

Averill Manning

From: Averill Manning
Sent: Wednesday, 4 September 2019 4:02 p.m.
To: Joe Eccleton
Subject: FW: Cashmere High School Local Demand
Attachments: CHS Local Demand by AOI_Sept19.pdf

Kia ora Joe,

Please find attached the information you requested. Please get in touch if you have any questions.

Ngā mihi,

Averill

s 9(2)(a) OIA

Averill Manning | Education Adviser | Sector Enablement and Support

48 Hereford Street, Christchurch

education.govt.nz

*We shape an education system that delivers equitable and excellent outcomes.
He mea tārai e mātou te mātauranga kia rangatira ai, kia mana taurite ai ōna huanga*



Released under the Official Information Act 1982

Count of State School Students within the
Cashmere High School Enrolment Scheme Home Zone at March 2019
(data prepared September 2019)

Within the entire Cashmere High School enrolment scheme home zone area there were 1748 Year 9-15 State Co-ed School students at March 2019. Of these, 1660 (95%) attended Cashmere High School.

Students attending Designated Character, Kura, and Special Schools, as well as students attending Single Sex schools are identified separately in the attached table.

Note that Schools with a high market share (such as Cashmere High School) also carry a large number of "in-zone" students who have moved out of the zone but continue to attend the school. This can result in 15% of a schools in-zone enrolments residing outside the zone.

For this reason, the Cashmere High School zone should be designed to contain no more than 1550 Year 9-15 state co-ed students. This will allow the roll to return to within the Build Capacity over time.

"Grand-parenting" provisions are expected to be included for siblings of current students in any zone reduction, but will delay the return of the roll to within capacity.

Previous work has projected the local secondary age population to increase over the short term, as a large cohort of children progress through primary year levels and into Years 9+. This will increase the number of in-zone enrolments at Cashmere in future years.

There are some areas of residential development within the core part of the Cashmere High School zone. While areas of new residential development have generated a large number of primary age children in most areas of recent residential development, the development areas in the core Cashmere area may be more likely to be occupied by secondary age children.

The table on the following page shows the count of state students within each portion of the zone. Of most interest are the columns "State Co-ed only" and "Cashmere High School".

It is expected /assumed that the same proportion of students will attend Single Sex, Designated Character, Kura, and Special schools in the future, as these schools offer a distinctly different type of education, and these can be discounted from estimates of local demand for Cashmere High School.

Count of State School students by Area, March 2019

Areas defined are based on those used in previous analyses

| Area | All State Students | State Students Excluding Designated Character, Kura, Special Schools | State Co-ed only | Cashmere High School | Comment |
|-----------------|---|---|---|-------------------------------|-----------------------------------|
| A | 93 | 72 | 70 | 62 | Overlap with Hillmorton High Zone |
| B | 36 | 26 | 24 | 19 | Overlap with Hillmorton High Zone |
| H | 149 | 124 | 116 | 108 | Overlap with Linwood College Zone |
| I | 112 | 85 | 80 | 68 | |
| J | 162 | 133 | 120 | 113 | |
| K | 419 | 352 | 336 | 325 | |
| L | 269 | 219 | 204 | 197 | |
| M | 232 | 181 | 173 | 161 | |
| N | 206 | 171 | 158 | 154 | |
| O | 263 | 235 | 213 | 209 | Residential development underway |
| P | 125 | 119 | 107 | 102 | |
| Q | 175 | 149 | 140 | 136 | |
| R | 9 | 8 | 7 | 6 | Overlap with Hillmorton High Zone |
| Grand Total | 2250 | 1874 | 1748 | 1660 | |
| Includes | All State school students | State Co-ed and Single Sex school students | State Co-ed school students | Cashmere High School Students | |
| Excludes | Private School and Integrated School students | Private and Integrated, Designated Character, Kura, Special School students | Private and Integrated, DC, Kura, Special School and Single Sex school students | All other schools' students | |

Note: All counts exclude students attending Private or State Integrated Schools.
All counts exclude students with an FTE less than 0.5, and exclude International students.

Note: correction made from previous data pack to remove 3 students from the State Co-ed count who do not attend a Co-ed School

Local demand by year level and area of interest (March 2019)

The school has requested further data relating to local demand by year level.

Current local population by Funding Year Level and area of interest (March 2019):

Including **All School Authorities and Types**, but excluding International students and those with an FTE<0.5.

