

Education, Children and Families Committee

10am, Tuesday, 10 December 2013

Primary School Roll Projections

Item number	7.5
Report number	
Wards	All

Links

Coalition pledges	PO4
Council outcomes	CO1 and CO2
Single Outcome Agreement	SO3

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Primary School Roll Projections

Summary

Primary school rolls are projected to rise to a peak of nearly 31,000 pupils by 2019 which is an increase of approximately 15% on the roll at the start of the 2013/14 school year. An update on projected primary school roll projections at a city-wide level was included in the report to Committee on [8 October 2013](#).

In a period during which the impact of high births will be reflected in a continuation of large numbers of pupils entering primary school education, the key Council requirement is to accommodate demand from catchment pupils at the P1 stage.

P1 intakes are projected to remain at record levels of around 4,500-4,600 per year for the next five years and as smaller P7 classes are replaced by higher P1 intakes, the ability of schools to restructure classes becomes more limited so creating accommodation pressures. There is wide variation between catchment areas which will bring different pressures across the primary school estate. To help predict how rising rolls might affect each primary school catchment area, projections are undertaken each year to identify schools which may come under pressure in future as there could be insufficient accommodation to meet catchment demand.

The purpose of this report is to:

- set out how the latest initial projections have been derived; explaining the difficulties associated with making accurate catchment projections in a city as fast changing as Edinburgh.
- explain the further detailed analysis which will be undertaken to identify any school where a pressure on accommodation to meet catchment demand may be experienced in future years and the process which will be followed with each school to consider possible solutions.

Recommendations

It is recommended that the Committee notes the content of this report and the intention to bring a further update report to Committee on 4 March 2014 together with a report regarding the provision of a new primary school in South Edinburgh.

Measures of success

Identification of any school which might experience a pressure on accommodation to meet catchment demand in future years in sufficient time to allow a solution to be identified and implemented in advance.

Financial impact

There is provision of £14.902m within the Children and Families Capital Investment Programme to 2017/18 for the capital funding necessary to respond to the challenges arising from rising primary school rolls. The expenditure incurred in delivering the necessary new accommodation for August 2013 was £2.094m leaving a remaining balance of £12.808m which is available to meet the costs of delivering any new accommodation required for August 2014 or in future years.

Once the further refinement of the projections has been completed and the preferred solutions to any future accommodation pressures have been determined, a revised forecast will be undertaken regarding the capital costs of delivering the necessary solutions across the entire estate.

Equalities impact

There are no negative equality or human rights impacts arising from this report.

Sustainability impact

There are no sustainability impacts arising from this report.

Consultation and engagement

For any school which is considered to have a possible future accommodation pressure to meet catchment demand there will be an assessment of all possible options to address any such pressure which will then be discussed with the school to identify a preferred solution.

Background reading/external references

There have been two previous reports to the Education, Children and Families Committee regarding this matter on [9 October 2012](#) and [8 October 2013](#).

Primary School Roll Projections

1. Background

- 1.1 Primary school rolls are projected to rise to a peak of nearly 31,000 pupils by 2019 which is an increase of approximately 15% on the roll at the start of the 2013/14 school year. An update on projected primary school roll projections at a city-wide level was included in the report to Committee on [8 October 2013](#).
- 1.2 In a period during which the impact of high births will be reflected in a continuation of large numbers of pupils entering primary school education, the key Council requirement is to accommodate demand from catchment pupils at the P1 stage.
- 1.3 P1 intakes are projected to remain at record levels of around 4,500-4,600 per year for the next five years and as smaller P7 classes are replaced by higher P1 intakes, the ability of schools to restructure classes becomes more limited so creating accommodation pressures. There is wide variation between catchment areas which will bring different pressures across the primary school estate. To help predict how rising rolls might affect each primary school catchment area, projections are undertaken each year to identify schools which may come under pressure in future as there could be insufficient accommodation to meet catchment demand.
- 1.4 The purpose of this report is to:
- set out how the latest initial projections have been derived; explaining the difficulties associated with making accurate catchment projections in a city as fast changing as Edinburgh.
 - explain the further detailed analysis which will be undertaken to identify any school where a pressure on accommodation to meet catchment demand may be experienced in future years and the process which will be followed with each school to consider possible solutions.

