# REDISTRICTING P,AN DEVELOPMENT <br> for the <br> Town of \&honcrly, Maryland 

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## 1. Background \& Redistricting Criteria

The Town of Cheverly, Maryland, desires to update its council ward boundaries to adjust for population changes over the past decade. In order to facilitate the development of a redistricting plan, the Mayor and council appointed a redistricting commission (consisting of the Town Attorney) to guide the development. The commission will submit a recommendation to the Mayor and Council for approval. To assist and perform the plan development and analysis, the town hired Tony Fairfax of CensusChannel LLC. This report and associated appendices outline the effort's process, analysis, and results.

## 2. Town Meetings

The town council conducted at least three different sessions with the general public regarding redistricting. The first was at the January $12^{\text {th }}, 2023$, town council meeting, and the second was at the January $26^{\text {th }}, 2023$, meeting. The first meeting covered an overview of general aspects of redistricting as well as two potential plans. The second focused on summarizing the previc is plans in addition to covering a $3^{\text {rd }}$ alternative plan. Each session, included, was open for pu. ic. ${ }^{\text {m ments and questions. }}$

The town council held a 3rd public meeting to discuss and present th-rnal $\uparrow$ pposed plan (Plan A3). On February $9^{\text {th }}, 2023$, the council voted to adopt the final plan and ar rol $\_$charter amendment to adopt the boundaries for town council elections.

## 3. Methodology

The process prior to plan development included revien $\quad \mathrm{g}$ th f , state of Maryland's constitution and guidelines for redistricting. In addition, a revic of the jur. . action's redistricting guidelines or criteria occurred as well.

2020 Census population (PL94-171) and g os ap data for the town of Chevelry, MD, were obtained from Caliper Corporation. Caliper’s ${ }^{\wedge} . u^{\prime}$ 'itu,$f$, Redistricting software was used to generate the redistricting plans and produ 2 th tatist. 기 reports. ArcGIS's mapping software was used to generate the final maps.

The approach used to $G^{\prime} f^{\prime}$ ' $p$ the proposed plans was the "Least Change" approach. The least change approach attempts to min. ize the changes to the ward configurations and simply adjust for population equality (See Table 1). Because the change in the population of Cheverly, MD, from 2010 to 2020 was only slight, the Least Change approach is the best plan development approach to use.

## 4. Redistricting Criteria

The criteria for the town of Cheverly is "To develop a redistricting plan for the Town of Cheverly that will ensure the Ward boundaries of Cheverly conform to the official Census statistics and to comply fully with relevant law as to equitable apportionment of residents in each ward, and submit a recommendation to the Mayor and Council."1

[^0]Since the town has no specific redistricting criteria that govern the redrawing of ward boundaries. Therefore, the criteria used to develop the plan options were drawn using major traditional redistricting criteria utilized throughout the country, including:

## Equally Populating the Wards within an acceptable Deviation

The central criterion that launched modern-day redistricting is to equally populate political districts in order to adhere to the "Equal Protection Clause" that extends from the U.S. Constitution. ${ }^{2}$ However, the Courts have ruled that legislative and local districting plans will not violate the "Equal Protection Clause" if the smallest to the largest populated district (overall range) has a deviation percentage less than ten percent (10\%) of the ideal population size. ${ }^{3}$

Specifically for Cheverly, MD, the ideal district population size is 1,030 (using 2020 Adjusted Census data). ${ }^{4} 10 \%$ of the ideal population is 103 persons, while $5 \%$ is 52 persons (rounded up to the nearest whole person). Thus, the population of each ward should fall between 978 and 1,082 . During the development of all plans, the ward population was held within the acce sta! , deviation range for the Town of Cheverly, MD.

## Geographically Contiguous Wards

The Courts have ruled that all parts of the district must ho geo ${ }_{\varepsilon}$ эphic.. , connected to each other or contiguous. However, there are exceptions to this cri rion. re. , mple, in many instances, Island land areas of a jurisdiction can be connected to a distric $v$ water $\bar{c} d$ noncontiguous annexed land regions.

## Compact Wards

The Courts have scrutinized the geographir. ners in and irregularity of the district boundaries. The term used to describe this dispersion and re, $u_{1}$ ity is called compactness. In order to quantify this geographically, compactness measur have bef 1 created. The Courts have accepted that a geographically compact district gen srally enetits voters, while a noncompact district "may" indicate a gerrymandered district. ${ }^{5} \mathrm{~F}$ ex mp . a district shaped like a circle or a square would be considered extremely geographical', compac. Travitionally, most districts have some imperfections or irregularities in their shape. Noneth 'ess ne mor- bizarre the district shape, the less likely it is to be compact. During the development of all plıs, ward boundaries were developed to be reasonablycompact or better.

However, low compactness scores may be attributed to the irregular shape and boundaries of the jurisdiction. The northwest jurisdictional area of Cheverly, MD, is an example of this occurrence. The

[^1]lower compactness measurement of the northwest area of Ward 5 is primarily due to the irregular shape of the jurisdictional.

## Minimizing Political Subdivision Splits

One commonly accepted traditional redistricting criterion is minimizing political subdivision splits. This criterion usually includes minimizing splits of counties, cities, precincts, and voting tabulation districts (VTDs) ${ }^{8}$. During the development of all plans, precincts or VTDs were left similarly intact or split as the Current Plan.

## Preserving Communities of Interest

Communities of Interest (COIs) represent geographically defined areas of voters with common interests. The interests could be cultural, socioeconomic, environmental, and "almost" anything that the voters decide and demonstrate that there is a voting interest. The principle is to preserve or not split these COIs. Since the "least change" approach was implemented, neighborhc $d k$. 'ndaries were not available, and the size of the town did not readily allow for extensive CO mple. entation.

