Northern Sydney District Council

of Parents & Citizens Associations

Submission: Schools at the Meadowbank Education and Employment Precinct

Wednesday, 20 November 2019

Abstract

The NSW Department of Planning, Industry and Environment has invited formal submissions on the State Significant Development Application for the new schools.

In this submission the Northern Sydney District Council of P&C Associations (NSDC) outlines the probable requirement for the acquisition of additional land and the significant upgrade of Melrose Park Public School and Ermington Public School and the possible requirement for two additional primary schools within the Melrose Park precincts. NSDC identifies the requirement to build a new secondary school possibly for more than 2,000 students, ideally on the current site of Marsden High School, West Ryde.

The NSW Government has announced that Marsden High School will be relocated to the new Meadowbank Education Precinct with capacity for 1500 secondary school students. The school will also include capacity for 120 students attending intensive English classes.

In absence of demographic projections from the Department of Education, in conjunction with Marsden High School P&C Association, NSDC has performed a demographic analysis using a sophisticate demographic model based on ABS Census Data 2006-2016 for similar developments at Rhodes and Wentworth Point.

This analysis has concluded that Meadowbank schools will be at capacity as early as 2023. The expansion of capacity at the Meadowbank campus addresses only the demographic growth resulting from the high density residential development at Meadowbank and Shepherds Bay plus demographic growth in existing suburbs in the eastern half of the current school catchment area.

NSDC recommends that the 5.4 hectare Marsden High School site at Winbourne Street should be retained for education use and the buildings and facilities redeveloped to a quality comparable with the planned Meadowbank Education Precinct site.

NSDC recommends that construction of the Meadowbank Educational Precinct proceeds expeditiously. NSDC fully supports a new primary school and a new secondary school being constructed on the former site of Meadowbank Boys High School to form the Meadowbank Education Precinct.

NSDC recommends several improvements to the detail design of the Meadowbank Educational Precinct to ensure that the new schools have facilities that are at least a good as adjoining local schools.

In preparing this document Northern Sydney District Council of Parents & Citizens Associations has used reasonable care and relied on publically published information. Northern Sydney District Council of Parents & Citizens Associations does not warrant the accuracy of this information. Third parties should not rely on this information. Third parties are advised to conduct their own due diligence.

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1 Submission

P&C Associations in the Northern Sydney District have noticed the inadequate education facilities planned for the Melrose Park development published by Parramatta Council.

The plan envisages up to 11,000 additional homes but only 680 additional primary school students and 499 additional secondary school students. The analysis that provides these numbers is clearly wrong.

If the precinct is developed over an extended period at the rate of 1,000 homes per annum from 2020 to 2026 and from 2029 to 2033 with no further development 11,000 new homes will result in a peak number of 1,404 additional pre-schoolers in 2033, a peak number of 2,085 additional primary students in 2038 and a peak number of 1,835 additional secondary students in 2045.

Education facilities for this development can be accommodated by:

- Acquisition of land and upgrade of Ermington Public School to 1,000+ students
- Construction of a new primary school for 1,000+ students on a site of not less than 35,000 square metres within the northern precinct
- Acquisition of land and upgrade of Melrose Park Public School to 1,000+ students
- Construction of a new primary school for 1,000+ students on a site of not less than 35,000 square metres within the southern precinct
- Construction of a new high school for 2,000+ students on the existing Marsden High School site.
- Upgrade to accommodate additional high school students in surrounding schools.

The development at Melrose Park follows on from the significant development at Meadowbank and Shepherd's Bay over recent years.

NSDC is also mindful that this area is a part of the Greater Parramatta to Olympic Peninsula (GPOP) identified by the Greater Sydney Planning Committee as requiring 84,000 new dwellings by 2040. https://www.greater.sydney/project/infrastructure

NSDC welcomed the announcement by the Premier and Victor Dominello on 19 June 2017 that a new primary school and a new secondary school would be constructed on the former site of Meadowbank Boys High School to form the Meadowbank Education Precinct to serve the demographic demands from the recent development at Meadowbank and Shepherd's Bay.

NSDC has a number of specific concerns.

1.1 Relocation concerns

NSDC was surprised and concerned with the announcement in 2018 that Meadowbank Public School and Marsden High School would be relocated to the new site. We remain concerned that the 3.3 hectare site is too small. We are concerned that the projected number of students that will need to be accommodated over the planning horizon will exceed the capacity projections. Accordingly Meadowbank Public School and Marsden High School should be retained at their existing sites to serve future demands. It does not seem logical to relocate these schools and then establish new schools at the former sites with new names at a later date. It would be preferable to establish new schools in the new school facilities.

NSDC has some history of challenging the demographic projections of the Department of Education and being proved correct. The Department of Education has not provided an opportunity to verify its demographic projections one way or another.

NSDC recommends that the Department of Education review and rescind its decision to dispose of the existing site of Meadowbank Public School and the existing site of Marsden High School. NSDC recommends that the Department review its decision to relocate Meadowbank Public School and

Marsden High School and instead establish new schools at the Meadowbank Education Precinct. We suggest an option may be establishing the Meadowbank Demonstration School modelled on the North Sydney Public School model and the Meadowbank Technology High School modelled on the Cherrybrook Technology High School model. Speaking at our recent NSDC meeting at Lindfield Learning Village, Mark Scott stated that the best schools in NSW ranked with the best in the world - his challenge was to raise the rest. NSDC recommends establishing new schools on the 21st century learning model of the best performing schools rather than relocating existing schools. NSDC recommends that no action be taken to demolish any existing infrastructure at the existing site of Meadowbank Public School and the existing site of Marsden High School until it is proved that these will no longer be required for education.

None of these recommendations will prevent the construction of the Meadowbank Educational Precinct proceeding expeditiously. NSDC fully supports a new primary school and a new secondary school being constructed on the former site of Meadowbank Boys High School to form the Meadowbank Education Precinct to serve the demographic demands from the recent development at Meadowbank and Shepherd's Bay.

1.2 Outdoor space concerns

NSDC was concerned that the original plans were for a building that had too many storeys and did not meet the minimum standard of 10 square metres per student of unencumbered outdoor play space.

There is little analysis of the recent high rise schools in Australia. According to NSDC analysis based on overseas experience, school buildings exceeding 3 storeys introduce inefficiencies that adversely impact the operation of a primary school and severely impact a secondary school. Secondary schools tend to have students moving around at the end of every period. As the school gets taller the size of staircases required to efficiently move students grows disproportionally. Poor design of high rise schools have resulted in injury of students and death overseas.

NSDC is pleased to see that significant and important changes have been made to the design such that the secondary school is substantially spread over only three storeys. The inclusive education support unit and the intensive English centre are substantially self-contained. This is a very practical solution to a significant life-threatening problem with the previous design.

However, the concern about inadequate unencumbered outdoor play space has been exacerbated by the new design. NSDC cannot see a solution to this problem unless either the number of students is reduced or additional land is made available. During the NSW general election campaign Victor Dominello suggested to a number of electors that he would obtain space from the adjoining Sydney Water site.

NSDC is extremely concerned that this unfortunate and unavoidable situation will establish a new standard for unencumbered outdoor play space for all new schools, for all school expansions and provide justification for school closures. There has been a massive community backlash in the Premier's electorate as a result of plans to expand Chatswood Public School on its existing site without acquiring additional land to meet the minimum standard of 10 square metres per student of unencumbered outdoor play space.

Until relatively recently the Department of Education's standard benchmark for a new high school was 6 hectares for 800-1000 students and a standard primary school was 3 hectares for 500-600 students. That remains the community standard and expectation when new schools are announced. The small size of the site put the new schools at a relative disadvantage compared to schools on larger sites, such as Epping Boys, Cheltenham Girls, Riverside Girls and Hunter Hill High School.

1.3 Toilets concerns

The plans provided for review seem to have what NSDC would call "pro-forma" toilets, including the accessibility toilet only being accessible only from the girl's toilets. The architects have transformed the design in just a few months and we expect that some of the details will be corrected later.



In general terms, NSDC has identified five main teaching floors for 1500 students, two on the northern wing and three on the southern wing. NSDC envisages an average of 300 students per floor in each wing but at times that may be 500 students. It appears there are three cubicles plus accessible toilet for the girls and three for the boys for 300 students. At times there may be 400 students of a specific gender. NSDC imagines the final layout is yet to be completed but expect the toilets are inadequate and going to create a problem unless the boys are tripled in area and the girls are at least twice the area as the boys. It will not be acceptable for any adolescent girl to be embarrassed in front of the whole class because she was forced to go to another storey because all the girls' toilets were occupied in the few minutes between periods.

NSDC has been unable to identify any amenities for students of non-binary gender.

NSDC notice that new builds such as at Cherrybrook Technology High School incorporate chilled water bottle stations and a range of amenities. Many surrounding school P&Cs such as Marsden High School, Epping Boys and Cheltenham Girls have installed these recently. It's not clear from the plans exhibited whether these will be included in the design for MEP. They should be on each floor and especially near the canteen, gym and outdoor areas for each school.

This is important and mandatory for student hydration, student anti-obesity and student equity.

1.4 Examination centre concern

From the limited plans provided, NSDC can see the primary school has a "community hall" and the high school has a gym, which is expected to perform the function of an assembly hall, performance hall, examination hall and a gym.

The gym has an external operable wall that opens onto the oval belonging to the TAFE.

Implicit in these arrangements is that the TAFE, the secondary school and the primary school will cooperate to maximise the total benefit for all students on a holistic basis.

The Department of Education works on the "command and control" model. There may be an initial spirit of goodwill and fraternisation at the start. In the medium to long term we expect the schools to operate as separate fieldoms.

