Report of the Legislative Apportionment Board Minority On the Proposed Alternate House Reapportionment Plan January 3, 2022

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Introduction

Sections 13, 18, and 73 of Chapter II of the Vermont Constitution mandate reapportionment of the Vermont Senate and House following the release of the decennial U.S. Census, and require reapportionment to rely on the Census results. In 1965, the General Assembly enacted Chapter 34A of Title 17, establishing the Legislative Apportionment Board (the Board). To reflect shifts in population and assure substantially equal representation across all districts statewide, the Board prepares and submits House and Senate district plans to the Vermont Legislature.

17 V.S.A. §1901 requires reapportionment of Vermont's legislative districts in such manner as to achieve substantially equal weighting of the votes of all voters in the choice of legislators. Chapter II of the Vermont Constitution establishes the same requirement, as does the Equal Protection provisions of the U.S. Constitution. This substantial equality requirement is the overarching mandate of our law.

Based on this mandate, 17 V.S.A §1903(b) then lays out the standards and principles that govern creation of legislative districts [emphasis added]:

The standard for creating districts for the election of Representatives to the General Assembly shall be to form representative districts with minimum percentages of deviation from the apportionment standard for the House of Representatives... The representative... districts shall be formed consistent with the following policies insofar as practicable:

- (1) Preservation of existing political subdivision lines;
- (2) recognition and maintenance of patterns of geography, social interaction, trade, political ties, and common interests;
- (3) use of compact and contiguous territory.

An apportionment plan with lower district percentage deviations—regardless of whether single- or two-member-- indicates that the voting weights of residents across the state will be more nearly equal than in plans with higher deviations. This is the appropriate and constitutionally understood measure of "substantial equality."

The 2020 U.S. Census counted 643,077 residents in the state, a 2.8% increase over the 2010 census count. This population change was not uniform across the state, however; for example, Essex increased by 2,507 people (+12.8%); Poultney decreased by 412 people (-12.0%); and Barre town and Guilford saw virtually no change (each decreased by 1 person.) Long-term trends in statewide population shifts have continued over the last 10 years, resulting in increased pressures on the reapportionment process – particularly in certain parts of the state.

Here are four key definitional concepts used throughout this report:

Ideal District Population = State population (643,077) / # of members in the chamber (150 for the House & 30 for the Senate) x # of members in district (either 1 or 2 for the house & 1, 2, or 3 for the Senate.) The ideal district population is 4,287 per House Representative and 21,436 per Senator.

District Deviation = Actual district population – Ideal district population.

Percentage Deviation = District Deviation / Ideal population x 100. Generally speaking, if a district has a percentage deviation greater than 10% over or under the ideal, legal precedent suggests that the district would likely exceed what is constitutionally acceptable.

Overall Deviation – The overall deviation of a House or Senate redistricting proposal is the "spread," or difference between the greatest negative percentage deviation and the greatest positive percentage deviation across the districts.

The Board reviewed a plan that would adjust the existing House districts mainly where a district's population deviated from that of the ideal district by more than nine or 10 percent; these proposed changes also resulted in revising adjoining districts owing to the unavoidable "ripple" effect inherent in the reapportionment effort. The Board's Alternate plan, described in this report, is the end result of this general approach.

The Board also reviewed a plan with all single-member House districts, and on October 15, 2021, adopted as its tentative plan--by a 4-3 vote—the all-single-member proposal. The tentative House plan was then sent to all Vermont towns and cities for review and comment by their Boards of Civil Authority; feedback was collected through mid-November.

While comments from towns generally focused on the Board's all-single-member plan¹, based on their preferences and other "on the ground" information provided by the Boards of Civil Authority it was possible to make adjustments to several districts in the draft Alternate plan.

On November 23, 2021, the Board voted (again 4-3) to adopt what is essentially the October 15, 2021 all-single-member plan, with some adjustments.

To assist in the next phase of the district reapportionment process, all of the Board's working proposals (and the detailed Minutes of the Board's meetings) are available on the Board's website: https://sos.vermont.gov/apportionment-board/.

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¹ A few towns noted an outright preference for the Alternate proposal.

Overview of Critical Constitutional and Statutory Factors

Substantial Equality

The Board's Alternate House proposal has an overall deviation of 15.39%, with a low of 3,949 residents in the proposed New-Rutland-3-2 district (Benson, Fair Haven, West Haven; a -7.88% deviation) and a high of 4,609 residents in the proposed New-Essex-Orleans district (Averill, Avery's Gore, Brighton, Canaan, Charleston, Holland, Lemington, Lewis, Morgan, Norton Warner's Grant, Warren Gore; a +7.51% deviation). This compares to the 17.80% overall deviation of the House plan approved by the Board majority, and the 18.90% overall deviation of the House districts after the 2012 reapportionment. Of the 108 House districts (66 single-member, 42 two-member) in the Alternate plan, 86 have deviation within 6% of the ideal, or 79.6% of all districts.

The table below provides a summary and comparison of deviations in the Board's Majority and Alternate plans.

Percentage Deviation Summary				
	Majority Plan 1-member districts: 150	Alternate Plan 1-member districts: 66 2-member districts: 42		
Largest positive deviation	8.8%	7.5%		
Largest negative deviation	-9.0%	-7.9%		
Overall Percentage Deviation When enacted, the current plan had overall deviation 18.9%	17.8%	15.4%		
Number of districts at least 6% too large or too small (% of districts)	41 (27.3%)	22 (20.4%)		
Number of districts at least 7% too large or too small (% of districts)	23 (15.3%)	11 (10.2%)		
Number of districts at least 8% too large or too small (% of districts)	4 (2.7%)	0		

Geographical compactness and contiguity

The compactness of a legislative district is generally accepted as an important factor in assessing the soundness of an existing or proposed district's boundaries. Common sense tells us that a non-compact district that stretches out in a narrow band over a long distance, over mountains and valleys, is likely at risk of not capturing a community or group of communities that share common cultural, social, political and commercial ties and interests. (See 17 V.S.A. § 1903.)