| Area | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | Grand Total |
|--------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-------------|
| A | 20 | 21 | 23 | 20 | 28 | 20 | 31 | 21 | 18 | 23 | 21 | 15 | 20 | 281 |
| B | 10 | 7 | 8 | 8 | 8 | 6 | 11 | 6 | 7 | 9 | 8 | 6 | 2 | 96 |
| H | 17 | 23 | 40 | 35 | 33 | 32 | 50 | 46 | 46 | 43 | 40 | 38 | 37 | 480 |
| I | 28 | 44 | 45 | 38 | 32 | 44 | 43 | 29 | 36 | 22 | 25 | 28 | 26 | 440 |
| J | 21 | 37 | 31 | 44 | 34 | 23 | 46 | 49 | 42 | 34 | 26 | 29 | 35 | 451 |
| K | 52 | 77 | 89 | 98 | 85 | 84 | 121 | 89 | 86 | 107 | 90 | 87 | 72 | 1137 |
| L | 50 | 65 | 67 | 54 | 77 | 62 | 69 | 75 | 52 | 51 | 64 | 65 | 65 | 816 |
| M | 45 | 60 | 62 | 47 | 61 | 65 | 60 | 64 | 68 | 60 | 57 | 50 | 46 | 745 |
| N | 27 | 48 | 44 | 40 | 54 | 45 | 56 | 48 | 44 | 48 | 51 | 40 | 40 | 585 |
| O | 33 | 60 | 60 | 52 | 64 | 77 | 66 | 65 | 68 | 82 | 66 | 57 | 87 | 837 |
| P | 14 | 27 | 17 | 26 | 35 | 34 | 32 | 32 | 33 | 30 | 36 | 27 | 24 | 367 |
| Q | 15 | 25 | 34 | 32 | 42 | 39 | 49 | 43 | 42 | 39 | 49 | 35 | 36 | 480 |
| R | | 2 | | 4 | 2 | 5 | 3 | 4 | | 5 | 2 | 2 | 2 | 33 |
| Grand Total | 332 | 496 | 520 | 498 | 555 | 536 | 637 | 571 | 544 | 553 | 535 | 479 | 492 | 6748 |

Note that due to the way in which Funding Year Level is allocated, the Year 7 cohort is always higher than the Year 6 cohort the previous year and the Year 8 cohort the next year. This is due to the retention of Year 7 students at contributing (Year 1-6) primary schools. These students are re-assigned Funding Year Level 7 when they enrol at a Year 7+ provider.

Year 1 rolls are at their lowest point in March, and will increase during the year. Therefore, a low year 1 count at March does not indicate a decline in demand.

The above table shows that the largest cohorts are in Years 5-10 (excluding Y7 as discussed above), with an average of around 550 students per cohort. This has contributed to large Year 9 cohorts at CHS in 2018 and 2019. This increased demand at Year 9 is expected to be sustained for several years, based purely on the number of currently resident students (without factoring in anticipated household growth rates).

The following table shows the count of state co-ed school students only.

Current local Co-ed population by Funding Year Level and area of interest (March 2019):
 Including Co-ed schools only, also excluding International students and those with an FTE<0.5.

| Area | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | Grand Total |
|--------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-------------|
| A | 19 | 15 | 19 | 14 | 21 | 16 | 26 | 17 | 13 | 16 | 15 | 10 | 16 | 217 |
| B | 9 | 7 | 6 | 7 | 8 | 5 | 11 | 5 | 6 | 8 | 5 | 4 | 1 | 82 |
| H | 13 | 16 | 23 | 26 | 23 | 23 | 30 | 34 | 29 | 25 | 21 | 20 | 21 | 304 |
| I | 22 | 33 | 37 | 29 | 23 | 37 | 34 | 24 | 26 | 15 | 11 | 16 | 12 | 319 |
| J | 15 | 29 | 25 | 31 | 26 | 21 | 40 | 43 | 35 | 27 | 19 | 17 | 22 | 350 |
| K | 44 | 66 | 80 | 89 | 73 | 73 | 111 | 77 | 69 | 81 | 73 | 62 | 51 | 949 |
| L | 42 | 55 | 59 | 41 | 66 | 47 | 56 | 62 | 40 | 33 | 50 | 48 | 33 | 632 |
| M | 37 | 51 | 55 | 37 | 53 | 54 | 46 | 48 | 45 | 41 | 36 | 28 | 28 | 554 |
| N | 25 | 46 | 38 | 36 | 49 | 44 | 46 | 40 | 28 | 40 | 41 | 28 | 21 | 482 |
| O | 29 | 49 | 52 | 45 | 57 | 64 | 51 | 48 | 46 | 51 | 36 | 33 | 47 | 608 |
| P | 10 | 22 | 15 | 21 | 29 | 23 | 25 | 24 | 25 | 19 | 30 | 16 | 17 | 276 |
| Q | 13 | 25 | 32 | 27 | 34 | 34 | 39 | 34 | 34 | 28 | 39 | 22 | 17 | 378 |
| R | | 1 | | 3 | 2 | 4 | 1 | 3 | 1 | 3 | 1 | 1 | 1 | 21 |
| Grand Total | 278 | 415 | 441 | 406 | 464 | 445 | 516 | 459 | 397 | 387 | 377 | 305 | 282 | 5172 |

Note that due to the way in which Funding Year Level is allocated, the Year 7 cohort is always higher than the Year 6 cohort the previous year and the Year 8 cohort the next year. This is due to the retention of Year 7 students at contributing (Year 1-6) primary schools. These students are re-assigned Funding Year Level 7 when they enrol at a Year 7+ provider.

The following table shows the break-down of CHS students by area and Funding Year Level, and the CHS Co-ed market share for each.

