

Table A-14. Napa County Cap Measures Detailed Summary

Measure #	Measure	GHG Reductions in 2020 (MTCO ₂ e)	Description	Key Assumptions and Data Sources
A. STATE MEASURES				
S-1	AB 1493 Pavley I and II	50,790	Vehicle Efficiency Standards.	EMFAC fleet distribution for 2020. Adjusted emission factors developed by ICF based on ARB Technical Assessments. http://www.arb.ca.gov/cc/ccms/ccms.htm
S-2	Low Carbon Fuel Standard	19,530	10% reduction in carbon intensity in fuels by 2020.	Applied expected statewide reductions as estimated for the AB32 Scoping Plan to Napa County's 2020 emissions (all vehicles). http://www.arb.ca.gov/cc/scopingplan/document/scopingplandocument.htm
S-3	Other Vehicle Efficiency Measures	4,600	Vehicle efficiency (tire pressure, low friction oils, heavy-duty aerodynamic/rolling resistance improvements.	The AB 32 Scoping Plan includes vehicle efficiency measures (in addition to Pavley and LCFS) that focus on maintenance practices. The Tire Pressure Program will increase vehicle efficiency by assuring properly inflated automobile tires to reduce rolling resistance. The Low Friction Oils Program will increase vehicle efficiency by mandating the use of engine oils that meet certain low friction specifications. The Heavy-Duty Vehicle GHG Emission Reduction Program will increase heavy-duty vehicle (long-haul trucks) efficiency by requiring installation of best available technology and/or CARB approved technology to reduce aerodynamic drag and rolling resistance. Applied expected statewide reductions as estimated for the AB32 Scoping Plan to Napa County's 2020 emissions. http://www.arb.ca.gov/cc/scopingplan/document/scopingplandocument.htm

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S-4	Renewable Portfolio Standard	17,310	Electricity generation from 33% qualified renewable sources.	Followed methodology in the ARB Scoping Plan Appendix I. http://www.arb.ca.gov/cc/scopingplan/document/scopingplandocument.htm Accounted for all kwh gained through energy efficiency, water efficiency, and renewables before applying the RPS.
S-5	Landfill Methane Regulation	4,250	Requirement for methane capture at certain landfills.	Waste generated in Napa County currently goes to Clover Flat Landfill and Keller Canyon Landfills. Both of these landfills are listed in the ARB's databases as currently flaring methane gas. 75 % destruction efficiency was assumed for the inventory and BAU forecast. Assumed that both landfills will have a destruction efficiency of 85% either through GTE or other technologies as specified in the ARB's rule by 2020. http://www.arb.ca.gov/regact/2009/landfills09/isor.pdf
TOTAL STATE MEASURES:		96,480		

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B. LOCAL ENERGY EFFICIENCY MEASURES				
EE-1	Green Building Ordinance (Meet Title 24, including Cal-Green)	3,670	New (residential and commercial) development required to adhere to the current version of Title 24 at the time of project approval.	<p>Assumed 1341 D.U. constructed between 2005 and 2020 (based on 2235 built by 2030 -DEIR Alt A p 3.0-14).</p> <p>Assumed 2.876 sqft of commercial space constructed between 2005 and 2020 (Keyser Marston- Land Use Study DEIR Appendix B). Used an average of yearly construction rate for the period 1985-2005 (p.12).</p> <p>Used ICF's calculation of the average increase in efficiency for buildings built over this time as Title 24 continually updates relative to the baseline year. Results in a population of "new" (built between 2007 and 2020) buildings being on average 26% more efficient in electricity and natural gas relative to the existing population in 2007. The stock of new commercial buildings in 2020 is assumed to be on average 13% more efficient than the 2007 stock.</p> <p>Emissions factors provided by PG&E for 2007 were assumed for avoided GHG emissions in 2020.</p> <p>ICF used CAPP vB.2 (residential and commercial building code Tabs) to calculate therms and kwh saved and then used these results in conjunction with PGE emission factors. A bug was identified on the residential and commercial building code tabs in CAPP v1.3.</p>