The Maptitude for Redistricting software employed by the Board (and the General Assembly) can measure compactness using seven different approaches. The Board in 2001 and 2011 used two of these seven methodologies, the "Reock" score and the "Polsby-Popper" rating, to measure the compactness of the current and proposed House districts, and has done so in the current reapportionment. Each is an area-based test that compares a district to a certain circle, which is considered to be the most compact shape possible.

For each district, the Reock score computes the ratio of the area of the district to the area of the minimum enclosing circle for the district. The measure is always between 0 and 1, with 1 being the most compact.²

The Polsby-Popper test computes the ratio of the district area to the area of a circle with the same perimeter.³ The measure is always between 0 and 1, with 1 being the most compact.

For both compactness measures⁴ the table below displays summary statistics for the Alternate House plan.

	Reock	Polsby-Popper
Minimum	0.22	0.14
Mean	0.45	0.47
Maximum	0.65	0.77
Standard Deviation	0.09	0.14

Adherence to Town, City, and County Boundaries and Other Existing Political Subdivisions

This criterion places a significant value on avoiding the subdividing towns and crossing county lines when drawing House districts. As a state policy, it emphasizes the robust sense of collective identity shared by residents of Vermont's cities, grants, gores, and towns, and the understandable disruption caused by separating parts of such entities into two or more legislative districts.

On the other hand, the nature and variation of town population sizes makes some splitting of towns unavoidable-- for example, for the 10 cities and towns whose population is too large to be even a two-member district⁵ (and thus must be divided into at least two districts); division of towns may also occur when the combined sizes of nearby towns

³ Polsby, D. D., and R. D. Popper. The third criterion: compactness as a procedural safeguard against partisan gerrymandering. *Yale Law and Policy Review*, 9:301-353, 1991.

⁴ For comparison, the Reock score for a perfectly square-shaped district is $^2/_{\pi} \approx 0.637$, while the Polsby-Popper rating for the same district is $^{\pi}/_{4} \approx 0.785$.

² Reock, E. C., Jr. Measuring the compactness as a requirement of legislative apportionment. *Midwest Journal of Political Science*, 5:70-74, 1961.

⁵ These 10 towns are: Burlington, Essex, South Burlington, Colchester, Rutland City, Bennington, Brattleboro, Hartford, Milton, and Williston.

cannot be made close enough to the ideal. In the Board's Alternate proposal, 25 towns and cities are divided. (This compares to 21 towns and cities divided in the current plan, and 45 in the Board majority's plan.)

As a measure of how well a plan meets this criterion, it is also useful to consider the total of number districts that include a portion (but not all) of a town or city (because some towns and cities are split between more than two districts.) The Board's Alternate plan includes 56 such districts—or 52% of the districts overall. This is more than the current plan (47, or 45% of all current districts) but quite a bit less than the Board majority's plan, in which 112 (75%) of the districts include a split portion of a town or city.

Regarding counties, there are 21 districts in the Alternate plan (19.4%) that cross a county boundary—almost identical to the current plan, which has 20 such districts (19.2%) cross county lines. The Board's majority House plan has 16 cross-county districts, or 10.7%.

The table below provides a summary and comparison of town and county divisions in the Board's Majority and Alternate plans.

Town Division Summary				
	Majority Plan	Alternate Plan		
	1-member districts:	1-member districts: 66		
	150	2-member districts: 42		
Number of cities/towns divided Includes 10 cities/towns that must be divided Current plan has 21 divided towns	45	25		
Number of districts that include a split part of a town (% of districts) Current plan has 47 such districts (45%)	112 (75%)	56 (52%)		
Total portions of cities/towns in districts Current plan has 290 portions	329	294		
Number of split town portions beyond the 270 minimum needed Minimum number of portions needed = number of cities/towns/gores/grants (255) plus extra portions needed (15) for the 10 most populous towns	59	24		
Number of districts that cross a county boundary Current plan has 20 cross-county districts (19%)	16 (11%)	21 (20%)		

Recognition and maintenance of Patterns of geography, social interaction, trade, political ties, and common interests

This factor envisions districts that "recognize and maintain" a sense of community—often beyond the scale of an individual town—and requires looking more deeply at some of the non-numerical factors that help bind a district together into a coherent entity. Given their

historical and regional knowledge and perspective, the input of town BCAs are especially critical during the process of developing districts that respect this policy.

As part of the reapportionment process, the Board sent its initial all-single-member House proposal to all of Vermont's cities and towns for review and feedback. An overview of BCA feedback is given below.

- 148 towns submitted feedback. Of these:
- 46 towns (31.1%) supported their district in the tentative proposal
- 97 towns (65.5%) opposed their district in the tentative proposal
- 5 towns (3.4%) submitted mixed feedback regarding their district in the tentative proposal (e.g., tie vote in BCA)

Thus, towns that responded opposed the tentative plan for their district by more than a two-to-one margin over those that supported it, and much of this disapproval focused on a desire to (1) remain in a two-member district or (2) not be split between two or more districts. (Often both.) In nearly all such instances, the Alternate plan either maintains the current two-member district (or an adjusted, similar version.) We have already noted that the Alternate plan divides many fewer communities.

Not surprisingly, it takes some care and persistence to create districts that, "insofar as practicable," minimize deviation, avoid dividing towns, take into account geographic barriers, and acknowledge and support community, social, and/or economic ties.⁶

This Alternate proposal, we believe, offers a thoughtful, reasoned, transparent, data-driven, and fairer approach to redistricting the House than the Board's majority plan– and certainly one that adheres to the law.