CHS students by area and Funding Year Level at March 2019, and the CHS Co-ed market share for each area.

| Area | CHS Count by Funding Year level | | | | | | Grand Total | Area | CHS Market share of Co-ed count | | | | | |
|--------------------|---------------------------------|------------|------------|------------|------------|-------------|--------------------|------------|---------------------------------|------------|------------|------------|------------|-------------|
| | 9 | 10 | 11 | 12 | 13 | Grand Total | | | 9 | 10 | 11 | 12 | 13 | Grand Total |
| A | 11 | 13 | 13 | 10 | 15 | 62 | A | 85% | 81% | 87% | 100% | 94% | 89% | |
| B | 4 | 7 | 4 | 3 | 1 | 19 | B | 67% | 88% | 80% | 75% | 100% | 79% | |
| H | 25 | 25 | 20 | 20 | 18 | 108 | H | 86% | 100% | 95% | 100% | 86% | 93% | |
| I | 22 | 13 | 9 | 16 | 8 | 68 | I | 85% | 87% | 82% | 100% | 67% | 85% | |
| J | 33 | 25 | 19 | 17 | 19 | 113 | J | 94% | 98% | 100% | 100% | 86% | 94% | |
| K | 68 | 79 | 70 | 61 | 47 | 325 | K | 99% | 98% | 96% | 98% | 92% | 97% | |
| L | 36 | 32 | 49 | 48 | 32 | 197 | L | 90% | 97% | 98% | 100% | 97% | 97% | |
| M | 39 | 39 | 33 | 27 | 23 | 161 | M | 87% | 95% | 92% | 96% | 100% | 93% | |
| N | 27 | 40 | 39 | 27 | 21 | 154 | N | 96% | 100% | 95% | 96% | 100% | 97% | |
| O | 45 | 49 | 35 | 33 | 47 | 209 | O | 98% | 96% | 97% | 100% | 100% | 98% | |
| P | 24 | 18 | 30 | 13 | 17 | 102 | P | 96% | 95% | 100% | 81% | 100% | 95% | |
| Q | 33 | 28 | 38 | 22 | 15 | 136 | Q | 97% | 100% | 97% | 100% | 88% | 97% | |
| R | 1 | 3 | 1 | | 1 | 6 | R | 100% | 100% | 100% | 0% | 100% | 86% | |
| Grand Total | 368 | 371 | 360 | 297 | 264 | 1660 | Grand Total | 93% | 96% | 95% | 97% | 94% | 95% | |

The CHS Market share is lowest in areas B (79%), I (85%), R (86% - note small sample size), A (89%), with H and M at 93%.

Note that at March 2019, 54% of Year 7 state school students in Area A attended Hillmorton High School. It is unknown if these students will wish to change schools at Year 9. At March 2019, only 18% of Year 8 students in area A attended Hillmorton. This indicates a growing support for Hillmorton High from this area.

Future population growth

Projecting the scale and timing of population growth is challenging. However, data currently available indicates that there is likely to be an increased local demand for secondary education in the short term.

Projection series currently available are population projections from Statistics NZ and household projections from the Christchurch City Council. Each series has its own characteristics, strengths and weaknesses.

CCC Household Projections

- Projections of total household numbers
- No break-down by household type
 - Significantly different student per household ratios across different areas / different housing type.
- Household type may change as intensification / development occurs
- Latest edition provided early 2019
- Available at Meshblock level – can be aggregated to approximate each Area of Interest

StatsNZ projections;

- Projections by age (equating to school year levels)
- High, Medium, and Low variants
- Latest issue late 2017
- Incorporate 2013 census data and administrative data after that point
- Available at the Census Area Unit level
 - Large areas, do not match Areas of Interest

CCC Household Projections

Household projections by area of interest

| Area | Household count estimate | | | | | Percentage change from 2019 level | | | |
|--------------------|--------------------------|--------------|--------------|--------------|--------------|-----------------------------------|------------|------------|------------|
| | 2019 | 2024 | 2028 | 2038 | 2048 | 2019-2024 | 2019-2028 | 2019-2038 | 2019-2048 |
| A | 809 | 824 | 830 | 841 | 845 | 2% | 3% | 4% | 4% |
| B | 378 | 438 | 477 | 525 | 545 | 16% | 26% | 39% | 44% |
| H | 1161 | 1259 | 1330 | 1408 | 1440 | 8% | 15% | 21% | 24% |
| I | 1876 | 1996 | 2079 | 2291 | 2415 | 6% | 11% | 22% | 29% |
| J | 1379 | 1522 | 1620 | 1807 | 1905 | 10% | 17% | 31% | 38% |
| K | 3116 | 3300 | 3427 | 3595 | 3675 | 6% | 10% | 15% | 18% |
| L | 2313 | 2402 | 2457 | 2585 | 2657 | 4% | 6% | 12% | 15% |
| M | 1768 | 1828 | 1868 | 1920 | 1944 | 3% | 6% | 9% | 10% |
| N | 1346 | 1445 | 1511 | 1589 | 1625 | 7% | 12% | 18% | 21% |
| O | 1784 | 1876 | 1933 | 2012 | 2063 | 5% | 8% | 13% | 16% |
| P | 618 | 631 | 640 | 653 | 664 | 2% | 4% | 6% | 7% |
| Q | 1511 | 1636 | 1708 | 1837 | 1935 | 8% | 13% | 22% | 28% |
| R | 162 | 209 | 248 | 313 | 363 | 29% | 53% | 93% | 124% |
| Grand Total | 18221 | 19366 | 20128 | 21376 | 22076 | 6% | 10% | 17% | 21% |

Every area is projected to experience household growth. The total CHS zone area is projected to experience 6% growth in households by 2024, and 10% growth from the 2019 level by 2028.

