

**Steven S. Cliff**

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**A. Academic Preparation:**

1998-2001 Post-doctoral Scholar, Atmospheric Sciences, Department of Land, Air and Water Resources, University of California, Davis.  
1998 Ph.D. Chemistry, University of California, San Diego.  
1992 B.S. Chemistry, University of California, San Diego.

**B. Appointments:**

**2017-present Deputy Executive Officer, California Air Resources Board (CARB)**

Role: Reporting to the executive officer and working with three other deputy-level executives, manage program and budget for CARB's 1700+ staff. Directly oversee the work of more than 650 scientists, engineers and other professional staff, with six executive-level direct reports. Specific program oversight in my chain-of-command includes regulations for passenger vehicle emissions, medium- and heavy-duty engine emissions, implementation of vehicle and engine emissions and on-board diagnostics (OBD) certification, transportation land-use planning/analysis and incentive and investment programs for reducing emissions. Emissions and OBD certification results in about 4000 executive orders for vehicle and engine emissions control systems annually. Vehicles sold in California for on-road use and most off-road mobile emissions sources must be certified by CARB. This includes more than 30 million cars, trucks, and motorcycles on California's roadways today. Anything sold in the US for on-road use approved by US EPA must first be issued a CARB executive order for OBD certification by my team. Manage emissions reducing incentive and investment programs that exceed \$2 billion annually. Manage staffing and develop and manage budget for California's vehicle and engine emissions programs. Brief senior elected and appointed officials including Governor, Governor's Office staff, Governor's cabinet, and members/staff of the legislature on transportation and mobile source emissions related matters. Work with environmental and equity advocates, senior industry officials, association representatives and other stakeholders on program development.

**2016-2017 Senior Advisor to the Chair Mary Nichols, California Air Resources Board (appointed by Governor Jerry Brown)**

Role: Advise CARB Chair on Board policies. Manage Chair's office professional staff of 40 and liaison to CARB executive team and sixteen-member appointed Board. Provide technical and policy advice to California Governor's Office on CARB related matters, including legislation, and Governor's Executive Orders and Directives. Brief senior elected and appointed officials including Governor, Governor's Office staff, Governor's cabinet, and members of the legislature on CARB related matters. Represent the Chair with stakeholders.

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**2014-2016 Assistant Director for Sustainability, California Department of Transportation (appointed by Governor Jerry Brown)**

Role: As inaugural Director for Sustainability, reporting to the Caltrans Director, manage a team of transportation professionals (primarily planners and engineers) to develop a framework and roadmap to incorporate sustainability into all transportation programs. This included appointing sustainability leads in each of Caltrans' twelve districts, developing a strategic roadmap with SMART (Specific, Measureable, Attainable, Relevant, Time-bound) objectives, developing monthly engagement to ensure accountability in incorporating the framework in transportation programs and plans and building a team to oversee the implementation of roadmap for achieving SMART objectives. Brief senior elected and appointed officials including Governor, Governor's Office staff, Governor's cabinet, and members of the legislature on Caltrans sustainability related matters, and communicate to stakeholders and transportation partners on sustainability program.

**2013-2014 Assistant Chief, Stationary Source Division, California Air Resources Board**

Role: Oversee budget and staffing for approximately 150 scientists, engineers and other professional staff. Oversee climate program for California, including climate planning, regulation development and implementation, and investments to reduce greenhouse gas emissions. Represent CARB with stakeholders. Brief senior elected and appointed officials including Governor, Governor's Office staff, Governor's cabinet, and legislative members and staff on California's climate program.

**2011-2013 Chief, Climate Change Markets Branch—Stationary Source Division, California Air Resources Board**

Role: Manage a team of approximately 45 scientists and engineers to implement the California Greenhouse Gas Cap-and-Trade Program. Represent CARB with stakeholders. Brief senior officials including Governor's Office staff, Governor's cabinet, and legislative staff on California's climate program.

**2009-2011 Manager, Program Development Section—Office of Climate Change, California Air Resources Board**

Role: Manage a team of approximately 30 scientists and engineers to develop the California Greenhouse Gas Cap-and-Trade Regulation. Manage a team of economists to analyze the economic impacts of climate regulations and plans. Represent CARB with stakeholders.

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**2008-2009 Air Pollution Specialist—Office of Climate Change, Air Resources Board**

Role: Develop and analyze greenhouse gas reducing measures as part of a comprehensive climate planning mandate under newly enacted California legislation.

**2020-present Research Professor II, Air Quality Research Center/Institute of Transportation Studies, UC Davis**

Role: Continue independent air-quality and climate research program while working at CARB. Continue modest research program and communicate research through publications and occasional presentations at invited events. This is currently a 0% without salary appointment.

**2016-2020 Research Professor I, Air Quality Research Center/Institute of Transportation Studies, UC Davis**

Role: Promoted to full professor Step I. Continue independent air-quality and climate research program while working at CARB. Reduce time to 0% in recognition of more demanding role in California government. Continue modest research program and communicate research through publications and occasional presentations at invited events.

**2013-2016 Associate Research Professor IV, Air Quality Research Center/Institute of Transportation Studies, UC Davis.**

Role: Continue independent air-quality and climate research program while working at CARB. Reduce time to ~5% to graduate remaining students, and retire air pollution observatories. Continue communicating research through publications and presentations at conferences.