The hybrid assembly hall, performance hall, examination hall and a gym for the secondary school performs none of these functions adequately because it must be all things to all people. These problems were identified more than 30 years ago at Epping Boys and resulted in that school getting a separate gym in about 1994 paid for by the Department and a separate examination centre in about 2004 paid for by the school community. As currently designed MEP cannot compete with Epping Boys because it is designed to provide inferior facilities. At very little extra cost and with small changes MEP could have better facilities than surrounding schools. NSDC's primary concern is the adequacy for the conduct of examinations in a reasonable quiet facility i.e. not near the change rooms, school entrance, car park, etc. A preferable outcome would be to have the Senior GLS space on the top floor configurable for examinations using operable walls. Ideally NSDC see the need for a very large exam space that can accommodate 400 students for HSC English. There should be a secure space for examination papers. There should be a storage room for examination tables. There should be a space for external exam personnel. External exam personnel are not members of the school teaching staff.

The current hall at Marsden is not a gym. It has sophisticated audio visuals for Creative and Performing Arts that would be destroyed in a gym. Marsden is the school of Richard Gill. In this aspect Marsden at MEP will be a significantly lesser standard that the existing school. The design team should visit the auditorium at Lindfield Learning Village which sets a standard for the community hall. NSDC believe that a "Richard Gill" auditorium can be incorporated in the design at minimal cost.

1.5 Getting to and from school – staff, students and parents

A fundamental flaw of the initial design was the absence of car parking for teachers, students and visitors.

The current design is a significant improvement but provides half the requirement by adopting an assumption that a large proportion of staff will travel by foot or public transport. NSDC believes this is an unreasonable assumption. We expect that the growing population of schools will increase the number of teachers required by the Department at a time when there is a shortage of qualified teachers worldwide. NSDC fears that the lack of convenient parking will put the MEP schools at a disadvantage compared to local schools that have adequate staff parking.

Most local schools in Ryde are congested by parents at drop-off and pick-up each day. This congestion lasts for only about 15 minutes but is severe and requires regular attendance by Ryde City Council rangers. The plans provided for review envisage that a high proportion of students will walk or cycle to school rather than be picked up or dropped off by vehicle. NSDC believes this is an unreasonable assumption. The report ominously foreshadows disciplinary action to ensure the required proportion of students comply with the prescribed method of travel to school. NSDC foresees that a large number of students from Meadowbank and Shepherd's Bay will find walking and cycling convenient; NSDC could not condone punishment of students who choose not to walk or cycle up and down the steep hills of West Ryde, Denistone and Eastwood.

1.6 P&C and General Assistant facilities

NSDC was unable to locate a uniform shop for either school nor storage facilities for uniform shop stock, storage facilities for canteen stock, storage facilities for P&C material and equipment.

NSDC was unable to locate storage facilities for student representative council material and equipment.

NSDC was unable to locate storage facilities for the general assistant's material and equipment. It would be ideal for furniture stores and material stores to be distributed over all the floors to minimise the time moving furniture over a number of floors.

Appendix A – Projections

Table A.1.1 shows the total predicted numbers of students expected for the Marsden High School catchment. This is expected to peak in 2036 at approximately 6700. This represents a more than doubling of the high school students currently living within the catchment which is 3200. By 2055 this peak will have worked through the system and high school student numbers can be expected to settle down to approximately 4500 assuming that there is no future residential development beyond that which is currently planned.

Table A.1.1 Marsden High School Catchment, Predicted Secondary Student Numbers

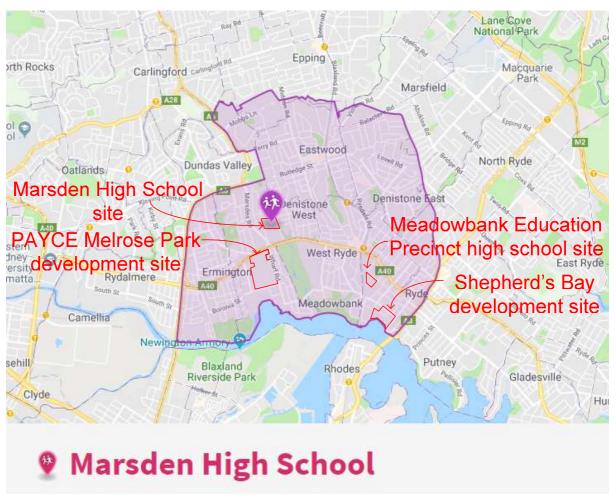
Year	Existing dwellings	New dwellings	Shepherds Bay	Melrose Park	Totals
	Table B.13.2.	Table B.14.3	Table C.6.2	Table C.7.2	Summation
2016	3145	0	0	0	3145
2020	3373	54	71	42	3540
2021	3503	70	87	86	3746
2022	3673	87	110	132	4002
2023	3716	105	158	180	4159
2024	3895	123	166	230	4414
2025	4044	144	172	282	4642
2026	4124	168	183	294	4769
2027	4198	189	196	304	4887
2028	4149	229	225	319	4922
2029	4188	289	288	339	5104
2030	4101	365	375	380	5221
2031	3982	454	484	474	5394
2032	3865	556	599	621	5641
2033	3778	625	738	815	5956
2034	3748	681	831	1042	6302
2035	3702	720	873	1302	6597
2036	3666	748	853	1451	6718
2037	3630	757	811	1509	6707
2038	3594	736	757	1476	6563
2039	3564	690	676	1396	6326
2040	3540	637	592	1276	6045
2045	3504	376	380	792	5052
2050	3504	292	294	574	4664
2055	3504	276	272	468	4520

Appendix B – Established residential areas

B.1 Marsden High School enrolment area

The Education Act 1990 states that a child is entitled to be enrolled in a government school in the designated intake area in which the child's home is situated. Figure B.1.1 shows the current enrolment area for Marsden High School. In line with the Department's *Enrolment of Students in Government Schools – A Summary and Consolidation of Policy*, students who live outside of this designated area will still be able to apply to other schools utilizing the Department's non-local enrolment procedures.

Figure B.1.1 Marsden High School enrolment area



The Marsden High School catchment covers all or part of the following census suburbs:

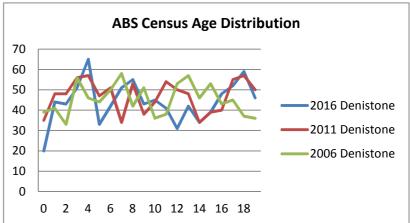
- Denistone (ABS SSC11238)
- Denistone East (ABS SSC11239)
- Denistone West (ABS SSC11240)
- Eastwood (ABS SSC11369)
- Epping, Carlingford and Dundas (minor parts)
- Ermington (ABS SSC11435)
- Meadowbank (ABS SSC12550)
- Melrose Park (ABS SSC12563)
- Ryde (part)
- West Ryde (ABS SSC14251)

The Australian Bureau of Statistics publishes census data on various geographical areas. State Suburbs (SSC) are an approximation of the officially recognized boundaries of suburbs.

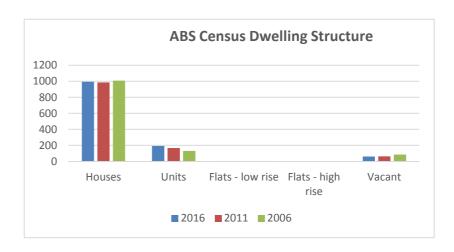
B.2 Denistone

Figure B.2.1 ABS Census: Dashboard for Denistone





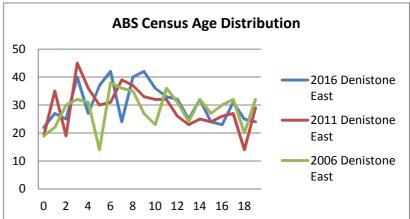
Denistone SSC11238	2006	2011	2016	Change
Private dwellings	1,143	1,219	1,246	9% increase
Residents	3,321	3,542	3,605	9% increase
Pre-school children	215	259	223	4% increase
Primary students	319	321	310	-3% decrease
Secondary students	297	275	246	-17% decrease



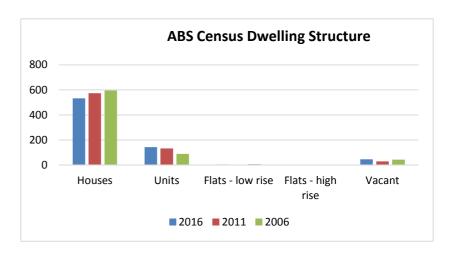
B.3 Denistone East

Figure B.3.1 ABS Census: Dashboard for Denistone East





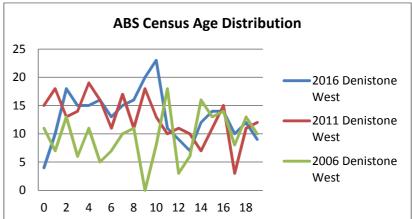
Denistone East SSC11239	2006	2011	2016	Change
Private dwellings	691	734	730	6% increase
Residents	1,971	2,128	2,193	11% increase
Pre-school children	134	161	141	5% increase
Primary students	209	222	254	22% increase
Secondary students	176	145	167	-5% decrease