State co-ed Year 9-15 students in each area, student per household estimates, and projections assuming a constant s/hh ratio at the 2019 s/hh ratio for each area.

| Area | Co-ed 2019 | co-ed s/hh | 2024 | 2028 | 2038 | 2048 |
|-------|------------|------------|------|------|------|------|
| A | 70 | 0.09 | 71 | 72 | 73 | 73 |
| B | 24 | 0.06 | 28 | 30 | 33 | 35 |
| H | 116 | 0.10 | 126 | 133 | 141 | 144 |
| I | 80 | 0.04 | 85 | 89 | 98 | 103 |
| J | 120 | 0.09 | 132 | 141 | 157 | 166 |
| K | 336 | 0.11 | 356 | 370 | 388 | 396 |
| L | 204 | 0.09 | 212 | 217 | 228 | 234 |
| M | 173 | 0.10 | 179 | 183 | 188 | 190 |
| N | 158 | 0.12 | 170 | 177 | 187 | 191 |
| O | 213 | 0.12 | 224 | 231 | 240 | 246 |
| P | 107 | 0.17 | 109 | 111 | 113 | 115 |
| Q | 140 | 0.09 | 152 | 158 | 170 | 179 |
| R | 7 | 0.04 | 9 | 11 | 14 | 16 |
| Total | 1748 | 0.10 | 1853 | 1923 | 2030 | 2088 |

The student per household ratio varies significantly between areas. Area P (Westmorland) has the highest s/hh ratio of 0.17 students per household, while areas I and R have the lowest at 0.04 s/hh. Note the small sample size for area R. Area R is an area of future development.

Overall, there is a s/hh ratio of 0.10 for the entire CHS zone.

Some of the areas with a low s/hh ratio will experience an increase in future years. Areas with higher s/hh ratios may experience a decline in s/hh ratios as large cohorts move on to further education or training, replaced by smaller cohorts.

Released under the Official Information Act 1982

StatsNZ projections;

Age 13-17 (Year 9-13) population projections for Census Area Units (CAUs) that are entirely or mostly within the CHS zone (High and Medium Variants);

| CAU | High Variant | | | | Medium Variant | | | |
|------------------|--------------|-------|-------|-------|----------------|-------|-------|-------|
| | H2019 | H2024 | H2028 | H2038 | M2019 | M2024 | M2028 | M2038 |
| Westmorland | 155 | 180 | 145 | 145 | 150 | 160 | 140 | 135 |
| Cashmere West | 230 | 255 | 225 | 250 | 230 | 245 | 205 | 225 |
| Cashmere East | 250 | 255 | 230 | 240 | 245 | 250 | 210 | 205 |
| Rapaki Track | 110 | 95 | 95 | 100 | 110 | 95 | 80 | 75 |
| Opawa | 200 | 195 | 165 | 175 | 195 | 185 | 155 | 150 |
| St Martins | 250 | 275 | 270 | 305 | 240 | 260 | 255 | 260 |
| Sydenham | 220 | 285 | 335 | 390 | 205 | 280 | 300 | 315 |
| Barrington South | 215 | 260 | 235 | 225 | 215 | 250 | 215 | 200 |
| Spreydon | 170 | 255 | 240 | 250 | 170 | 250 | 225 | 200 |
| Hoon Hay South | 110 | 145 | 175 | 200 | 110 | 145 | 165 | 175 |
| Somerfield | 275 | 280 | 270 | 275 | 275 | 265 | 245 | 225 |
| Beckenham | 190 | 195 | 150 | 150 | 185 | 195 | 135 | 125 |
| Diamond Harbour | 85 | 85 | 75 | 100 | 85 | 85 | 70 | 75 |
| Governors Bay | 65 | 55 | 50 | 60 | 65 | 55 | 45 | 50 |