2. Main report

School Catchment P1 Assumptions

- 2.1 The city is divided into 72 catchment areas for the non-denominational schools and 15 catchment areas for the Roman Catholic schools. The new Gaelic

Medium School, Bun-sgoil Taobh na Pairce, has a city-wide catchment area. In total there are 88 primary schools, each with different catchment boundaries.

- 2.2 Pupils have the option of selecting to attend either their catchment non-denominational (ND) school or catchment denominational, Roman Catholic (RC) school. In circumstances where RC schools are coming under capacity pressure then priority is given to baptised Roman Catholics and, if necessary, non-baptised pupils are allocated a place at their ND catchment school.
- 2.3 For the purposes of primary school roll projections, where a pupil has attended a RC school the pupil is counted as an RC pupil within the RC catchment population and vice versa where a RC pupils opts to attend a denominational school.
- 2.4 Catchment pupils attending the Gaelic Medium School have not been counted as part of the ND catchment or RC catchment from where they originate but are treated as part of a separate city wide Gaelic Medium School catchment. It is assumed that the P1 intake of 60 will be achieved in the future.

Projecting P1 Intakes

- 2.5 At a city-wide level, an analysis of past data shows that the best way of predicting of future P1 intakes has been to carry forward the number of births by five years. Birth information is also available by school catchment area therefore this method is also applied at a catchment level as a basis to forecast the P1 catchment population on a school by school basis.
- 2.6 However at an individual catchment level the birth data and number of catchment pupils can be inconsistent and highly variable, although in some catchment areas there can be a good correlation. The position can also change significantly from one year to the next, at times expectedly, and at other times for no obvious reason. Possible reasons for the variability between births (carried forward five years) and the P1 catchment population in that year are as follows:
 - Migrational influences at a local level (including those from abroad) can be significant and variable over a five year period and a birth in a family can be a catalyst for seeking a change of accommodation;
 - There is general trend for high births in inner city locations and for the more suburban schools to draw extra pupils through migration;
 - The proportion of births attending ND schools, RC schools and independent schools can vary between catchment areas and also each year;
 - There can be changes in the rate of deferral of entry into primary school;
 - Housing development and redevelopment within the five year period can bring substantial change to an area.

Historic Relationship of Births and Catchment Data

- 2.7 A percentage of the births that have taken place in the catchment will be expected to remain in the catchment. For each catchment area, the percentage relationship between births (carried forward five years) and the actual P1 catchment population for 2011, 2012 and 2013 has been calculated. There can be significant variations in this relationship in each year therefore an average over the three years has been calculated; this is illustrated for Abbeyhill Primary School in Table 1.

Table 1: Abbeyhill Primary School: Births and P1 Catchment Population

	2011/12	2012/13	2013/14	Average
Births (five years previous)	47	73	52	
P1 catchment population	17	21	32	
P1 catchment/births %	36.17%	28.77%	61.53%	42.16%

- 2.8 The three year average relationship between past births and P1 catchment population is then used to predict the future potential P1 catchment population for those years for which birth data is available; the next four years up to and including 2017/18. This is illustrated for Abbeyhill Primary School in Table 2.

Table 2: Abbeyhill Primary School: Projected future P1 Catchment Population to 2017/18 (excluding housing developments)

	2014/15	2015/16	2016/17	2017/18
Births (five years previous)	79	65	76	89
Three-year average %	42.16%	42.16%	42.16%	42.16%
P1 catchment (exc. housing)	33	27	32	38

Projection Assumptions where Birth Data is not available

- 2.9 From 2018/19 onwards a base P1 catchment population is derived from the average of the projected catchment P1 population over the three years up to, and including, 2017/18; this removes the impact of spikes and troughs. The projections are carried forward by applying the expected percentage change to the city wide projections but at a catchment level. The projections are derived from the relationship with the projected number of five year olds in the city.
- 2.10 The projected numbers of five year olds are derived from the GRO 2008 and 2010 based population projections. These projections model past trends forward and with births now peaking and expected to fall, a modified version has been used based on the 2008 projection but taking account of recent higher births. For 2018/19 and 2019/20, the revised projections assume a combined drop of 1.5% in P1 intakes over the two years but with a greater drop thereafter. This

will be monitored on an annual basis as updated information on births and projections becomes available. This is illustrated for Abbeyhill Primary School in Table 3.

