Appendix one – Response from agency

Ms Margaret Crawford  
Auditor-General of NSW  
GPO Box 12  
SYDNEY NSW 2001  

Via email: claudia.migotto@audit.nsw.gov.au

Dear Ms Crawford

Thank you for your letter of 17 December 2018, providing me with a copy of the final report for the Performance Audit – Supply of secondary teachers in STEM-related disciplines.

Please find attached the Department of Education’s formal response to the report.

The department is strongly committed to ensuring that, through the provision of quality teaching by appropriately qualified teachers, all students in NSW public schools have access to high quality learning across STEM subjects, particularly science and mathematics.

The department welcomes the Auditor-General’s performance report as an opportunity to reflect on the challenges faced in attracting and recruiting high quality STEM teachers across all NSW public secondary schools, as well as acknowledge the positive work that is already underway by the department to address these issues.

The department accepts all recommendations in the report and is pleased to advise that progress is already being made to address the three key recommendation areas relating to workforce planning, scholarship strategies and practicum placements for pre-service teachers. As such, the department anticipates that all recommendations will be addressed within the prescribed timeframe.

I would like to take this opportunity to thank the officers from the Audit Office of NSW who conducted this review, and also recognise the officers within the department who provided assistance.

Yours sincerely

Mark Scott AO  
SECRETARY  
DEPARTMENT OF EDUCATION  
14 January 2019

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NSW Auditor-Generals Report to Parliament | Supply of secondary teachers in STEM-related disciplines | Appendix one – Response from agency
The NSW Department of Education welcomes the NSW Auditor-General’s Performance Audit report on the supply of secondary teachers in STEM-related disciplines

The department is strongly committed to ensuring the provision of a high quality education across STEM (science, technology, engineering and mathematics) for all NSW public secondary school students, and acknowledges that paramount to this is the attraction and recruitment of appropriately qualified STEM teachers. While there are many outstanding STEM teachers currently working across NSW public secondary schools, the department is aware that there are certain areas of location and discipline shortage, and more must be done to ensure that the supply of STEM teachers will meet current and future demands.

The department is pleased that the report has acknowledged the positive work that is already underway to address many of the issues highlighted by the report, as well as the high quality promotional activities undertaken by the department to promote teaching as a career of choice.

The department accepts all recommendations of the report and will implement the recommendations.

Monitoring supply and demand

The report has identified current shortcomings in the department’s capacity to accurately predict workforce supply and demand, resulting in limitations in understanding where there may be a deficiency in the provision of appropriately qualified STEM teachers, and the subsequent planning that could occur to meet this need.

While the department reports annually on the workforce profile of teachers, the department will undertake more detailed and timely public reporting which will help the department to influence the future supply of teachers by communicating its projected areas of need.

The department has taken significant steps over the past few years to improve its workforce planning and analytic capability, moving from an aggregate model of supply-demand to a coverage model which seeks to understand supply-demand by subject area and location. Further work still needs to be undertaken to test and refine the assumptions that underpin the department’s coverage model to ensure accurate projections and to better inform workforce management strategies.

In 2017 the department implemented a new workforce planning model, Key Learning Area and Subject Teacher Coverage Model (the ‘Coverage Model’) to better understand the supply, demand and availability of teachers by both subject and geographic location. This model was built from person and position records, rather than the broad trends that were used in previous workforce planning models. This new approach resolved the issues of observing supply and demand in small areas of the state and for the first time enabled the department to assess the availability of teachers by subject and location down to an individual school.
In 2018 the department endorsed the next generation of the Coverage Model after beginning to source additional data from schools about teacher and class timetabling. This project aims to test and resolve the assumptions that underpin the next generation Coverage Model, improving its precision. This will provide access to principals and network directors giving them visibility and insights into the availability of teachers in a school’s area and improve tactical and strategic workforce management. This model will enable greater visibility at a school level of teaching supply and demand by subject, including out-of-field teaching where teachers are teaching subjects other than those in which they have specialised.

**Strategies to attract and retain teachers**

The report has focused on the department’s scholarship and sponsorship programs as a primary strategy to assist in attracting and retaining STEM teachers to locations of workforce need. The report has found that the existing programs are not maximising opportunities for addressing supply and demand issues.

In 2017, the department initiated and completed an extensive review of current offerings under the scholarship and sponsorship programs to inform a refresh of these strategies and recommend key changes to the range of offerings. The outcome of this review was outlined in the Scholarship Refresh Strategy Paper, which included reference to two new programs to attract and retain STEM teacher candidates. The TeachNow and TeachSTEM scholarships were subsequently announced by the Minister for Education and the Premier in October 2018 as part of the NSW government’s Mathematics Strategy, and were therefore out of scope for the current report. These new programs will more explicitly target STEM industry professionals and high achieving final year STEM university students who are interested in converting to a career in teaching, with the programs offering a substantial financial package of support during the period of study. It is anticipated that the introduction of these scholarships will see a significant improvement in the retention of STEM scholars throughout their study and successful appointment to a STEM teaching position.

The department continues to work with University partners to enhance practicum opportunities. The department is finalising Professional Experience Agreements with Initial Teacher Education Providers (ITEPs) for 2019-2021. Amendments to these agreements include a requirement for the ITEPs to provide the department with data in relation to the number, location and subject area of teacher education students (TES) undertaking professional experience placements in departmental schools annually.

As identified in the report, the department is aware that some ITEPs have had difficulties placing STEM teacher education students in appropriate settings. In response to this notification and to address identified departmental workforce needs, a STEM Professional Experience Hub School will be trialled in 2019. This trial will enable targeted placements for STEM scholarship and sponsorship recipients with STEM related mentoring and professional development support available for Hub school teachers to enhance the professional experience for STEM teacher education students. All ITEPs will be able to access the STEM Professional Experience Hub for their STEM teacher education students, ensuring appropriate placements for these students as part of their teacher education studies.