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EE-2	Energy Efficiency Financing District and Promotion	940	<p>This measure assumes that the County will participate in an energy efficiency financing district for residential and commercial retrofits and otherwise facilitate energy efficiency retrofits through permit streamlining, outreach, and information. At this time, Property Assessed Clean Energy (PACE) style funding is not allowed by Fannie Mae/Freddie Mac for federally guaranteed residential loans (this does not affect commercial mortgages).</p> <p>Regardless of the fate of the residential finance district program, the County will promote residential energy efficiency incentives (through support of Energy Upgrade California for example). The County will also establish a commercial financing district so long as it can be established with other jurisdictions on a broader level for commercial energy-efficiency retrofits.</p>	<p>For residential energy efficiency, this measure assumes 2,400 retrofits will be completed by 2020 (equivalent to approximately 25% of the existing building stock) due to the combination of a financing district, other private and public incentives (such as Energy Upgrade California). Private participation would be voluntary. The County's role would be to promote the program, provide information, publicize success, and act as an information clearinghouse and resource to residents and businesses.</p> <p>Assumed retrofits achieved energy efficiency gains similar to those of Title 24 as a conservative estimate (i.e. retrofit homes are on average 26% more energy efficient). The specific EE gains would depend on several factors including: age of houses retrofit, aspects of building envelope that are eligible, and community response to financial incentives.</p> <p>ICF used CAPP v.1.3 (Efficiency Loans Tab) to estimate reductions.</p> <p>Commercial retrofit reductions not presently quantified but will be estimated as the commercial district is developed.</p>

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Measure #	Measure	GHG Reductions in 2020 (MTCO₂e)	Description	Key Assumptions and Data Sources
EE-3	Weatherization of Low-Income Homes	50	County would support a low-income weatherization program as implementation of General Plan (Objective H1a). Participation in this program would be voluntary although the County would take a more active role in promoting the program and identifying participants as it is a General Plan goal.	Assume 60 units weatherized by 2020 per communication with the County (Summer 2011) to exceed goals as stated in the General Plan (Objective H1a, Housing Element) to weatherized 30 homes. Assume CAPP (ICLEI CAPP software, http://www.icleiusa.org/cappa) default values for the increase in efficiency achieved for typical retrofits of single family homes. ICF used CAPP v.1.3 (Weatherization Tab).
EE-4	Plant Trees for Shading for Discretionary Projects	220	Requirement of tree planting as condition of approval of discretionary permit approval and additional tree planting. County's goal is planting 10,000 shade trees by 2020. Through a combination of permit requirements and County initiative.	The County processes on average 65-70 Use Permit applications per year for discretionary projects (personal communication, October 4, 2010). Were the goal of 10,000 trees to be achieved solely through permit requirements, 12-15 trees per project would be required. (As a point of reference, the CAPP default is 500 trees/year for municipalities that are slightly larger than Napa County, i.e. 5,000 trees by 2020). Assume 50% = mature trees providing shade in 2020 (5,000 trees). Used CAPP defaults for energy savings achieved.

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Measure #	Measure	GHG Reductions in 2020 (MTCO₂e)	Description	Key Assumptions and Data Sources
EE-5	Passive Design for Discretionary Projects	0	<p>The County has, at times, included Passive Design for Discretionary Projects as a separate GHG reduction measure in order to emphasize its support for the use of passive design.</p> <p>Use of passive design would be voluntary by individual project proponents.</p> <p>This is not a stand-alone measure. This could be one means for a project proponent to meet their Project Level GHG Reductions (Measure PL-1).</p>	<p>This measure is not quantifiable alone although it undoubtedly results in energy savings. Further, energy savings due to passive design are highly dependent on site location, other design features and end-use of the building and thus vary project to project.</p> <p>Because this analysis assumes that all future construction meets Title 24, an individual project that can demonstrate the kwh saved through passive design would represent additional GHG reductions relative to those achieved by the CAP and could be applied towards an individual project's GHG reduction goal under PL-1.</p>
EE-6	Napa Certified Winery Program	3,320	Voluntary increase in participation in Napa Certified Winery Program by existing wineries. Participation in this program is voluntary although interest is high. The County estimates that 90 wineries will be certified by 2020 (personal communication, August 2011).	<p>Data from 11 participating wineries examined and GHG benefits based on total electricity savings.</p> <p>Current participating wineries are 28.</p> <p>Savings achieved by participating wineries considered to be typical of new existing wineries that might chooses to participate in the future (90 total).</p> <p>Reflects wineries that make retrofits to existing facilities NOT new construction</p> <p>County estimates that 90 wineries will be participating by 2020. These gains are captured and counted here.</p> <p>Does not include reductions in GHG emissions associated with winery wastewater.</p>
TOTAL EE SECTOR:		8,200		