Table 3: Abbeyhill Primary School: Projected future P1 Catchment Population to 2020/21 (excluding housing developments)

	2018/19	2019/20	2020/21
Base P1 catchment; average of preceding three-years	32		
City-wide adjustment	(0.86%)		
Projected P1 catchment Population (exc. housing)	32	32	
City-wide adjustment		(0.70%)	
Projected P1 catchment Population (exc. housing)		32	32
City-wide adjustment			(1.89%)
Projected P1 catchment Population (exc. housing)			31

Housing Development in the Catchment Area

2.11 The P1 catchment population projections also take into consideration the impact of major housing developments in the catchment area where either development is already underway or where there is a strong expectation that the development will take place. Developments of more than 50 houses have been taken into consideration; where the development relates to flats, the threshold is higher at 100. The ratios set out below have been applied to predict pupil generation arising from these new developments; these are derived from an analysis of pupil generation arising from previous developments in the city.

Non Denominational Pupil Generation

- House Ratio 0.26 (26 pupils per 100 houses)
- Flat Ratio 0.06 (six pupils per 100 flats)

RC Pupil Generation

- House Ratio 0.04 (four pupils per 100 houses)
- Flat Ratio 0.01 (one pupil per 100 flats)

2.12 Assumptions have been made regarding the number of completions that could be expected by year which is, in part, determined by market conditions. The number of pupils generated from a development could fall into any age category from P1 to P7. The number of pupils expected to be generated have been applied evenly across all year stages where possible however where smaller numbers arise these have been applied to earlier year stages, starting with P1.

- 2.13 For catchment modelling purposes it has been assumed that the additional pupils will be generated in the predicted year of completion. In practice, there may be more pupils in the younger age groups from new development and there may be a time delay in the pupil generation working through to schools. This aspect will be monitored further in future years.
- 2.14 Given the variability of the data on housing developments they will be monitored and amended annually to endeavour to best reflect the latest position. In those catchment areas where there are large redevelopment areas awaiting development, generally only committed sites have been taken into consideration and further sites would be added in later years as detailed development proposals come forward.
- 2.15 Over the projection period to 2020/21 an assumption has been made that approximately 6,000 new dwellings will be completed and the predicted pupil generation from these developments has been added to the projected P1 catchment population although it is likely that a proportion of the extra pupils generated would probably come from elsewhere within Edinburgh.
- 2.16 As an illustration, in the Abbeyhill Primary School catchment area there is a development at Albion Road which is expected to generate 35 houses and 164 flats over a five year period commencing in 2016/17 which would be expected to produce a total of 19 additional primary school pupils. These have been reflected in the projections as shown in Table 4.

Table 4: Abbeyhill Primary School: Projected future P1 Catchment Population to 2020/21 including housing development

	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21
Net from tables 2/3	33	27	32	38	32	32	31
From housing	-	-	-	1	1	2	2
P1 catchment	33	27	32	39	33	34	33

Future P1 Catchment Projections

- 2.17 The above methodology has been applied to all primary schools in the city to produce updated P1 catchment population projections for each year from 2014/15 to 2020/21. The projections are then compared to the P1 intake limit for each school to identify any year in which it is possible that this limit may be breached. However, it should be noted that these projections do not reflect the impact of any placing requests out of (or into) the school catchment and only identifies those schools where further detailed analysis is required.
- 2.18 The P1 intake limit for Abbeyhill Primary School based on its existing capacity is 30; as shown in Table 4 above the catchment P1 population in each year from 2014/15 onwards (other than 2015/16) is projected to exceed this limit therefore

further detailed analysis was required. While the projected number of ND P1 catchment pupils would cause the capacity of the school to be breached if they all chose to attend Abbeyhill Primary School, data from the past three years shows that an average of 17% of the ND P1 catchment population make successful placing requests to other schools. Extrapolating this average into future years would suggest that demand from the forecast ND P1 catchment population may be accommodated within the existing capacity of the school. However, the high P1 intake experienced in 2013/14 (45% of whom were non-catchment) will mean a requirement for some team teaching classes while this year group remains in the school. However, detailed analysis will not be required for every school e.g. where the P1 intake limit is projected to be exceeded in only one or two years and where the variances are very small and would be manageable.