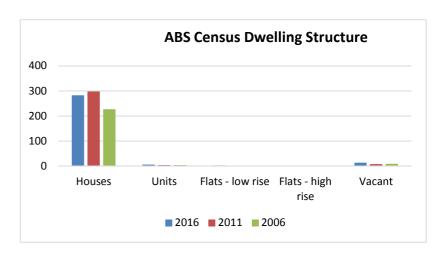
B.4 Denistone West

Figure B.4.1 ABS Census: Dashboard for Denistone West





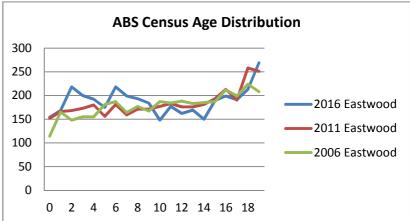
Denistone West SSC11240	2006	2011	2016	Change
Private dwellings	231	307	307	33% increase
Residents	668	904	904	35% increase
Pre-school children	48	73	62	29% increase
Primary students	59	90	114	93% increase
Secondary students	60	59	66	10% increase



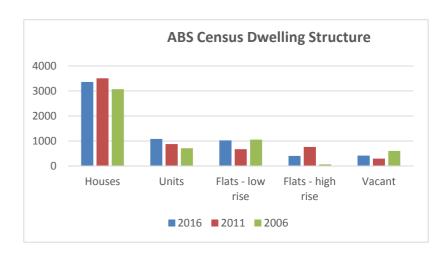
B.5 Eastwood

Figure B.5.1 ABS Census: Dashboard for Eastwood





Eastwood SSC11369	2006	2011	2016	Change
Private dwellings	4,917	6,127	6,314	28% increase
Residents	13,640	16,311	17,705	30% increase
Pre-school children	737	858	932	26% increase
Primary students	1,247	1,213	1,294	4% increase
Secondary students	1,154	1,286	1,060	-8% decrease



Two portions of the census areas of Eastwood are outside the enrollment area of Marsden High School. For the sake of simplicity these have been included in the analysis. These are likely to have a minor effect on the overall demographic projection as they will be offset by the exclusion of portions of other areas such as Ryde, Epping, Carlingford and Dundas.

B.6 Epping, Carlingford and Dundas (minor parts)

Figure B.6.1 ABS Census: Epping, Carlingford and Dundas (minor parts)

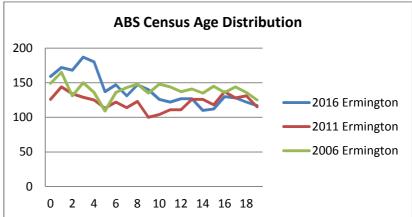


Small portions of the census areas of Epping, Carlingford and Dundas are within the enrollment area of Marsden High School. For the sake of simplicity these will be omitted from the analysis. These are likely to have minimal effect on the overall demographic projection.

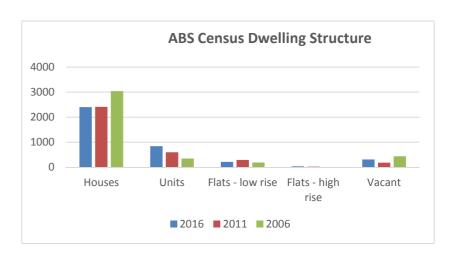
B.7 Ermington

Figure B.7.1 ABS Census: Dashboard for Ermington





Ermington SCC11435	2006	2011	2016	Change
Private dwellings	3,574	3,500	3,823	7% increase
Residents	9,756	9,252	10,162	4% increase
Pre-school children	731	623	866	18% increase
Primary students	963	789	950	-1% decrease
Secondary students	838	755	734	-12% decrease

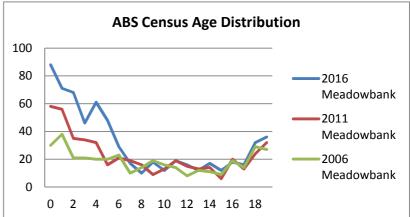


A small portion of the census area of Ermington is outside the enrolment area of Marsden High School. For the sake of simplicity these have been included in the analysis. This is likely to have a minor effect on the overall demographic projection.

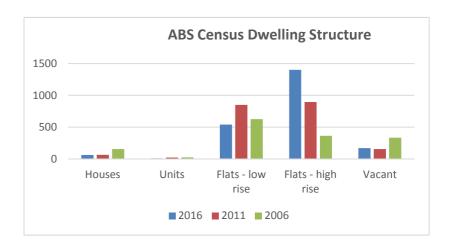
B.8 Meadowbank

Figure B.8.1 ABS Census: Dashboard for Meadowbank





Meadowbank SSC12550	2006	2011	2016	Change
Private dwellings	1,167	1,985	2,176	86% increase
Residents	2,219	3,678	4,375	97% increase
Pre-school children	130	138	334	157% increase
Primary students	116	104	153	32% increase
Secondary students	73	109	91	25% increase

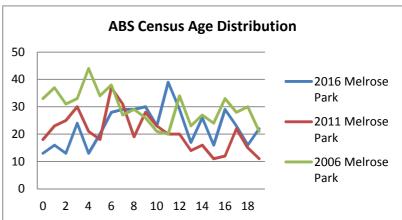


The age distribution curve for Meadowbank shows a similar pattern to that of Rhodes and Wentworth Point. This is probably the result of the residential development of the former Siemens-Plessey industrial site at Meadowbank.

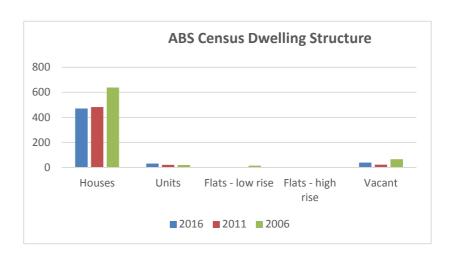
B.9 Melrose Park

Figure B.9.1 ABS Census: Dashboard for Melrose Park





Melrose Park SSC12563	2006	2011	2016	Change
Private dwellings	673	527	544	-19% decrease
Residents	1,923	1,454	1,531	-20% decrease
Pre-school children	178	131	79	-56% decrease
Primary students	195	155	198	2% increase
Secondary students	169	87	140	-17% decrease



B.10 Ryde (part)

Figure B.10.1 ABS Census: Ryde (part)



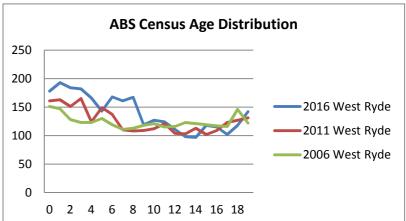
A significant section of the census areas of Ryde is within the enrollment area of Marsden High School. For the sake of simplicity these have been omitted from the analysis of the established residential areas. These are likely to have a minor affect on the overall demographic projection as they will be offset by the inclusion of portions of other areas such as Eastwood. A large portion of this census area is the former industrial areas that are being developed as part of the Shepherds Bay precinct and adjoining developments. Demographic projections for Shepherds Bay are treated separately at Appendix C.

There is potential for significant underestimation in these demographic projections associated with the recent developments between Belmore Street and Concord Road. There is no data available to correct this potential error.

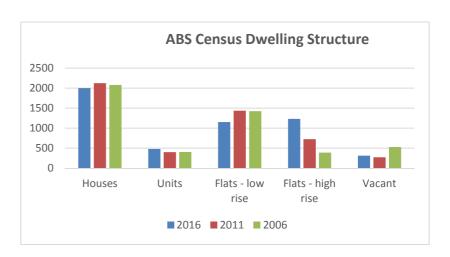
B.11 West Ryde

Figure B.11.1 ABS Census: Dashboard for West Ryde



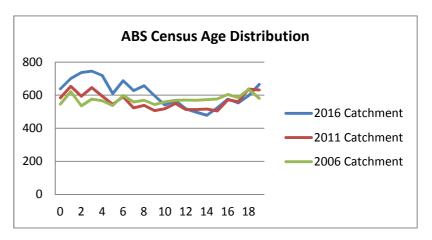


West Ryde SSC14251	2006	2011	2016	Change
Private dwellings	4,305	4,957	5,197	21% increase
Residents	10,482	11,706	12,939	23% increase
Pre-school children	672	726	903	34% increase
Primary students	827	767	1,009	22% increase
Secondary students	712	705	641	-10% decrease

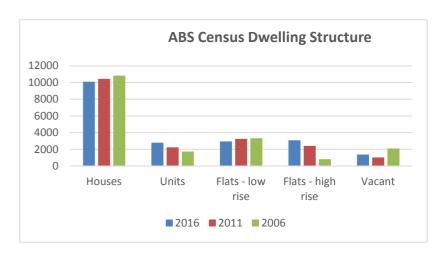


B.12 Population growth rate in established residential areas

Figure B.12.1 ABS Census: Dashboard for consolidated MHS catchment



MHS Catchment Consolidated	2006	2011	2016	Change
Private dwellings	16,701	19,356	20,337	22% increase
Residents	43,980	48,975	53,414	21% increase
Pre-school children	2,845	2,969	3,540	24% increase
Primary students	3,935	3,661	4,282	9% increase
Secondary students	3,479	3,421	3,145	-10% decrease



The rate of population growth in the established residential areas is assumed to continue to increase in line with current trends. This assumption applies to the established residential areas within the catchment. It does not apply to the major developments of Shepherds Bay and Melrose Park.

In the established residential areas there is a gradual replacement of single-storey, single-dwellings with:

- larger multiple-storey, single-dwellings
- the addition of "granny flats"
- multiple-storey, duplex-dwellings.

There is also some development where several single-storey, single-dwellings are combined into larger blocks to enable the construction of townhouse and villa complexes.

The increase in the number of dwellings is assumed to increase the number of residents by the same proportion as the rest of the suburb. These developments are assumed to not significantly change the proportion of secondary school students.

