# Council Composition and Ward Boundary Review

Municipality of Chatham-Kent

Addendum:

**Report on Council of 15 Options** 

February 5, 2025



# **Table of Contents**

Executive Summary	2
Part 1: The impact of an "at-large" Chatham ward	5
Part 2: Investigating options for county wards	8
The boundary between wards 1 and 2	8
The boundary between wards 3 and 4	8
Exploring Alternative Boundaries in the County	g
Part 3: Evaluation of Options	10
The "Effective Representation" Test Framework	10
Evaluating Option 1	11
How Option 1 responds to Council's direction:	13
Evaluating Option 2	14
How Option 2 responds to Council's direction:	16
Evaluating the preferred option for a Council of 15	17
Summary of Key Differences	17
Appendix A: Option for a Council of 18	18
Appendix B: Ward Boundary Options Investigated	20
15E Series (County Wards)	20
15F Series (County Wards)	21
15G Series (County Wards)	22
15X Series (Chatham Wards)	23
18X Series (Chatham Wards)	24

# **Executive Summary**

On December 16<sup>th</sup>, 2024, StrategyCorp presented its Final Report and Recommendations regarding the Council Composition and Ward Boundary Review, where preferred options were presented for 1) a Council of 13; 2) a Council of 15; and 3) a Council of 18 (status quo).

Based on those recommendations, Council passed the following motion directing StrategyCorp to further investigate ward boundary options for a Council of 15. Specifically:

#### "That

- 1. Chatham-Kent Council confirm option 15C-V2 in principle, of the StrategyCorp report, for a total size of 15 Members of Council going forward.
- Chatham-Kent Council direct StrategyCorp to return to Council with a report on the ward boundaries in wards 5, 6 and 7, for the purpose of considering the impact of an "at-large" urban ward, located in the city of Chatham.
- 3. That the report review the boundaries between Wards 1 and 2 and Wards 4 and 3."

This Report outlines the findings of the resulting investigations based on Council's direction and our final recommendations. We present three ward boundary Options:

Option	Council Size	Description	Recommendation	
Option 1	15	<ul> <li>Modify Option 15C-V2</li> <li>5 county wards with 1 or 2 councillors each and</li> <li>3 Chatham wards with 2 councillors each.</li> </ul>	Preferred Overall	
Option 2	15	<ul> <li>Alternative solution to concerns with Option 15C-V2.</li> <li>6 county wards with 1 or 2 councillors</li> <li>3 Chatham wards with 2 councillors each.</li> </ul>	Acceptable (Second Choice)	
Option 3	18	<ul> <li>Updated Status Quo Option</li> <li>5 county wards with 2 councillors each and</li> <li>3 Chatham wards with 2 or 3 councillors each.</li> </ul>	Acceptable (Third Choice)	

Our recommendations are based on the following three outstanding key decision points:

#### 1. The preferred size of Council (15 or 18)

As discussed in our previous reports, StrategyCorp recommends the Municipality adopt a Council size of 15. Two Options are presented to give effect to this.

As directed, we have also included an updated ward boundary Option for a Council of 18. This version would maintain a Council of 18 and address the biggest issues with the existing ward boundaries.

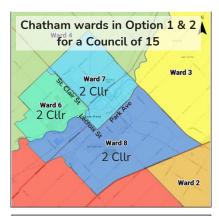
#### 2. The preferred number of wards to deliver effective representation for Chatham

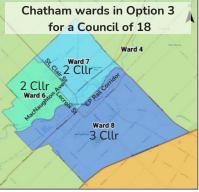
As per Council's direction, StrategyCorp modeled Options for three wards of two councillors, and for a single Chatham ward with all its councillors elected "at-large." The preferred three-ward model delivers a significant improvement over the status quo towards voter parity, and we have heard no significant criticism of its proposed boundaries.

Since amalgamation, Chatham has been structured as a single ward with six councillors. While this is permissible under the *Municipal Act*, it is an outlier among Ontario municipalities. There are few Ontario comparators and little guidance exists from the Courts and Tribunals on how the number of councillors elected per ward impacts the ability of an electoral system to deliver "effective representation."

During the consultation, we heard that while six councillors in a single ward may have made sense at amalgamation, it seemed "unfair" to design a system in which some voters had the opportunity to elect and be represented by six councillors, while others would only have one councillor, when workable alternatives were available.

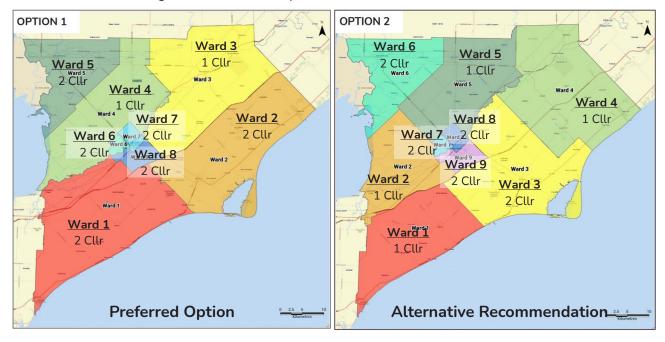
We agree. The three-ward model is workable and available and would not result in continued disparity of representation. Therefore, we conclude that while it would not be unacceptable to keep one ward of six councillors, we do not recommend it. All our recommended options include three Chatham wards, which are more fully described below.





#### 3. Preferred ward boundaries in the county (i.e. outside of Chatham)

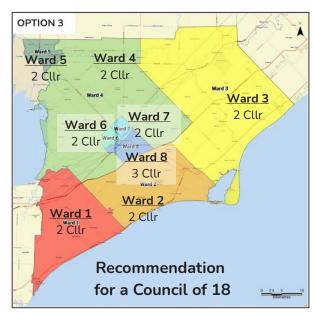
Further to Council direction, we also investigated ways to further improve ward boundaries in the county. This resulted in the exploration of a dozen new options, Option 1 (left) and Option 2 (right) directly respond to concerns raised at the December 16<sup>th</sup> meeting. While both are acceptable, in our opinion, Option 1 is the better Option. A detailed analysis of these options is set out in the following sections of this Report.