## Maintaining Ward Cores of the Wards

Maintaining or preserving district core areas as previouslv dra , is cc eered one of the traditional redistricting criteria. The plans developed followed a" east ${ }^{\text {ang " approach. The least change }}$ approach attempts to minimize the changes to the $\exists$ rd confi $\xi^{\prime}$ rations and adjust for population equality. Thus, the core areas of each ward were retaı $d$ as $b$ st as possible.

## 5. Cheverly, MD General Demographics

The town of Cheverly essentially maintair ed is tal population during the decade and only decreased by three persons from 6,173 in $2010+\sim 6,17$ in .020 (See Table 1).

Highlights of the demograrhic shan ${ }_{2}$, incluve:

- The town of $C^{\prime}$ everlv Mar, $n$, in 2010, had a population of 6,173 . In 2020, the town had decreased by or. ' persons to 6,170.
- The Latino populatio. increased 224 persons from 651 (10.55\%) in 2010 to 875 (14.18\%) in 2020.
- The Not Hispanic White Alone population increased 177 persons from 1,752 (28.38\%) in 2010 to 1,929 (31.26\%) in 2020.
- The Not Hispanic Black Alone population decreased 608 persons from 3,479 (56.36\%) in 2010 to 2,871 (46.53\%) in 2020.
- The Not Hispanic Asian Alone population increased 43 persons from 101 (1.64\%) in 2010 to 144 (2.33\%) in 2020.

The voting age population also essentially maintained; however, it increased slightly from 4,719 in 2010 to 4,736 in 2020.

Table 1 - Cheverly, MD - Total Population - Major Demographics (2010 to 2020)

|  | Total Population |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Description | 2010 | \% | 2020 | \% | $\begin{aligned} & \text { Inc/ } \\ & \text { Dec } \end{aligned}$ | $\begin{aligned} & \text { Inc/ } \\ & \text { Dec\% } \end{aligned}$ |
| Total: | 6,173 | 100.00\% | 6,170 | 100.00\% | -3 | -0.05\% |
| Hispanic or Latino | 651 | 10.55\% | 875 | 14.18\% | 224 | 3.64\% |
| Not Hispanic or Latino: | 5,522 | 89.45\% | 5,295 | 85.82\% | -227 | -3.64\% |
| Population of one race: | 5,362 | 86.86\% | 4,983 | 80.76\% | -379 | -6.10\% |
| White alone | 1,752 | 28.38\% | 1,929 | 31.26\% | 177 | 2.88\% |
| Black or African American alone | 3,479 | 56.36\% | 2,871 | 46.53\% | -608 | -9.83\% |
| American Indian and Alaska Native alone | 6 | 0.10\% | 7 | 0.11\% | 1 | 0.02\% |
| Asian alone | 101 | 1.64\% | -1 | 2.33\% | 43 | 0.70\% |
| Native Hawaiian and Other Pacific Islander alone | 0 | 0.00\% | 4 | 0.. $0 \%$ | 4 | 0.06\% |
| Some Other Race alone | 24 | 0.39\% | $\bigcirc$ | 0.45\% | 4 | 0.07\% |
| Two or More Races: | 160 | 2.50 | 312 | 5.06\% | 152 | 2.46\% |

Source: 2010 \& 2020 Census Data
Note: White, Black, and Asian are Not-Hispanic Alone ca ${ }_{4}$ गories

Table 2 - Cheverly, MD - Voting Age Pc. , Ilation - Major Demographics (2010 to 2020)

|  | Voting Age Population |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Description | 2010 | \% | 2020 | \% | Inc/ Dec | Inc/ Dec\% |
| Total Voting Age Populatir : | 4,719 | 100.00\% | 4,736 | 100.00\% | 17 | 0.36\% |
| Hispanic or Latino | 452 | 9.58\% | 579 | 12.23\% | 127 | 2.65\% |
| Not Hispanic or Latino: | 4,267 | 90.42\% | 4,157 | 87.77\% | -110 | -2.65\% |
| Population of one race: | 4,165 | 88.26\% | 3,955 | 83.51\% | -210 | -4.75\% |
| White alone | 1,450 | 30.73\% | 1,507 | 31.82\% | 57 | 1.09\% |
| Black or African American alone | 2,613 | 55.37\% | 2,291 | 48.37\% | -322 | -7.00\% |
| American Indian and Alaska Native alone | 4 | 0.08\% | 4 | 0.08\% | 0 | 0.00\% |
| Asian alone | 88 | 1.86\% | 130 | 2.74\% | 42 | 0.88\% |
| Native Hawaiian and Other Pacific Islander alone | 0 | 0.00\% | 4 | 0.08\% | 4 | 0.08\% |
| Some Other Race alone | 10 | 0.21\% | 19 | 0.40\% | 9 | 0.19\% |
| Two or More Races: | 102 | 2.16\% | 202 | 4.27\% | 100 | 2.10\% |

Source: 2010 \& 2020 Census Data
Note: White, Black, and Asian are Not-Hispanic Alone categories

Finally, Table 3 provides Cheverly's citizen voting age population (CVAP) from the American Community Survey (ACS) for the five-year period of 2016 to 2020 . CVAP reflects the population above 18 years old who are citizens. ${ }^{6}$ The table indicates that Black CVAP is $53.57 \%$, white CVAP is $37.07 \%$, Latino CVAP is $4.20 \%$, and Asian CVAP is $4.85 \%$.

