001	754,808 tonne	USDA, 2011a
Production processed - Poultry	2002	753,814 tonne	USDA, 2011a
Production processed - Poultry	2003	748,954 tonne	USDA, 2011a
Production processed - Poultry	2004	751,349 tonne	USDA, 2011a
Production processed - Poultry	2005	747,242 tonne	USDA, 2011a
Production processed - Poultry	2006	766,066 tonne	USDA, 2011a
Production processed - Poultry	2007	780,323 tonne	USDA, 2011a
Production processed - Poultry	2008	777,776 tonne	USDA, 2011a
Production processed - Poultry	2009	761,712 tonne	USDA, 2011a
Chemical oxygen demand (COD)	2000	4.52 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2001	4.52 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2002	4.52 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2003	4.52 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2004	4.52 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2005	4.52 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2006	4.52 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2007	4.52 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2008	4.52 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2009	4.52 g / l	ARB, 2011 (itself)
Maximum methane production capacity	2000	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2001	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2002	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2003	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2004	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2005	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2006	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2007	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2008	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2009	0.25 g / g	USEPA, 2011b
Methane correction factor for anaerobic systems	2000	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2001	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2002	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2003	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2004	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2005	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2006	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2007	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2008	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2009	0.8	USEPA, 2011b
Proportion of COD treated anaerobically	2000	0.25	USEPA, 2011b
Proportion of COD treated anaerobically	2001	0.25	USEPA, 2011b
Proportion of COD treated anaerobically	2002	0.25	USEPA, 2011b
Proportion of COD treated anaerobically	2003	0.25	USEPA, 2011b
Proportion of COD treated anaerobically	2004	0.25	USEPA, 2011b

Proportion of COD treated anaerobically	2005	0.25	USEPA, 2011b
Proportion of COD treated anaerobically	2006	0.25	USEPA, 2011b
Proportion of COD treated anaerobically	2007	0.25	USEPA, 2011b
Proportion of COD treated anaerobically	2008	0.25	USEPA, 2011b
Proportion of COD treated anaerobically	2009	0.25	USEPA, 2011b
Wastewater outflow rate	2000	12,500 l / tonne	USEPA, 2011b
Wastewater outflow rate	2001	12,500 l / tonne	USEPA, 2011b
Wastewater outflow rate	2002	12,500 l / tonne	USEPA, 2011b
Wastewater outflow rate	2003	12,500 l / tonne	USEPA, 2011b
Wastewater outflow rate	2004	12,500 l / tonne	USEPA, 2011b
Wastewater outflow rate	2005	12,500 l / tonne	USEPA, 2011b
Wastewater outflow rate	2006	12,500 l / tonne	USEPA, 2011b
Wastewater outflow rate	2007	12,500 l / tonne	USEPA, 2011b
Wastewater outflow rate	2008	12,500 l / tonne	USEPA, 2011b
Wastewater outflow rate	2009	12,500 l / tonne	USEPA, 2011b

Activity = Production processed - Pulp and Paper

- Variable Name -	*- Year -*	*- Value and Units -*	*- Reference -*
Production processed - Pulp and Paper	2000	17,139,419 tonne	Calculation, see text
Production processed - Pulp and Paper	2001	16,137,094 tonne	Calculation, see text
Production processed - Pulp and Paper	2002	16,015,685 tonne	Calculation, see text
Production processed - Pulp and Paper	2003	15,974,996 tonne	Calculation, see text
Production processed - Pulp and Paper	2004	16,568,486 tonne	Calculation, see text
Production processed - Pulp and Paper	2005	15,940,863 tonne	Calculation, see text
Production processed - Pulp and Paper	2006	16,622,174 tonne	Calculation, see text
Production processed - Pulp and Paper	2007	16,411,499 tonne	Calculation, see text
Production processed - Pulp and Paper	2008	16,223,742 tonne	Calculation, see text
Production processed - Pulp and Paper	2009	16,511,204 tonne	Calculation, see text
CA to US Population ratio	2000	0.12	CDOF and US Census
CA to US Population ratio	2001	0.12	CDOF and US Census
CA to US Population ratio	2002	0.121	CDOF and US Census
CA to US Population ratio	2003	0.121	CDOF and US Census
CA to US Population ratio	2004	0.121	CDOF and US Census
CA to US Population ratio	2005	0.121	CDOF and US Census
CA to US Population ratio	2006	0.121	CDOF and US Census
CA to US Population ratio	2007	0.121	CDOF and US Census
CA to US Population ratio	2008	0.121	CDOF and US Census
CA to US Population ratio	2009	0.121	CDOF and US Census
Chemical oxygen demand (COD)	2000	0.8 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2001	0.8 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2002	0.8 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2003	0.8 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2004	0.8 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2005	0.8 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2006	0.8 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2007	0.8 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2008	0.8 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2009	0.8 g / l	ARB, 2011 (itself)
Maximum methane production capacity	2000	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2001	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2002	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2003	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2004	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2005	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2006	0.25 g / g	USEPA, 2011b