#### The "Fallback" Option of a Council of 18

Option 3 (right) is the recommended model for a Council of 18 should council not elect to proceed with a Council of 15. This Option is the same as our previous Council of 18 model, except for reasons discussed above, the Chatham urban area is now divided into three wards. This option meets the "effective representation" test and would address unacceptable deficiencies in the current ward boundaries (left), while preserving the existing size of council and general character of existing county wards.





StrategyCorp recommends that Council reduce its size to 15 and adopt the boundaries in Option 1 as the preferred recommendation.

Interactive versions of Options 1-3 are available on the Municipality GIS mapping tool HERE.

# Part 1: The impact of an "at-large" Chatham ward

In the existing ward map, the Chatham urban area is represented by a single ward that elects six councillors.

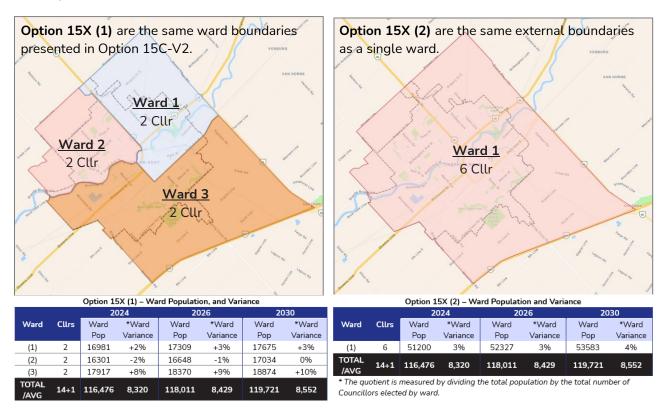
In our Final Recommendations Report, our preferred Option for a Council of 15 divided Chatham into three wards with two councillors each.

We were directed by Council to consider the impact of maintaining a single "at-large" urban ward in Option 15C-V2 (right).

The models for Chatham as three wards or as a single ward are presented below.

# Ward 4 2 Cllr Ward 5 Ward 6 Ward 7 Ward 7 Ward 7 Ward 7 2 Cllr Ward 1 2 Cllr Option 15C-V2

#### **Both options:**



- Meet the mathematical parity requirements of the "effective representation" test and fall within the optimal range for population parity in 2024 through 2030;
- Follow 'simple' boundaries that follow major arterial roads, the Thames River, or existing urban boundaries residents would be reasonably familiar with; and
- Do not overly divide existing neighbourhoods including the Chatham BIA.

Considering the number of councillors per ward and "Effective Representation".

As per Council's direction, StrategyCorp modeled Options for 3 wards of two councillors, and for one Chatham ward with all its councillors elected "at-large." The preferred 3-ward model delivers a significant improvement over the status quo towards voter parity, and we have heard no significant criticism of its proposed boundaries.

Since amalgamation, Chatham has been structured as a single ward with six councillors.

This is permissible under section 222 of the *Municipal Act* which authorizes a municipality to "divide or redivide the municipality into wards." The Act does not prescribe rules about how this must be done.

While having wards with as many as six and as few as one councillors per ward is permissible, it is an outlier among Ontario municipalities. As we have discussed in previous reports, very few Ontario municipalities elect different numbers of councillors per ward, and even fewer have wards that vary by more than one councillor per ward<sup>1</sup>.

The best guidance for evaluating ward designs is to give effect to the principles of "Effective Representation." We note, however, that there is little specific guidance from the courts or tribunals on the specific question of how variance in councillors per ward effects "effective representation."

The purpose of an electoral review is to deliver fairness and perceived fairness in the design of the system that elects representatives.

During the consultation, we heard that while six councillors in one ward may have made sense at amalgamation, it seemed "unfair" to design a system in which some voters had the opportunity to elect and be represented by six councillors, while others would only have one councillor.

There are circumstances where geography and math make it desirable to have some variation in number of councillors per ward, especially where a municipality has pockets of both very high and very low density.

As we demonstrate in the development of options in the next section of this Report, to require otherwise would result in wards that cover too big an area to deliver effective representation.

But these circumstances should be the exception and used only to the extent necessary to achieve the outcome of effective representation in electoral system design. We acknowledge that there may be other considerations relating to governance that may cause some to prefer a one-ward model in a community like Chatham, but they are not appropriate considerations for us given our responsibilities under this review. It is our view that variance in councillors per ward should be limited to "as needed" to achieve effective representation.

<sup>&</sup>lt;sup>1</sup> See StrategyCorp's First Interim Report, pg. 31 for additional details.

In this case, we can see no compelling reason to choose to create one very populous ward, entitling its residents to six votes for six local representatives, when appropriate options exist that would result in more balanced wards with better representational outcomes.

In this case, the three-ward model is available and would not result in continued disparity of representation.

We also note that the single ward model raises potential questions of effective representation that can be mitigated by using the three-ward model. More than half of the population of Chatham is currently to the north of the Thames River. As one electoral district, there is risk that population and voter concentration results in all the representatives being elected from one area of Chatham. Dividing it into three wards mitigates this risk.

Therefore, we conclude that while it would not be unacceptable to keep a single ward of six councillors for Chatham, we do not recommend it. All our recommended options include three Chatham wards, which are more fully described below.

**Option 15X (1)** are the preferred Chatham ward boundaries should Council elect to move to a Council of 15.

**Option 18X (1)** are the preferred Chatham ward boundaries should Council elect to remain a Council of 18.



Option 18X (1)	John general
	vossurg
	VAN HORNE
Ward 2	1
2 Cllr	
Ward 1	
2 Cllr	Something of the
	Creek Mil
Ward 3	riot Contro
SCIII	garant.