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⁶ The minority report (see Appendix 2) includes notable examples where it was possible to create districts that achieve these criteria, but which the majority consciously rejected because they were unwilling to allow any two-member House districts.

Individual District Reports

This section of this Alternate House plan report consists of detailed information about the individual districts that comprise the House plan, organized by county. For each county we provide an introductory overview that highlights the challenges and issues that drove the creation of districts in the region, and additional information that may be unique to that part of the state. In the district reports we include the reapportionment history for all the member towns, and also provide a district "profile" summary of the four central statutory criteria:

- Substantial Equality
- Geographical compactness and contiguity
- Preservation of existing political subdivision lines
- Patterns of geography, social interaction, trade, political ties, and common interests

We note the challenge of compiling the evolution, or history, of the House districts, as presented below. This continues the practice of prior Apportionment Boards, and we believe it puts the present in an important context, showing how population shifts and district changes since the first apportionment in 1965. These district descriptions from the past may contain errors in places, and sharp eyes that catch any are encouraged to contact the Board through its Secretary of state website with corrections.

Addison County

The Alternate plan has seven* House districts that include at least one Addison County town, six of which will be described in this section:

- five districts that consist solely of Addison county towns; and
- one district (New-Addison-Rutland) that has a majority of its population in Addison County but also includes towns in Rutland County.

Four of these six districts are modifications of current districts that have large deviations from the ideal: -13.2% for Addison-5 (Bridport, New Haven, Weybridge); -10.7% for Addison-3 (Addison, Ferrisburgh, Panton, Vergennes, Waltham); -9.5% for Addison-Rutland (Orwell, Shoreham, Whiting from Addison county and Benson from Rutland county); and +9.4% for Addison-2 (Cornwall, Goshen, Hancock, Leicester, Ripton, Salisbury.)

The -10.7% deviation—or 918 residents below ideal—for the two-member Addison-3 district presented the most difficult challenge in the region. Given the large negative

* The seventh district (New-Windsor-Addison-Rutland) includes the Addison County towns of Granville and Hancock and will be described as part of the Windsor County section of this report.

deviation for Addison-5 (on its southern border) the best option to reduce the deviation in both districts came from Addison-4 to the east, using a portion of Monkton that borders Ferrisburgh. Moving Waltham from Addison-3 to Addison-5 was then sufficient to reduce both deviations to acceptable levels.

All told, the changes outlined above, plus shifts of a few other towns between districts, resulted in six districts in the region with greatly improved percentage deviations: from-6.6% for New-Addison-3 to +6.7% for Addison-1 (same as the current Middlebury district) and just one town division (currently there are no split towns.)

In addition, as discussed more fully in individual district reports, this alternate plan for the region creates districts that satisfy (and balance) the requests of towns whose BCAs submitted feedback to the Board, often more closely than the LAB's official proposal.

Addison-1

Addison-1 is a two-member district consisting of the town of Middlebury. Its 2020 population is 9,152 residents.

This district is the same as the current (2012) and former (2002) two-member Addison-1 district.

In the 1992 and 1982 House plans, part of Middlebury was joined with Cornwall, New Haven and Weybridge, while the remaining part of Middlebury qualified as a two-member district. In 1974, Middlebury and Ripton formed a two-member district. In the first apportionment plan in 1965, Middlebury, Ripton and Weybridge constituted a two-member district.

The LAB's tentative proposal would have split Middlebury into three different districts, two of which had deviations larger than the current district (as well as much lower compactness scores.) In its official response to the Board, the Middlebury BCA noted that "[A]ll BCA members present supported keeping Middlebury as one cohesive unit with no section of the town split off to be combined with another town. If population demanded, two BCA members supported dividing Middlebury into two one-member districts if the district boundaries gave better consideration to the three [statutory] principles..."

As this alternate district plan confirms, it was not necessary to divide Middlebury into two—much less three—pieces. Nevertheless, in its revised district plan the majority did not reduce its division of the town; instead, it increased its division of Middlebury into *four* different districts.

Substantial equality

The district's 2020 population, 9,152 residents, is a positive deviation of 578 people, or +6.7% from ideal.

Geographical compactness and contiguity

Using Maptitude to measure compactness, the district earns a Reock score of 0.64 and a Polsby-Popper rating of 0.77. This district is contiguous.

Preservation of existing political subdivision lines

This district is entirely within Addison County and preserves Middlebury's town boundaries as a two-member district, which the BCA overwhelmingly prefers.

Patterns of geography, social interaction, trade, political ties, and common interests Middlebury is the shire town and serves as the commercial and social center of the county. The town is home to Middlebury College, Porter Medical Center (part of the UVM Health Network), the Sheldon Museum, and the Addison Central School District central offices and Union High School. There are several main roads that connect Middlebury to nearby towns: Route 7 runs north and south through the center of town; Route 30 connects to towns in the south and west and Route 23 to towns in the north and west; Route 116 links to towns in the north and east; and Route 125 connects to towns west of Middlebury and the New Vermont bridge over Lake Champlain to NY, as well as to the east over the Green Mountains.

New-Addison-2

New-Addison-2 is a single-member district consisting of Cornwall, Goshen, Leicester, Ripton, and Salisbury. Its 2020 population is 4,329 residents.

These towns, plus Hancock, are currently in the Addison-2 single member district, and this collection of towns also comprised the 2002 district.