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Measure #	Measure	GHG Reductions in 2020 (MTCO ₂ e)	Description	Key Assumptions and Data Sources
C. WATER EFFICIENCY MEASURES				
W-1	Comprehensive Water Efficiency Ordinance	20	<p>County promotion and support of voluntary water-efficiency related retrofits. Participation in this program would be voluntary by residents of existing homes. The County's on-going efforts include a water conservation newsletter, distribution of water saving devices and other activities described here: http://www.countyofnapa.org/WaterConservation/</p> <p>The County has set a goal to reduce residential water use in existing homes by an additional 10% by 2020, relative to BAU.</p> <p>GHG reductions reflect residents continuing response to outreach and education efforts by the County and state (on-going) related to water conservation.</p> <p>Reductions only included for existing development to avoid potential double-counting with project-level mitigation for new development (see PL-1).</p>	<p>The County will continue to offer programs and develop outreach materials to achieve this goal as part of its existing water conservation program. This goal is somewhat less aggressive than the state's overall goal of a 20% reduction in water consumption by 2020 for SBX77 which mandates a reduction of 20% in urban per capita water use for urban water retailers. Since only a portion of County residential and commercial uses are within areas served by urban water retailers, it is realistic to assume a goal less than 20% for the County as a whole. However, the 10% reduction goal is considered realistic in Napa, given the already water conscious nature of residents.</p> <p>Use 2020 Residential Water Use as reported in 2050 Napa Valley Water Resources Study, Tech Memo 3 (3640 afa). http://www.countyofnapa.org/Pages/Search.aspx?keywords=Water%20Resources%20Study)</p> <p>Assume that this measure applies to indoor and outdoor use in existing homes.</p> <p>Assume that the plan resulted in a 10% decrease in use in 2020 compared to BAU.</p>

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Measure #	Measure	GHG Reductions in 2020 (MTCO₂e)	Description	Key Assumptions and Data Sources
W-2	Landscape Ordinance	5	<p>This measure would be a requirement of new construction per the required landscape ordinance (AB 1881) and targets outdoor water use.</p> <p>Measures for new development for indoor water use would be covered through project-level mitigation (see PL-1)</p>	<p>The state's model landscape ordinance (AB 1881) is located here: http://www.water.ca.gov/wateruseefficiency/landscapeordinance/</p> <p>Quantification assumed this applies only to new residential construction (1341 D.U. by 2020 -based on 2235 built by 2030 -DEIR Alt A p 3.0-14).</p> <p>Expected water savings per home (approximately 13% savings relative to a new home with landscape not built to the ordinance) estimated from study performed by the California Home Builders Assoc. January 2010. http://www.cbia.org/go/cbia/?LinkServID=E242764F-88F9-4438-9992948EF86E49EA</p> <p>Additional savings for commercial construction not included, but likely to occur due to ordinance.</p>

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Measure #	Measure	GHG Reductions in 2020 (MTCO₂e)	Description	Key Assumptions and Data Sources
W-3	Recycled Water	0	Increase use of recycled water for irrigation. Napa currently uses a modest amount of recycled water to meet its annual demand (900 AF). Under this measure, the County would evaluate the potential for expansion of recycled water use, but no reduction credits are presently included as the feasibility of expanding recycled water use at this time is not known. Although unquantifiable at this time, the County has retained this measure as a separate GHG reduction action to indicate its support of increased use of recycled water in the future.	<p>The use of recycled water can reduce energy needs associated with pumping, transporting and treating water. Alternately, the construction of new recycled water facilities may result in additional energy use relative to the baseline year. In general, the largest energy savings associated with recycled water are in areas that rely on long distance transport of water.</p> <p>Because unincorporated Napa County obtains much of its needed water from groundwater supplies and uses only limited water from, the State Water Project (via City of Napa which provides water to unincorporated areas around the City which derives approximately 40% of its water from the State Water Project)¹, the energy intensity of water use is very low in the County i.e. it is not a major source of GHG emissions.</p> <p>The 2020 BAU projection assumed that the unincorporated County would continue to be able to meet water demands without a change in water sources or an increase in imported water. If in the future, the County does require increased water imports to meet demand, then the energy intensity of water used in the County could increase. Water demand that can be met locally with recycled water would then result in greater energy savings and GHG reductions than calculated herein, which does not include imported water embodied emissions.</p>

¹ The energy emissions associated with partial use of imported water for certain residential, commercial and agricultural users who receive water from the City of Napa was not included in the GHG inventory and forecast for this document. This is noted as an area of potential improvement in future updates to this CAP to more accurately reflect water-associated emissions and the full value of water conservation. The amount of emissions not included is not substantial but is recommended for future inclusion.