In parts of other suburbs such as Ryde, Eastwood, Meadowbank and West Ryde there has been ongoing development of medium-density and high-density apartments in mid-rise and high-rise blocks.

B.13 Distribution of existing school age children in the established residential areas

The increase in the number of school age children in the established suburbs has been driven by several factors. Government incentives such as the baby bonus introduced in 2006 and the economic environment have encouraged families to have more children. This shows up in ABS 3301.0 - Births, Australia, 2017

These changes can be attenuated or amplified due to outside effects such as recession or changes to government policy. These will have a direct effect on the demographic projections in this analysis.

This demographic projection assumes that current school age children progress through the school system and all outside factors remain unchanged.

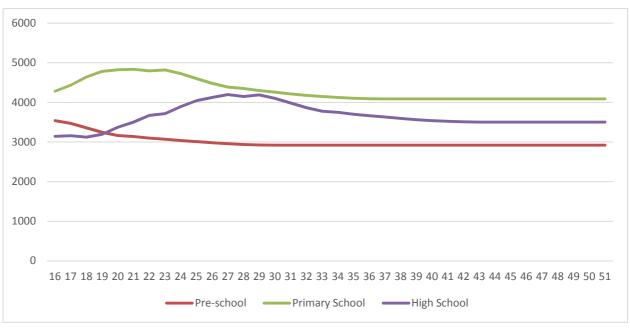


Figure B.13.1 Established Suburbs, Predicted Student Profile (existing dwellings)

Table B.13.2 Established Suburbs, Predicted Student Numbers (existing dwellings)

Year	Pre- school	Primary School	High School
2016	3540	4282	3145
2017	3469	4435	3158
2018	3356	4640	3122
2019	3245	4781	3194
2020	3164	4825	3373
2021	3140	4836	3503
2022	3100	4797	3673
2023	3070	4820	3716
2024	3040	4727	3895
2025	3010	4602	4044
2026	2980	4479	4124
2027	2956	4386	4198
2028	2938	4350	4149
2029	2926	4298	4188
2030	2920	4256	4101
2031	2920	4214	3982
2032	2920	4178	3865
2033	2920	4148	3778

Year	Pre- school	Primary School	High School
2034	2920	4124	3748
2035	2920	4106	3702
2036	2920	4094	3666
2037	2920	4088	3630
2038	2920	4088	3594
2039	2920	4088	3564
2040	2920	4088	3540
2041	2920	4088	3522
2042	2920	4088	3510
2043	2920	4088	3504
2044	2920	4088	3504
2045	2920	4088	3504
2046	2920	4088	3504
2047	2920	4088	3504
2048	2920	4088	3504
2049	2920	4088	3504
2050	2920	4088	3504
2051	2920	4088	3504

B.14 Increase in school age children in the established residential areas

As noted above, the suburbs comprising the Marsden High School catchment have experienced an increase in the number of dwellings.

In addition there has been a population replacement effect. Retirees with no children at home have sold to new families with kids. This effect has a 40 years cycle so the increase in primary schools in recent years will flow into secondary in the immediate future but will tend to attenuate when those students move on to tertiary education and work.

As discussed in the previous subsections the increase in new dwellings is closely associated with family formation and results in a sharp increase in the number of infants in the years after first occupancy.

The demographic distribution is likely to be similar to that established in Appendix C for the suburb of Rhodes.

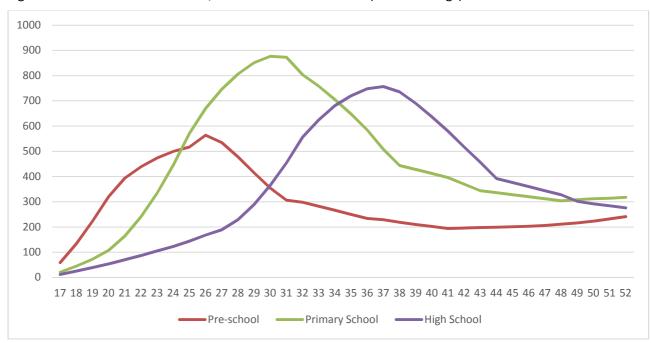
This demographic projection assumes that new dwellings will result in an increase in children matching the profile established in Appendix C and that those children will progress through the school system. Table B.14.1 shows the input conditions that assume a similar level of average development for the next 10 years as the catchment has experienced for the last 10 years, and assumes there is no further development thereafter.

Table B.14.1 Established Suburbs, Predicted Student Numbers Input Table (new dwellings)

Project	New dwellings
Total Units	3635
Construction Start Year	2016
Delivery start year	2017
Quantity year 1	363
Quantity year 2	364
Quantity year 3	363
Quantity year 4	364
Quantity year 5	363
Quantity year 6	364
Quantity year 7	363
Quantity year 8	364
Quantity year 9	363
Quantity year 10	364

Figure B.14.2 and Table B.14.3 represent a reasonable demographic projection for Shepherds Bay.

Figure B.14.2 Established Suburbs, Predicted Student Profile (new dwellings)



An increase in students will start to be seen at secondary school from 2027. These will peak in 2037 and by 2044 high school enrolments will have settled down to long term established patterns.

Table B.14.3 Established Suburbs, Predicted Student Numbers (new dwellings)

Year	Pre- school	Primary School	High School
2017	59	21	12
2018	134	45	25
2019	223	72	39
2020	320	108	54
2021	394	164	70
2022	439	241	87
2023	474	335	105
2024	500	446	123
2025	517	571	144
2026	564	670	168
2027	535	746	189
2028	478	806	229
2029	415	851	289
2030	354	877	365
2031	306	873	454
2032	298	804	556
2033	282	758	625
2034	266	705	681

Year	Pre- school	Primary School	High School
2035	250	648	720
2036	234	585	748
2037	229	508	757
2038	219	444	736
2039	210	428	690
2040	202	412	637
2041	194	396	580
2042	196	370	517
2043	198	344	456
2044	199	336	392
2045	201	328	376
2046	203	320	360
2047	206	312	344
2048	211	304	328
2049	216	308	302
2050	223	312	292
2051	232	314	284
2052	241	318	276

Appendix C – Major residential development projects

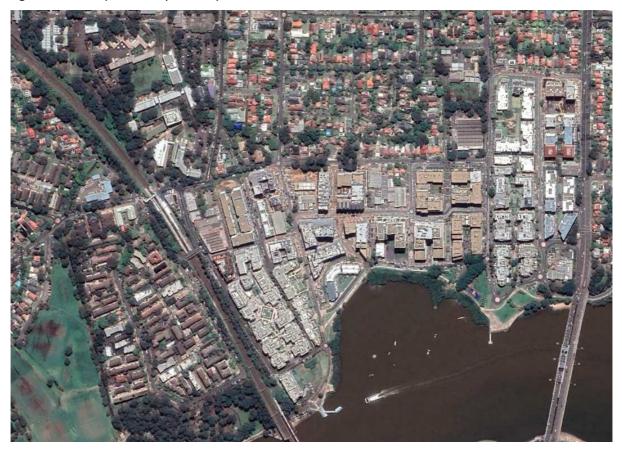
C.1 Shepherds Bay

Shepherds Bay¹ is bounded by Church St to the east, the railway bridge to the west and Constitution Rd to the north.

Apartment building has been underway in the Shepherds Bay precinct since it was rezoned as a mixed-use urban village in 2003.

The development is within 8km of three urban activation precincts in Epping, Macquarie Park and North Ryde.





Imagery date 18 October 2018

In 2008, Billbergia built 850 apartments, a ferry terminal, a community centre and about 10,000sqm of retail space in the Shepherds Bay Retail Village. In 2013, the State Government gave concept approval for another 2000 units to be built in 12 buildings over nine stages on a site on the foreshore bounded by

¹ Meadowbank foreshore mushrooms into high rise city with 2000 more apartments in the pipeline, Kate Bastians, Northern District Times, April 28, 2015 https://www.dailytelegraph.com.au/newslocal/meadowbank-foreshore-mushrooms-into-high-rise-city-with-2000-more-apartments-in-the-pipeline/news-story/a471d82284873ac7178f7ab7d69d358a

Belmore St, Constitution Rd, Rothesay Ave and Bowden St. and will be determined by the Joint Regional Planning Panel.

Table C.1.2 Shepherds Bay Development, Reported Dwelling Numbers

Stage	Dwellings	Address
Stage 1	246	Corner of Rothesay Ave and Belmore St, Ryde
Stage 2 and 3	453	6-18 Nancarrow Ave, 9-11 Rothesay Ave and 41 Belmore St, Ryde
Stage 4 and 5	511	2-18 Constitution Rd and 7-9 Hamilton Cres, Ryde
Stage 6 and 7	311	37 Nancarrow Ave, Ryde
Stage 8 and 9	422	116-114 Bowden Road, Meadowbank.

Figure C.1.3 Shepherds Bay Development, Overall Plan



Stage one, containing 246 dwellings on the corner of Rothesay Ave and Belmore St, was completed in 2015. The site is being developed by Holdmark Property Group. It has been reported that the project involves up to 3504 new homes.²

C.2 Melrose Park

Melrose Park is a major urban renewal project located at the gateway to Greater Parramatta. Developed by PAYCE and Sekisui House Australia, Melrose Park will be a brand new suburb comprising new homes on what was substantially non-residential land. The Melrose Park urban renewal is a 10-year project on a 30 hectare light industrial site. When completed, it will include 6000³ apartments, a retail centre, parklands and community facilities.