The 1992 and 1982 plans combined Goshen, Leicester, Ripton, and Salisbury with Hancock, Sudbury, and Whiting as a single-member district; in the same years, Cornwall was grouped in a single-member district with New Haven, Weybridge, and portion of Middlebury. The 1974 House plan placed Cornwall, Leicester, and Salisbury in a single-member district with Whiting, while Goshen was combined with Granville, Hancock, Pittsfield, Rochester, and Stockbridge in a single-member district and Ripton was included with Middlebury in a two-member district.

The first apportionment plan in 1965 put Goshen with Brandon and Pittsford in a two-member district; Leicester and Salisbury together with Cornwall and Bridport as a single-member district; and Ripton with Middlebury and Weybridge as a two-member district.

Substantial equality

The district's 2020 population, 4,329 residents, is a positive deviation of 42 people, or +1.0% from ideal (significantly improved from its current +9.4% deviation.)

Geographical compactness and contiguity

Using Maptitude to measure compactness, the district earns a Reock score of 0.46 and a

Polsby-Popper rating of 0.32. This district is contiguous.

Preservation of existing political subdivision lines

This district is entirely within Addison County and preserves all town boundaries.

Patterns of geography, social interaction, trade, political ties, and common interests. The towns in this district are in the central and southeast parts of Addison County. Leicester and Salisbury share Lake Dunmore, and Route 30 runs north and south through Cornwall and connects to Salisbury and Leicester via smaller yet well-travelled connections to Route 7 (via Swamp Road and the Leicester-Whiting Road.) Route 7 connects Leicester and Salisbury, and Goshen is served by Route 73, although no major roads connect it directly to the rest of the district. Brandon and Middlebury are the principal commercial centers of the area.

Goshen and Leicester belong to the Otter Valley Unified Union School District. Cornwall and Salisbury are part of the Addison Central School District and Ripton middle and high school students attend school in Middlebury, which is also in Addison Central.

Feedback from Goshen and Ripton indicate a strong preference for the current district, noting connections and similar interests with member towns (Goshen) as well as the geographic placement of all towns on the western side of the Green Mountains and orientation toward Middlebury (Ripton.)

New-Addison-3

New-Addison-3 is a two-member district consisting of Addison, Ferrisburgh, Panton, Vergennes, and a portion (801 residents) of Monkton. The 2020 district population is 8,011.

The current two-member Addison-3 district consists of Addison, Ferrisburgh, Panton, Vergennes, and Waltham; the same grouping was also a district in 2002.

In 1992 a two-member district was formed with the same grouping plus Bridport, while in 1982 the current collection formed a two-member district without Bridport. In 1974, the district contained Addison, Ferriburgh, Panton, Vergennes, Waltham, and Weybridge for two members. The first apportionment plan in 1965 joined Addison, Ferrisburgh, Panton and Vergennes with New Haven and Waltham in a two-member district.

As noted in the County overview, Addison-3 presented the largest redistricting challenge in this region, given the combination of the following factors:

- large negative district deviation (-10.7%)
- similarly large deviation (-13.2%) in the current Addison-5, to the immediate south
- the geographic position of the district in the northwest corner of the county (and along the state's western border), so there are fewer nearby towns overall
- the stated preference for the status quo by several town BCAs in and near the district

We looked for configurations of towns that were similar to the current district groupings but with deviations below 8%; the best option we found is the district presented here, which moves Waltham to Addison-5 (they would prefer to be with Vergennes) and also includes division of the town of Monkton between New-Addison-5 and New-Addison-4. (This is the only split town in the county, compared to three for the majority plan, including a four-way split of Middlebury.)

Substantial equality

The district's 2020 population, 8,011 residents, is a negative deviation of 563 people, or -6.6% from ideal.

Geographical compactness and contiguity

Using Maptitude to measure compactness, the district earns a Reock score of 0.42 and a Polsby-Popper rating of 0.47. This district is contiguous.

Preservation of existing political subdivision lines

This district is entirely within Addison County and all towns except Monkton are included in their entirety. Adding this portion of Monkton to the current Addington-3 district (deviation -10.7%) and moving Waltham to the neighboring Addison-5 (deviation -13.2%) was the best option we found to improve deviations in *both* districts.

Patterns of geography, social interaction, trade, political ties, and common interests Addison, Ferrisburgh, Panton, and Vergennes have been configured together in a two-member district since 1965. Route 22A connects Addison, Panton and Vergennes, running north and south, and has terminus on Route 7 in Ferrisburgh which continues north as one of the main routes between Addison and Chittenden Counties. The Otter Creek forms all or part of the eastern boundaries of Addison and Panton, then flows north through Vergennes until converging with Dead Creek in Ferrisburgh and onward to Lake Champlain. Vergennes, Middlebury and Burlington are the principal commercial centers that serve this area.

The portion of Monkton included in New-Addison-3 lies on the eastern border of Ferrisburgh, and includes all of Monkton to the west of a boundary that follows Hardscrabble, Old Airport, and Boro Hill Roads to Monkton Boro, and then northward (between Hollow and Pond Roads) to the Charlotte town line. From Monkton Boro, Monkton Road connects to Ferrisburgh and Vergennes to the southwest, while Hollow Road connects with North Ferrisburgh via Rotax Road.

New-Addison-4

New-Addison-4 is a two-member district consisting of Bristol, Lincoln, Starksboro, and the portion of Monkton (1,278 residents) not in New-Addison-3. The 2020 district population is 8,139.

Bristol, Lincoln, Monkton, and Starksboro comprise the current Addison-4 district, and the same four towns also formed a two-member district in 2002.

The 1992 and 1982 reapportionment plans put Bristol in a single-member district alone, and Lincoln, Monkton and Starksboro were a stand-alone single-member district. The 1974 plan made Bristol a single-member district, but put Lincoln, Monkton and Starksboro with New Haven in a single-member district. The first reapportionment plan from 1965 placed Bristol and Lincoln in a single-member district and Monkton and Starksboro with Hinesburg in a single-member district.