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W-4	Agricultural Water Conservation Programs	160	<p>Voluntary water conservation in agricultural sector.</p> <p>On-going County actions include: education materials (mail, web, through agencies), efficiency workshops specifically for agriculture/winery, coordination with other agencies, advertising rebate programs (personal communication, October 4, 2010).</p> <p>County water conservation efforts target agriculture end-use, winery end-use and residential/ commercial end use.</p> <p>Participation in this program is voluntary by Napa farmers and reflects their continued response to the County's outreach, education and conservation efforts.</p>	Assume that above listed efforts result in a 5% reduction in water consumption in agriculture and winery sectors as compared to BAU. The County considers this goal to be realistic additional gains given the already water conscious nature of the Napa County agricultural community.
TOTAL WATER SECTOR:		190		

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Measure #	Measure	GHG Reductions in 2020 (MTCO ₂ e)	Description	Key Assumptions and Data Sources
D. WASTE MEASURES				
WST-1	Expand/start a kitchen waste composting program	30	Continue to implement kitchen waste/composting program. This program was started in 2009 (i.e. after the GHG inventory baseline year). Participation in this program is voluntary in the sense that residents need to change behavior and begin to segregate kitchen waste. However this program is part of the County's contract with their respective waste services providers and is being implemented by the waste service providers. It is assumed that residents will respond to educational materials as provided by the waste services providers and described here: http://www.uvds.com/	Kitchen waste available for diversion per person based on original waste generation data collected by MIG and CalRecycle's waste profile which indicates ~330 lbs kitchen waste per person is available for diversion. As a point of reference, CAPPAs defaults suggest a program would achieve ~ 300 lbs per person. Assume a 75% capture rate on the 330/person i.e. the program will result in 250 lbs of kitchen waste diverted per person per year in 2020. Assume 2020 Population of 33,290 (Housing Element Table 9). ICF used CAPPAs v.1.3 (Kitchen Composting Tab).
WST-2	Expand/start C&D waste program	0	Implement Cal-Green requirements for construction and demolition waste.	C&D benefits are accounted for as part of Cal-Green [EE-1]
WST-3	Waste Minimization and Public Outreach	0	County ongoing efforts at waste minimization and public outreach	Assume this measure supports all other measures. Not quantifiable alone.
TOTAL WASTE MEASURES		30		

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F. RENEWABLE ENERGY MEASURES				
RE-1	Renewable Energy Finance District (California First or equivalent program)	1,610	<p>This measure assumes that the County will participate in a renewable energy financing district for residential and commercial solar. At this time, Property Assessed Clean Energy (PACE) style funding is not allowed by Fannie Mae/Freddie Mac for federally guaranteed residential loans (not a constraint on commercial loans). The residential constraint may be lifted in the future. There are also private financing arrangements available now (such as through SunRun and other solar providers).</p> <p>Private participation would be voluntary. The County's role would be to promote the program, provide information, publicize success and act as information clearinghouse and resource to residents and businesses. Regardless of the fate of the residential program, the County would proceed with an AB 811-style commercial district so long as it can be established in conjunction with other jurisdictions on a broader level.</p>	<p>For residential solar, assume 2,400 solar PV installations before 2020 (approx. 25% of existing single family building stock) through combination of AB 811 style district, private financing, and or other private or public incentives. Assume the average CA solar PV installation = 1.5kw or 3000 kwh/year.</p> <p>Commercial solar reductions not estimated at this time, but will be estimated as the AB 811 commercial district is advanced.</p>