Table 3 - Cheverly, MD - Citizen Voting Age Population - Major Demographics (2020)

|  | Description | CVAP |  |
| :--- | ---: | ---: | ---: |
|  | $\mathbf{2 0 2 0}$ | $\%$ |  |
| Total: | 4,496 | $100.00 \%$ |  |
| Hispanic or Latino | 189 | $4.20 \%$ |  |
| Not Hispanic or Latino: | 4,307 | $95.80 \%$ |  |
| Population of one race: | $\mathrm{N} / \mathrm{A}$ | $\mathrm{N} / \mathrm{A}$ |  |
| White alone | 1667 | $37.07 \%$ |  |
| Black or African American alone | , 408 | $53.57 \%$ |  |
| American Indian and Alaska Native alone | $\mathrm{N} / \mathrm{A}$ | $\mathrm{N} / \mathrm{A}$ |  |
| Asian alone | 218 | $4.85 \%$ |  |
| Native Hawaiian and Other Pacific Islander alone | $\mathrm{N} / \mathrm{A}$ | $\mathrm{N} / \mathrm{A}$ |  |
| Some Other Race alone |  | $\mathrm{N} / \mathrm{A}$ | N |
| Two or More Races: |  | $\mathrm{N} / \mathrm{A}$ | N |

Source: 2020 5-Year American Community Surve; ' $A C S$ )
Note: N/A - Data not available; White, Black, and Asiaı $\curlyvee$ re Not-Hispanic Alone categories

## 6. Initial Plan Development Findin in I or ss

The first step in the plan $d$ velc $m e$. ${ }^{\circ}$ process was to recreate the current redistricting plan. During this process, it was observe chat the . rre..it Ward 5 could not be recreated exactly using 2020 census blocks. It is important . $n 0^{\prime}$ that the one-person, one-vote constitutional requirement appears to have been met by apportionins he population. The Current Plan appears to add and apportion the population of several resideı, ial building units (Cheverly Station apartment complex) to Ward 5. Thus, the recreation of the Current Plan using "whole" 2020 census blocks cannot be achieved.

Besides not being able to recreate the Current Plan, this single census block (block 240338041011002) that is apportioned connects the northern town area of Ward 5 to Ward 6 (See Figure 1). Census Block 240338041011002 is located in the northeast between Oak Street on the south of the census block and Landover Road on the north. Thus, Ward 5 is landlocked in the northeastern area by this sole census block.

The issue arises when the "whole" census block 240338041011002 is added or removed from Ward 5. If the census block is not added to Ward 5 , the plan will have a low population that exceeds the acceptable overall population deviation. For example, the deviation for Ward 5 would be $-14.95 \%$,

[^2]beyond the Court's acceptable 10\% (See Figure 4). Alternatively, if the entire census block is added to Ward 5, its population would exceed the acceptable deviation with $+38.45 \%$.


Figure 1 - Cheverly, MD Current Plan Ward 5 Zoc

Therefore, in order for Ward 5 to reach an acceptable ponulat, ( typ. .y between $+/-5 \%$ for each district with $10 \%$ overall for the plan), census block $2^{\prime}$ J338 ${ }^{101}$. 102 must be split with its total population ${ }^{7}$ divided amongst the new census block. Two of th. new split census blocks will be added to Ward 5 to bring its populations within an acceptable a ratior The remaining split census block can be added to Ward 4.

Hence, census block $240338041011002, w^{\prime}$ ct $\operatorname{s~st.~wn~in~Figure~} 2$ in the black outline, was split prior to plan development. The new split census $10 c^{\prime} s$ v re given the additional suffix of " $A, B$, and $C$ " to the existing census block ID. Figure 2 der - the ori , inal census block split into three smaller blocks (each shown in different colors). Tr $\sim$ ne split $u$ nsus blocks were configured to include the existing buildings in the Cheverly Station ap tme toc aplex that are contained within the current Ward 5 plan. Consequently, these ty, new splic ensus blocks were added to the Ward 5 to bring the ward and the plan within an accepta $\stackrel{\rho}{ }$ pulatior deviation.

The geographic split of 2403. 2041011002B is defined by the unnamed undivided road that enters and exits the apartment complex off Kilmer Street. Census block 240338041011002C follows another unnamed undivided road that enters off of Landover Road, connects to a physical sidewalk feature, and exists to Kilmer Street. Both are split following the U.S. Census Bureau guidelines listed in Figure 3 below. ${ }^{8}$

[^3]

Figure 2 - Cheverly, M.D, pli ~í Census Block 240338041011002

The split census blocks, 2' J338 '10_ '02B and 240338041011002C, were added to Ward 5 to bring the ward population and $r$ an wit' in ac aptable deviation. The results will be similar to the apportionment of the census block that $\quad$ r arred in the previous redistricting cycle.

However, formally splitting the census block will enable the U.S. Census Bureau to enumerate the population contained within the split blocks in 2030 and, thus, the recreation of the 2020 plan. Also, splitting the census block into three blocks instead of two will enable one (or both) of the Ward 5 split census blocks to be dropped if there is a significant population increase in the ward by 2030.

The U.S. Census Bureau has suggested guidelines for the boundaries of census blocks. Therefore, it is critical to adhere to these guidelines when splitting a census block. Below is a list of appropriate boundaries that census blocks should follow. The bolded items indicate potential candidates for splitting census block 240338041011002 between Wards 5 and 6.

1) Must-hold census block boundary (see "Identifying and Numbering Census Blocks" section)
(2) Water area (double-line drainage)
(3) Named, addressable divided roads (by road class)
(4) Named, addressable undivided roads (by road class)
(5) Unnamed addressable divided roads (by road class)
(6) Unnamed addressable undivided roads (by road class)
(7) Other addressable features
(8) Feature extensions (manually inserted)
(9) 1980 statistical/governmental unit boundary
(by category)
(10) Main rail line feature
(11) Railyard
(12) Rail spur and other rail feature
(13) Named perennial stream (single-line drainage)
(14) Power transmission line
(15) Pipeline
(16) Unnamed perennial stream (single-line drainage)
(17) Named perennial or unclassified canal, ditch, or aqueduct
(18) Unnamed perennial or unclassified canal, ditch, or aqueduct
(19) Named intermittent stream or wash (single-line drainage)
(20) Named bra'd 1 tream (single-line drainage)
(21) Unnamed iurc ded s _am (single-line drainage)
(22) Namt ir er ittent canal, ditch, or aquer' ct
(ـ. Tor 'graphic feature (such as bluffs, cliffs)
(24) I nce ine
(25) $P$ int-to-point line
'6) eature extension, other than manually inserted extension
(27) Other special transport feature
(28) Physical feature not listed