Maximum methane production capacity	2007	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2008	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2009	0.25 g / g	USEPA, 2011b
Methane correction factor for anaerobic systems	2000	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2001	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2002	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2003	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2004	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2005	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2006	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2007	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2008	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2009	0.8	USEPA, 2011b
National Production	2000	142,772,896 tonne	USEPA, 2011b
National Production	2001	134,276,248 tonne	USEPA, 2011b
National Production	2002	132,710,580 tonne	USEPA, 2011b
National Production	2003	131,858,341 tonne	USEPA, 2011b
National Production	2004	136,446,222 tonne	USEPA, 2011b
National Production	2005	131,377,808 tonne	USEPA, 2011b
National Production	2006	137,350,681 tonne	USEPA, 2011b
National Production	2007	135,889,159 tonne	USEPA, 2011b
National Production	2008	134,449,791 tonne	USEPA, 2011b
National Production	2009	136,968,212 tonne	USEPA, 2011b
Proportion of COD treated anaerobically	2000	0.105	USEPA, 2011b
Proportion of COD treated anaerobically	2001	0.105	USEPA, 2011b
Proportion of COD treated anaerobically	2002	0.105	USEPA, 2011b
Proportion of COD treated anaerobically	2003	0.105	USEPA, 2011b
Proportion of COD treated anaerobically	2004	0.105	USEPA, 2011b
Proportion of COD treated anaerobically	2005	0.105	USEPA, 2011b
Proportion of COD treated anaerobically	2006	0.105	USEPA, 2011b
Proportion of COD treated anaerobically	2007	0.105	USEPA, 2011b
Proportion of COD treated anaerobically	2008	0.105	USEPA, 2011b
Proportion of COD treated anaerobically	2009	0.105	USEPA, 2011b
Wastewater outflow rate	2000	85,000 l / tonne	USEPA, 2011b
Wastewater outflow rate	2001	85,000 l / tonne	USEPA, 2011b
Wastewater outflow rate	2002	85,000 l / tonne	USEPA, 2011b
Wastewater outflow rate	2003	85,000 l / tonne	USEPA, 2011b
Wastewater outflow rate	2004	85,000 l / tonne	USEPA, 2011b
Wastewater outflow rate	2005	85,000 l / tonne	USEPA, 2011b
Wastewater outflow rate	2006	85,000 l / tonne	USEPA, 2011b
Wastewater outflow rate	2007	85,000 l / tonne	USEPA, 2011b
Wastewater outflow rate	2008	85,000 l / tonne	USEPA, 2011b
Wastewater outflow rate	2009	85,000 l / tonne	USEPA, 2011b

Activity = Production processed - Red meat

- Variable Name -	*- Year -*	*- Value and Units -*	*- Reference -*
Production processed - Red meat	2000	487,732 tonne	USDA, 2011a
Production processed - Red meat	2001	513,883 tonne	USDA, 2011a
Production processed - Red meat	2002	614,262 tonne	USDA, 2011a
Production processed - Red meat	2003	648,221 tonne	USDA, 2011a
Production processed - Red meat	2004	648,721 tonne	USDA, 2011a
Production processed - Red meat	2005	666,971 tonne	USDA, 2011a
Production processed - Red meat	2006	729,850 tonne	USDA, 2011a
Production processed - Red meat	2007	759,270 tonne	USDA, 2011a
Production processed - Red meat	2008	766,397 tonne	USDA, 2011a