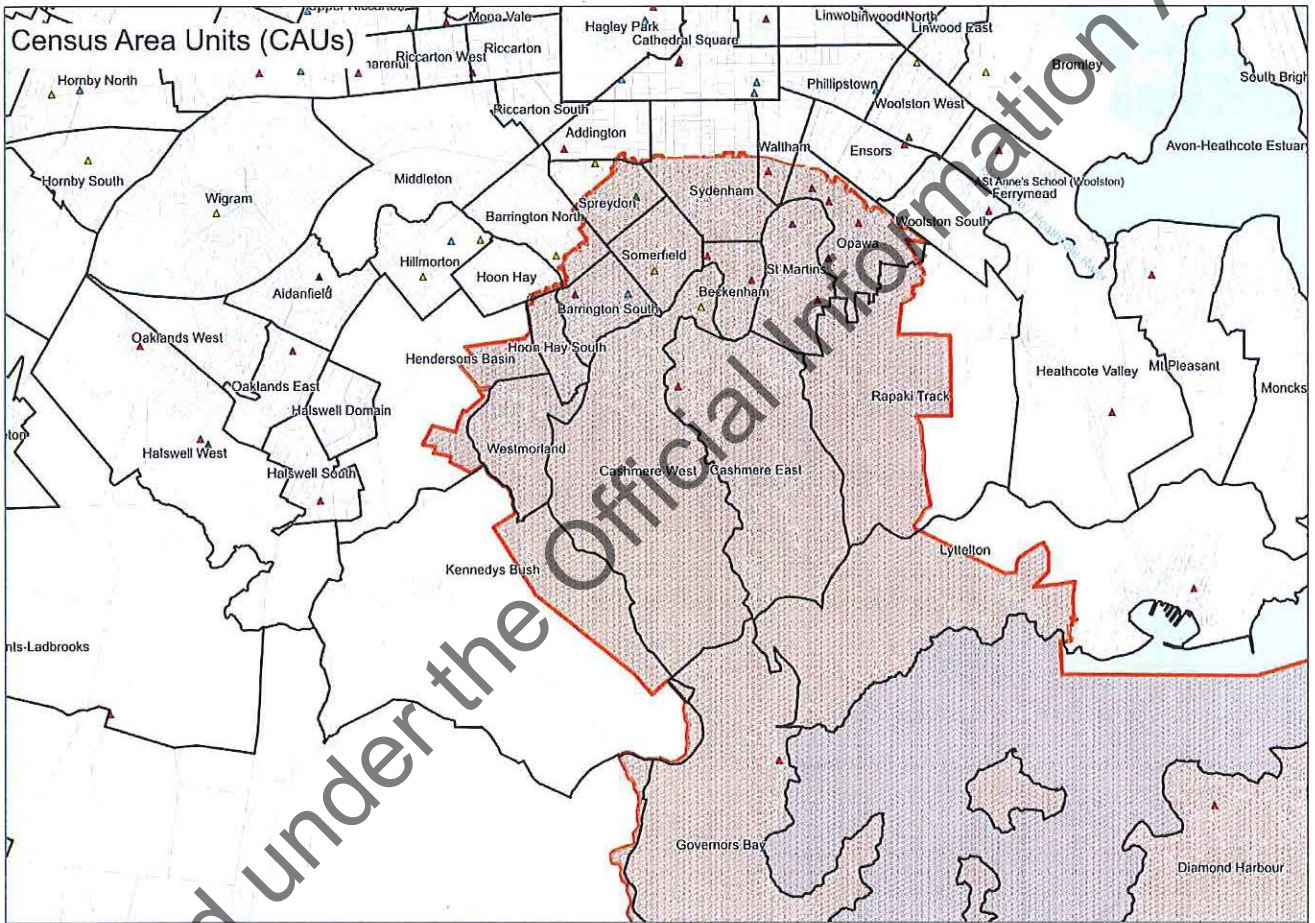
Age 13-17 (Year 9-13) Percentage change from the 2019 level by CAU

| CAU | High Variant | | | | Medium Variant | | | |
|------------------|--------------|------------|-----------|------------|----------------|------------|------------|------------|
| | H2019 | H2024 | H2028 | H2038 | M2019 | M2024 | M2028 | M2038 |
| Westmorland | | 16% | -6% | -6% | | 7% | -7% | -10% |
| Cashmere West | | 11% | -2% | 9% | | 7% | -11% | -2% |
| Cashmere East | | 2% | -8% | -4% | | 2% | -14% | -16% |
| Rapaki Track | | -14% | -14% | -9% | | -14% | -27% | -32% |
| Opawa | | -3% | -18% | -13% | | -5% | -21% | -23% |
| St Martins | | 10% | 8% | 22% | | 8% | 6% | 8% |
| Sydenham | | 30% | 52% | 77% | | 37% | 46% | 54% |
| Barrington South | | 21% | 9% | 5% | | 16% | 0% | -7% |
| Spreydon | | 50% | 41% | 47% | | 47% | 32% | 18% |
| Hoon Hay South | | 32% | 59% | 82% | | 32% | 50% | 59% |
| Somerfield | | 2% | -2% | 0% | | -4% | -11% | -18% |
| Beckenham | | 3% | -21% | -21% | | 5% | -27% | -32% |
| Diamond Harbour | | 0% | -12% | 18% | | 0% | -18% | -12% |
| Governors Bay | | -15% | -23% | -8% | | -15% | -31% | -23% |
| Total | | 11% | 5% | 13% | | 10% | -1% | -3% |

Under the Medium projection variant, the age 13-17 population within the CHS zone is expected to increase by 10% between 2019 and 2024, returning to the 2019 level by 2028, due to the movement of a large population bubble through school age year levels.

Trends vary widely between different CAUs (map of CAUs below).