Source: 2020 U.S. Census Bureau BI ,cks nd z...ck Group Technical Manual
Figur 3-U.S. -ens s Bureau Acceptable Census Block Boundaries

In addition to the split cens block in the north end, three other census block populations were apportioned in the Current Plan (See Figure 4). In the Current Plan, the population of census blocks $240338041011004{ }^{9}, 240338041011014$, and 240338041011015 appear to be partially allocated but not formally split (green area). These allocations prevent the Current Plan from being recreated exactly using the 2020 census block geography. ${ }^{10}$

[^4]

Figure 4 - Cheverly, ML A por .. oned Census Blocks of Ward 4 and 6

## 7. Recreating the Curre . Plaı. 'Isir. 2020 Census Geography

The starting point for $n$. st, san development is the current or last approved plan. However, as previously discussed, the $u$ rent Plan cannot be recreated exactly using the 2020 Census block geography. Nevertheless, a p.ın can be configured that uses "whole" census blocks that approximate the Current Plan and can be used as a starting point for plan development.

To approximate the Current Plan, the apportioned census blocks must be "wholly" assigned to a ward. Hence, a common technique used to determine which ward or district to assign to an overlapping census geography is to determine the location of its centroid. The centroid is the geographic center of the census block. Thus, each ward that contained the centroid of the apportioned census block was assigned the census block. Hence, census blocks 240338041011002, 240338041011004, 240338041011014 , and 240338041011015 were all allocated to Ward 6 because of the location of their centroids.

The results of the assignment of the apportioned census blocks are shown in Figure 5. Unfortunately, the result shows that Wards 4 and 5 are underpopulated while Ward 6 is overpopulated by significant
amounts. In addition, there is a noncontiguous census block contained within Ward 6 because of the assignment of census block 240338041011014 to Ward 6.


Figure 5 - Che Erly, 1D Rec rated Current Plan w/Current Plan Background

The allocation of appor $\imath^{\circ}$ _ensus blocks generated the recreated Current Plan and the starting point for the proposed plans.

Although the recreated Current Plan does not precisely depict the actual plan, it can provide some insight into the wards' demographics. Wars 1, 2, and 3 have no apportioned population and can be reproduced exactly. The others are approximations. For instance, Wards $1 \& 3$ are majority White (using CVAP). The recreated Current Plan Wards 4, 5, and 6 are majority Black when reviewing Citizen Voting Age Population. Wards 5 and 6 are majority Black when reviewing Voting Age Population.

Table 4 - Cheverly, MD - Recreated Current Plan Major Race/Ethnicity

| Cheverly, MD - Plan A1 Major Race/Ethnicity Total Population |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ward | Population | Deviation | $\%$ <br> Deviation | Latino\% | White\% | Black\% | Asian\% |
| 1 | 993 | -37 | -3.59\% | 12.49\% | 45.02\% | 35.75\% | 0.91\% |
| 2 | 982 | -48 | -4.66\% | 12.73\% | 48.88\% | 27.90\% | 2.55\% |
| 3 | 972 | -58 | -5.63\% | 12.24\% | 40.23\% | 36.83\% | 2.37\% |
| 4 | 936 | -94 | -9.13\% | 12.39\% | 35.79\% | 41.77\% | 4.59\% |
| 5 | 876 | -154 | -14.95\% | 19.41\% | 0.80\% | 76.94\% | 1.26\% |
| 6 | 1,421 | 391 | 37.96\% | 15.62\% | 19.00\% | 58.20\% | 2.32\% |
| Cheverly, MD - Recreated Current Plan Major Race/Ethnicity Voting Age Population |  |  |  |  |  |  |  |
| Ward | VAP | Deviation | \% Deviation | Latino VAP\% | White VAF | Black VAP\% | Asian VAP\% |
| 1 | 806 | -37 | -3.59\% | 10.42\% | 7 | 35.73\% | 0.99\% |
| 2 | 751 | -48 | -4.66\% | 11.85\% | 4\%. $4 \%$ | 31.82\% | 3.06\% |
| 3 | 746 | -58 | -5.63\% | 10.59\% | -75\% | 38.61\% | 2.41\% |
| 4 | 786 | -94 | -9.13\% | 9.92 | 33 - $1 \%$ | 45.93\% | 5.09\% |
| 5 | 615 | -154 | -14.95\% | 17.8. $1 /$ | 1.14\% | 77.40\% | 1.63\% |
| 6 | 1,042 | 391 | 37.96\% | 13. $7 \%$ | 18.14\% | 62.09\% | 2.98\% |
| Cheverly, MD - Recreated Current Plan Majo. ${ }^{\text {Pace/Etr }}$ icity Citizen Voting Age Population |  |  |  |  |  |  |  |
| Ward | CVAP | Deviation | \% <br> Devi. ion | $\begin{aligned} & \text { ati } \\ & \text { ClAP\% } \end{aligned}$ | White CVAP\% | Black CVAP\% | Asian <br> CVAP\% |
| 1 | 908 | -37 | 3.5 y | 3.95\% | 52.47\% | 34.09\% | 4.17\% |
| 2 | 941 | -48 | +. \% | 3.07\% | 49.53\% | 42.06\% | 7.70\% |
| 3 | 561 |  | -5 3\% | 4.91\% | 54.09\% | 40.94\% | 1.27\% |
| 4 | 748 | - 94 | -9.13\% | 3.55\% | 34.90\% | 56.31\% | 5.52\% |
| 5 | 477 | -1. | -14.95\% | 5.55\% | 1.89\% | 88.18\% | 0.23\% |
| 6 | $\leq 5$ | $\underline{-1}$ | 37.96\% | 5.07\% | 17.40\% | 73.46\% | 6.70\% |

Source: 2020 Census Data; . 20 5-Year ACS Data
Note: White, Black, and Asian ar- Not-Hispanic Alone categories

## 8. The Proposed Plan

Three proposed plans were developed for Town Council Wards. All plans were constructed using the "Least Change" approach. As previously mentioned, this approach is designed to make minimal changes to the existing or current boundary lines. Since the population of Cheverly has maintained throughout the decade and only decreased by three persons, the least change approach for plan development is appropriate and even warranted.