Figure C.2.1 Melrose Park Northern Precinct Development, Aerial View



C.3 Comparable developments

Predicting the number of secondary school students residing in a new apartment development has been very difficult for the demographers at the Department of Education (e.g. Artarmon Public School and Chatswood Public School⁴). These developments tend to deliver large numbers of units in several stages and it is difficult to predict the actual occupancy pattern.

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² Shepherds Bay and Meadowbank area poised for 3,504 homes, Steven Deare, Northern District Times, July 19, 2016 https://www.dailytelegraph.com.au/newslocal/northern-district-times/shepherds-bay-and-meadowbank-area-poised-for-3504-homes/news-story/a6d55011c61e065705b9e00bd85e4eaf

³ MELROSE PARK WINS SMART CITY FUNDING, 28 November 2018 http://payce.com.au/melrose-park-wins-smart-city-funding/

⁴ https://www.themonthly.com.au/issue/2015/february/1422709200/ceridwen-dovey/schoolyard-crush

The P&C Association has identified two comparable development locations to use for its demographic model; Wentworth Point and Rhodes, which are directly across the Parramatta River.

Figure C.3.1 Wentworth Point and Rhodes, Aerial View



Figure C.3.2 Wentworth Point and Rhodes, Census Area Outline



Wentworth Point, NSW(SSC)
ABS Community Profile



Rhodes, NSW(SSC)
ABS Community Profile

Wentworth Point and Rhodes provide examples of areas close to Meadowbank that have experienced recent high density urban developments.

C.4 Rhodes census area

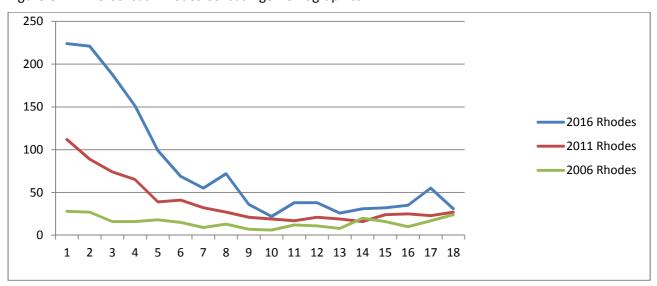
Rhodes is an area that has experienced relative high levels of apartment development. Rhodes should be a good guide for the number of students expected as a result of the Melrose Park development.

Table C.4.1 ABS Census: Rhodes Census Age Demographics

Census Year	Dwellings	Residents	Pre-scho	ol infants	Primary	Students	Secondary	/ Students
2006	581	1396	105	7.52%	73	5.23%	95	6.81%
2011	2462	5000	379	7.58%	178	3.56%	134	2.68%
2016	5065	11553	883	7.64%	330	2.86%	210	1.82%

The figure below shows the age profile of children resident in Rhodes

Figure C.4.2 ABS Census: Rhodes Census Age Demographics



These census data demonstrate that new developments tend to be populated initially with new households either with no children or with infants. The number of school age children is initially smaller than for established residential areas but increases rapidly as children are born and grow up. This will cause a peak demand for childcare, then a peak demand for primary education and then a peak demand for secondary education.

The number of four year olds in 2011 is approximately the same as the number of 9 year olds five years later in 2016.

Eventually the proportion of school students in the future will settle to the long term profiles of the established residential areas.

In the long term 6,000 new homes at Melrose Park will result in 14,417 additional residents 1,009 of these will be primary school students (7%) and 865 (6%) of these will be secondary students.

The demographic model is concerned with the short and medium term transitional student population that will require adequate education facilities.

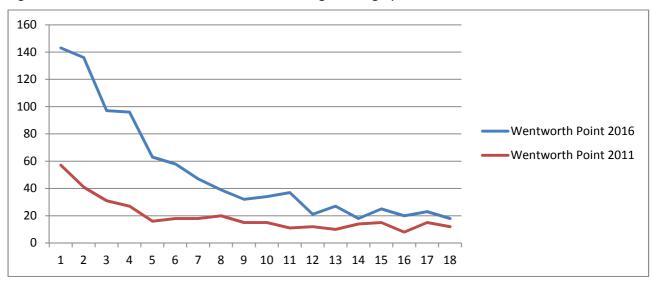
C.5 Wentworth Point census area

Wentworth Point is a comparable area that has experienced high levels of high rise apartment development. Wentworth Point should be a very good guide for the number of students expected as a result of the Melrose Park development.

Table C.5.1 ABS Census: Wentworth Point Census Age Demographics

Census Year	Dwellings	Residents	Pre-scho	ol infants	Primary	Students	Secondary	/ Students
2011	1,192	2,384	172	7.21%	109	4.57%	74	3.10%
2016	2,998	6,301	535	8.49%	268	4.25%	131	2.08%

Figure C.5.2 ABS Census: Wentworth Point Census Age Demographics



The similarity of the demographic profile of Rhodes and Wentworth Point confirm that a full life-cycle profile should be used to predict student numbers. Wentworth Point would indicate higher numbers of students for the same number of new dwellings compared with Rhodes.

In the following sub-sections the student projections will be based on the Rhodes modelling as this is the more conservative option.

C.6 Shepherds Bay, predicted student numbers

Figure C.6.1 and Table C.6.2 represent a reasonable demographic projection for Shepherds Bay based on the Rhodes profile discussed in the previous subsection.

The Shepherds Bay development is not occupied as a single event. In order to provide a realistic model of the actual time-phased number of additional students, the occupation of new dwellings is assumed to be evenly time-phased over the project duration.

Figure C.6.1 illustrates the time-phased number of students as a result of the 3504 new dwellings at the Shepherds Bay and Meadowbank developments. The figure illustrates that relative small numbers of secondary school students are initial residents of the new developments. There will be a large number of young children requiring childcare, then primary school education and then secondary education.

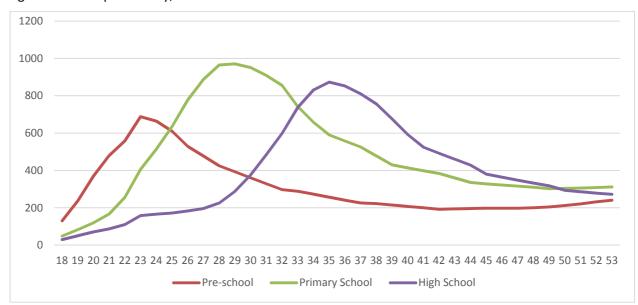


Figure C.6.1 Shepherds Bay, Predicted Student Profile

An increase in students will start to be seen at secondary school from 2028. These will peak in 2034 and by 2045 high school enrolments will settle down to long term established patterns.

Table C.6.2 Shepherds Bay, Predicted Student Numbers

Year	Pre- school	Primary School	High School
2019	237	83	50
2020	370	120	71
2021	480	167	87
2022	559	256	110
2023	688	406	158
2024	664	515	166
2025	610	636	172
2026	529	778	183
2027	477	888	196
2028	425	965	225
2029	393	971	288
2030	361	951	375
2031	329	909	484
2032	297	855	599
2033	289	742	738
2034	273	658	831
2035	257	590	873

Year	Pre- school	Primary School	High School
2037	226	526	811
2038	223	478	757
2039	215	430	676
2040	207	414	592
2041	200	398	524
2042	192	384	492
2043	194	360	460
2044	196	336	428
2045	198	328	380
2046	198	322	364
2047	198	316	348
2048	200	310	332
2049	205	302	318
2050	212	304	294
2051	221	306	286
2052	232	308	278
2053	241	312	272

C.7 Melrose Park, predicted student numbers

6000 NEW HOMES

Figure C.7.1 and Table C.7.2 represent a reasonable demographic projection for Melrose Park Northern Precinct based on the Rhodes demographic profile.

Figure C.7.1 illustrates the time-phased number of students as a result of the 6,000 new homes predicted for the Melrose Park Northern Precinct development.

The figure illustrates that relative small numbers of secondary school students are initial residents of the new development. There will be a large number of young children requiring childcare, then primary school education and then secondary education.

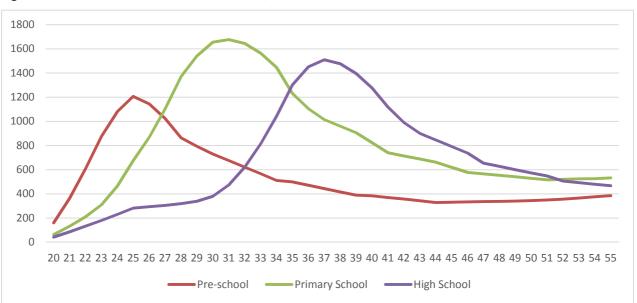


Figure C.7.1 Melrose Park Northern Precinct, Predicted Student Profile

The analysis is based on the input condition that homes will be occupied at the rate of 1,000 homes per annum from 2020 to 2026 with no further development thereafter.

A significant increase in students will start to be seen at primary school from 2024. These will peak between 2030 and 2033. By 2045 primary school enrolments will have settled down to long term established patterns.

A significant increase in students will start to be seen at secondary school from 2031. These will peak between 2036 and 2041. By 2050 high school enrolments will have settled down to long term established patterns.

Table C.7.2 Melrose Park Northern Precinct, Predicted Student Numbers

Year	Pre- school	Primary School	High School
2020	160	63	42
2021	364	133	86
2022	608	210	132
2023	876	310	180
2024	1080	465	230
2025	1206	675	282
2026	1144	869	294
2027	1024	1103	304
2028	864	1370	319
2029	793	1542	339
2030	730	1655	380
2031	675	1677	474
2032	621	1644	621
2033	567	1564	815
2034	511	1446	1042
2035	499	1230	1302
2036	471	1104	1451
2037	443	1014	1509

Year	Pre- school	Primary School	High School
2038	416	960	1476
2039	390	906	1396
2040	384	824	1276
2041	370	740	1118
2042	357	714	990
2043	343	688	900
2044	329	662	846
2045	331	620	792
2046	334	578	738
2047	336	566	654
2048	338	554	628
2049	340	542	600
2050	344	528	574
2051	349	516	548
2052	356	520	506
2053	365	524	492
2054	376	526	480
2055	385	532	468

The peak number of additional primary school students is predicted to be 1,677 in 2031.