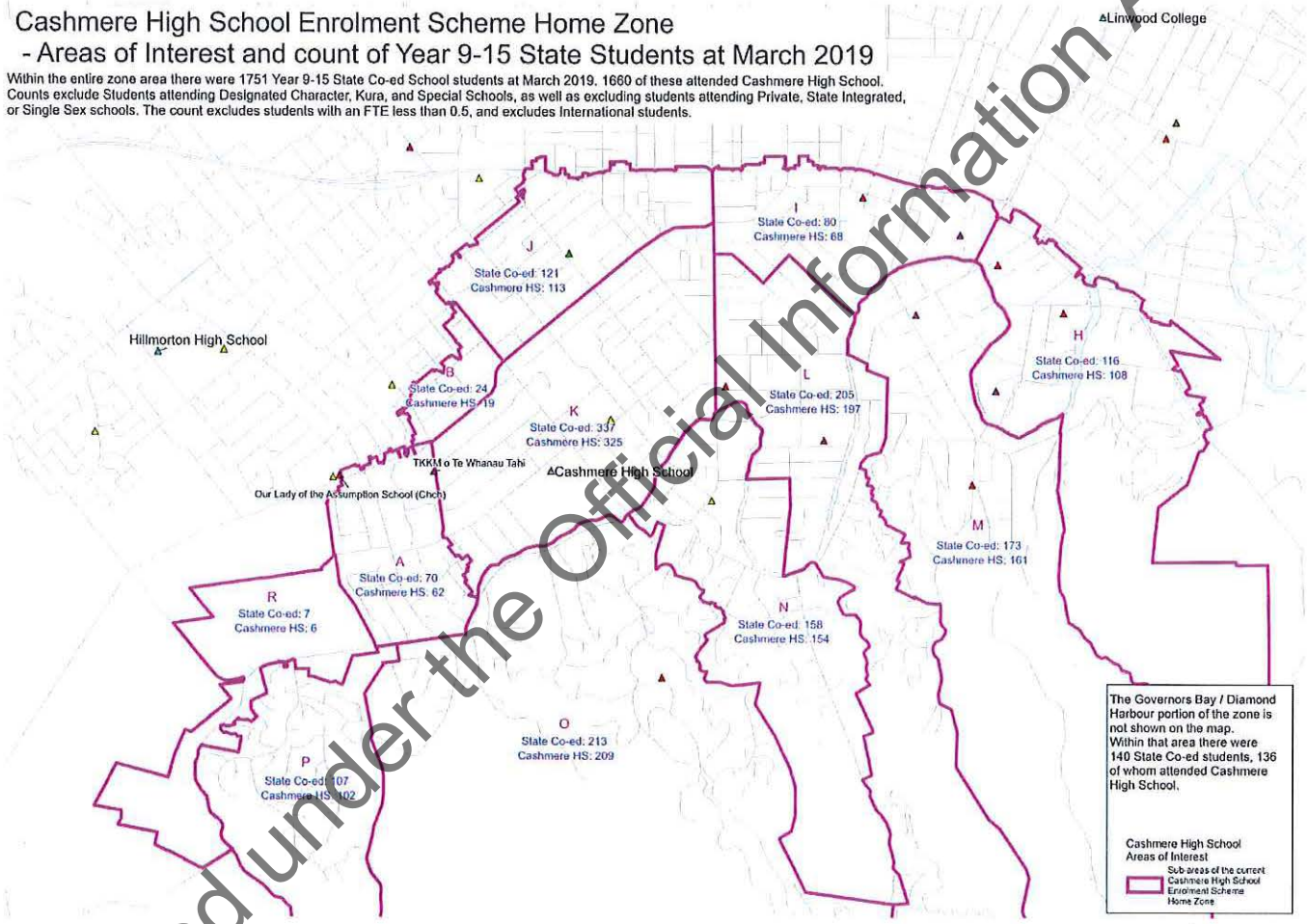
Released under the Official Information Act 1982



Cashmere High School Enrolment Scheme Home Zone

- Areas of Interest and count of Year 9-15 State Students at March 2019

Within the entire zone area there were 1751 Year 9-15 State Co-ed School students at March 2019. 1660 of these attended Cashmere High School. Counts exclude Students attending Designated Character, Kura, and Special Schools, as well as excluding students attending Private, State Integrated, or Single Sex schools. The count excludes students with an FTE less than 0.5, and excludes International students.