All of the towns in this district submitted feedback to the Board about its initial proposal, which included many changes to the current Addison-4 district. The overall preference was to remain as a two-member district, citing various community ties (e.g., all towns are in the unified same school district, shared emergency services.)

We tried to avoid dividing Monkton, but were unable to find an alternate solution to the large negative deviations in both the current Addison-3 and Addison-5 districts, which border Addison-4 to the west.

Substantial equality

The district's 2020 population, 8,139 residents, is a negative deviation of 435 people, or 5.1% from ideal.

Geographical compactness and contiguity

Using Maptitude to measure compactness, the district earns a Reock score of 0.46 and a Polsby-Popper rating of 0.51. This district is contiguous.

Preservation of existing political subdivision lines

This district is entirely within Addison County and all towns except Monkton are included in their entirety. Shifting a portion of Monkton from the current Addison-4 to the New-Addison-3 district is part of an regional strategy to reduce large negative deviations in both Addison-3 and Addison-5, and proved to be the best option to achieve this goal.

Patterns of geography, social interaction, trade, political ties, and common interests. The towns of Bristol, Lincoln, Monkton, and Starksboro form the northeast quadrant of Addison County, and share the geography of the Green Mountains. Route 116 connects Bristol—the commercial center of the district-- with Starksboro and Lincoln (via the Lincoln Road) and extends southward to Middlebury and northward to the Burlington region. To the west, the Monkton Road runs parallel to Route 116 and links Bristol and Monkton. All four towns, plus New Haven, comprise the Mount Abraham Unified School District (though in August of 2021, Lincoln voted to leave the district.)

The portion of Monkton included in New-Addison-4 lies on the western border of Starksboro, and includes all of Monkton to the east of a boundary that follows Hardscrabble, Old Airport, and Boro Hill Roads to Monkton Boro, and then northward

(between Hollow and Pond Roads) to the Charlotte town line. This part of the twon includes Monkton Ridge, the Monkton Central School (K-6), and the majority of town residents (1,278 out of 2,079.)

New-Addison-5

New-Addison-5 is a one-member district consisting of Bridport, New Haven, Waltham, and Weybridge. The 2020 district population is 4,168.

Currently, Bridport, New Haven, and Weybridge form the one-member Addison-5 district, and did so in 2002, as well.

In 1992 and 1982, New Haven, Cornwall, and Weybridge were part of a single-member district with a part of Middlebury. In 1974, New Haven was part of a single-member district with Lincoln, Monkton, and Starksboro, while Weybridge was grouped with Waltham, Addison, Ferrisburgh, Panton, and Vergennes in a two-member district. In the first apportionment plan in 1965, New Haven and Waltham were a single-member district with Addison, Ferrisburgh, Panton and Vergennes, and Weybridge joined Middlebury and Ripton in a two-member district.

In 1992, Bridport was combined with Vergennes, Waltham, Addison, Ferrisburgh, and Panton in a two-member district, while the 1982 plan placed Bridport, Orwell, and Shoreham with Benson (from Rutland County) in a single-member district. In 1974, Bridport and Whiting were combined in a one-member district with Cornwall, Leicester, and Salisbury. In the first apportionment plan in 1965, Bridport and Cornwall made a single-member district with Salisbury and Leicester.

The current Addison-5 single-member district has the largest deviation of any district in the county (-13.2%), followed by -10.7% for Addison-3 to its immediate north. We looked for configurations of towns that were similar to the current district groupings but with deviations below 8%; the best option we found is the district presented here, which moves Waltham to Addison-5 (they would prefer to stay with Vergennes. (An alternative would be to keep Waltham with Vergennes in New-Addison-3, and include a sufficient portion of Middlebury in New-Addison-5.)

Substantial equality

The district's 2020 population, 4,168 residents, is a negative deviation of 119 people, or -2.8% from ideal (significantly improved from its current -13.2% deviation.)

Geographical compactness and contiguity

Using Maptitude to measure compactness, the district earns a Reock score of 0.32 and a Polsby-Popper rating of 0.35. This district is contiguous.

Preservation of existing political subdivision lines

This district is entirely within Addison County and all towns are included in their entirety.

Patterns of geography, social interaction, trade, political ties, and common interests. The towns in this western and central Addison County district are largely farming communities, including major operations such as Misty Knoll Poultry Farm in New Haven, Heustis Farm Supply in Bridport, and the UVM Morgan Horse Farm in Weybridge. Bridport connects via major roads to Weybridge on 125 through Cornwall or Route 22A through Addison; the Lemon Fair and Mountain Roads provide a direct connection between the towns on smaller roads. Routes 23, 17, and 7 then link Weybridge to New Haven and Waltham. Nearby Middlebury and Vergennes are commercial centers for all the towns.

New-Addison-Rutland

New-Addison-Rutland is a one-member district consisting of Orwell, Shoreham, and Whiting from Addison County, and Hubbardton and Sudbury from Rutland County. The 2020 district population is 4,184.

The current Addison-Rutland district includes the same Addison County towns plus Benson from Rutland County, and these four towns also formed a one-member district in 2002.

The 1992 and 1982 plans put Whiting with Goshen, Leicester, Ripton, Salisbury, Sudbury, and Hancock in a single-member district, while the 1974 House plan placed Whiting in a single-member district with Leicester, Salisbury, Shoreham, and Cornwall. The first apportionment plan in 1965 grouped Whiting with Orwell, Benson, Shoreham, and West Haven in a single-member district.

In 1992 and 1982, Orwell, Shoreham, and Benson were in a single-member district with Bridport, and in 1974, Orwell, Shoreham, and Benson were in a single-member district with Hubbardton and West Haven. In the 1965 plan, Orwell, Shoreham, and Benson were in a single-member district with West Haven and Whiting.

