

SANTA ROSA MUNICIPAL CLIMATE ACTION PLAN (MCAP)

Summary of Implementation, May 2018

MCAP Action	Action Description	Responsible Department	Progress (0-5 or N/A)*	Summary of Actions
1. WASTEWATER OPERATIONS (WW)				
WW 1	Eliminate Operation of Natural gas fired cogeneration systems at LTP.	Water	5	Completed March 2014.
WW 2	Install a new, more efficient methane fired cogeneration system.	Water	5	Done March 2014. The system now gets more electricity with the same input.
WW 3	Install a 40 Hp variable-frequency -drive- (VFD) air compressor in the digester gallery.	Water	N/A	Rejected. Cost benefit analysis did not show a benefit to doing this.
WW 4	Replace the compost facility's exhaust fans with high efficiency fans.	Water	N/A	Rejected. 28 year pay off. Per analysis in the Energy Optimization Plan, fan replacement would be considered as part of a broader potential project to replace the compost facility roof.
WW 5	Replace several high horsepower pumps with more efficient options.	Water	5	Evaluated in the Energy Optimization Plans. The department has replaced pumps that needed replacing, and will continue to monitor others.
WW 6	Program the Supervisory Control and Data Acquisition (SCADA) system to divide the flow equally between the pumps whenever the flow requires more than one pump.	Water	5	Completed right after BASE Report (around June 2012).
WW 7	Install lighting controls in numerous areas to ensure that lights do not operate when the rooms are unoccupied.	Water	5	Completed as feasible.
WW 8	Install high efficiency lighting in various areas.	Water	3	Ongoing and receiving rebates from PG&E where applicable.
WW 9	Replace the existing high intensity UV disinfection system with a new low-pressure UV system.	Water	1	Project under review.
WW 10	Install a mechanical digester mixing system in place of existing gas injections systems.	Water	N/A	Cost benefit analysis showed too long of a payback period.
WW 11	Replace existing desiccant air dryer for air compressor with new refrigerated air dryer	Water	N/A	Cost benefit analysis showed too long of a payback period.
WW 12	Widen deadband between cooling and heating set points for compost facility offices	Water	5	Complete June 2012. Implemented per recommendation in BASE Report.
WW 13	Replace the two 50 ton air-cooled chillers and one 60 ton chiller that serve the HVAC equipment at Administration building with single high efficiency water cooled chiller	Water	4	Chillers to be replaced in 2018/2019 fiscal year.
WW 14-A	Install a 1 Megawatt (MW) solar photovoltaic (PV) system	Water	2	Evaluated in the Energy Optimization Plan. Being considered for future implementation.
WW 14-B	Install a 2 MW solar photovoltaic system	Water	2	Evaluated in the Energy Optimization Plan. Being considered for future implementation.
WW 14-C	Install a 4 MW solar photovoltaic system	Water	2	Evaluated in the Energy Optimization Plan. Being considered for future implementation.
WW 15	Purchase cleaner electricity from PG&E and/or another entity	Water	5	The City began purchasing electricity from Sonoma Clean Power in 2014, which has a higher mix of renewable energy than PG&E.
2. FLEET (FL)				
FL 1-A	Replace remaining diesel-powered buses with hybrid buses.	Fleet	2	The City has incorporated 10 Electric Diesel Hybrids (seven 2011 New Flyers and three 2008 Gilligs) into the City Bus fleet. Also the City has reduced the fleet size and retired three additional Diesels in 2017. The most recent addition to the CityBus fleet was the purchase of 4 Clean Diesel buses in 2016. CityBus prepared a FTA Low or No Emission Vehicle Program - 5339(c) grant for submittal in collaboration with Sonoma County Transit for the purchase of zero emission electric vehicles. CityBus has received Grant funding to purchase two zero-emission electric busses, and is now looking at EV charging infrastructure to support this purchase.