The initial two plans, A1 and A2, were preliminary plans similar to the final Plan A3. Each of these plans did not differ substantially from the other. Plan A1 differed the most from the Current Plan. In Plan A1, multiple census blocks were exchanged between the wards. Plan A2 and Plan A3 were exactly the same
except for the split of census block 40338041011002 that connects Wards 5 and 6 . The small difference lies with the splitting of 40338041011002A and 40338041011002C. Ultimately, it was decided that Plan A3 split census block 40338041011002 in a more appropriate manner.

## Plan A3

As with Plans A1 and A2, Wards 1 and 2 follow the current boundaries exactly as they currently stand (See Figure 6). Figure 5 shows Plan A3 with a color background of the Current Plan. As the maps show, both Wards 1 and 2 had an acceptable population deviation using the 2020 Census data and did not have to be altered.


Figure 6 - Cheverly, MD Plan A3 w/Current Plan Background

The changes from the Current Plan include the following:
Wards 1 and 2 are precisely the same as the Current Plan. Figure 7 depicts Plan A3.


Figur- 7 - CI verly, MD Plan A3
Ward 3 is very similar to the urre. Pan t.ept for the addition of one census block (240338041011012), whi is rt ove ' from Ward 6. This census block is bounded by Jason St., $64{ }^{\text {th }}$ Ave, Inwood St., and 63 ${ }^{\text {rd }} \mathrm{A}^{\prime}$. . See -igur 8 in the light gold area (Current Ward 6). ${ }^{11}$

Ward 4 adds one census b. ck (240338041011011) from Ward 6. The census block bounds $63{ }^{\text {rd }}$ Ave, Inwood St, and 64 ${ }^{\text {th }}$ Ave. The ..pportioned areas of census block 240338041011014 and 240338041011015 are removed from Ward 4. These areas lie along Forest Road. See Figure 8 in the light gold area (Current Ward 4).

Ward 5 has essentially the same boundaries as the current ward. In addition, Ward 5 physically adds two split census blocks (240338041011002B and 240338041011002C) instead of apportioning part of the census block to Ward 5 as in the Current Plan (See Figure 1). There appears to be an additional apartment building that is included in Ward 5 Plan A3 that is not included in the Current Plan (See Figure 9).

[^5]Ward 6 consists of the removed split census blocks (240338041011002B and 240338041011002C) given to Ward 5. The remaining part of the census block (240338041011002A) is retained within Ward 6. Also, census blocks 240338041011011 and 240338041011012 were removed and added to Ward 3 and Ward 4, as previously mentioned. The apportioned areas of census block 240338041011014, 240338041011015 , and 240338041011004 are added from Ward 4. See Figure 8 in the light gold area.


Figu. 8-Cheverly, MD Plan A3 Wards $5 / 6$ Split Census Block


Figure 9-Cheverly, ภD 7 n -, Wards 5/6 Split Census Block

Plan A3 performs well re, din ${ }^{\text {'raa }}$ ional redistricting criteria. Specifically, contiguity, population deviation, compactnes, core reter ion, and political subdivision splits (See Appendix A).

## Contiguity and Populatior, 'eviation

Plan A3 is contiguous and has an overall population deviation of $7.67 \%$, within the acceptable range (See Table 5).

## Compactness

Plan A3 is reasonably compact and slightly numerically better than Plan A1 using three different compactness measures. The plan's mean measurements of Reock (0.39), Polsby-Popper (0.38), and Convex Hull (0.74) were used (See Appendix A \& B).

## Core Retention

Reviewing the percentage of areas that were retained from the Current Plan shows that Plan A3 retention range from $82.80 \%$ to $100 \%$ of the current ward population. ${ }^{12}$

## Political Subdivision Splits

The number of Voting District (VTD) splits in Plan A3 remained the same as in the Current Plan. This is because the plan cuts through two VTDs in both plans.

Table 5 - Cheverly, MD - Plan A3 Major Race/Ethnicity

| Cheverly, MD - Plan A3 Major Race/Ethnicity Total Population |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ward | Population | Deviation | \% Deviation | Latino\% | V its | Black\% | Asian\% |
| 1 | 993 | -37 | -3.59\% | 12.49\% | 45. ${ }^{\text {\% }}$ | 35.75\% | 0.91\% |
| 2 | 982 | -48 | -4.66\% | 12.73\% | - 88\% | 27.90\% | 2.55\% |
| 3 | 1055 | 25 | 2.43\% | 12.04\% | / 3.6 | 36.49\% | 3.32\% |
| 4 | 1031 | 1 | 0.10\% | 12.51 | $\cdots$, $5 \%$ | 41.03\% | 4.36\% |
| 5 | 1058 | 28 | 2.75\% | 18. ${ }^{1} \%$ | 0.91\% | 77.09\% | 1.13\% |
| 6 | 1061 | 31 | 2.98\% | 16.07 | 17.85\% | 59.03\% | 1.70\% |
| Cheverly, MD - Plan A3 Major Race, -thnir y Voting Age Population |  |  |  |  |  |  |  |
| Ward | VAP | Deviation | Deviar. $n$ | $\begin{aligned} & \text { VAP\% } \\ & \text { VAP } \end{aligned}$ | White VAP\% | Black VAP\% | Asian VAP\% |
| 1 | 806 | -37 | -3. ${ }^{\text {% }}$ | 10.42\% | 47.64\% | 35.73\% | 0.99\% |
| 2 | 751 | -48 | -66 | 11.85\% | 47.54\% | 31.82\% | 3.06\% |
| 3 | 815 | 25 | <. $\%$ | 10.18\% | 40.25\% | 38.40\% | 3.68\% |
| 4 | 849 |  | J.10\% | 9.78\% | 35.10\% | 45.23\% | 4.95\% |
| 5 | 742 |  | 2.75\% | 17.42\% | 1.21\% | 77.91\% | 1.48\% |
| 6 | 783 | 31 | 2.98\% | 14.27\% | 16.85\% | 63.47\% | 2.04\% |
| Cheverly, ${ }^{\text {a }}$ D-Plan A3 Major Race/Ethnicity Citizen Voting Age Population |  |  |  |  |  |  |  |
| Ward | CVAP | Deviation | \% Deviation | Latino CVAP\% | White CVAP\% | $\begin{gathered} \text { Black } \\ \text { CVAP\% } \end{gathered}$ | $\begin{gathered} \text { Asian } \\ \text { CVAP\% } \end{gathered}$ |
| 1 | 908 | -37 | -3.59\% | 3.95\% | 52.47\% | 34.09\% | 4.17\% |
| 2 | 941 | -48 | -4.66\% | 3.07\% | 49.53\% | 42.06\% | 7.70\% |
| 3 | 620 | 25 | 2.43\% | 4.66\% | 51.16\% | 41.14\% | 5.10\% |
| 4 | 802 | 1 | 0.10\% | 3.52\% | 34.75\% | 55.45\% | 5.56\% |
| 5 | 579 | 28 | 2.75\% | 5.62\% | 1.74\% | 89.56\% | 0.47\% |
| 6 | 646 | 31 | 2.98\% | 5.34\% | 18.33\% | 75.03\% | 4.42\% |