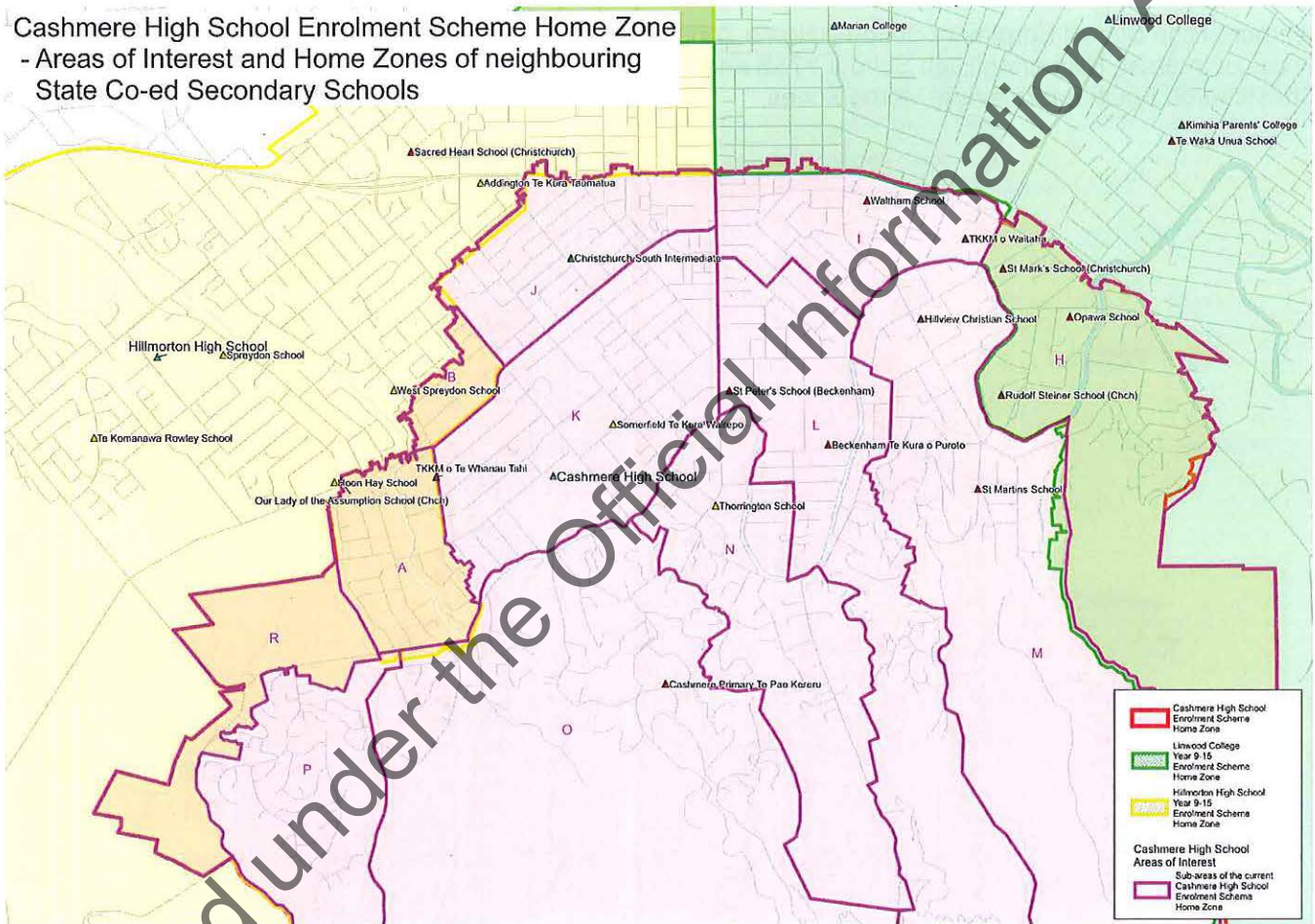
The Governors Bay / Diamond Harbour portion of the zone is not shown on the map. Within that area there were 140 State Co-ed students, 136 of whom attended Cashmere High School.

Cashmere High School Areas of Interest

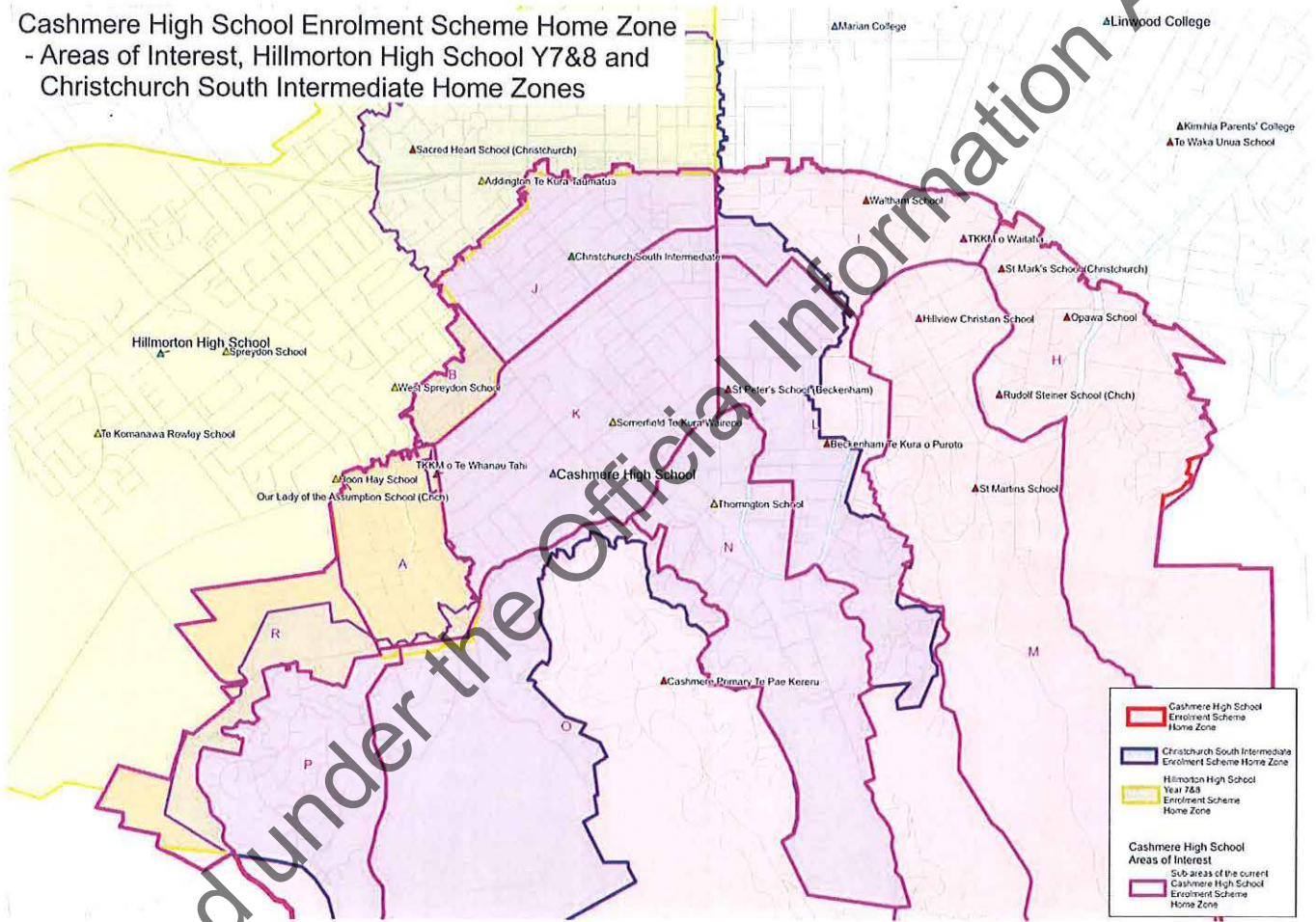
- Sub-areas of the current Cashmere High School Enrolment Scheme Home Zone