There may be several options to address these increased student numbers. One option as a result of the Melrose Park Northern Precinct development could be a building program to increase Melrose Park Public School capacity from 211 to 1,000 plus students and a building program to increase Ermington Public School capacity from 399 to 1,000 plus students.

One school could be built before 2025 and the other school before 2030.

School sites should provide a minimum of 10m2 of unencumbered outdoor play space per student (i.e. excluding driveways, car parks, buildings and out-of-bounds areas) which means that each 1,000 student primary school requires additional land to increase its area to 3.5 hectares.

The peak number of additional secondary school students is predicted to be 1,509 in 2037. One option as a result of the Melrose Park Northern Precinct development could be a new high school for 1,500 students on the existing 5.4 hectare Marsden site. This would provide a minimum of 10m2 of unencumbered outdoor play space per student (i.e. excluding driveways, car parks, buildings and out-of-bounds areas).

The option of a new high school for 1,500 students on the 2.0 hectare site within the Melrose Park Northern Precinct at Hope Street is not acceptable because it would not provide a minimum of 10m2 of unencumbered outdoor play space per student.

11,000 NEW HOMES

Figure C.7.3 and Table C.7.4 represent a reasonable demographic projection for Melrose Park Northern Precinct and Southern Precinct based on the Rhodes demographic profile.

Figure C.7.3 illustrates the time-phased number of students as a result of the 11,000 new homes predicted for the Melrose Park Northern Precinct and Southern Precinct development.

The figure illustrates that relative small numbers of secondary school students are initial residents of the new development. There will be a large number of young children requiring childcare, then primary school education and then secondary education.

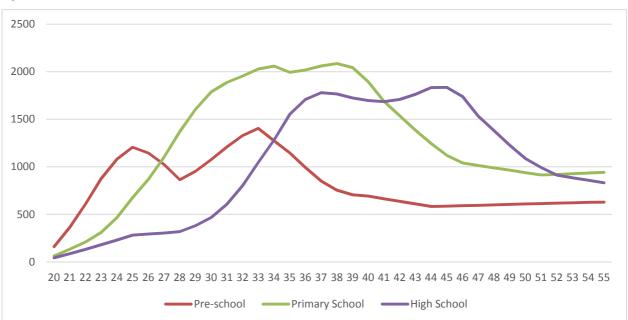


Figure C.7.3 Melrose Park Northern and Southern Precincts, Predicted Student Profile

The analysis is based on the input condition that homes will be occupied at the rate of 1,000 homes per annum from 2020 to 2026 and from 2029 to 2033 with no further development thereafter.

A significant increase in students will start to be seen at primary school from 2024. These will peak between 2030 and 2040. By 2050 primary school enrolments will have settled down to long term established patterns.

A significant increase in students will start to be seen at secondary school from 2031. These will peak between 2036 and 2047. By 2055 high school enrolments will have settled down to long term established patterns.

Table C.7.4 Melrose Park Northern and Southern Precinct, Predicted Student Numbers

Year	Pre- school	Primary School	High School
2020	160	63	42
2021	364	133	86
2022	608	210	132
2023	876	310	180
2024	1080	465	230
2025	1206	675	282
2026	1144	869	294
2027	1024	1103	304
2028	864	1370	319
2029	953	1605	381
2030	1076	1788	466
2031	1209	1887	606
2032	1329	1954	801
2033	1404	2029	1045
2034	1272	2058	1282
2035	1146	1993	1552
2036	992	2018	1709
2037	850	2060	1780

Year	Pre- school	Primary School	High School
2038	755	2085	1765
2039	705	2043	1724
2040	692	1894	1696
2041	664	1688	1685
2042	637	1536	1708
2043	609	1384	1762
2044	582	1244	1833
2045	586	1120	1835
2046	591	1040	1738
2047	595	1014	1532
2048	600	988	1380
2049	604	964	1226
2050	609	938	1086
2051	613	914	992
2052	618	920	912
2053	622	928	884
2054	626	934	858
2055	628	942	832

The peak number of additional primary school students is predicted to be 2,085 in the period between 2030 and 2040. There may be several options to address these increased student numbers. One option as a result of the Melrose Park Northern and Southern Precinct development could be a building program to increase Melrose Park Public School capacity from 211 to 1,000 plus students, a building program to increase Ermington Public School capacity from 399 to 1,000 plus students and the construction of an additional primary school within the precinct or in close proximity.

One school could be built before 2025 and the other schools before 2030.

School sites should provide a minimum of 10m2 of unencumbered outdoor play space per student (i.e. excluding driveways, car parks, buildings and out-of-bounds areas) which means that each 1,000 student primary school requires additional land to increase its area to 3.5 hectares.

The peak number of additional secondary school students is predicted to be 1,835 in 2045. One option as a result of the Melrose Park Northern and Southern Precinct development could be a new high school for 2,000 students on the existing 5.4 hectare Marsden site. This would provide a minimum of 10m2 of unencumbered outdoor play space per student (i.e. excluding driveways, car parks, buildings and out-of-bounds areas).

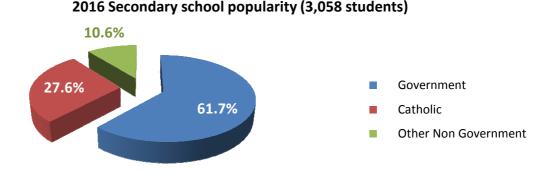
The option of a new high school for 2,000 students on the 2.0 hectare site within the Melrose Park Northern Precinct at Hope Street is not acceptable because it would not provide a minimum of 10m2 of unencumbered outdoor play space per student.

Appendix D – Capacities in local Catholic and independent schools

A high proportion of the secondary students in the Marsden High School catchment attend local Catholic and Independent schools. The main local Catholic secondary schools are:

- Marist Sisters College at Woolwich
- Holy Cross College at Ryde
- Marist College at Eastwood
- St Patrick's Marist College at Dundas
- St Josephs College Hunters Hill (a higher fee paying Catholic secondary school which also takes many local students).

Figure D.1.1 Secondary student popularity Marsden High School Catchment 2016



Enrolment in Catholic education in the Marsden High School catchment has historically been very strong due to the large proportion of the community being of Irish and Italian descent. These schools have strong academic and non-academic reputations and are expected to continue to be popular choices for both Catholic and non-Catholic parents. Factors that will limit the growth of enrolments include:

- The limited size of the sites, especially at Marist College Eastwood
- The limited capital funding available to expand these schools
- The desirability of maintaining the rich open spaces, playing fields and smaller school sizes in comparison with the equivalent government schools
- The desirability of maintaining smaller school sizes in comparison with the equivalent independent schools
- The desirability of maintaining a level of exclusivity and strong academic and non-academic reputations
- A stronger focus on pastoral nature of Catholic schools.

The Catholic system has increased its local capacity by 12% over the last 10 years and enrolments are assumed to increase at this same rate over the forecast period.

A special case will be the a new multiple storey Catholic co-education secondary school to be built at the Ivanhoe Estate in Macquarie Park for 950 students in the period 2024 to 2030⁵. This school is so different that it is impossible to model the impact of this school on the Marsden High School catchment. For this analysis, any student from the Marsden High School catchment i.e. Eastwood or Denistone East is assumed to be offset by a Macquarie Park student attending an existing Catholic secondary school.

There are relatively few local independent secondary schools. Students are required to travel greater distances to schools such as Arden at Epping, Newington College, Barker College, the Kings School, Pymble Ladies College, Tara, etc. These are high fee paying schools.

From the 2016 census, the proportion of secondary students attending independent schools was 10.6%. As there is no data to define the factors that drive parents to choose these schools, this proportion is assumed to remain the same over the forecast period.

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⁵ Macquarie Park school at Ivanhoe may be Catholic, Steven Deare, Northern District Times, October 24, 2017, https://www.dailytelegraph.com.au/newslocal/northern-district-times/macquarie-park-school-at-ivanhoe-may-be-catholic/news-story/179c898d280be04a537aa722b202d740

Appendix E – Capacities in other government secondary schools

A high proportion of the secondary students in the Marsden High School catchment attend other government schools which can be considered in three main groups.

- Selective schools
- Single gender comprehensive high schools
- Other co-educational comprehensive high schools.

Many students attend selective high schools. James Ruse Agricultural High School at Carlingford is local. Many exclusively selective schools are a convenient trip from the Northern Districts train line. Ryde Secondary College is a partially selective school.

The former Minister of Education, Rob Stokes has stated that the Government has no plans to expand the selective high schools. No sudden increase in the number of super-smart children is expected in the Marsden High School catchment and therefore the number of students attending selective schools is assumed to remain the same.

Parents in the Marsden High School catchment have traditionally had the option of a single gender high school:

- Cheltenham Girls High School at Beecroft
- Epping Boys High School at Marsfield
- Riverside Girls High School at Gladesville.

