What is a polygon?

Polygons are geographic areas that can follow physical features, such as streets and water features, or subdivision or property boundaries. A polygon is a geographical area with existing and projected housing and student data for purposes of boundary reviews. These areas can be assembled into alternative attendance areas to model the impact of boundary scenarios. Throughout this process, “polygon”, “planning polygon” “planning area” and “planning unit” may be used interchangeably.

NEW: Why are polygons used?

Prior to the development of planning polygons, boundaries were hand drawn. There was no efficient or quick way to re-aggregate data based on alternative boundary scenarios. Polygons are used in order to quickly assess the before/after of scenarios used during the boundary review process.

NEW: Who created polygons?

The polygons are an internal tool used to re-aggregate data quickly for the boundary review process. HCPSS staff developed the initial polygons in approximately 2002.

NEW: When are polygons reviewed?

HCPSS staff reviews polygon boundaries as needed. Review occurs outside of the school boundary review process. The Board and community expect that alternative boundary scenarios can be tested, data can be re-aggregated and reports can be developed to show pre-and post- data during school boundary review. Should polygon boundaries change mid-school boundary review; the pre- and post- measures charts will not have an “apples-to-apples” comparison.

NEW: How/when were the polygons created?

Howard County’s original 300 school planning polygons were developed in approximately 2002. These geographical areas were quite large. At that time, some boundary scenarios included changes that impacted many

students to meet a utilization goal. For example, the reassignment of 300 students out of a school and 200 students into that school (reassignment of 500 students) to have a net change of 100 students, resulting in capacity utilization within target utilization.

In an effort to better serve Howard County residents, the School Planning team studied the polygons to evaluate potential changes in the polygon boundaries in approximately 2007. The study included review of streets, neighborhoods, property lines, type of property (ex. residential or commercial), bodies of water, and other natural boundaries, including wooded areas, as well as number of students. Many of the polygons had very large student counts. During the study, consideration was given to subdividing polygons so that there were approximately 100 or fewer elementary students in each polygon. Smaller polygons could allow scenarios to be developed to move fewer students and still meet utilization goals.

After completion of the study, some polygons still had 100 or more students at the elementary level. The original polygons were only divided if it was thought that the resulting smaller polygons might possibly be *considered* for separation in a future boundary review process. When a polygon was divided, the original number was included in the revised numbering strategy. If polygon # 1 was subdivided, resulting polygons were numbered 1, 1001, 2001, 3001, etc. If polygon # 100 was subdivided, resulting polygons were numbered 100, 1100, 2100, 3100, etc. This polygon review resulted in approximately 700 polygons.

NEW: How does the Board of Education use polygons in the boundary process?

Polygons are used as a planning tool to more efficiently test alternative scenarios based standards of Policy 6010 - School Attendance Areas, and the Board refers to polygons when making their motions, but the boundary changes are NOT restricted by polygon boundaries. The Board's motions include street names, the sides of the street (north, south, east, west), the terminus of the street, the cross streets, and, if needed, distances of the portions of the road involved. School assignments are changed based on homes that egress to sections of the roads specified in the motions of the Board. The Board may write a motion to change school boundaries regardless of the polygon boundary, to develop school attendance areas.