C	Option 15X (1) – Ward Population and Variance for 2024, 2026, 2030											
\A/I	Cllrs	2024		20	26	2030						
Ward	Curs	Pop	Variance	Pop	Variance	Pop	Variance					
(1)	2	14,604	+7%	14,931	+8%	15,294	+9%					
(2)	2	15,018	+10%	15,346	+11%	15,712	+12%					
(3)	3	21,577	+5%	22,050	+6%	22,577	+7%					
TOTAL	14+1	116,476	8,320	118,011	8,429	119,721	8,552					

(	Option 18X (1) – Ward Population and Variance for 2024, 2026, 2030										
Mond	Cllrs	2024		20	26	2030					
Ward	Curs	Pop	Variance	Pop	Variance	Pop	Variance				
(1)	2	14,604	+7%	14,931	+8%	15,294	+9%				
(2)	2	15,018	+10%	15,346	+11%	15,712	+12%				
(3)	3	21,577	+5%	22,050	+6%	22,577	+7%				
TOTAL/ AVG	17+1	116,476	6,852	118,011	6,942	119,721	7,042				

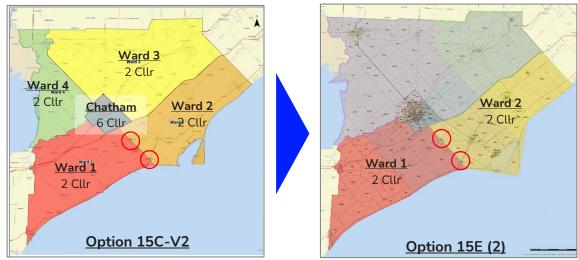
All the models for Chatham wards in a Council of 15 and 18, including two-ward models for Chatham are outlined in the 15X and 18X series in Appendix A.

# Part 2: Investigating options for county wards

#### The boundary between wards 1 and 2

**Issue:** Feedback on the boundary between wards 1 and 2 in Option 15C-V2 was focused on a preference to orient Cedar Springs and Charing Cross to the ward including Blenheim (ward 2), rather than the ward including Wheatley (ward 1).

**Solution:** StrategyCorp has adjusted the boundary between wards 1 and 2 so that the communities of Cedar Springs and Charing Cross (highlighted in red circles below) are now in the proposed ward 2. This new boundary is similarly "complicated" to the boundary in Option 15C-V2 and the current ward boundary around Merlin, but Charing Cross Rd. is a historical and recognisable boundary. This adjustment reduces parity slightly, but not outside of the optimal range of variance.



The boundary between wards 3 and 4

Issue: In the northern wards of Option 15C-V2, we heard:

- A preference to orient the former Dover Township to other rural areas, and not to the urban Wallaceburg area.
- A preference to reduce the area of ward 3, if possible.

The design challenge: As discussed in our Final Recommendations Report, to achieve parity, Wallaceburg must be paired with some neighbouring area.

StrategyCorp modeled several boundary options that extended the boundaries of the Wallaceburg ward in various ways (see 15E series in Appendix A), but any option that excluded the southern end of the former Dover Township from the Wallaceburg ward (ward 4) resulted in a "rural/agricultural" ward 3 that included too large a geographic area to deliver effective representation (see Option 15E (2) on the following page).

**Solution:** To solve for these issues, StrategyCorp developed several options (see 15F series in Appendix A) that condense the Wallaceburg ward and divide the remaining rural and agricultural communities in the northern county into two wards with one councillor each.



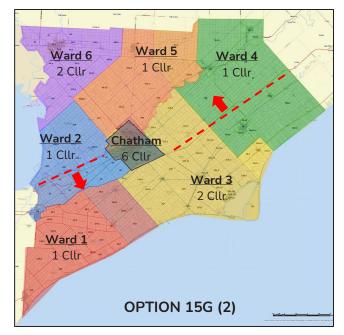
The preferred version of this model is **Option 15F (1)** illustrated below (right).

#### **Exploring Alternative Boundaries in the County**

In the consultation process, we had been urged to use the Thames River as a boundary between wards to the west of Chatham. StrategyCorp investigated additional boundary options that escaped this limitation (see series 15G in Appendix A).

This allowed StrategyCorp to evaluate boundaries that grouped Francophone communities in the southern end of the former Dover Township with communities south of the Thames River (e.g., Tilbury), as opposed to other communities that are either much more urban (i.e., Wallaceburg) or quite far away (i.e., Dresden or Kent Bridge).

The result was **Option 15G (2)** (right). This Option has several positive characteristics and could result in improved representation, especially for communities in the west end of the Municipality.



# Part 3: Evaluation of Options

This section includes the detailed evaluations and comparison of the new draft ward boundary Options for a Council of 15. For both maps, this evaluation section includes:

- i. A detailed map of the ward boundaries for the Municipality and a close up of Chatham;
- ii. Ward population data for 2024, 2026 and 2030, and variance from the quotient; and
- iii. A completed evaluation framework for delivering "Effective Representation".

A complete analysis of Option 3, for a council of 18, including its detailed boundaries, population data, and evaluation framework is included in Appendix B.

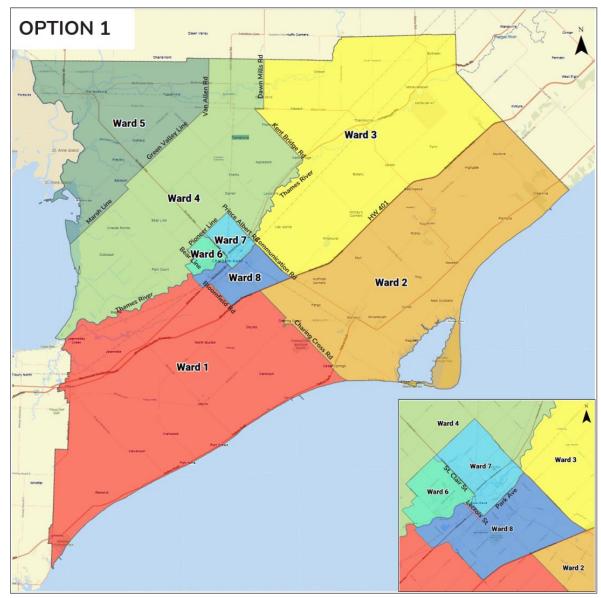
#### The "Effective Representation" Test Framework

The evaluation framework used for each map includes the same considerations used to evaluate previous draft ward boundaries drawn from the Review's Terms of Reference and the principles of "Effective Representation" in the Interim Report, as well as the specific Design Considerations for each Principle that were further defined in Final Recommendations Report, including:

- Design boundaries that preserve both distinct rural / agricultural and urban representation by including distinct "Chatham" and "Kent" wards defined by a new "Greater Chatham" boundary to reflect the practical boundaries of Chatham-Kent's urban population.
- 2. Design boundaries to better achieve parity between "Chatham" and "Kent" wards by tying the proportion of councillors from Chatham wards to the proportion of residents in Chatham.
- **3.** Design boundaries that avoid dividing communities (e.g., Dresden, Blenheim, Ridgetown, Wheatley, and Tilbury, among many other distinct communities).
- **4. Design boundaries that are easy to understand** by using recognizable boundaries including major transportation arteries (e.g., the 401 or rail corridors), natural features (e.g., the Thames or Sydenham Rivers), or previously understood ward boundaries, and by grouping communities based on their affinity to one another (e.g., Blenheim and Erieau, or Dresden and Bothwell).
- **5.** Design boundaries that reduce variation in councillors per ward by limiting the variation in number of councillors per ward to only one or two, or two or three councillors per ward.
- 6. Design wards that are not excessively large geographically.

StrategyCorp's final assessment on whether each map meets the overall test for "effective representation" is highlighted in yellow at the bottom of each table.

# **Evaluating Option 1**



Option 1 – Ward Population and Variance for 2024, 2026, 2030

		Land Area (km²)	20	24	20	26	20	30
Ward	Cllrs		Ward Pop	Ward Variance	Ward Pop	Ward Variance	Ward Pop	Ward Variance
(1)	2	630	15,978	-4%	16,124	-4%	16,286	-5%
(2)	2	543	18,285	+10%	18,386	+9%	18,498	+8%
(3)	1	551	7,286	-12%	7,283	-14%	7,280	-15%
(4)	1	436	8,583	+3%	8,658	+3%	8,740	+2%
(5)	2	266	15,144	-9%	15,233	-10%	15,333	-10%
(6)	2	15	16,301	-2%	16,648	-1%	17,034	0%
(7)	2	21	16,981	+2%	17,309	+3%	17,675	+3%
(8)	2	41	17,917	+8%	18,370	+9%	18,874	+10%
	(14+1)		116,476	8,320*	118,011	8,429*	119,721	8,552*

<sup>\*</sup> The quotient is measured by dividing the total population by the total number of Councillors elected by ward.

#### Option 1 – Effective Representation Evaluation Framework

#### 1. Parity of Wards: Current Population

- All wards achieve optimal parity.
- Total ward populations variance does not exceed 22% from the most over-represented to under-represented (-12% to +10%).

#### 2. Parity of Wards: Forecast Population

- In 2026 and 2030, most wards achieve optimal parity.
- Total ward populations variance does not exceed 25% from the most over-represented to under-represented ward (-15% to +10%).
- Ward 3 falls within the sub-optimal but acceptable range in 2026 and 2030, and trends away from optimal parity over time.

#### 3. Consideration of Community or Diversity of Interests.

- All boundaries are designed to avoid splitting neighbourhoods or dividing them from their communities.
- Chatham is divided into three wards.
- Aligns Chatham ward boundaries with the practical boundary of Chatham.
- Creates functioning rural wards.
- Keeps all of Wallaceburg as one ward, although in order to achieve parity, this requires adjoining some surrounding communities with more rural or agricultural interests including Mitchell's Bay and Tupperville to Wallaceburg.

#### 4. Consideration of Physical Features as Natural Boundaries

- The boundary between wards 1 and 4 uses the Thames River.
- Ward boundaries are generally easy to understand and follow major highways or arterial roads including the 401.
- All of the wards are smaller than the current wards at less than 700 km2. Wards with one councillor are approximately 550 km2 (ward 3) and 435 km2 (ward 4).
- While Ward 3 straddles the Thames River, which is a natural boundary, it uses the 401 instead.

#### 5. Consideration of Means of Communication and Accessibility

- Smaller communities and towns are linked appropriately to the relevant rural area.
- Wards all have travel times of ~35 minutes or less; similar to present.
- There are limited crossing opportunities of the Thames River in ward 3.

#### 6. The Overriding Principle of "Effective Representation"

- Compared to status quo, resolves parity issue between Chatham and Kent wards.
- Achieves appropriate rural and agricultural representation
- All wards have one or two councillors, reducing variation in councillors per ward.

#### Meets the overall test for "effective representation"?

YES

#### How Option 1 responds to Council's direction:

#### Option 1 is based on 15C-V2, with the following revisions:

- ✓ Amended boundaries between wards 1 and 2 to move Cedar Springs and Charing Cross from Ward 1 to Ward 2.
- ✓ Reoriented the Wallaceburg ward and created two new predominantly rural singlecouncillor wards in the north of the county.
- ✓ This option investigated, but rejected the option of one Chatham Ward of 6 councillors, for reasons described above.

#### **Observations**

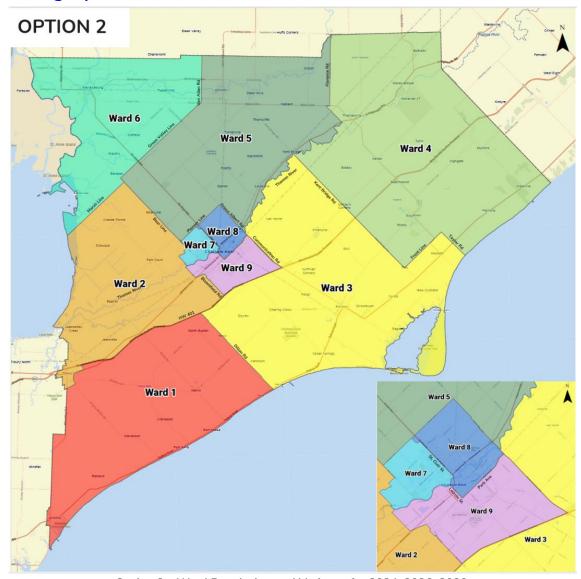
Option 1 has the following attributes:

- Resolves the problems that make the current boundaries no longer acceptable, and achieves strong outcomes on the effective representation test.
- Achieves reduced council size of 15.
- Wards are manageably sized and comparable to existing wards.
- Improves the problem of disparity in representation (all wards elect either 1 or 2 councillors).
- Maintains 2 councillors per ward in 3 county wards, (a desirable factor for some) but this results in wards that are geographically larger, grouping communities that are farther away from each other (e.g. Pain Court and Dresden).