Source: 2020 Census Data; 2020 5-Year ACS Data
Note: White, Black, and Asian are Not-Hispanic Alone categories

[^6]
## Majority Minority Wards (Cursory VRA Analysis)

Since the Current Plan apportions the population of some census blocks, there is no reliable way to compare the Current Plan to Plan A3 exactly. However, comparisons can be made using the recreated Current Plan and Plan A3.

Thus, similar to the Current Plan, Plan A3 contains three majority Black wards when reviewing CVAP. These include Wards 4, 5, and 6. Ward 4 decreased in Black CVAP (BCVAP) from the Current Plan, while Wards 5 and 6 increased. Wards 5 \& 6 are majority Black VAP for both the Current Plan and Plan A3. Although election analysis is not part of this effort, on the surface, it does not appear that the new configuration will alter Black voters' ability to elect candidates of choice.

Also, similar to the Current Plan, Plan A3 contains two majority White wards that exist when reviewing CVAP (WCVAP). These include Wards 1 and 3.

## 9. Summary

The proposed Plan A3 meets and satisfies traditional redistricting critr-ia as 'ell as state and federal guidelines. Also, using the "Least Change" approach, Plan A3 does ot s. tan ially deviate from the Current Plan configuration.

Finally, Cheverly, MD, should consider formally adjus , ng its nsu blocks in the upcoming years. Therefore, prior to or during the Census Bureau's $B_{1}-k$ Bound y Suggestion Project effort, Cheverly should consider splitting several census blocks that art elativ y larger than needed for the size of the town. Splitting select census blocks will assis he town $w_{1}$ "a smoother redistricting process and a greater number of plan options in the next cycle hat will occur after the 2030 decennial census.

## Appendix A

## Plan A3 Maps and Reports

- Plan A3 Map
- Plan A3 Map w Curren Ma ,
- Plan A3 Ward Man
- Demograp' -^ta eport
- Demog uphic Voi g A厄さ Population
- Demogra, hic Citiz $n$ Voting Age Population
- Ontiguity $\mathrm{K}_{\text {- }}$ -
- Cor ractness Report
- L. tric -ore Report
- ID

Splits









# Population Summary 

Tuesday, January 24, 2023


# Population Summary 

Tuesday, January 24, 2023


# Population Summary 

Tuesday, January 24, 2023


User: Tony Fairfax
Plan Name: Cheverly MD Plan A3
Plan Type: Town Council

## Contiguity Report

| District | Number of Distinct Areas |
| :--- | :--- |
| 1 | 1 |
| 2 | 1 |
| 3 | 1 |
| 4 | 1 |
| 6 | 1 |

User: Tony Fairfax
Plan Name: Cheverly MD Plan A3
Plan Type: Town Council

## Measures of Compactness Report

Tuesday, January 24, 2023

|  | Reock | PolsbyPopper | Area/Convex Hull |
| :---: | :---: | :---: | :---: |
| Sum | N/A | N/A | N/A |
| Min | 0.22 | 0.29 | 0.67 |
| Max | 0.62 | 0.53 | 0.84 |
| Mean | 0.39 | 0.38 | 0.75 |
| Std. Dev. | 0.14 | 0.11 |  |
| District | Reock | PolsbyPopper | $\begin{aligned} & 7 / C_{i} \text { vex } \\ & \text { lull } \end{aligned}$ |
| 1 | 0.30 | 0.30 | 0.67 |
| 2 | 0.62 | 0.53 | 0.84 |
| 3 | 0.38 | 0.50 | 0.81 |
| 4 | 0.38 | 0.25 | 0.67 |
| 5 | 0.22 |  | 0.79 |
| 6 | 0.45 | 0.37 | 0.72 |

Measures of Compactness Summary

| Reock | The measure is always between 0 and 1 , with 1 being the most compact. |
| :--- | :--- |
| Polsby-Popper | The measure is always between 0 and 1 , with 1 being the most compact. |
| Area / Convex Hull | The measure is always between 0 and 1 , with 1 being the most compact. |