2.19 The further analysis undertaken for certain schools will consider a range of factors to establish if there is a risk of a possible future accommodation pressure to meet catchment demand which would require solutions to be considered; the most significant being as follows:

1. The projection methodology essentially assumes a 100% capture rate of the catchment population. In many schools there will be existing trends of placing out requests to other schools which may, if sufficient accommodation is available in these other schools, continue in the future.
2. In considering the overall available capacity within a school it may be possible to utilise additional classrooms as a result of changes in the numbers of pupils at other year stages. The most significant factor will be the extent of drop-off in pupil numbers between P1 and P7 which is, on average, 8% across the city as a whole but can vary significantly between catchment areas.
3. The extent to which there are already plans for additional accommodation, either through the expansion strategies determined for the Phase 1 schools (Granton, Trinity and Wardie) or for the most recent Phase 2 schools.

Schools which may have future Accommodation Pressures

2.20 Progressing this analysis for each school is a complex exercise and will take some time to complete; the final 2013 catchment data for each school which is necessary to undertake this exercise has only recently become available. The detailed analysis will be completed as soon as possible to identify any schools regarding which there may be a risk of a possible future accommodation pressure to meet catchment demand.

2.21 On completion of the detailed further analysis it is quite conceivable that, for many schools, no further action will be required. An example is provided in Appendix 1 for Balgreen Primary School where the requirement to provide additional accommodation has already been identified and is being progressed. The additional accommodation, together with the assumed lower capture rate of

the catchment population and the level of drop-off in pupil numbers between P1 and P7, results in a conclusion that at this time no further action is required.

- 2.22 On completion of the detailed further analysis; for any school which is considered to have a risk of possible future accommodation pressure to meet catchment demand there will be an assessment of all possible options to address any such pressure; this will then be discussed with the school to identify a preferred solution. There will be different options available at each school including catchment review; changing the use of existing space within the building; reconfiguration of internal space; the creation of annexes and the provision of new build of extension accommodation on the existing school site. The outcome of this process will be reported to Committee on 4 March 2014.

Primary School Capacity Pressure in South Edinburgh

- 2.23 On 8 May 2013, the Estate Strategy and Rising Rolls Working Group considered an initial report regarding potential capacity pressures in the south side of the city centre which is an area that has traditionally experienced pressure for primary school places with schools having had high occupancy levels during a period of declining rolls and the necessity for additional accommodation having been required through the provision of temporary units and annexes. In 2000, the Council had a proposal to address pressure in this area through the delivery of a new primary school however the site proved to be undeliverable. Now that the city is facing significantly increased primary school rolls, pressure is again being experienced in this area.
- 2.24 There are three primary schools which are predominantly affected by this issue – South Morningside, James Gillespie's and Bruntsfield. All three schools operate from constrained sites (South Morningside also through annexe arrangements) with no dedicated playing fields and the scope to extend capacity by extending the schools is severely limited.
- 2.25 The initial report considered the projected primary school rolls and capacities in each school and the expected demands in the south Edinburgh area together with options to relieve pressure through catchment review. However it was acknowledged that there were only minor opportunities for catchment change and that these were unlikely to be of sufficient size to address the issue. The Estate Strategy and Rising Rolls Working Group concluded that it was likely that additional accommodation would be required if intake numbers were sustained at their present level.
- 2.26 The provision of a new primary school would entail significant additional capital and revenue costs. The latest P1 catchment population projection data suggests a continuing issue in this area of the city therefore this will be subject to detailed further analysis and a report taken to the next Committee meeting on 4 March 2014 for consideration; the necessity for a new school would require to be supported by a full business case.

3. Recommendations

- 3.1 It is recommended that the Committee notes the content of this report and the intention to bring a further report update to Committee on 4 March 2014 together with a report regarding the provision of a new primary school in South Edinburgh.

