Department of Planning and Environment

Evaluation Management Response

Air Quality Program
20 July 2022

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Introduction

In line with the requirement of the _Department of Premier and Cabinet_ to conduct program evaluation periodically, the Department of Planning and Environment (the Department) commissioned First Person Consulting (FPC) to conduct the evaluation of the CCF-supported components of the (ongoing) Air Program (the program). The evaluation assessed:

- the appropriateness of the program design and delivery
- effectiveness of the program management
- progress towards achieving outcomes and targets
- lessons learnt and adaptive management to date.

The program is managed by the Climate and Atmospheric Science (CAS) branch, within the Department's Science, Economics and Insights (SEI) division. The program involves the design and operation of ambient air quality monitoring networks within New South Wales, in alignment with the _National Environment (Ambient Air Quality) Protection Measure_ (AAQ NEPM). The program aims to deliver air quality data and information and monitoring support that is timely and fit-for-purpose for a variety of stakeholders and end users in New South Wales, with the broader goal to improve the resilience of communities, government, and businesses to the effects of air pollution.

In 2017-18, CAS received a five-year tranche of $12.7 million from the Climate Change Fund (CCF) to support delivery of the Air Program. This funding was to:

- support the NSW Air Quality Monitoring Network, including expansion of the network
- update the pre-existing DustWatch monitoring network to form an integrated Rural Air Quality Monitoring Network
- enhance air quality forecasting in NSW
- deliver emergency incident response monitoring
- support delivery of the Sydney Air Quality Studies (SAQS)
- deliver the Clean Air by Design Projects, including setting up background air quality monitoring and enhancing the air quality monitoring website.

The evaluation report was reviewed by the CAS branch and the Air Program Team. This report outlines the management response to the reviewed evaluation findings.

In responding to the key evaluation questions (KEQs), FPC found that there is good evidence that the ongoing operation of the Air Program, combined with the expansion and enhancements, is flowing through to on-ground impacts. Thousands of people use the air quality website and forecasting services daily, to make decisions in managing their exposure to air pollution. 86% of surveyed website users and alert subscribers are satisfied with the quality of information available on the website. Stage 2 website improvements and air quality forecasting enhancements are currently in progress. This will take into consideration the recommendations made in the evaluation.

Overall, the CAS branch has made a broad range of improvements to the NSW air quality monitoring network and the science underpinning air quality monitoring and forecasting. This has contributed to enhanced understanding of air quality among the community and key stakeholders. In turn, this has helped to inform air quality policies, air quality management and individual behaviours that reduce exposure to air pollution.

The evaluation made seven recommendations. The Department fully accepts six recommendations and partly accepts one (Table 1).

Management response to evaluation findings

Table 1   Evaluation findings and response

Rec. No.	Report finding	Recommendation	Response	Action/Explanation	Responsible party (proposed)	Action contributors	Timing
1	*At present there is general information on fulfilling AAQ NEPM requirements and that "monitoring is for the protection of public health", but more detail on exactly what questions are being asked and by whom would help in making decisions about the location, accuracy and reliability of monitoring stations and associated work. As NSW's network expands beyond the strict requirements of the AAQ NEPM, having this clarity will become more important.*	As the Department continues to manage and refine the air quality monitoring network, it **should clarify what the different goals of the network are and how they might be served by different types of station and approaches to monitoring**. While the air monitoring plans go some way towards this, they would benefit from **clearer articulation of what information the network needs to produce and, in turn, what outcomes it is hoping to achieve**.	Accepted	The different rationale and goals of the network will be more clearly outlined in the NSW Air Quality Monitoring Plan. The Plan is updated annually in December with a major review every 5-years (next due by 2025).	CAS branch	• CAS Air Quality Program team • Air Quality Science Communicator (Science Strategy Branch, EHG) • NSW Government program partners including Climate Change and Air Policy (EHG), EPA Regulatory Services	2025

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2	*The current Air Program logic clearly articulates the high-level outcomes it is working towards. It would benefit, however, from having more detail about the shorter- and medium-term outcomes.*	In addressing Recommendation 1, **there would be value in developing a more detailed theory of change for stakeholders expected to use the Air Program and monitoring network outputs**.	Accepted	The Air Program team will update the <u>Air Program Logic</u> by October 2023. The update will include more detail on immediate (annual) and intermediate (2-4 years) outcomes.	CAS branch	• Independent consultant • CAS Air Quality Program team • NSW Government program partners including Climate Change and Air Policy (EHG), EPA Regulatory Services	October 2023
3	*Producing information is a key part of the work of the branch but there is further opportunity to make sure this information is distributed to and understood by those who might need it.*	**DPE should consider strengthening its approach to communicating with end-users**.	Accepted	• The Air Program Team is progressing Stage 2.5 of the Enhanced <u>Website</u> and Data Delivery (EWADD) project. EWADD includes delivery of components such as new air quality website (with user feedback channel setup), new backend data collection and management solution, cloud-based data warehouse and API service facility, air pollution alerting system, Power BI based data analytics	CAS Branch	• CAS Air Quality Program team • Contractors • DPE DIO • Department of Customer Service (DCS) • Science Strategy Branch • NSW Government program partners including Climate Change and Air Policy (EHG), EPA Regulatory Services	• New website 2nd release (with user feedback channel setup), new backend data solution initial implementation by June 2023; new air quality altering system and new data warehouse and API by June 2024