Each of these schools experience high demand due to the religious preference for a single gender education. Epping Boys and Cheltenham Girls are consistently ranked as amongst the best academic and non-academic comprehensive secondary schools in NSW and are highly desirable for out-of area enrolments. Development in the catchment for Cheltenham Girls and Epping Boys will result in both schools being unable to accept out-of-area enrolments in the near future. A very small number of Epping students in the Marsden High School catchment are "in-area" for Cheltenham Girls. Small sections of the suburbs of Eastwood and Denistone East are "in-area" for both Epping Boys and Marsden High School.

The number of students from the Marsden High School catchment attending Epping Boys and Cheltenham Girls is assumed to reduce over the coming years.

A large proportion of the Marsden High School catchment, including the developments at Shepherds Bay and Melrose Park, is "in-area" for Riverside Girls High School. Riverside Girls is on a large site that can be easily developed to accommodate additional students. There are no plans to reduce the catchment for Riverside Girls. For this analysis, the capacity at Riverside Girls High School is assumed to increase so that a similar portion of students in the Marsden High School catchment will attend Riverside Girls High School over the upcoming years.

Parents in the Marsden High School catchment have traditionally had the option of an out of area enrolment at other local co-educational high schools:

- Ryde Secondary College
- Hunters Hill High School
- Cumberland High School at Carlingford
- Carlingford High School.

In addition the NSW Government has foreshadowed a new high school will be constructed at the site of the former Peter Board High School at North Ryde from 2023.

The suburb of Carlingford has experienced major housing development. No net increase in students from the Marsden High School catchment is assumed to be accommodated at Carlingford High School or Cumberland High School. Macquarie Park and North Ryde have experienced major housing development. No net increase in students from the Marsden High School catchment is assumed to be accommodated at Ryde Secondary College or the rebuilt Peter Board High School.

Hunters Hill High School has capacity for expansion and will remain attractive to parents especially from the eastern part of the Marsden High School catchment. The same proportion of students is assumed to attend Hunters Hill High School in future.

Appendix F – Review context details and references

F.1 School site

The site at Marsden High School is approximately 5.4 hectares with road access from Winbourne Street and Brush Road.

Figure F.1.1 Marsden High School, Aerial View



Imagery 15 October 2015

The site is contiguous with Ermington Public School which also has entrances on Winbourne Street and Brush Road.

A significant portion of the site is a reserve of remnant Sydney Turpentine-Ironbark bushland that has been regenerated under environmental grants over many years. Archer Creek runs through this area and through the playing field area of the school. Archer Creek provides an ideal location for Geography and Environment Sciences students to explore the land and water management issues impacting the Parramatta River Catchment.

F.2 Population growth

According to the ABS Census the number of dwellings in the Marsden High School catchment has grown by 22% in 10 years between 2006 and 2016 with an additional 3600 new dwellings plus the replacement of many existing dwellings. Meadowbank has grown by 87% mostly as a result of major development that is underway as industrial properties have been developed for residential use. Melrose Park has had a small reduction in the number of dwellings.

Table F.2.1 ABS Census: Number of occupied dwellings

Suburb	2006	2011	2016	Increase	% increase
Denistone	1,143	1,219	1,246	103	9.0%
Denistone East	691	734	730	39	5.6%
Denistone West	231	307	307	76	32.9%
Eastwood	4,917	6,127	6,314	1,397	28.4%
Epping (part)					
Ermington	3,574	3,500	3,823	249	7.0%
Melrose Park	673	527	544	-129	-19.2%
Meadowbank	1,167	1,985	2,176	1,009	86.5%
Ryde (part)					
West Ryde	4,305	4,957	5,197	892	20.7%
Catchment (approx)	16,701	19,356	20,337	3,636	21.8%

The number of residents in the Marsden High School catchment has grown by almost 22% in 10 years with an additional 9,400 residents. Meadowbank has grown by 97%. Melrose Park has had a small reduction in population.

Table F.2.2 ABS Census: Number of residents

Suburb	2006	2011	2016	Increase	% increase
Denistone	3,321	3,542	3,605	284	8.6%
Denistone East	1,971	2,128	2,193	222	11.3%
Denistone West	668	904	904	236	35.3%
Eastwood	13,640	16,311	17,705	4,065	29.8%
Epping (part)					
Ermington	9,756	9,252	10,162	406	4.2%
Melrose Park	1,923	1,454	1,531	-392	-20.4%
Meadowbank	2,219	3,678	4,375	2,156	97.2%
Ryde (part)					
West Ryde	10,482	11,706	12,939	2,457	23.4%
Catchment (approx)	43,980	48,975	53,414	9,434	21.5%

Demographics consultants id.com predict that the City of Ryde population will increase by 26.7% from 131,911 in 2019 to 167,109 by 2036^6 and that the City of Parramatta population will increase by 49.5% from 260,130 in 2019 to 389,017 by 2036^7 .

The NSW Department of Planning - *Sydney Housing Supply Forecasts* provides an estimate of future housing supply that will be built over the 5 years to 2023. The housing supply forecast for the City of Ryde predicts an increase of 10,000 dwellings and for the City of Parramatta an increase by 22,100 dwellings⁸

F.3 Primary school enrolment growth

Table F.3.1 shows the change in school enrolment for the closest government primary schools to Marsden High School.

Table F.3.1 NSW Education Census (February Enrolments)

Name	2006	2011	2016	2017	2018	2019	Increase
Ermington Public School	414	474	446	441	428	399	-16%
Melrose Park Public School	112	137	192	202	211	211	54%
Ermington West Public School	169	171	149	161	176	186	9%
Yates Avenue Public School	315	201	200	182	210	176	-12%
Eastwood Public School	636	663	793	823	874	904	36%
West Ryde Public School	312	306	529	605	658	686	124%
Rydalmere East Public School	176	185	197	196	204	226	22%
Denistone East Public School	760	829	819	756	756	774	-7%
Telopea Public School	105	53	57	54	72	87	64%
Rydalmere Public School	146	130	134	151	175	175	35%
Meadowbank Public School	182	171	274	309	367	441	158%
TOTAL	3327	3320	3790	3880	4131	4265	28%

The table illustrates that enrolments at the closest government primary schools to Marsden High School were stable until 2011. There has been growth in primary school enrolments from 2011. So far this growth has been 28% overall. The biggest impact has been on the eastern side of the catchment at Meadowbank Public School (158% increase) and West Ryde Public School (124% increase).

This increase in primary school enrolment has started to flow through to Marsden High School from 2019.

⁶ https://forecast.id.com.au/ryde

⁷ https://forecast.id.com.au/parramatta

https://www.planning.nsw.gov.au/Research-and-Demography/Sydney-housing-supply-forecast/Forecast-data

Appendix G – Review context details and references (2018 proposal)

G.1 Key points of Governments 2018 proposal

- Closure and relocation of Meadowbank Public School with expansion to 1000 students
- Closure and relocation of Marsden High School with expansion to 1500 students
- Former site of Meadowbank Boys High School, (3.3 hectares approx)
- Repair and maintenance of existing Marsden High School site until 2021
- Existing Meadowbank Public School site to be retained for community open space
- Existing Marsden High School site to be retained for community sport.

G.2 Emerging issues

- The information provided to the community exaggerates how much of the current Meadowbank TAFE site will be allocated for school education.
- Total outdoor play areas for 1000 primary students is approx. 6.0m² per student which is below the national minimum standard for outdoor play areas.
- Total outdoor play areas for 1500 secondary school students is approx. 12.1m² per student which meets the minimum standards by a small margin. This may not be the case if the secondary school expands to 2000 students as has been foreshadowed.
- At 16.6m² per student, the planned secondary school will be on a site offering significantly less student amenity than the smaller schools in the local area such as Ryde Secondary College which has 30.8m² per student.
- The planned secondary school is a significant reduction in student amenity compared to the existing Marsden High School site.
- At 8.1m² per student, the planned primary school will be on a site offering significantly less student amenity than the smaller schools in the local area such as Eastwood Public School which has 18.4m² per student.
- The planned primary school is a significant reduction in student amenity compared to the existing Meadowbank Public School site.





G.3 Timeline

19 June 2017	Announcement that a new primary school and a new high school at
	Meadowbank ⁹
26 June 2018	Announcement of new education facilities which will include a new primary
	school, high school and a revitalised Meadowbank TAFE ¹⁰
2 July 2018	Announcement that Meadowbank Public school and Marsden High School will
	be retained and upgraded under a Labor Government ¹¹
24 July 2018	Community consultation Meadowbank Public School
25 July 2018	Community consultation Marsden High School
3 August 2018	Project Reference Group meeting include community representatives

G.4 Site areas

The superimposed details from the original Woods Bagot design¹² are:

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⁹ https://www.dailytelegraph.com.au/newslocal/northern-district-times/nsw-budget-funds-another-school-for-ryde/news-story/4cb6c5f4c267beefaeab01e55d761739 downloaded 21 August 2018

¹⁰ https://www.nsw.gov.au/your-government/the-premier/media-releases-from-the-premier/technology-focused-tafe-for-world-class-meadowbank-education-precinct/ downloaded 21 August 2018

¹¹ The Weekly Times Wednesday 4 July 2018 Page 10 "Labor promises to keep Marsden High and Meadowbank Public School open"

Secondary school site area	2.5 hectares	24,930m²
Primary school site area	0.8 hectares	8,070m ²
Total schools site area	3.3 hectares	33,000m ²
TAFE site area	6.3 hectares	63,000m ²

G.5 Internal and outdoor learning areas

COUNCIL GFA SCHEDULE¹³ 11th May 2018

1	Primary Scho	ol	Secondary School			TOTALS			
Indoor	Outdoor (see note 1)	Total	Indoor	Outdoor (see note 1)	Total	Indoor	Outdoor (see note 1)	Total	
m ²	m ²	m ²	m ²	m ²	m ²	m²	m ²	m ²	

9 800	5 000	14 800	19 000	600	19 600	28 800	5 600	34 400

Note 1 Counted as outdoor area on building structure that has a balustrade over 1.4m. Other outdoor areas are not counted.