Gillian Tee

Director of Children and Families

Links

Coalition pledges	PO4 - Draw up a long-term strategic plan to tackle both over-crowding and under use in schools
Council outcomes	CO1 - Our children have the best start in life, are able to make and sustain relationships and are ready to succeed. CO2 - Our children and young people are successful learners, confident individuals and responsible citizens making a positive contribution to their communities.
Single Outcome Agreement	SO3 - Edinburgh's children and young people enjoy their childhood and fulfil their potential
Appendices	1. Detailed Assessment of Balgreen Primary School

APPENDIX 1

Detailed assessment of Balgreen Primary School

1 P1 Catchment Population Projection

- 1.1 Balgreen Primary School was identified as one of the schools in the Phase 2 Primary School Rising School Rolls Project as potentially requiring additional accommodation in future. It was agreed that an additional three class spaces may be made available through conversion of an existing temporary unit that is currently leased out; a feasibility study showing how this would be undertaken and the associated costs is currently being finalised.
- 1.2 The current school capacity is 13 classes and the proposed capacity would be 15 classes; one of the additional spaces would be a GP space. A capacity of 15 classes would represent an increase in the P1 intake limit from 47 to 60.
- 1.3 The P1 catchment population projections show that these would exceed the revised P1 intake limit of 60 (taking into consideration the proposed additional accommodation) for the school in every year from 2015/16 onwards which would have a significant impact on the capacity which is required at the school to meet catchment demand. This is illustrated in the following table.

	2014	2015	2016	2017	2018	2019	2020
Projected P1 Catchment	59	76	74	85	78	79	78

- 1.4 The class organisation be required in each year has been calculated and is shown in the following table which shows that the number of classes required would breach the enhanced capacity of the school (including the proposed additional accommodation) in 2016. In isolation, the P1 catchment population projection would suggest that the already planned additional accommodation would, on its own, be insufficient to accommodate future catchment demand.

	2014	2015	2016	2017	2018	2019	2020
Classes Required	13	15	16	17	18	19	20

2 Factors Excluded from P1 Catchment P1 Projections

- 2.1 There are a number of additional factors which must be taken into consideration when assessing the extent to which there may be an accommodation pressure at the school in the future which are set out below.

3 Capture Rate from Catchment ND P1 Population

- 3.1 The P1 catchment projections assume a 100% capture rate however the catchment retention rate for Balgreen Primary School has, historically, been far lower than 100% as illustrated in the following table.

Year	% of P1 Catchment Captured	Number of Destination Schools	Principal Destination Schools
2013/14	76%	10	Craiglockhart (3%), Dalry (5%), Parkside (3%)
2012/13	71%	5	Craiglockhart (3%), Dalry (3%), Roseburn (19%)
2011/12	72%	8	Craiglockhart (4%), Dalry (6%), Roseburn (9%)
2010/11	52%	6	Craiglockhart (13%), Dalry (13%), Roseburn (13%)
2009/10	63%	6	Craiglockhart (6%), Dalry (12%), Roseburn (10%)

3.2 The P1 catchment projections suggest that Craiglockhart and Roseburn will continue to have space available for placing requests. However, the lower % going to historically more popular destination schools in 2011/12 and 2013/14 is balanced by a greater number of destination schools.

3.3 A three year average would suggest that a capture rate of 73% would be a more realistic assumption for the purposes of projecting P1 catchment intakes. Applying this capture rate to the projected P1 catchment population would result in the following revised P1 catchment intake totals.

	2014	2015	2016	2017	2018	2019	2020
P1 Catchment Intake	43	55	54	62	57	57	57

3.4 The projected 2014/15 intake of 43 catchment pupils appears low however this is comparable to the catchment intake in 2013/14 which was 44 pupils.

3.5 Applying a three year average capture rate of 73% to the P1 catchment projections would suggest that only a minor breach of capacity would arise in 2017/18 (62 against a revised P1 intake limit of 60 once the already planned additional accommodation is delivered) and that further additional accommodation would not be required but the situation should continue to be monitored.

4 RC Sector – Attendance Trends

4.1 As illustrated in the following table, based on the actual position over the past four years there is no discernible trend in RC attendance and no suggestion of an increased uptake in the RC sector or shift from ND to RC.

Year	% of TOTAL Catchment Population Attending RC School
2013/14	25%
2012/13	13%
2011/12	26%
2010/11	18%

5 Drop off in Pupil Numbers between P1 and P7

- 5.1 While at a citywide level the drop-off in pupil numbers between P1 and P7 is an average of 8%, at Balgreen Primary School the figure is considerably higher at 16% as illustrated in the following table.