#### Conclusion:

Option 1 is an acceptable option.

# **Evaluating Option 2**



Option 2 – Ward Population and Variance for 2024, 2026, 2030

		Land Area (km²)	20	24	2026		2030	
Ward	Cllrs		Ward	Ward	Ward Pop	Ward	Ward Pop	Ward
		(KIII )	Рор	Variance	vvalu Fop	Variance	vvalu Fop	Variance
(1)	1	397	8,152	-2%	8,255	-2%	8,370	-2%
(2)	1	285	8,647	+4%	8,690	+3%	8,738	+2%
(3)	2	525	16,090	-3%	16,174	-4%	16,267	-5%
(4)	1	569	9,614	+16%	9,626	+14%	9,640	+13%
(5)	1	384	7,631	-8%	7,706	-9%	7,790	-9%
(6)	2	266	15,144	-9%	15,233	-10%	15,333	-10%
(7)	2	15	16,301	-2%	16,648	-1%	17,034	0%
(8)	2	21	16,981	+2%	17,309	+3%	17,675	+3%
(9)	2	41	17,917	+8%	18,370	+9%	18,874	+10%
	(14+1)		116,476	8,320*	118,011	8,429*	119,721	8,552*

<sup>\*</sup> The quotient is measured by dividing the total population by the total number of Councillors elected by ward.

#### Option 2 – Effective Representation Evaluation Framework

#### 1. Parity of Wards: Current Population

- All wards achieve optimal parity.
- Total ward populations variance does not exceed 25% from the most over-represented to under-represented (-9% to +16%).

#### 2. Parity of Wards: Forecast Population

- In 2026 and 2030, most wards achieve optimal parity, or trend toward parity over time.
- Total ward populations variance does not exceed 23% from the most over-represented to under-represented ward (-10% to +13%).
- Ward 4 falls within the sub-optimal but acceptable range in 2026 and 2030.

#### 3. Consideration of Community or Diversity of Interests.

- Chatham is divided into three wards, aligned with the practical boundary of Chatham.
- Creates functioning rural wards.
- All boundaries are designed to avoid splitting neighbourhoods or dividing them from their communities.
- Separate Wheatley and Tillbury wards are each represented by one councillor.
- The ward that covers the area currently known as "East Kent" runs from the northern boundary of Kent to Lake Erie. This area may group together communities that are not strongly affiliated.
- Keeps all of Wallaceburg as one ward, although in order to achieve parity, this requires adjoining some surrounding communities with more rural or agricultural interests including Mitchell's Bay and Tupperville to Wallaceburg.
- Ridgetown is in a different ward than Morpeth and Blenheim with which community members feel strongly affiliated.

#### 4. Consideration of Physical Features as Natural Boundaries

- The Ward boundaries are generally easy to understand and follow major highways or arterial roads including the 401.
- While the boundary between Wards 1 and 2 uses Highway 401 (not the Thames River) highways are also an appropriate boundary.
- Ward 4 straddles both the Thames River and HW 401, which are significant natural boundaries.
- All wards are <600 km<sup>2</sup>.

#### 5. Consideration of Means of Communication and Accessibility

- Smaller communities and towns are generally linked appropriately to the relevant rural area.
- Wards all have travel times of ~30 minutes or less.
- There are limited crossing opportunities of the Thames River in ward 2 and ward 4.
- Ridgetown is in a different ward than Morpeth and Blenheim.

#### 6. The Overriding Principle of "Effective Representation"

- Improves parity between Chatham and Kent wards (6 Chatham councillors).
- All wards have one or two councillors, reducing variation in councillors per ward.

#### Meets the overall test for "effective representation"?

YES

#### How Option 2 responds to Council's direction:

#### Option 2 is a new concept map that:

- ✓ Addresses the problem of dividing Cedar Springs and Charing Cross from Blenheim by reimaging the entire boundary between the two wards.
- ✓ Addresses the problem of representation in the old Dover Township by:
  - Reorienting the Wallaceburg ward and creating two new predominantly rural single-councillor wards in the north; and
  - o Grouping the southern end of Dover Township with Tilbury.
    - This required discarding the previously assumed design principle of using the Thames River as the boundary in this part of the county.
- ✓ This option investigated but rejected the option of a single Chatham ward of 6 councillors, for reasons described in the previous section.

#### Option 2 has the following attributes:

- Resolves the problems that make the current boundaries no longer acceptable and achieves strong outcomes on the effective representation test.
- Achieved reduced council size of 15.
- Wards are manageably sized and comparable to existing wards.
- Separate Wheatley and Tillbury wards are each represented by one councillor.
- Improves the problem of disparity in representation (all wards elect either one or two councillors).
- As a result of properly reflecting population, the South Kent (Blenheim) and East Kent wards remain geographically similar to current boundaries, each with one less councillor.
- Ward 4 continues to include the entire east end of Chatham-Kent, including Bothwell down to Ridgetown, but is only represented by one councillor.
- By moving away from 2-councillor wards it creates 4 new single-councillor wards which are more manageable from a geographic area perspective.

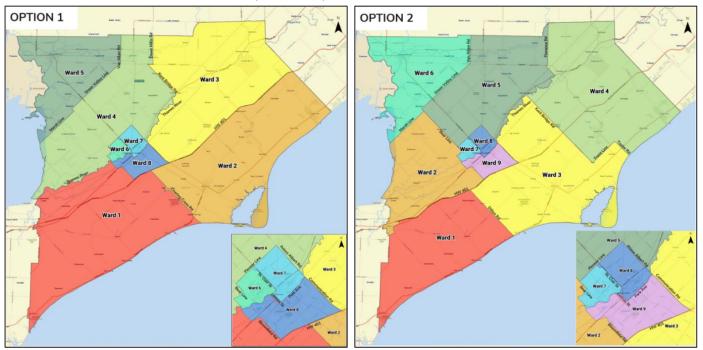
#### Conclusion:

Option 1 is an acceptable option.