Production processed - Red meat	2009	773,525 tonne	USDA, 2011a
Chemical oxygen demand (COD)	2000	8.47 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2001	8.47 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2002	8.47 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2003	8.47 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2004	8.47 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2005	8.47 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2006	8.47 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2007	8.47 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2008	8.47 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2009	8.47 g / l	ARB, 2011 (itself)
Maximum methane production capacity	2000	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2001	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2002	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2003	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2004	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2005	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2006	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2007	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2008	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2009	0.25 g / g	USEPA, 2011b
Methane correction factor for anaerobic systems	2000	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2001	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2002	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2003	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2004	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2005	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2006	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2007	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2008	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2009	0.8	USEPA, 2011b
Proportion of COD treated anaerobically	2000	0.33	USEPA, 2011b
Proportion of COD treated anaerobically	2001	0.33	USEPA, 2011b
Proportion of COD treated anaerobically	2002	0.33	USEPA, 2011b
Proportion of COD treated anaerobically	2003	0.33	USEPA, 2011b
Proportion of COD treated anaerobically	2004	0.33	USEPA, 2011b
Proportion of COD treated anaerobically	2005	0.33	USEPA, 2011b
Proportion of COD treated anaerobically	2006	0.33	USEPA, 2011b
Proportion of COD treated anaerobically	2007	0.33	USEPA, 2011b
Proportion of COD treated anaerobically	2008	0.33	USEPA, 2011b
Proportion of COD treated anaerobically	2009	0.33	USEPA, 2011b
Wastewater outflow rate	2000	5,300 l / tonne	USEPA, 2011b
Wastewater outflow rate	2001	5,300 l / tonne	USEPA, 2011b
Wastewater outflow rate	2002	5,300 l / tonne	USEPA, 2011b
Wastewater outflow rate	2003	5,300 l / tonne	USEPA, 2011b
Wastewater outflow rate	2004	5,300 l / tonne	USEPA, 2011b
Wastewater outflow rate	2005	5,300 l / tonne	USEPA, 2011b
Wastewater outflow rate	2006	5,300 l / tonne	USEPA, 2011b
Wastewater outflow rate	2007	5,300 l / tonne	USEPA, 2011b
Wastewater outflow rate	2008	5,300 l / tonne	USEPA, 2011b
Wastewater outflow rate	2009	5,300 l / tonne	USEPA, 2011b

Activity = Production processed - Wine grapes

- Variable Name -	*- Year -*	*- Value and Units -*	*- Reference -*
Production processed - Wine grapes	2000	3,054,512 tonne	USDA, 2011a

Production processed - Wine grapes	2001	2,770,308 tonne	USDA, 2011a
Production processed - Wine grapes	2002	2,859,292 tonne	USDA, 2011a
Production processed - Wine grapes	2003	2,641,372 tonne	USDA, 2011a
Production processed - Wine grapes	2004	2,556,020 tonne	USDA, 2011a
Production processed - Wine grapes	2005	3,455,848 tonne	USDA, 2011a
Production processed - Wine grapes	2006	2,883,808 tonne	USDA, 2011a
Production processed - Wine grapes	2007	2,985,504 tonne	USDA, 2011a
Production processed - Wine grapes	2008	2,773,940 tonne	USDA, 2011a
Production processed - Wine grapes	2009	3,398,644 tonne	USDA, 2011a
Chemical oxygen demand (COD)	2000	2.75 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2001	2.75 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2002	2.75 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2003	2.75 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2004	2.75 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2005	2.75 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2006	2.75 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2007	2.75 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2008	2.75 g / l	ARB, 2011 (itself)
Chemical oxygen demand (COD)	2009	2.75 g / l	ARB, 2011 (itself)
Maximum methane production capacity	2000	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2001	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2002	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2003	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2004	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2005	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2006	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2007	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2008	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2009	0.25 g / g	USEPA, 2011b
Methane correction factor for anaerobic systems	2000	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2001	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2002	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2003	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2004	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2005	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2006	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2007	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2008	0.8	USEPA, 2011b
Methane correction factor for anaerobic systems	2009	0.8	USEPA, 2011b
Proportion of COD treated anaerobically	2000	0.05	USEPA, 2011b
Proportion of COD treated anaerobically	2001	0.05	USEPA, 2011b
Proportion of COD treated anaerobically	2002	0.05	USEPA, 2011b
Proportion of COD treated anaerobically	2003	0.05	USEPA, 2011b
Proportion of COD treated anaerobically	2004	0.05	USEPA, 2011b
Proportion of COD treated anaerobically	2005	0.05	USEPA, 2011b
Proportion of COD treated anaerobically	2006	0.05	USEPA, 2011b
Proportion of COD treated anaerobically	2007	0.05	USEPA, 2011b
Proportion of COD treated anaerobically	2008	0.05	USEPA, 2011b
Proportion of COD treated anaerobically	2009	0.05	USEPA, 2011b
Wastewater outflow rate	2000	2,783 l / tonne	USEPA, 2011b
Wastewater outflow rate	2001	2,783 l / tonne	USEPA, 2011b
Wastewater outflow rate	2002	2,783 l / tonne	USEPA, 2011b
Wastewater outflow rate	2003	2,783 l / tonne	USEPA, 2011b
Wastewater outflow rate	2004	2,783 l / tonne	USEPA, 2011b
Wastewater outflow rate	2005	2,783 l / tonne	USEPA, 2011b