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Measure #	Measure	GHG Reductions in 2020 (MTCO₂e)	Description	Key Assumptions and Data Sources
RE-2	Biofuels and Landfill GTE at Clover Flat	470	This measure would be implemented by the Vista Corporation (land owner). In November 2009, Vista Corporation submitted a request to modify their existing permit in order to develop the capability to convert woody biomass to energy at this site in addition to other modifications detailed in the permit request. This measure assumes that the permit is approved, that the woody biomass to energy facility is constructed prior to 2020 and operates per specifications in the permit request.	<p>Assume maximum power output for the biofuels component as specified in the CFL MOD (1MW) for all weekdays, 8 hours per day.</p> <p>Clover Flat is estimated to have 1589315 tons of WIP in 2020.</p> <p>Assume 0.5MW generation based on landfills of comparable size described in the ARB's study of energy potential in CA landfills http://www.energy.ca.gov/reports/2002-09-09_500-02-041V1.PDF.</p> <p>Assume all power generated is NOT going back to the grid but is used locally to power Napa County local government facilities or other facilities within unincorporated Napa County.</p>

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RE-3	Remove Barriers to Renewable Energy Development	130	<p>Small-Scale Wind Ordinance to be developed by County. Streamlining of permitting procedures for small-scale wind energy projects.</p> <p>Although the County would be responsible for removing barriers and streamlining permitting for non-solar removable projects, participation would be voluntary. Permit streamlining for solar was done in 2004 (personal communication, October 4, 2010). This is prior to the baseline inventory year. At this time, ICF has not included resulting solar installations in the CAP. This measure assumes therefore only addresses wind power.</p>	<p>This measure assumes that 10 small wind energy projects are completed in Napa County before 2020 in response to streamlined permitting and the passage of the Small Wind Ordinance.</p> <p>Data Source–IS/ND for Small Wind Energy Ordinance (Napa Planning commission website). IS/ND indicates small wind projects allowed on 2 acre parcels and no greater than 25kw. 437 acres with winds higher than 11.2, >700 acres with winds between 10-11 mph.</p> <p>Assume that the ordinance passes and results in 10 small wind energy projects (25kw) by 2020. Used the CAPPA default calculation for the # of kwh produced.</p>
TOTAL RENEWABLE SECTOR:		2,210		

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G. TRANSPORTATION MEASURES				
T-1	Promote Dense, Mixed-Use Developments	4,400	This measure quantifies reduction that may occur relative to two proposed mixed-use projects (Napa Pipe and Angwin eco-village), both of which are described in the General Plan, should they be approved.	Land use/location strategies are only estimated for two large project proposals at Napa Pipe and Angwin although pursuant to the County's general Plan, there may be other development in "existing urbanized areas " as defined in the General Plan that would achieve similar reductions. If the Napa Pipe and Angwin projects are approved, then the reductions would meet or exceed this estimate. If the projects are not approved, other projects would likely be proposed on these sites, and the reductions could still be achieved. General Plan policies AG/LU-25, AG/LU-26, CIR-1, CIR-3, and CIR-26 all require the County to promote urban-centered growth policies, including transit-oriented development thus promoting GHG reductions in new growth in existing urbanized areas. Also, to the extent that development does not occur as projects, the Business as Usual 2020 forecast of GHG emissions would be overstated.

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Measure #	Measure	GHG Reductions in 2020 (MTCO₂e)	Description	Key Assumptions and Data Sources
T-2	Integrate Below Market Rate Housing	50–100	This measure quantifies reduction that may occur relative to two proposed mixed-use projects (Napa Pipe and Angwin eco-village), both of which are described in the General Plan, should they be approved.	Below market rate housing strategies are only estimated for the proposed Napa Pipe and Angwin development projects, although pursuant to the County's General Plan, there may be other below market rate developments in "existing urbanized areas" (as defined in the General Plan) that would also achieve reduction. This measure assumes that 17-20% of d.u. in these two developments would be BMR. If these projects are approved, then the reductions would meet or exceed this estimate. If the projects are not approved, other projects would likely be proposed on these sites, and the reductions could still be achieved. General Plan Policy CIR-3 requires concentrating multi-unit housing development close to employment and services, which will also reduce GHG emissions for BMR. Also, to the extent that development does not occur as projected, the Business as Usual 2020 forecast of GHG emissions would be overstated.
T-3	Requirements for Use Permit Applicants	0	This measure applies to all permit applicants. Parking requirements associated with discretionary development that generally act to encourage carpooling, use of transit, biking, or the use of alternatively fueled vehicles would be at the County's discretion.	Not quantified as a standalone strategy but important as a complementary strategy to parking strategies. No reductions included to avoid double-counting with project-level mitigation.