With deviation -9.5%, the current Addison-Rutland district is slightly too large to meet our district plan goal to keep all deviations under 8% (positive or negative.) Meanwhile, just over the county border to the south and east, the current Rutland-6 district has deviation -12.1%, and additional changes were contemplated for the current Rutland-3, to the immediate south of Addison-Rutland.

All told, New-Addison-Rutland retains its current Addison County towns (Orwell, Shoreham, and Whiting) and now includes the Rutland County towns of Hubbardton and Sudbury, instead of Benson.

While the Orwell BCA expressed a desire to remain with Benson, the Benson BCA noted their support for being grouped with Fair Haven and New Haven, with whom they have common interests and ties. Sudbury also noted its connections to Hubbardton, which is split in the majority's plan—this district keeps the town undivided, which they prefer.

Substantial equality

The district's 2020 population, 4,184 residents, is a negative deviation of 103 people, or -2.4% from ideal (significantly improved from its current -9.5% deviation.)

Geographical compactness and contiguity

Using Maptitude to measure compactness, the district earns a Reock score of 0.38 and a Polsby-Popper rating of 0.48. This district is contiguous.

Preservation of existing political subdivision lines

This district includes towns in both Addison and Rutland Counties, which has been true for all the versions of this district since the first apportionment of Vermont (by population) in 1965. All towns are included in their entirety.

Patterns of geography, social interaction, trade, political ties, and common interests Shoreham and Orwell share a western border with Lake Champlain, and are connected by Route 22A running north and south. Hubbardton and Sudbury share Lake Hortonia and are connected via Route 30, which continues north to Whiting. Sudbury is connected via Route 73 west to Orwell and Shoreham (continuing to the Lake Champlain ferry via Route 74) and east to Brandon—a local commercial center. Routes 30 and 74 link the district north to Middlebury. All towns in the district are characterized by dairy and other types of agriculture.

Bennington County

The Alternate plan has eight* House districts that include at least one Bennington County town, six of which will be described in this section:

- five districts that consist solely of Bennington County towns; and
- one district (Bennington-Rutland) that has a majority of its population in Bennington County but also includes towns in Rutland County.

The driving factor in this region was the large negative population deviations in four of the five current all-Bennington districts: from -9.1% for Bennington-2-2 (central Bennington) to -15.7% for Bennington-1 (Pownal and Woodford).

In addition, while both Bennington-Rutland and Rutland-Bennington have modest

^{*} The remaining two districts (New-Rutland Bennington, New-Windham-Bennington) are described in the Rutland County and Windham County sections, respectively, of this report.

positive deviations (1.1% and 5.9%, respectively), negative population deviations in southern Rutland county meant it was not possible to look north for ways to ease population pressures in Bennington. Finally, to the east, although Windham-Bennnigton-Windsor (Jamaica, Londonderry, Stratton, Weston, Winhall) has the largest positive deviation (20.6%) of any district in the region, geography and community ties in this district made it impractical to combine any of these towns with those to the west.

As a consequence, in this region it proved especially challenging to form a collection of revised (and in some cases, new) districts that balanced the need to reduce deviations and at the same time, as far as practicable, avoid town divisions and respect community and geographic connections. In the end, however, it was possible to

- reduce district deviations to between -7.0% and +1.1%;
- add just one new town division (for a total of three town divisions); and
- respect the wishes—in whole or in part—of towns who expressed a desire to be in the same district

New-Bennington-1

New-Bennington-1 is a single-member district and consists of the entire towns of Stamford and Readsboro, and the majority (2,681 residents) of Pownal. It has a total 2020 population of 4,244.

Under the current and prior district plans (2012 and 2002), Pownal and Woodford comprised the single-member Bennington-1 district; the 1992 and 1982 plans made Pownal a district unto itself. In 1974, Pownal and a part of Bennington formed a single-member district, and in 1965 (when the legislature first apportioned itself by number of registered voters) Pownal and Stamford were placed in a two-member district with Dover, Readsboro, Searsburg, Whitingham and Wilmington.

Stamford and Readsboro currently are in the single-member Windham-Bennington district with the Bennington County town of Searsburg and the Windham County towns of Dover, Somerset and Wardsboro.

In the 1992 and 1982 House plans, Stamford was part of a single-member district with Readsboro, Woodford and part of Bennington, while in 1974 Stamford was joined in a two-member district with the Bennington County towns of Readsboro and Searsburg, and the Windham County towns of Dover, Marlboro, Somerset, Whitingham, and Wilmington.

Substantial equality

The district's 2020 population is 4,244, which is a negative deviation of 43 residents, or -1.0% from ideal.

Geographical compactness and contiguity

Maptitude to measure compactness, the district earns a Reock score of 0.39 and a Polsby-

Popper rating of 0.42. This district is contiguous.

Preservation of existing political subdivision lines

While this district is entirely contained within Bennington county, it includes a split of the town of Pownal. Under this division, 577 residents from the northwest of the town have been joined with residents from the southwest of Bennington, as part of the New-Bennington-2-2 district.

Patterns of geography, social interaction, trade, political ties, and common interests Pownal and Stamford are abutting towns and could (by population alone) be a viable district, but they also have few connecting roads or community ties. Stamford's BCA expressed a strong desire to remain with Readsboro, which this district accomplishes.

New-Bennington-2-1

New-Bennington-2-1 is a two-member district consisting of the westerly and northerly portions of the town of Bennington (7,795 residents), and the entire towns of Woodford and Searsburg.

