		Boston	Indianapolis	Los Angeles	Salt Lake City	San Francisco	Washington DC/Baltimore
GHG Observations	**In-situ mixing ratio**	~10 sites (CO_2, CH_4, CO) since 2012*	12 sites (CO_2, CH_4, CO) since 2012	14 sites (CO_2, CH_4, CO, N_2O) first one in 2012; 2 planned	9 sites (first one established in 2001)	50 low cost sensor sites (CO_2, CO, NO, NO_2, O_3, PM10)	9 sites (CO_2, CH_4) first one in 2015; 7 planned; aircraft campaigns
	Flasks	episodic	5 sites ($^{14}CO_2$ & trace gases) since 2010	3 sites ($^{14}CO_2$ & trace gases) 2014-2017; MWO since 2010 ($^{14}CO_2$ & trace gases) with 2012-2014 gaps	$\delta^{13}CO_2$ stable isotope flasks at 1 site since 2002	-	3 planned at tower sites ($^{14}CO_2$ & trace gases)
	Column Carbon Observations	FTS	TCCON, 2012; EM27 May, 2016	TCCON since 2012	-	-	-
	Radiocarbon	-	-	-	Radiocarbon in tree rings, leaves	-	-
	Other	automobile surveys of CO_2 and CH_4	Automobile surveys, 500km of road data, 2012-2014; CO_2 Lidar (JPL, Goddard, and Langley)	CLARS since 2010; AVRIS-ng, AVRIS-C & HyTES (CO_2,CH_4,NO_2, NH_3 - retrievals not robust yet) since 2012	Continuous light rail transects since Dec 2014; mobile lab surveys	PANDORA since 2017 (column O_3 and NO_2)	Planned network of low-cost sensors
Meteorological Observations	**Surface stations**		Met. observations from 2–4 sites since 2013	ASOS stations; 5 radar wind profilers	25 research-grade meteorological sites	BAAQMD maintains stations in vicinity including 6 Picarro CO_2	Met observations at most in-situ sites; METAR and ASOS
	Radiosondes		-	-	Regular NWS launches at KSLC airport (00 and 12 UTC)	-	Regular NWS launches at Sterling, VA (00 and 12 UTC)
	Profilers	MiniMPL	HRDL/HALO Doppler LIDAR since 2013	MiniMPL & Ceilometer (CalTech) since 2012; AQMD wind LIDAR since 2016	Ceilometer, sodar, radiometer, lidar (deployed during IOPs)	Ceilometer	Ceilometer at Sterling and UMBC; MiniMPL at UMBC, GSFC and Sigma Space Corp
Land cover and biospheric observations		Lidar, extensive field plots, hi res land cover	-	-	Lidar survey	-	Plot level SIF measurements on NIST campus since 2017
Activity Data and Emission Factors (Bottom-up)	**Inventory**	CO_2 ACES	CO_2 Hestia, ODIAC, iODIAC (high resolution ODIAC), and Lauvaux et al. CH_4 (based on aircraft flights for whole-cite emissions and point sources, and the NG sector of Hestia)	CO_2 Hestia; CH_4 VISTA and CALGEM	CO_2 Hestia	CO_2 by Turner et al.; AQ gases in progress	CO_2 Hestia

Stakeholder	**Policy drivers**	2017 pledge: carbon neutral by 2050, with interim goals of a 25 and 50% reduction by 2020 and 2030, respectively, relative to a 2005 baseline.	Carbon Neutral by 2050 (as of Sept '17)	(California) 40% ↓ by 2030 (1990), 80% ↓ by 2050 (1990), SB375 8% ↓ by 2020 (transportation SCAG), SB350 reduction targets in electricity sector, SB32 (Cap and Trade), SB605 40% ↓ in short lived climate gases by 2030 (2013), AB1496 methane monitoring; (Los Angeles) 80%-95% ↓ by 2050 (1990)	80% Reduction in Community Greenhouse Gas Emissions by 2040, Compared to 2009 Baseline	80% ↓ by 2050 (1990)	(Baltimore) 15% ↓ by 2020 (2010); (Washington DC) 50% ↓ by 2032 (2006); (Maryland) https://www.c2es.org/us-states-regions/policy-maps/climate-action-plans
	Stakeholders engaged by PI	The City of Boston, Boston MPO, & the Green Ribbon Commission.	City of Indianapolis; local citizen groups	CARB; SoCal Gas; PG&E; LA Local Enforcement Agency (Sunshine Canyon Landfill); Milk Producer's Council; SC-AMQD; BA-AQMD, CEC, EPA Region 9, LA Mayor's Office	SLC Sustainability Office, SL County Public Health, Utah Division of Air Quality	Schools	Maryland Department of Environment (MDE)