## Core Constituencies

## From Plan: Cheverly MD CC Current Plan

 v3Plan: Cheverly MD Plan A3, District 1 --
993 Total Population

| Adj_Population | [Adj_Hispanic Origin] | Adj_NH_Wht | Adj_NH_Blk | Adj_NH_Asn |
| :---: | :---: | :---: | :---: | :---: |
| Dist. 1 993 (100.00\% | 124 (100.00\%) | 447 (100.00\%) | 355 (100.00\%) | 9 (100.00\%) |
| Total and \% Population | 124 (12.49\%) | 447 (45.02\%) | 255 (35.75\%) | 9 (0.91\%) |
| Plan: Cheverly MD Plan A3, District 2 -- |  | 982 Tota | , iat |  |
| Adj_Population | [Adj_Hispanic Origin] | Adj_NH_Wht | Adj_ 'H_Blk | Adj_NH_Asn |
| Dist. 2 $982 \text { (100.00\% }$ ) | 125 (100.00\%) | 480 (10.00\%) | 274 (100.00\%) | 25 (100.00\%) |
| Total and \% Population | 125 (12.73\%) | $480 \quad 8.88$ | 274 (27.90\%) | 25 (2.55\%) |

Plan: Cheverly MD Plan A3, District 3 --

|  | Adj_Population | [Adj_Hispa. Origin] | Adj_ Wht | Adj_NH_Blk | Adj_NH_Asn |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Dist. 3 | 972 (92.13\%) | 119 ( .70\% | 391 (92.43\%) | 358 (92.99\%) | 23 (65.71\%) |
| Dist. 4 | 0 (0.00\%) | 0 . 0 ( ) | (0.00\%) | (0.00\%) | (0.00\%) |
| Dist. 6 | 83 (7.87\%) | (6.3 | 32 (7.57\%) | 27 (7.01\%) | 12 (34.29\%) |
| Total and |  | 127 -04\%) | 423 (40.09\%) | 385 (36.49\%) | 35 (3.32\%) |

Plan: Cheverly MD Pla A3, Dis ${ }^{\text {ict }} 4$ -
1,031 Total Population

|  | '7' on | [Adj_Hispanic Origin] | Adj_NH_Wht | Adj_NH_Blk | Adj_NH_Asn |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Dist. 4 | 936 (90.79\%) | 116 (89.92\%) | 335 (87.93\%) | 391 (92.43\%) | 43 (95.56\%) |
| Dist. 6 | 95 (9.21\%) | 13 (10.08\%) | 46 (12.07\%) | 32 (7.57\%) | 2 (4.44\%) |
| Total and \% Population |  | 129 (12.51\%) | 381 (36.95\%) | 423 (41.03\%) | 45 (4.36\%) |

Plan: Cheverly MD Plan A3, District 5 --
1,058 Total Population

|  | Adj_Population | [Adj_Hispanic <br> Origin] | Adj_NH_Wht | Adj_NH_BIk | Adj_NH_Asn |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Dist. 5 | $876(82.80 \%)$ | $170(85.00 \%)$ | $7(87.50 \%)$ | $674(82.80 \%)$ | $11(100.00 \%)$ |
| Dist. 6 | $182(17.20 \%)$ | $30(15.00 \%)$ | $1(12.50 \%)$ | $140(17.20 \%)$ | $(0.00 \%)$ |
| Total and \% Population |  | $200(18.90 \%)$ | $8(0.76 \%)$ | $814(76.94 \%)$ | $11(1.04 \%)$ |

Plan: Cheverly MD Plan A3, District 6 --
1,060 Total Population
Adj_Population [Adj_Hispanic Origin]

From Plan: Cheverly MD CC Current Plan
v3

| Dist. 6 | $1,060(100.00 \%$ <br> $)$ | $170(100.00 \%)$ | $189(100.00 \%)$ | $626(100.00 \%)$ | $18(100.00 \%)$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Total and \% Population |  | $170(16.04 \%)$ | $189(17.83 \%)$ | $626(59.06 \%)$ | $18(1.70 \%)$ |

User: Tony Fairfax
Plan Name: Cheverly MD Plan A3
Plan Type: Town Council

## Communities of Interest (Landscape, 11x8.5)

Tuesday, January 24, 2023 2:30 PM

| Voting District | District | Adj_Population | $\%$ |
| :--- | :--- | ---: | :--- |
| $2403302-003$ | 3 | 1,055 | 28.2 |
| $2403302-003$ | 4 | 570 | 15.2 |
| $2403302-003$ | 5 | 1,058 | 28.3 |
| $2403302-003$ | 6 | 1,061 | 28.3 |
| $2403302-007$ | 1 | 842 | 40.0 |
| $2403302-007$ | 2 | 982 | 46.7 |
| $2403302-007$ | 4 | 280 | 13.3 |



## Summary Statistics

Number of Voting District not split 5
Number of Voting District split 2
Number of Voting District split in $2 \quad 0$
Number of Voting District split in $3 \quad 1$
Number of Voting District split in $4 \quad 1$
Total number of splits 7

Plan Name: Cheverly MD Plan A3
Plan Type: Town Council

## Voting District by District and by County

| Adj_Populatio | \% of <br> $n$ |
| ---: | ---: |
| District |  |

## District 1

2403302-001
2403302-007
2403302-008
Total District 1

District 2
2403302-007

## Total District 2

## District 3

2403302-003
Total District 3

District 4
2403302-003
2403302-007
2403313-002
2403318-012
Total District 4

District 5
2403302-003
2403302-009
Total District 5

## District 6

2403302-003
Total District 6

139 100.00\%
842 40.02\%
12 100.00\%
993

982 46.67\%
982

1,055 28.18\%
1,055

| 570 | $15.22 \%$ |
| ---: | ---: |
| 280 | $13.31 ヶ$ |
| 0 | $0.00 \%$ |
| 181 | $0.00 \%$ |

1,031

## ,

, , , $27 \%$
$0 \quad 0.00 \%$

1, 58

## Appendix B

## Current Plan Maps and Repor : <br> (Recreated using Whole 2020 Census o. `cks,

- Current Plan Map
- Current Plan Ward Vap
- Demograr in +al , oort
- Demos aphic Vot. g Age Population
- Demogra ${ }^{\text {- }}$ c Citi . n Voting Age Population
- © ntiguity $\mathrm{Re}_{\mathrm{L}}$, t
- Con, actness Report
- V -s
- TD splits