This portion of the town of Bennington has been a two-member district in the current and prior district plans (for 2012 and 2002). In the district plans for 1992 and 1982, the legislature subdivided Bennington into two, two-member districts and then assigned parts of Bennington to a single-member district with Readsboro, Stamford and Woodford and another with Glastenbury and Shaftsbury. The 1974 plan also gave the town two two-member districts, plus a single-member district Bennington shared with Woodford and another single-member district with Pownal. The first apportionment plan, from 1965, gave Bennington two, two-member districts and another two-member district with Woodford.

Woodford currently is in the Bennington-1 district with Pownal, as it was in 2002.

The 1992 and 1982 plans made Woodford part of a single-member district with Readsboro, Stamford and part of Bennington. In 1974, Woodford was joined with part of Bennington in a single-member district, and in 1965, Woodford was included in a two-member district with a part of Bennington.

In the current and former district plans Searsburg has been part of a Windham-Bennington district with Dover, Somerset, Wardsboro, Readsboro, and Stamford.

In the 1992 plan, Searsburg was in a single-member district with Wardsboro, Wilmington, Halifax, Somerset and Whitingham, while in 1982, Searsburg was in a single-member district with Wilmington, Halifax, Somerset and Whitingham. In 1974, Searsburg was in a two-member district with Dover, Wilmington, Readsboro, Stamford, and Whitingham, and in the first apportionment plan, in 1965, Searsburg was in a two-member district with Dover, Wilmington, Pownal, Readsboro, Stamford, and

Whitingham.

Substantial equality

The 2020 population of New-Bennington-2-1 is 8,276, which is a negative deviation of 298 residents, or -3.5% from ideal. Combining Woodford and Searsburg with the current Bennington-2-1 portion of Bennington helps address the large negative deviations in this region.

Geographical compactness and contiguity

Using Maptitude to measure compactness, the district earns a Reock score of 0.36 and a Polsby-Popper rating of 0.39. This district is contiguous.

Preservation of existing political subdivision lines

Given that Bennington's 2020 population is 15,333 people, the town must be divided at least once. This district plan in fact divides the town into exactly two parts, one of which is in this two-member district, while the other is in New-Bennington-2-2. The district does not cross a county boundary.

Patterns of geography, social interaction, trade, political ties, and common interests. In its feedback to the Board, the Bennington BCA expressed a strong desire to continue with the existing division of the town into two, two-member districts. However, the current Bennington-2-1 district has deviation -9.1%, and the Bennington-2-2 district has deviation -12.1%. (With a perfect split into two districts, each would have a deviation of -10.6%.)

The town is aware of this challenge but notes that, "To meet the minimum -10% deviation, which is a suggestion, not written in statute, we are short 101 people." This statement reflects a (not uncommon) misunderstanding that there is an understood "acceptable" threshold of $\pm 10\%$ for the statutory requirement (V.S.A. 17 § 1903) to form districts with "minimum percentage deviation from the apportionment standard."

In fact, as noted in the Introduction to this report, the "Vermont and U.S. Supreme Court decisions tell us that an overall deviation... somewhat greater than 16% is probably constitutional if the legislative record documents that other more complying options were tried without success and the plan advances rational state policies. Thus, an individual, single-member district with a deviation in the $\pm 9\%$ range raises serious concerns and must be analyzed thoroughly and justified with credible, genuine reasons supported under the law."

Feedback from Woodford's BCA included a desire to be in a district with seven other towns to the north and east, including Searsburg, noting that they are mountain towns that share similar local and state concerns. While it was not possible to form the specific district requested, including Searsburg in this district was an improvement over the initial alternate district plan, which did not.

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New-Bennington-2-2

New-Bennington-2-2 is a 2-member district consisting of the southeasterly portions of the town of Bennington (7,538 residents not included in New-Bennington-2-1) plus a portion (577 residents) of northwest Pownal.

This is the current Bennington 2-2 district joined with a portion of the town of Pownal that is bounded on the west by Rte. 7 and the south by a power line that follows the border of Pownal Center and extends to the Stamford town line. The remainder of Pownal forms the bulk of the New-Bennington-1 district.

In 1992, the legislature subdivided Bennington into two two-member districts and then assigned parts of Bennington to a single-member district with Readsboro, Stamford and Woodford and another with Glastenbury and Shaftsbury. In the 1982 plan, Bennington was divided into two two-member districts, with a part of the town joining Readsboro, Stamford and Woodford for a single-member district and another part linked to Glastenbury and Shaftsbury in another single-member district. The 1974 plan gave the town two-member districts, a single-member district Bennington shared with Woodford and another single-member district with Pownal. The first apportionment plan, from 1965, gave Bennington two two-member districts and another two-member district with Woodford.

Under the current and prior district plans (2012 and 2002), Pownal and Woodford comprised the single-member Bennington-1 district; the 1992 and 1982 plans made Pownal a district unto itself. In 1974, Pownal and a part of Bennington formed a single-member district, and in 1965 (when the legislature first apportioned itself by number of registered voters) Pownal and Stamford were placed in a two-member district with Dover, Readsboro, Searsburg, Whitingham and Wilmington.

Substantial equality

The 2020 population of New-Bennington-2-2 is 8,115, which is a negative deviation of 459 residents, or -5.4% from ideal. Adding a portion of Pownal to the current Bennington-2-2 (deviation -12%) was the best option to manage the challenge of slower relative population growth in this region of the state.

Geographical compactness and contiguity

Using Maptitude to measure compactness, the district earns a Reock score of 0.44 and a Polsby-Popper rating of 0.55. This district is contiguous.

Preservation of existing political subdivision lines

Given that Bennington's 2020 population is 15,333 people, the town must be divided at least once. This district plan in fact divides the town into two exactly parts, one of which is in this 2-member district, while the other is in New-Bennington-2-1. This district also divides Pownal. It does not cross a county boundary.