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Measure #	Measure	GHG Reductions in 2020 (MTCO₂e)	Description	Key Assumptions and Data Sources
T-4	Traffic Calming Improvements	100	This measure includes reductions possible from two proposed mixed use projects (Napa Pipe and Angwin eco-village) and assumes that traffic calming is incorporated into project design as a permit condition, should these projects be approved.	Traffic calming strategies are only estimated for the proposed Napa Pipe and Angwin development projects, although pursuant to the County's General Plan, there will other efforts to promote alternatives to single-vehicle work travel. If these projects are approved, then the reductions would meet or exceed this estimate. If the projects are not approved, other projects would likely be proposed on these sites, and the reductions could still be achieved. General Plan policy CIR-26 requires the County to increase the attractiveness and use of energy-efficient forms of transportation. Objective CIR-2 requires the County to work with NCTPA to reduce the percentage of work trips that are by private single-occupied vehicles. Thus, the unquantified reductions from implementation of other General Plan policies would likely result in reductions equivalent to or greater than this measure. Also, to the extent that development does not occur as projected, the Business as Usual 2020 forecast of GHG emissions would be overstated.

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Measure #	Measure	GHG Reductions in 2020 (MTCO_{2e})	Description	Key Assumptions and Data Sources
T-5	Bicycle Network and Bicycle Parking	10	This measure assumes that 40 miles of new bike paths are constructed (Napa County General Plan) for a County with an area of 753 square miles (Napa county). The decision to commute by bike would be voluntary, although the relationship between numbers of bike commuters to bike lanes as observed elsewhere is assumed to apply in Napa.	Literature suggests a 1% increase in bike commuters for each mile of bike lane (per square mile). This equates to 0.05% increase given the large square miles of Napa county, and that employers are spread throughout the county. Bike lanes will promote increased recreational trips (though these likely will be new trips). Given the relatively non-urban nature of Napa County, bicycle parking is not seen as a barrier to increased bike use (and no reductions are included accordingly). However, the County supports bike parking for developments where bike parking may be an issue.
T-6	Improve Transit Network	500-2,200	This measure assumes that improvements in the regional and local transit networks servicing Napa County will be completed according to the respective transit planning documents including the Napa short range transit plan. Napa County is not responsible for implementing transit improvements. The decision to use mass transit in response to increased service is voluntary.	Assumed 5-10% increase in network Assumed 25-50% reduction in headways 1.4% existing transit mode share (Napa short range transit plan fy2008-2014) Conservative assumptions on overall transit improvements since more detailed information will not be provided until the 2011 revisioning.
T-7	Station Bike Parking	0	The decision to commute by bike is voluntary. Although this measure (and other biking measures) assumes that resident response to bike-friendly features is similar to other locations in the U.S.	Not quantified as a standalone strategy but important as a complementary strategy to Transit Network.

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Measure #	Measure	GHG Reductions in 2020 (MTCO_{2e})	Description	Key Assumptions and Data Sources
T-8	Park-and-Ride Lots	0	The decision to utilize mass transit or van pools is voluntary. The County will continue to support actions such as park and ride lots that may facilitate and encourage higher ridership for its residents.	Not quantified as a standalone strategy but important as a complementary strategy to Transit Network and commute based strategies.
T-9	Required Contributions for Transit Access Improvements	0	The decision to utilize mass transit or van pools is voluntary. The County will continue to support actions such as park and ride lots that may facilitate and encourage higher ridership for its residents.	Not quantified as a standalone strategy but important as a complementary strategy to Transit Network.
T-10	Employer-Based Commute Trip Reduction Program	3,500–6,000	Napa employers would voluntarily participate in this program. The County's role would generally be to promote the program, provide limited outreach and education, incentivize businesses to participate where possible and publicize success stories.	<p>This measure assumes 50-100% of Napa employees are eligible.</p> <p>22% of trips are work trips (Bay Area Travel Survey). Measure assumes that 3-5% of work VMT in Napa County can be avoided.</p> <p>Literature assumes a combination of carpooling, ride-matching, transportation coordinator, end-of-trip facilities, vanpool assistance, flex schedule for carpoolers.</p> <p>Note that this will only be effective if the measure reaches the majority of employers in the county (though this does NOT assume it is a mandated and monitored program).</p>