Released under the Official Information Act 1982

Cashmere High School Enrolment Scheme Home Zone - Areas of Interest and Home Zones of neighbouring State Co-ed Secondary Schools



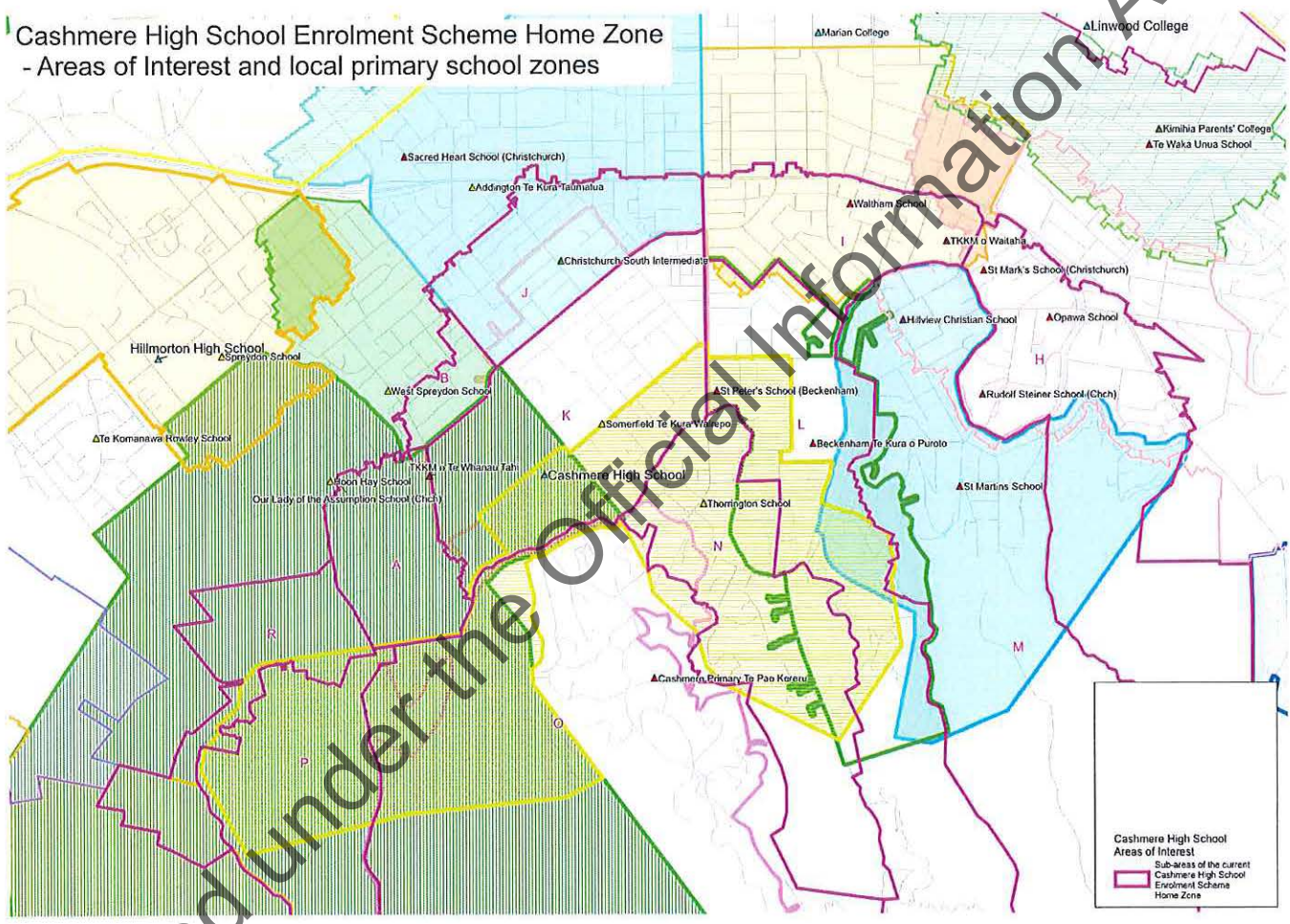
Cashmere High School Enrolment Scheme Home Zone
 - Areas of Interest, Hillmorton High School Y7&8 and
 Christchurch South Intermediate Home Zones



Released under the Official Information Act 1982

Released under the Official Information Act 1982

Cashmere High School Enrolment Scheme Home Zone - Areas of Interest and local primary school zones



Released under the Official Information Act 1982