#### **Evaluating the preferred option for a Council of 15**

As the evaluation of both options demonstrates, both Options 1 and 2 are acceptable. Both have many strengths, and both would provide improved effective representation compared to current ward boundaries.

#### On balance, however, we think Option 1 is preferrable.



#### **Summary of Key Differences**

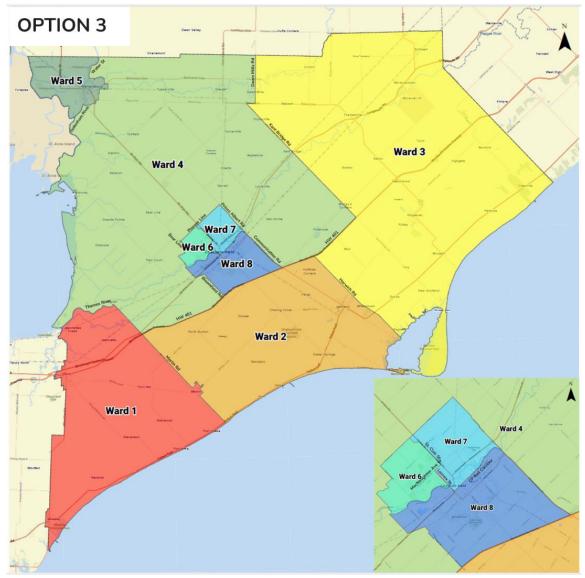
#### Size and number of councillors per wards:

- Option 1 maintains two councillors per ward in 3 county wards, (a desirable factor for some) but this results in wards that are geographically larger, grouping communities that are farther away from each other (e.g. Pain Court and Dresden.)
- Option 2 creates four new, geographically smaller single-councillor wards, which are more manageable from a geographic area perspective.

#### Trade-offs are inevitable:

- Both options have trade-offs.
- Option 1 provides similar representation to the status quo for Wheatley and Tilbury. We
  have been advised, however, that by dividing East Kent along the 401 (instead of using a
  north-south boundary as in Option 2), Option 1 is expected to better reflect the actual
  orientation of the community interest in East Kent.
- Option 2 may provide improved representation for Wheatley and Tilbury, particularly as they grow, but repeats the status quo representation of East Kent.
- Option 1 provides better parity based on current population, but Option 2 better reflects expected population growth over time.

# Appendix A: Option for a Council of 18



Option 3 – Ward Population and Variance for 2024, 2026, 2030

		Land Area (km²)	20	24	20	26	20	30
Ward	Cllrs		Ward Pop	Ward Variance	Ward Pop	Ward Variance	Ward Pop	Ward Variance
(1)	2	351	12,706	-7%	12,855	-7%	13,022	-8%
(2)	2	354	12,736	-7%	12,823	-8%	12,921	-8%
(3)	2	841	14,058	+3%	14,066	+1%	14,075	0%
(4)	2	828	13,265	-3%	13,335	-4%	13,411	-5%
(5)	2	51	12,512	-9%	12,604	-9%	12,707	-10%
(6)	2	14	14,604	+7%	14,931	+8%	15,294	+9%
(7)	2	19	15,018	+10%	15,346	+11%	15,712	+12%
(8)	3	45	21,577	+5%	22,050	+6%	22,577	+7%
	(17+1)		116,476	8,320*	118,011	8,429*	119,721	8,552*

<sup>\*</sup> The quotient is measured by dividing the total population by the total number of Councillors elected by ward.

#### Option 3 - Effective Representation Evaluation Framework

#### 1. Parity of Wards: Current Population

- All wards achieve optimal parity.
- Total ward populations variance does not exceed 17% from the most over-represented to under-represented (-7% to +10%).

#### 2. Parity of Wards: Forecast Population

- In 2026 and 2030, all wards achieve optimal parity.
- Total ward populations variance does not exceed 22% from the most over-represented to under-represented ward (-10% to +12%).

#### 3. Consideration of Community or Diversity of Interests.

- Aligns Chatham ward boundaries with the practical boundary of Chatham.
- Creates functioning rural wards.
- Keeps all of Wallaceburg as one ward.
- Chatham is divided into three wards.
- · All boundaries are designed to avoid splitting neighbourhoods or dividing them from their communities.

#### 4. Consideration of Physical Features as Natural Boundaries

- The Thames River is a boundary for ward 1.
- All wards are based on major highways or arterial roads including the 401.
- Two wards are bisected by the Thames River, which is a natural boundary.

#### 5. Consideration of Means of Communication and Accessibility

- Wards generally follow the same layout and size of existing wards.
- Smaller communities and towns are linked appropriately to the relevant rural area.
- Ridgetown is in a different ward than Morpeth and Blenheim.
- Travel times are slightly increased in ward 3 and remain constant (although unimproved) in ward 4.
- Wards 3 and 4 are both >800 km<sup>2</sup>.
- Wards bisected by the river have limited crossing opportunities.

#### 6. The Overriding Principle of "Effective Representation"

- Improves parity between Chatham and Kent wards (7 Chatham councillors).
- All wards have two or three councillors, reducing variation in councillors per ward.

#### Meets the overall test for "effective representation"?

YES

# **Appendix B: Ward Boundary Options Investigated**

This Appendix outlines several of the various models that were explored to arrive at the Options presented in this Report. Each "series" follows a specific line of inquiry or investigation.

While these maps are illustrative of the process used to identify preferred options, it is not an exhaustive list of every ward boundary configuration we explored.

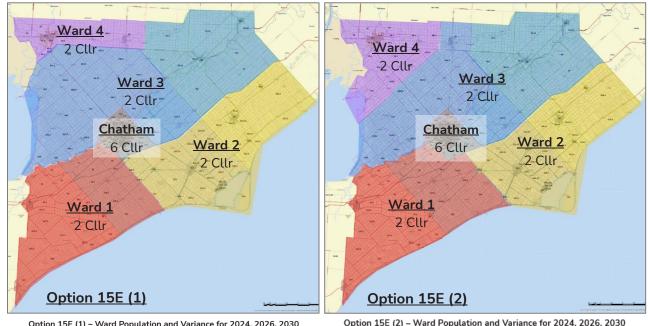
#### 15E Series (County Wards)

Exploring options for addressing Council specific instructions in the December 15<sup>th</sup> motion with respect to the boundaries between wards 1 & 2 and 3 & 4 in Option 15C-V2. Chatham wards were not considered.