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T-11	Provide Employer Sponsored Vanpool/Shuttle	100–2,400	Napa employers would voluntarily participate in this program. The County's role would generally be to promote the program, provide limited outreach and education, incentivize businesses to participate where possible and publicize success stories. This measure is considered to be an optimal solution for small businesses and assume all small employers are eligible.	Assume 5-25% of employers will implement the program and that 0.1 -0.2% of work VMT can be avoided. 22% of trips are work trips This measure can provide greater benefits if the strategy was required for majority of employers in the county.

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T-12	Reduce Parking Requirements and Establish Parking Maximums	500–1,600	This measure applies to two proposed mixed use project (Napa Pipe and Angwin, should they be approved) as well as all employers in the County. Participation by employers would be voluntary.	<p>This measure assumes 5–25% of employers will implement. This measure results in 0.1-0.3 of total VMT being avoided due to a lack of parking.</p> <p>Assume 10% reduction in parking.</p> <p>If the two proposed projects (Napa Pipe and Angwin) are approved, then the reductions would meet or exceed the estimate for their portion of this measure. If the projects are not approved, other projects would likely be proposed on these sites, and the reductions could still be achieved. Policy CIR-23 requires that new uses shall not provide excess parking that could stimulate unnecessary vehicle trips and required consideration of shared parking. Policy CIR-33 requires integration of bicycle access into all parking lots. Policy CON-69 requires provision of bike storage, carpool/vanpool parking, Policy H-6b requires the County to promote and encourage design for major projects to utilized modified parking standards. Thus, the unquantified reductions from implementation of other General Plan policies would likely result in reductions equivalent to or greater than that included for the two specific projects in this measure. Also, to the extent that development does not occur as projected, the Business as Usual 2020 forecast of GHG emissions would be overstated.</p> <p>The reductions associated with employer voluntary activity would occur with or without approval of the two specific proposed projects noted above.</p>

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Measure #	Measure	GHG Reductions in 2020 (MTCO₂e)	Description	Key Assumptions and Data Sources
T-13	Preferential Parking	0	This measure would promote preferential parking for carpools, alternative-fuel vehicles, and bicycles. The decision to utilize alternative modes of transportation is voluntary although data suggests that parking availability greatly influences driver's choice of transportation mode. The County will continue to support actions such as preferential parking by business owners.	Not quantified as a standalone strategy but important as a complementary strategy to parking strategies. Higher effectiveness could be achieved if the incorporated cities in the County also implemented parking strategies that encourage alternate modes or alternate vehicles as many trips have either an origin or a destination in one of the incorporated cities.
T-14	Improve Traffic Flow	< 100	This measure assumes that 2 planned traffic flow projects are implemented (Flosden/Newell Rd. and Devlin Rd.).	Assumed only the Flosden/Newell Rd and Devlin Rd additions. Compared the travel model runs with and without these 2 improvements.
TOTAL TRANSPORTATION SECTOR:		9,260 - 16,910 (Avg. of 13,085)		
TOTAL LOCAL MEASURES:		23,720 (Excluding Project-Level Mitigation)		

Table A-14. Napa County Cap Measures Detailed Summary				
Measure #	Measure	GHG Reductions in 2020 (MTCO₂e)	Description	Key Assumptions and Data Sources
H. PROJECT LEVEL MITIGATION				
PL-1	Project Level Mitigation	19,350	Project level mitigation would be on condition of permit. Project proponents would need to provide data for the County to calculate a projects BAU emissions, the benefits of the CAP and additional emissions avoided through project level action. All projects will be required to follow the County's procedures for GHG emissions documentation and measure selection in order to secure project approval. 38% of all project emissions must be avoided through any suite of actions above and beyond those already included in the CAP. Increases in carbon stock or legitimate avoided conversion can be used to reach the project level target.	Mitigation burden rests on new development although 38% obligation was based on an equal burden sharing between the predominant types of new development in the County, RCI and vineyard. Worksheet for submission of information to Napa County as part of project-level review included in CAP Appendix B.
TOTAL PROJECT LEVEL MITIGATION:		19,350		