## Population Summary



## Population Summary



## Population Summary



User: Tony Fairfax
Plan Name: Cheverly MD Council Current Plan
Plan Type: Town Council

## Contiguity Report

| District | Number of Distinct Areas |
| :--- | :--- |
| 1 | 1 |
| 2 | 1 |
| 3 | 1 |
| 4 | 2 |
| 5 | 1 |

User: Tony Fairfax
Plan Name: Cheverly MD Council Current Plan
Plan Type: Town Council

## Measures of Compactness Report

Wednesday, November 9, 2022

|  | Reock | PolsbyPopper | Area/Convex Hull |
| :---: | :---: | :---: | :---: |
| Sum | N/A | N/A | N/A |
| Min | 0.20 | 0.29 | 0.66 |
| Max | 0.62 | 0.58 | 0.87 |
| Mean | 0.40 | 0.40 | 0.76 |
| Std. Dev. | 0.15 | 0.13 | 09 |
| District | Reock | PolsbyPopper | $\begin{aligned} & \text { 7/C1 vex } \\ & \text { lull } \end{aligned}$ |
| 1 | 0.30 | 0.30 | 0.67 |
| 2 | 0.62 | 0.53 | 0.84 |
| 3 | 0.35 | 0.58 | 0.87 |
| 4 | 0.39 |  | 0.66 |
| 5 | 0.20 |  | 0.72 |
| 6 | 0.52 | 0.38 | 0.79 |

Measures of Compactness Summary

| Reock | The measure is always between 0 and 1 , with 1 being the most compact. |
| :--- | :--- |
| Polsby-Popper | The measure is always between 0 and 1 , with 1 being the most compact. |
| Area / Convex Hull | The measure is always between 0 and 1 , with 1 being the most compact. |

User: Tony Fairfax
Plan Name: Cheverly MD Council Current Plan
Plan Type: Town Council

## Communities of Interest (Landscape, 11x8.5)

Thursday, November 10, 2022 7:13 PM

| Voting District | District | Adj_Population | $\%$ |
| :--- | :--- | ---: | :--- |
| $2403302-003$ | 3 | 972 | 26.0 |
| $2403302-003$ | 4 | 475 | 12.7 |
| $2403302-003$ | 5 | 876 | 23.4 |
| $2403302-003$ | 6 | 1,421 | 38.0 |
| $2403302-007$ | 1 | 842 | 40.0 |
| $2403302-007$ | 2 | 982 | 46.7 |
| $2403302-007$ | 4 | 280 | 13.3 |



## Summary Statistics

Number of Voting District not split 5
Number of Voting District split 2
Number of Voting District split in $2 \quad 0$
Number of Voting District split in $3 \quad 1$
Number of Voting District split in $4 \quad 1$
Total number of splits 7

Plan Name: Cheverly MD Council Current Plan
Plan Type: Town Council

## Voting District by District and by County

| Adj_Populatio | $\%$ of <br> $n$ |
| ---: | ---: |
| District |  |

## District 1

2403302-001
2403302-007
2403302-008
Total District 1

District 2
2403302-007

## Total District 2

## District 3

2403302-003
Total District 3

District 4
2403302-003
2403302-007
2403313-002
2403318-012
Total District 4

District 5
2403302-003
2403302-009
Total District 5

## District 6

2403302-003
Total District 6

139 100.00\%
842 40.02\%
12 100.00\%
993

982 46.67\%
982

972 25.96\%
972

| 475 | $12.69 \%$ |
| ---: | :---: |
| 280 | $13.31 \%$ |
| 0 | $0.00 \%$ |
| 181 | $0.00 \%$ |
| 936 |  |

00.00\%
.
.

```
.
.31ヶ
. \(0.00 \%\)
```

$0.40 \%$
$0 \quad 0.00 \%$

76

1,421 37.95\%
1,421


[^0]:    ${ }^{1}$ https://www.cheverly-md.gov/redistricting-commission

[^1]:    ${ }^{2}$ The court case Avery v. Midland County, 390 U.S. 474 ruled that local government districts had to be roughly equal in population and follow the same concept found under the case Reynolds v. Sims.
    ${ }^{3}$ ideal or average district population is calculated by dividing the jurisdictions population by the number of districts within the plan.
    ${ }^{4}$ The state of Maryland legislature passed the "No Representation Without Population Act" law that adjusts Census Data to "reassign Maryland residents in correctional institutions to their last known address and to exclude out-of-state residents in correctional institutions from redistricting." This adjusted dataset was used to develop the plans. See https://planning.maryland.gov/Redistricting/Pages/2010/newLaw.aspx
    ${ }^{5}$ Gerrymandered districts refer to districts that have been configured to favor or disfavor a particular party or class of voter.

[^2]:    ${ }^{6}$ CVAP is commonly used to indicate the total persons who are able to register and vote in elections.

[^3]:    ${ }^{77}$ The split census apportions total population that include fraction of whole numbers that sum to whole numbers when added together.
    ${ }^{8}$ Plans A1 and A2 split the census block 240338041011002 in a different manner that followed more of a point to point boundary instead of a physical feature using a sidewalk.

[^4]:    ${ }^{9}$ Although census block 240338041011004 is not needed to be split in order for the plan to reach acceptable population deviation for the plan, it should be considered for splitting when the Census Bureau enters it Block Boundary Suggestion Project (shown in cyan color Figure 4).
    ${ }^{10}$ Without splitting another census block.

[^5]:    ${ }^{11}$ The Current map zoomed in (from the city map's pdf) is low-resolution and does not align with census geography.

[^6]:    ${ }^{12}$ The Town Park area of District 4 and 6 in the Current Plan has several apportioned census block and thus the core analysis does not exactly replicate the current plan with the exception of Wards 1,2,