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				and reporting framework.			
				• In support of the <u>NSW Clean Air Strategy</u>, the Air Program is working with the Science Communications Unit and relevant policy and program partners to better understand stakeholder communication needs. An Air Quality Communication Officer is nominated to develop a communications plan for the Clean Air Strategy that addresses this recommendation as soon as possible.			• Air Quality Communication Officer hired by August 2022 • Comms plan in place by December 2023
4	*While there have been a broad range of improvements and outputs created under the Air Program, not all of the program components appear to have been delivered as planned. One of the key issues here appears to be a*	**Future programs and tranches of work that use external funding should be designed and managed more transparently**. This includes developing a program plan with	Accepted	The Air Program has an existing Quality Management System (QMS) which underpins the objectives and standard operating procedures of the AQMN. An overarching program plan will be developed for all CCF and/or externally funded components of the Air Program in the	CAS Branch	• CAS Air Quality Program team • CCF Portfolio Management Office • Delivery Office	SPACE onboarding by 2022 (subject to SPACE development timelines)

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	lack of a clear program plan and deliverables.	clear objectives, timelines, budgets and governance structures. DPE may consider identifying a central responsible person for managing the program, rather than coordination happening across teams via the branch director.		future, which will be reflected through the SPACE onboarding of the Air Program for improved transparency of program management and reporting. When budget is made available, DPE will consider a central program manager within CAS and identify which team will this role sit under. The role will monitor the progress of program activities across the QSR, Monitoring, Research and Calibration teams. The role will coordinate the preparation of program and evaluation plans and other documentation, conduct procurement and manage delivery of relevant program components. This will free up the branch Director's time for some high-level works that need urgent attention.			December 2023, subject to budget availability
5	*Identifying specific underlying problems*	**To help identify objectives in**	Accepted	We will enhance documentation of	CAS Branch	• CAS Air Quality Program team	ongoing

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	has been done to some extent in the current program, though the problems are articulated at a very high level.	**future projects, there may be value in identifying specific underlying problems.**		underlying problem identification in future project planning, mapping out linkages between business plan, program logic, program evaluation plan, project specific objectives and high-level monitoring and research goals for the program.		• NSW Government program partners including Climate Change and Air Policy (EHG), EPA Regulatory Services	
				The Air Program QMS includes functions for continual improvement and root-cause analysis. We will work through QMS auditing to better identify systematic or underlying problems.			4-monthly review, annual QMS review or auditing
				The Air Quality Monitoring Plan and the Method for creating plans helps identify future monitoring objectives and current issues. We will work to better integrate the plan methods into future projects in the annual (December) review and the 5-yearly major review in 2025			Annual review in November; major review in 2025

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6	*While there have been a broad range of improvements and outputs created under the Air Program, not all of the program components appear to have been delivered as planned. One of the key issues here appears to be a lack of a clear program plan and deliverables.*	**DPE should consider developing a research plan/strategy for the CAS branch**. Although the work of the team appears to be far-reaching, it is not clear what is being worked on and if and how it might be relevant to policy and other decision-makers.	Accepted	The CAS Atmospheric Research Team is preparing a 10-year research plan, filling current gaps in knowledge and covering future challenges for air pollution in NSW. This research plan will address a wide variety of current and future air quality issues associated with climate change, transition to net zero emissions, urbanisation and industrial developments and emerging pollutants.	CAS Branch, specifically, Atmospheric Research team	• CAS Air Quality Program team • NSW Government program partners including Climate Change and Air Policy (EHG), EPA Regulatory Services	December 2023
7	*While there have been a broad range of improvements and outputs created under the Air Program, not all of the program components appear to have been delivered as planned. One of the key issues here appears to be a lack of a clear program plan and deliverables.*	**DPE should consider developing a range of more detailed reports on program expenditure, including how much staff time is allocated to different activities.** This would be useful in assessing where resources are flowing and what	Partially Accepted	The Department has a central system for financial management. Standardised project management reporting is in development. Neither of these are geared towards time-sheet budgeting. The Air Program Team will engage with the reporting development teams to raise these issues but cannot commit to the additional reporting outlined in the	CAS Branch	CCF Portfolio Management Office (PMO)	SPACE onboarding by 2022 (subject to SPACE development timelines)

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		the relative cost-effectiveness is of different activities within the branch.		Recommendation. We will transition to using the SPACE program reporting tool in 2022			