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FL 1-B**	Use low-carbon fuels in buses (once such fuels have been approved by manufacturers and regulatory agencies). (Infrastructure needed)	Fleet	N/A	No fuels have become commercially available. Current diesel fuel contains a low % blend of "renewable diesel". As that become more available we will look into higher concentrates.
FL 1-C**	Develop compressed natural gas (CNG) program for buses. (Infrastructure needed)	Fleet	N/A	No new information. CNG infrastructure is prohibitively costly at this time.
FL 2	Replace 75 "passenger" vehicles at the end of their life with a hybrid equivalent.	Fleet	5	City currently operates 66 hybrid vehicles and 4 Electric vehicles. Plug in Hybrids/Hybrids/Electric vehicles are considered for replacement if possible for application.
FL 3*	Use low-carbon fuels in City's fleet (once such fuels have been approved by manufacturers and regulatory agencies). (Infrastructure. needed)	Fleet	N/A	No fuels have become commercially available. Current diesel fuel contains a low % blend of "renewable diesel". As that become more available we will look into higher concentrates.
3. BUILDINGS AND FACILITIES (BF)				
BF 1	Install several small solar projects (e.g. at Finley Center, MSCS, and City Hall).	Facilities	1	Investigating alternative energy options. Evaluated in Facilities Assessment.
BF 2	Install a small cogeneration system at the Finley Swim Center.	Facilities	5	Complete.
BF 3	Replace existing outdated roofs with cool roofs.	Facilities	3	Currently replacing aging roofs with cool roof systems.
BF 4	Install a double-door entry for the City Hall Annex.	Facilities	N/A	Not pursuing at this time.
BF 5	Install a high efficiency boiler at the Ridgway Pool Center.	Facilities	5	Completed.
BF 6	Install a solar hot water heating system at the Finley Swim Center.	Facilities	0	Status Pending from Facilities Department
BF 7	Replace existing HVAC (heating, ventilation, and air conditioning) equipment	Facilities	0	Projects identified in Facilities Assessment pending prioritization.
BF 8	Upgrade existing lights at several facilities.	Facilities	4	In Process.
BF 9	Upgrade additional lighting fixtures at other facilities.	Facilities	4	In Process.
BF 10	Purchase cleaner electricity from PG&E and/or another entity.	Facilities	5	Complete. The City began purchasing electricity from Sonoma Clean Power in 2014.
4. EMPLOYEE COMMUTE (EC)				
EC 1	Continue to operate a 9/80 work schedule where appropriate.	CMO	5	Complete. Ongoing.
EC 2	Continue to allow staff to telework when appropriate.	CMO	5	Complete. Ongoing.
EC 3	Continue Trip Reduction Program (encourage walking, biking, carpooling, bus use).	Transit	2	The Santa Rosa Free Ride Trip Reduction Incentive Program is designed for Santa Rosa area employers who would like to provide incentives to encourage their employees who drive alone to work to try a money saving, environment helping, traffic reducing commute alternative like walking, biking, carpooling or taking the bus to work. The Free Ride program currently partners with 290 organizations with 1510 participants, avoiding emissions of approximately 400 metric tons annually.
EC 4	Implement a paid employee parking program.	PED/Transit	0	This measure requires further study.
5. PUBLIC LIGHTING (PL)				
PL 1	Purchase cleaner electricity from PG&E and/or another entity.	Traffic	5	Complete. The City began purchasing electricity from Sonoma Clean Power in 2014.
PL 2	Retrofit about 10,000 streetlights with induction or LED fixtures.	Traffic	5	Complete and ongoing. Have completed 10,894 LEDs to date, will do another and 1,500 to 2,000 this fiscal year, and 3,000 in future years. All new subdivisions have new high-efficiency standards.
PL 3	Decommission approx. 3,100 streetlights deemed non critical before 2010	Traffic	5	All lights were reenergized and replaced with higher efficiency LEDs that use 1/3 of the power.
PL 4	Decommission approx. 1,900 streetlights deemed non critical after 2010	Traffic	5	All lights were reenergized and replaced with higher efficiency LEDs that use 1/3 of the power.
PL 5	Re-Illuminate approx. 5,000 decommissioned lights & retrofit w/Induction or LED	Traffic	5	Complete.

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PL 6	Retrofit approximately 800 street lights with induction fixtures (in process)	Traffic	5	Complete. 1,149 retrofitted. Will do another 3,500 over the next two years.
6. WATER OPERATIONS (WO)				
WO 1	Purchase cleaner electricity from PG&E and/or another entity	Water	5	The City began purchasing electricity from Sonoma Clean Power in 2014, which has a higher mix of renewable energy than PG&E.
WO 2	Replace pump motors with high efficiency motors as they fail or need replacement	Water	5	Complete. Evaluated in the Energy Optimization Plans; the department has replaced the ones the need replacing and will continue to monitor others.
7. WASTE STREAM (WS)				
WS 1	Continue to implement the City's purchasing policy for recycled content.	CMO	3	In progress.
WS 2	Continue to implement the City's policies regarding waste reduction and recycling.	CMO	3	The City's new waste hauler, Recology, includes curbside recycling and green waste bins, and a Waste Zero team dedicated to increasing waste diversion in the City. The City has contracted R3 to develop a Zero Waste Plan to improve waste diversion community-wide. The Plan is scheduled to be complete in early 2019.

*N/A denotes the City has chosen to not pursue this measure. 0 denotes the City intends to implement the measure, but has not begun implementation. 5 denotes the measure has been fully implemented, which may include ongoing actions.

**FL 1-B and FL 1-C and FL 3 require significant infrastructure upgrades and were not included in the total reductions.