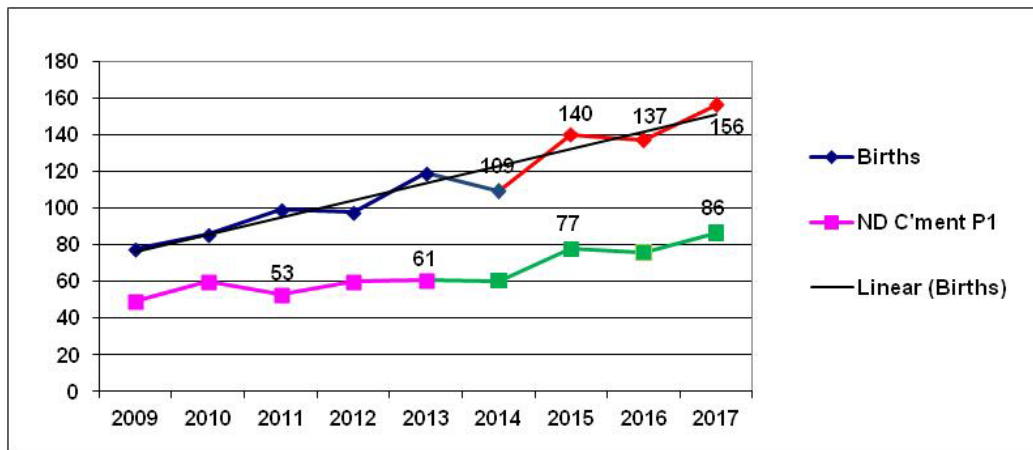
P1 Intake Year	P1	P1 to P2	P2 to P3	P3 to P4	P4 to P5	P5 to P6	P6 to P7	Total P1 Change (%)
2002/03	55	56	52	50	50	46	44	(20%)
2003/04	59	60	60	59	58	57	50	(15%)
2004/05	56	59	59	51	49	50	47	(16%)
2005/06	50	57	56	50	49	46	42	(16%)
2006/07	60	58	57	57	55	53	53	(12%)
2007/08	50	49	50	51	49	48	42	(16%)
2008/09	48	48	45	44	45	44	n/a	n/a
2009/10	51	49	48	47	43	n/a	n/a	n/a
2010/11	56	53	50	49	n/a	n/a	n/a	n/a
2011/12	59	64	63	n/a	n/a	n/a	n/a	n/a
2012/13	50	54	n/a	n/a	n/a	n/a	n/a	n/a
Average Change	n/a	+2.25%	(2.41%)	(3.79%)	(2.66%)	(3.10%)	(7.3%)	(16%)

- 5.2 Applying the P1 to P7 drop-off rate at Balgreen Primary School would, in itself, have a significant impact on the capacity required at the school. The main impact is in later years when the reduced numbers allow compositing of classes that would otherwise have remained as separate streams. This is illustrated below and compares the original number of classes required (from the table at paragraph 1.4 above) with the revised number required when the expected P1 to P7 drop-off rates are applied.

	2014	2015	2016	2017	2018	2019	2020
Original Classes Required	13	15	16	17	18	19	20
Revised Classes Required	13	14	16	17	17	18	19

6 Birth Rate Trend

- 6.1 For each catchment area the projection model uses the average relationship between births (carried forward five years) and the actual P1 catchment population over the three years ending 2013/14. The detailed position at Balgreen Primary School has been reviewed as shown in the following graph which shows that births have demonstrated a consistent increase. The use of a three year average is logical with there being no apparent large spikes or troughs which would break the trend.



7 Conclusions

- 7.1 Opportunities for catchment pupils to make placing requests elsewhere appear likely to remain suggesting that a capture rate of 100% (assumed in the P1 catchment population projection) is unlikely to materialise.
- 7.2 The historic P1 to P7 drop-off rate at the school is higher than the city average suggesting that opportunities to compress the organisation in later stages are likely to remain.
- 7.3 If P1 to P7 drop-off rates are sustained at their present level, an average capture rate of 80% would be sustainable within the proposed capacity of the school taking into consideration the existing and planned accommodation at Balgreen Primary School. This is illustrated below and compares the original number of classes required (from the table at paragraph 1.4 above) with the revised number required.

	2014	2015	2016	2017	2018	2019	2020
Original Classes Required	13	15	16	17	18	19	20
Revised Classes Required	13	14	15	15	15	16	15

- 7.4 The position will be kept under review however no further action is required at this time; the possible issue in 2019/20 could be accommodated on a one-off basis.