In the south, these Options demonstrate the impacts of various changes to the ward 1 and 2 boundary that include Cedar Springs and Charing Cross in the same ward as Blenheim.

In the north, these Options demonstrate that all other variations of Option 15C-V2 where the southern end of Dover Township is excluded from the Wallaceburg ward, result in an unacceptably large northern rural ward, as long as each ward has two councillors each.

These maps illustrate the slight preference to retain the Charing Cross Rd boundary between wards 1 and 2, but none of these Options would pass the "effective representation" test.



Opt	Option 15E (1) – Ward Population and Variance for 2024, 2026, 2030										
		2024		20	26	2030					
Ward	Cllrs	Ward	*Ward	Ward	*Ward	Ward	*Ward				
		Pop	Variance	Pop	Variance	Pop	Variance				
(1)	2	15157	-9%	15304	-9%	15468	-10%				
(2)	2	19106	+15%	19206	+14%	19317	+13%				
(3)	2	14208	-15%	14200	-16%	14191	-17%				
(4)	2	16806	+1%	16975	+1%	17162	0%				
Chatham	6	51200	+3%	52327	+3%	53583	+4%				
TOTAL/ AVG	14+1	116,476	8,320	118,011	8,429	119,721	8,552				

	option 132 (2) - Ward Topatation and Variance for 2024, 2020, 2030											
			20	024	20	26	2030					
	Ward	Cllrs	Ward	*Ward	Ward	*Ward	Ward	*Ward				
			Pop	Variance	Pop	Variance	Pop	Variance				
	(1)	2	15978	-4%	16124	-4%	16286	-5%				
	(2)	2	18285	+10%	18386	+9%	18498	+8%				
	(3)	2	14208	-15%	14200	-16%	14191	-17%				
1	(4)	2	16806	1%	16975	1%	17162	0%				
	Chatham	6	51200	+3%	52327	+3%	53583	+4%				
	TOTAL/ AVG	14+1	116,476	8,320	118,011	8,429	119,721	8,552				

#### 15F Series (County Wards)

Exploring options for addressing the key issue with the 15E series Options (i.e. ward 3 is too big).

This series illustrates Options for creating two rural wards with one councillor each to create more manageable wards geographically. Wards south of the Thames River to the west, south of the 401 to the east, and within Chatham were not considered.

These Options explore the impacts of moving various key communities or areas (i.e., Dresden, Mitchel's Bay, Kent Bridge) into different groupings based on affinity and voter parity.

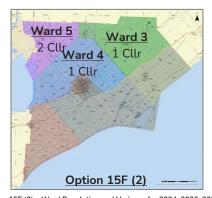
**Options 15F (2), (3), and (4) were not considered further** based on voter parity and feedback from Councillors.



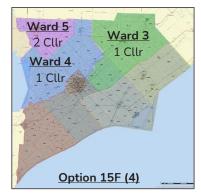
(	Option 15F (1) – Ward Population and Variance for 2024, 2026, 2030											
Ward	Cllrs	2024		20	26	2030						
vvaru		Pop	Variance	Pop	Variance	Pop	Variance					
(3)	1	7286	-12%	7283	-14%	7280	-15%					
(4)	1	8583	3%	8658	3%	8740	2%					
(5)	2	15144	-9%	15233	-10%	15333	-10%					
TOTAL/	14+1	116,476	8,320	118,011	8,429	119,721	8,552					



(	Option 15F (3) – Ward Population and Variance for 2024, 2026, 2030											
Ward	Cllrs	2024		20	26	2030						
vvard	Curs	Pop	Variance	Pop	Variance	Pop	Variance					
(3)	1	7,286	-12%	7,283	-14%	7,280	-15%					
(4)	1	6,921	-17%	6,916	-18%	6,911	-19%					
(5)	2	16,806	+1%	16,975	+1%	17,162	0%					
TOTAL/	14+1	116,476	8,320	118,011	8,429	119,721	8,552					



	Option 15F (2) – Ward Population and Variance for 2024, 2026, 2030										
Ward	Cllrs	20	24	20	26	2030					
	Curs	Pop	Variance	Pop	Variance	Pop	Variance				
(3)	1	9,104	+9%	9,179	+9%	9,263	+8%				
(4)	1	6,766	-19%	6,762	-20%	6,757	-21%				
(5)	2	15,144	-9%	15,233	-10%	15,333	-10%				
TOTAL/ AVG	14+1	116,476	8,320	118,011	8,429	119,721	8,552				



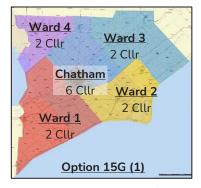
(	Option 15F (4) – Ward Population and Variance for 2024, 2026, 2030										
Ward	Cllrs	2024		20	26	2030					
vvaru	Curs	Pop	Variance	Pop	Variance	Pop	Variance				
(3)	1	7,286	-12%	7,283	-14%	7,280	-15%				
(4)	1	9,425	+13%	9,499	+13%	9,581	+12%				
(5)	2	14,303	-14%	14,392	-15%	14,492	-15%				
TOTAL/ AVG	14+1	116,476	8,320	118,011	8,429	119,721	8,552				

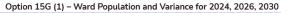
#### 15G Series (County Wards)

Exploring Options that disregard the design consideration that the Thames River should be a firm boundary to the west of Chatham in favour of grouping the southern end of Dover Township with more nearby communities.

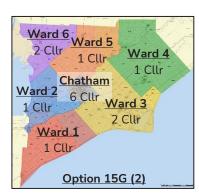
We illustrate the impacts of this concept in a two-councillors-per-ward model in 15G (1). 15G (2) illustrates how this might be resolved in the same way as the previous series by splitting large wards into two wards with one councillor each.

Options 15G (1) and (3) were not investigated further as they would not improve overall "effective representation".