Wastewater outflow rate	2006	2,783 l / tonne	USEPA, 2011b
Wastewater outflow rate	2007	2,783 l / tonne	USEPA, 2011b
Wastewater outflow rate	2008	2,783 l / tonne	USEPA, 2011b
Wastewater outflow rate	2009	2,783 l / tonne	USEPA, 2011b

Activity = Wastewater flow - Petroleum Refining

- Variable Name -	- Year -	- Value and Units -	- Reference -
Wastewater flow - Petroleum Refining	2000	78,896,518 m3 / year	Compilation, see text
Wastewater flow - Petroleum Refining	2001	79,278,485 m3 / year	Compilation, see text
Wastewater flow - Petroleum Refining	2002	81,417,526 m3 / year	Compilation, see text
Wastewater flow - Petroleum Refining	2003	82,331,703 m3 / year	Compilation, see text
Wastewater flow - Petroleum Refining	2004	83,825,389 m3 / year	Compilation, see text
Wastewater flow - Petroleum Refining	2005	85,528,938 m3 / year	Compilation, see text
Wastewater flow - Petroleum Refining	2006	85,035,945 m3 / year	Compilation, see text
Wastewater flow - Petroleum Refining	2007	82,603,836 m3 / year	Compilation, see text
Wastewater flow - Petroleum Refining	2008	84,741,421 m3 / year	Compilation, see text
Wastewater flow - Petroleum Refining	2009	79,113,668 m3 / year	Compilation, see text
Chemical oxygen demand (COD)	2000	450 g / m3	USEPA, 2011b
Chemical oxygen demand (COD)	2001	450 g / m3	USEPA, 2011b
Chemical oxygen demand (COD)	2002	450 g / m3	USEPA, 2011b
Chemical oxygen demand (COD)	2003	450 g / m3	USEPA, 2011b
Chemical oxygen demand (COD)	2004	450 g / m3	USEPA, 2011b
Chemical oxygen demand (COD)	2005	450 g / m3	USEPA, 2011b
Chemical oxygen demand (COD)	2006	450 g / m3	USEPA, 2011b
Chemical oxygen demand (COD)	2007	450 g / m3	USEPA, 2011b
Chemical oxygen demand (COD)	2008	450 g / m3	USEPA, 2011b
Chemical oxygen demand (COD)	2009	450 g / m3	USEPA, 2011b
Maximum methane production capacity	2000	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2001	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2002	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2003	0.25 g / g	USEPA, 2011b
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Maximum methane production capacity	2005	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2006	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2007	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2008	0.25 g / g	USEPA, 2011b
Maximum methane production capacity	2009	0.25 g / g	USEPA, 2011b
Methane correction factor for anaerobic systems	2000	0.3	USEPA, 2011b
Methane correction factor for anaerobic systems	2001	0.3	USEPA, 2011b
Methane correction factor for anaerobic systems	2002	0.3	USEPA, 2011b
Methane correction factor for anaerobic systems	2003	0.3	USEPA, 2011b
Methane correction factor for anaerobic systems	2004	0.3	USEPA, 2011b
Methane correction factor for anaerobic systems	2005	0.3	USEPA, 2011b
Methane correction factor for anaerobic systems	2006	0.3	USEPA, 2011b
Methane correction factor for anaerobic systems	2007	0.3	USEPA, 2011b
Methane correction factor for anaerobic systems	2008	0.3	USEPA, 2011b
Methane correction factor for anaerobic systems	2009	0.3	USEPA, 2011b