**2011-2013 Associate Research Professor II, Air Quality Research Center/Institute of Transportation Studies, UC Davis.**

Role: Continue independent air-quality and climate research program while working at CARB. Reduce time to ~10% to maintain air pollution observatory work and continue communicating research through publications and presentations at conferences.

**2009-2011 Associate Research Professor I, Department of Applied Science, UC Davis.**

Role: Continue independent air-quality and climate research program while working at CARB. Reduce time to 15-49% (variable depending on research need) to maintain air pollution observatory work and continue communicating research

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through publications and presentations at conferences. Promotion to “Associate” requires evaluation by peers outside of UC Davis (minimum six letters of recommendation from faculty at other institutions).

**2006-2009 Assistant Research Professor IV, Department of Applied Science, UC Davis.**

Role: Continue independent research program in applied science and engineering. Seek funding to support research program, mentor students, publish research. Expand research and establish air pollution and climate observatories to document and understand extent of global air pollution transport. Manage staff and mentor students. Communicate research via publication and conference presentations. Maintain role as active media source for global air pollution and climate impacts. Manage more than \$1M in research funding to support laboratory staff and my salary.

**2007-2008 Admissions Chair-Atmospheric Science Graduate Group, UC Davis.**

Role: Lead faculty discussions, evaluation of applications, interactions with the Dean, and extension of offers for graduate student admissions.

**2003-2006 Assistant Research Professor III, Department of Applied Science, UC Davis.**

Role: Continue independent research program in applied science and engineering. Seek funding to support research program, mentor students, publish research. Develop and manage research campaign to document and understand extent of global air pollution transport. Managed staff and mentored students. Communicated research via publication and conference presentations. Active media source for global air pollution and climate impacts, featured in New York Times, Der Spiegel, Mother Jones, CBS Evening News with Katie Couric, among other outlets. Manage more than \$1.5M in research funding to support laboratory staff and my salary.

**2004-2020 Approved Program Coordinator— Advanced Light Source BL 10.3.1 Lawrence Berkeley National Laboratory.**

Role: Establish research program using the Department of Energy funded laboratory. Evaluate research program applications from independent investigators for facility use and support. Communicate research through publications and presentations to broad scientific community.

**2003-present Atmospheric Science Graduate Group faculty**

Role: Principal investigator and mentor for MS and Ph.D. students (none currently under mentorship).

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**2004-present Applied Science Graduate Group faculty**

Role: Principal investigator and mentor for MS and Ph.D. students (none currently under mentorship).

**2001-2004 Beamline Scientist and Primary Research Team Coordinator—Advanced Light Source BL 10.3.1 Lawrence Berkeley National Laboratory**

Role: Manage research program for independent users at the Department of Energy funded laboratory. Evaluate research program applications from independent investigators for facility use and support. Support research programs ranging from analysis of interstellar dust to solar photovoltaic cell microscopic contamination. Communicate research through publications and presentations to broad scientific community at the laboratory.

**2001-2003 Assistant Research Professor II, Department of Applied Science, UC Davis**

Role: Establish independent research program in applied science and engineering. Seek funding to support research program, mentor students, publish research. Oversaw sampling and analysis of emissions from World Trade Center terrorist attacks on 9/11. Managed staff and mentored students. Communicated research via publication and conference presentations. Successful in securing approximately \$400k in research funding to support laboratory staff and my salary.

**2001-2003 Academic Federation Representative—Chancellor’s Committee on Childcare, UC Davis**

Role: Provide representation for Academic Federation members on committee charged with developing policies for childcare services for University faculty and staff.

**1998-2001 Postdoctoral Research Fellow, Land air and Water Resources, UC Davis**

Role: Under direction of Prof. Thomas Cahill, established research programs related to air quality and climate. Conducted Pacific region (Asia-North America) research study to determine extent of air pollution outflow from Asia to North America for National Science Foundation.

**C. Synergistic Activities**

- Member, Transportation Research Board Executive Committee July, 2017 to present.

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- Chair, Transportation Research Board-Social and Environmental Section, April 2019-2020.
  - Chair, Transportation Research Board-Committee on Sustainable Transportation, April 2016-July 2017.
  - *Environmental Justice Intensive Course* (Atmospheric Aerosols and Health Program), Summer 2006-2009, Arnold, CA. Role: Mentor, Training Facilitator and Lead Student Project Evaluator.
  - Executive Course: *Economics of Energy and the Environment* July-August 2010, University of California, Davis.

**D. Leadership, Media and Outreach Training**

- *Implicit Bias Mitigation*-November 2020
- *Implicit Bias Awareness*-October 2020
- *Diversity, Inclusion and Sensitivity Awareness*-June 2020
- *Learning at the Speed of Trust* (Franklin Covey)-February 2020
- *4 Essential Roles of Leadership* (Franklin Covey)-September 2019
- Media Training—California Air Resources Board Public Information Office July 2010
- *California Climate Change Project (CCCP) and Leadership and Training Program (LTP)*—Engaging with Government on Climate Change: Inter-University Scholars' Training Stanford University—November 2006

**E. Awards**

- California Air Resources Board Gold Superior Achievement Award 2008 and 2010
- California Air Resources Board Sustained Superior Achievement Award 2012

**F. Peer Reviewed Publications: List and copies available upon request**

- Author of more than 100 manuscripts, book chapters, abstracts and conference proceedings. [www.researchgate.net/profile/Steven\\_Cliff](http://www.researchgate.net/profile/Steven_Cliff)