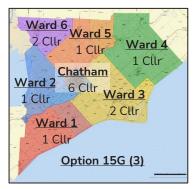


			2024		2026		30	
Ward	Cllrs	Ward	*Ward	Ward	*Ward	Ward	*Ward	
		Pop	Variance	Pop	Variance	Pop	Variance	
(1)	2	17,499	+5%	17,645	+5%	17,807	+4%	
(2)	2	17,717	+6%	17,817	+6%	17,929	+5%	
(3)	2	14,917	-10%	14,989	-11%	15,069	-12%	
(4)	2	15,144	-9%	15,233	-10%	15,333	-10%	
Chatham	6	51,200	+3%	52,327	+3%	53,583	+4%	
TOTAL/ AVG	14+1	116,476	8,320	118,011	8,429	119,721	8,552	



Option 15G (2) - Ward Population and Variance for 2024, 2026, 2030

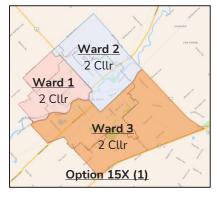
		2024		20	2026		30
Ward	Cllrs	Ward	*Ward	Ward	*Ward	Ward	*Ward
		Pop	Variance	Pop	Variance	Pop	Variance
(1)	1	8152	-2%	8255	-2%	8370	-2%
(2)	1	8647	4%	8690	3%	8738	2%
(3)	2	16090	-3%	16174	-4%	16267	-5%
(4)	1	9614	16%	9626	14%	9640	13%
(5)	1	7631	-8%	7706	-9%	7790	-9%
(6)	2	15144	-9%	15233	-10%	15333	-10%
Chatham	6	51200	3%	52327	3%	53583	4%
TOTAL/ AVG	14+1	116,476	8,320	118,011	8,429	119,721	8,552

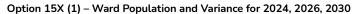


Option 15G (3) – Ward Population and Variance for 2024, 2026, 2030										
		20	024	20	26	20	30			
Ward	Cllrs	Ward	*Ward	Ward	*Ward	Ward	*Ward			
		Pop	Variance	Pop	Variance	Pop	Variance			
(1)	1	8152	-2%	8255	-2%	8370	-2%			
(2)	1	9488	+14%	9531	+13%	9579	+12%			
(3)	2	16090	-3%	16174	-4%	16267	-5%			
(4)	1	9614	+16%	9626	+14%	9640	+13%			
(5)	1	7631	-8%	7706	-9%	7790	-9%			
(6)	2	14303	-14%	14392	-15%	14492	-15%			
Chatham	6	51200	3%	52327	3%	53583	4%			
TOTAL/ AVG	14+1	116,476	8,320	118,011	8,429	119,721	8,552			

## 15X Series (Chatham Wards)

Illustrates options for dividing Chatham into three wards, two wards, and as a single ward for a total council size of 15, where Chatham is represented by a total of six councillors.



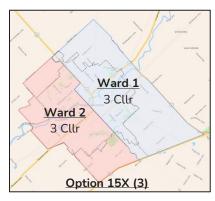


Ward	Cllrs	2024		2026		2030					
vvaru		Pop	Variance	Pop	Variance	Pop	Variance				
(1)	2	14,604	+7%	14,931	+8%	15,294	+9%				
(2)	2	15,018	+10%	15,346	+11%	15,712	+12%				
(3)	3	21,577	+5%	22,050	+6%	22,577	+7%				
TOTAL /AVG	14+1	116,476	8,320	118,011	8,429	119,721	8,552				



Option 15X (2) – Ward Population and Variance for 2024, 2026, 2030

Ward	Cllrs	2024		2026		2030	
		Pop	Variance	Pop	Variance	Pop	Variance
(1)	6	51,200	+3%	52,327	+3%	53,583	+4%
TOTAL /AVG	14+1	116,476	8,320	118,011	8,429	119,721	8,552

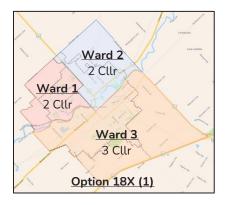


Option 15X (3) - Ward Population and Variance for 2024, 2026, 2030

Ward	Cllrs	2024		20	26	2030	
		Pop	Variance	Pop	Variance	Рор	Variance
(1)	3	26,556	+6%	26,990	+7%	27,474	+7%
(2)	3	24,644	-1%	25,337	0%	26,109	+2%
TOTAL /AVG	14+1	116,476	8,320	118,011	8,429	119,721	8,552

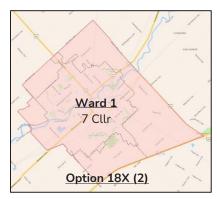
## 18X Series (Chatham Wards)

Illustrates options for dividing Chatham into three wards, two wards, and as a single ward for a total council size of 18, where Chatham is represented by a total of seven councillors.



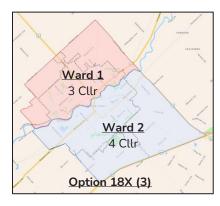
Option 18X (1) - Ward Population and Variance for 2024, 2026, 2030

Ward	Cllrs	2024		2026		2030	
vvaru	Curs	Pop	Variance	Pop	Variance	Pop	Variance
(1)	2	14,604	+7%	14,931	+8%	15,294	+9%
(2)	2	15,018	+10%	15,346	+11%	15,712	+12%
(3)	3	21,577	+5%	22,050	+6%	22,577	+7%
TOTAL/ AVG	17+1	116,476	6,852	118,011	6,942	119,721	7,042



Option 18X (2) - Ward Population and Variance for 2024, 2026, 2030

Ward	Cllus	2024		2026		2030	
	Cllrs	Pop	Variance	Pop	Variance	Pop	Variance
(1)	7	51,200	+7%	52,327	+8%	53,583	+9%
TOTAL/ AVG	17+1	116,476	6,852	118,011	6,942	119,721	7,042



Option 18X (3) – Ward Population and Variance for 2024, 2026, 2030

Ward	Cllrs	2024		20	26	2030		
	Curs	Pop	Variance	Pop	Variance	Pop	Variance	
(1)	3	23,581	+15%	24,109	+16%	24,696	+17%	
(2)	4	27,619	+1%	28,218	+2%	28,886	+3%	
TOTAL/ AVG	17+1	116,476	6,852	118,011	6,942	119,721	7,042	