Note 2 Areas exclude car parking, services areas, plant and voids

Note 3 Areas are an approximation for the purposes of SEARs application and may differ at SSD application due to design development

Maximum total learning areas for 1000 primary students is approx. 14.8m² per student. This includes roof top open space.

Maximum total learning areas for 1500 secondary students is approx. 13.1m² per student.

Ryde Council Gross Floor Area calculation may include some non-learning spaces such as staff rooms.

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https://majorprojects.accelo.com/public/115f5ea51dfb5df3cbe9a8b46d049b5a/04%20Appendix%20A %20Architectural%20Plans Meadowbank%20School Part3.pdf downloaded 21 August 2018

13

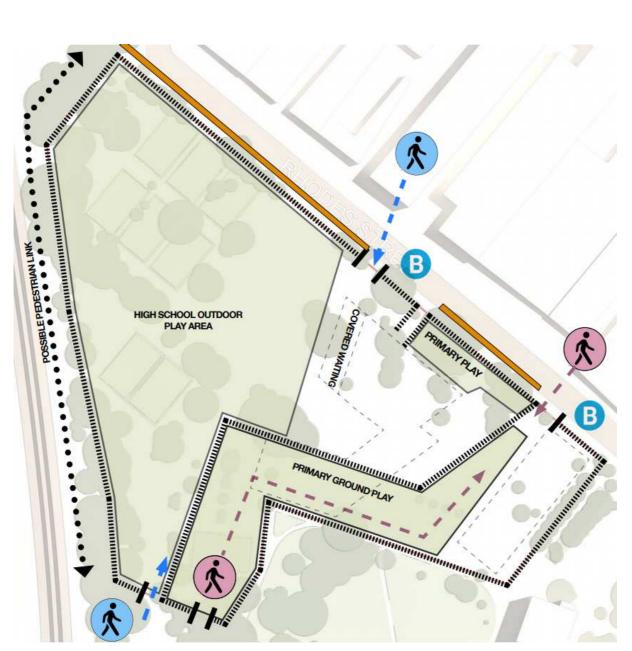
https://majorprojects.accelo.com/public/115f5ea51dfb5df3cbe9a8b46d049b5a/04%20Appendix%20A %20Architectural%20Plans Meadowbank%20School Part3.pdf downloaded 21 August 2018

G.6 Outdoor play areas

The details calculated from the original Woods Bagot design¹⁴ are:

Secondary school outdoor play area	1.8 hectares	18,173m ²
Primary school outdoor play area	0.6 hectares	6,036m ²
Outdoor non-play area	0.9 hectares	8,791m ²
Total schools site area	3.3 hectares	33,000m ²

¹⁴



Total outdoor play areas for 1000 primary students is approx. 6.0m² per student

Total outdoor play areas for 1500 secondary students is approx. 12.1m² per student

G.7 National minimum standards

The national minimum standard for day care centres and out of school hours care is 3.25m^2 of unencumbered internal space and 7m^2 of unencumbered outdoor place space per student. The primary school design satisfies the minimum standard for internal areas but does not satisfy the minimum standard for outdoor play areas unless the roof top outdoor learning areas are included as outdoor play areas.

Until fairly recently the Department of Education's standard benchmark for a new high school was 6 hectares for 800-1000 students and a standard primary school was 3 hectares for 500-600 students. That was the community standard and expectation.

NSDC has been advised that the Department has recently adopted a minimum standard of 10 square metres per student of unencumbered outdoor play space.

The secondary school meets the minimum standards by a small margin. This may not be the case if the secondary school expands to 2000 students as has been foreshadowed in the community consultation¹⁵.

G.8 Community standards and expectations

The new primary school at Meadowbank and the new high school at Meadowbank will compete with local public, Catholic and independent schools in the surrounding areas.

The Department of Education does not publish the outdoor play areas or the learning areas for the local schools. We are able to calculate and compare the overall site areas for most local schools using Google Maps¹⁶.

					Site area
			Historical		per
	Distance	Site Area	enrolmen	Current	student
Name of High School	(km)	(m²)	t	students	(m²)
Hunters Hill	7.0	64,694	582	683	94.7
Epping Boys	5.9	100,079	1102	1167	85.8
Cumberland	8.1	50,951	644	614	83.0
Marsden	3.0	55,226	696	822	67.1
Riverside Girls	6.3	44,299	998	919	48.2
Cheltenham Girls	7.3	56,685	1287	1340	42.3
Ryde Secondary	3.1	32,669	936	1061	30.8
Concord	8.4	32,502	825	1163	27.9
Carlingford	8.1	33,677	1136	1233	27.3
Planned high school	0.0	24,930	0	1500	16.6

The planned secondary school will be on a site offering significantly less student amenity than the smaller schools in the local area such as Ryde Secondary College. Concord High School and Carlingford High School are on relatively small sites but are adjacent to large local government playing fields.

The planned secondary school is a significant reduction in student amenity compared to the existing Marsden High School site.

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¹⁵ Meadowbank Education Precinct Community Update July 2018, NSW Department of Education – School Infrastructure page 4.

¹⁶ Some site areas may have inaccuracies due to unclear boundaries between primary and secondary schools on adjacent sites and unclear boundaries between the school and local government playing fields on adjacent sites.

					Site area
			Historical		per
Name of Public	Distance	Site Area	enrolmen	Current	student
School	(km)	(m²)	t	students	(m²)
Telopea	6.6	18,430	77	72	256.0
Rydalmere	4.6	31,854	148	175	182.0
Rydalmere East	6.1	26,679	186	204	130.8
Melrose Park	3.0	25,017	128	211	118.6
Ermington West	3.8	18,702	161	176	106.3
Yates Avenue	4.9	21,422	242	210	102.0
Roselea	8.2	30,762	367	348	88.4
North Ryde	4.4	33,875	247	391	86.6
Ryde East	4.4	34,395	415	527	65.3
Epping North	8.3	26,620	392	445	59.8
Ryde	2.1	33,730	428	622	54.2
Ermington	2.8	22,879	438	428	53.5
Truscott Street	5.5	16,240	311	326	49.8
Dundas	7.1	19,876	365	410	48.5
Gladesville	4.4	25,567	400	535	47.8
Kent Road	4.0	35,128	288	745	47.1
Concord West	5.0	15,604	341	358	43.6
Victoria Avenue	7.9	11,447	n.a.	265	43.2
Eastwood Heights	4.8	20,826	349	511	40.7
Epping	5.4	18,943	353	495	38.3
Carlingford	6.1	26,452	318	705	37.5
Parramatta East	8.3	18,008	289	538	33.5
Denistone East	2.9	24,235	808	756	32.1
Putney	2.3	15,039	422	472	31.9
Epping Heights	7.0	13,902	343	508	27.4
Meadowbank	1.0	9,743	175	367	26.6
Hunters Hill	6.7	9,170	350	355	25.8
Epping West	5.9	29,840	642	1197	24.9
Beecroft	8.2	17,224	727	852	20.2
West Ryde	2.0	12,758	308	658	19.4
Eastwood	3.3	16,098	676	874	18.4
Planned school	0.0	8,070	0	1000	8.1

The planned primary school will be on a site offering significantly less student amenity than the most challenged schools in the local area such as Eastwood Public School, West Ryde Public School and Epping West Public School all of which are regarded by parents as "bursting at the seams".

The planned primary school is a significant reduction in student amenity compared to the existing Meadowbank Public School site.

Appendix H – Northern Sydney District Council of P&C Associations

The Northern Sydney District Council of P&C Associations consists of delegates from P&C Associations in the Northern Sydney region, an area broadly north of Sydney Harbour from the coast to the Hills. This area is covered by two of the P&C Federation's electorates – North Sydney and North West Sydney.

In 2012 and 2013 we mobilised more than 30 schools in the arc from Mosman through North Sydney up to Killara after the Department of Education, and then the Minister of Education said that no new schools were required in the area because the population would be dropping in coming years.

We mobilised the skills available through the P&Cs and, in the end, proved the Department's planning to be completely wrong. We had great support from the local MPs at that time NSW Premier Barry O'Farrell, NSW Transport Minister Gladys Berejiklian, NSW Health Minister Jillian Skinner, NSW Fair Trading Minister Anthony Roberts and Jonathon O'Dea MP.

We were able to muster skills in demography, legal, project and contract management, engineering, strategic planning and managing bureaucracies. We were able to identify many errors and incorrect assumptions which were preventing the Department of Education from correctly predicting the forecast student numbers and therefore for correctly planning for the school capacities required as a result of development in the Lower North Shore and surrounding suburbs.

One of the outcomes of this campaign was changes to the Department's asset management area in head office, but there is more work to be done because planners are still using outdated models and assumptions. The tangible result for students is that the Government is now committed to five new schools and eight major upgrades and 170 new schools or major upgrades outside of the original area.

New Schools

- Lindfield Learning Village School of the Future
- Anzac Park Public School, Cammeray
- Cammeraygal High School (Years 7-10)
- Crows Nest TAFE site Years 11-12 for Cammeraygal High School
- Smalls Road Primary School.

Rebuild or major upgrades at existing school sites

- Artarmon Public School
- Chatswood Public School
- Mowbray Road Primary School
- Willoughby High School
- Willoughby Public School
- Killara Public School
- Chatswood High School
- Harbord Public School
- North Curl Curl Public School.