Patterns of geography, social interaction, trade, political ties, and common interests. The portion of Bennington in this district has the same internal boundary lines as the current Bennington-2-2. The Pownal portion is bounded on the west by Route 7 and on the south by a power line that follows the border of Pownal Center and extends east to the Stamford town line. Besides the major connecting route between the towns via Route 7, several smaller roads (Middle Pownal, Maple Grove, S. Stream) provide alternate connections across the boundary between towns.

New-Bennington-3

New-Bennington-3 is a single-member district consisting of Glastenbury, Shaftsbury, and a portion (379 people) of Sunderland.

Glastenbury, Shaftsbury, and a smaller portion of Sunderland (282 residents) form the current Bennington-3 district; in 2002, the district did not include any portion of Sunderland.

The 1992 and 1982 plans placed Shaftsbury and Glastenbury with a part of Bennington to form a single-member district. In 1974 and 1965, Shaftsbury was entitled to elect one House member on its own and Glastenbury was not included at all (apparently because, at that time, there were no voters⁷ in Glastenbury at the time).

The current two-member Bennington-4 district includes the 774 Sunderland residents not in Bennington-3, along with Arlington, Manchester, and Sandgate. In 2002, 1992, 1982, 1974, and 1965, all of Sunderland was joined with Arlington and Sandgate to form a single-member district.

Substantial equality

At 3,986 this single-member district is 301 residents shy of a perfect district, a deviation of -7.0%. Of the districts in the region, it has the largest percentage deviation from ideal.

Geographical compactness and contiguity

Using Maptitude to measure compactness, the district earns a Reock score of 0.46 and a Polsby-Popper rating of 0.56. This district is contiguous.

Adherence to county boundaries and other existing political subdivisions

All towns in this district are in Bennington County, and Shaftsbury and Glastenbury are included in their entirety. As it is in the current district plan, Sunderland continues to be divided between neighboring districts; in order to decrease the deviation to an acceptable level, 97 additional people who currently reside in Bennington-4 are now located in New-

⁷ Apportionment in 1965 and 1974 was based on the ideal number of registered voters per representative, Act 97 of 1965 defined a legal voter as a citizen who was eligible to vote in the presidential election immediately preceding the respective apportionment effort. In 1982, this was changed to the current standard based on population.

Bennington-3.

Patterns of geography, social interaction, trade, political ties, and common interests
The initial alternate district plan divided Shaftsbury (giving a portion to Bennington-2-1) and included the town of Stratton to make up for the resulting loss in population. While comments from town BCAs were directed toward the LAB's tentative proposal and not this alternate one, Shaftsbury indicated a strong preference to remain undivided (and together with Glastenbury), while Stratton requested to be with towns closer to them geographically and culturally.

This version of New-Bennington-3 keeps Shaftsbury whole and with Glastenbury, and joins Stratton with other, more preferred towns (see the Windham county section).

Feedback from the Sunderland BCA also focused on the LAB's initial tentative proposal, which placed Sunderland in a district with towns over the mountains and which Sunderland strongly opposed. Instead, the Sunderland BCA requested that it swap places with the portion of Shaftsbury that was included in the tentative proposal's BEN-3 (with Arlington and Sandgate.) Needless to say, that would not have been a workable option for Shaftsbury.

While this district continues to include a portion of Sunderland, the majority of the town remains with Arlington and Sandgate as part of the New-Bennington-4 district.

New-Bennington-4

New-Bennington-4 is a two-member district consisting of Arlington, Manchester, Sandgate, and the portion of Sunderland (677 residents) not in New-Bennington-3.

The current Bennington-4 district includes the same four towns, with a somewhat larger portion of Sunderland (774 residents.)

In the 2002 and 1992 House plans, Manchester comprised its own single-member district, while in 1982 it was joined with Danby, Dorset, Landgrove, Mount Tabor, Peru, and Winhall in a two-member district. The 1974 and 1965 also had Manchester in a two-member district with Dorset, Landgrove, Mount Tabor, Peru and Winhall.

In 2002, 1992, 1982, 1974, and 1965, all of Sunderland was joined with Arlington and Sandgate to form a single-member district.

Substantial equality

This district's 2020 population is 8005, which is a negative deviation of 569 residents, or -6.6% from ideal.

Geographical compactness and contiguity

Using Maptitude to measure compactness, the district earns a Reock score of 0.50 and a

Polsby-Popper rating of 0.61. This district is contiguous.

Adherence to county boundaries and other existing political subdivisions
All towns in this district are in Bennington county, and Arlington, Manchester, and
Sandgate are included in their entirety. As it is in the current district plan, Sunderland
continues to be divided between neighboring districts; in order to decrease the deviation
in New-Bennington-3 to an acceptable level, 97 people who currently reside in
Bennington-4 are now located in New-Bennington-3.

Patterns of geography, social interaction, trade, political ties, and common interests. This district is almost identical to the current Bennington-4, and the member towns have developed strong ties over the past decade. Responding to the LAB's initial tentative proposal, which placed Arlington and Sandgate in a single-member district with a portion of Shaftsbury, the Arlington BCA noted a desire to be instead in a single-member district with Sandgate and Sunderland. However, with population 3,900, such a district would have large negative deviation (-9.0%) and would cause additional challenges for Shaftsbury. (Manchester, too, reacted favorably to the tentative proposal's plan to make it a single-member district on its own, but such an arrangement causes these same population pressures.)

Overall, the best balance of the statutory requirements was to make one fairly minor adjustment to the current Bennington-3 and Bennington-4 districts.

Bennington-Rutland

The Bennington-Rutland single-member district consists of the Bennington County towns of Dorset, Landgrove, and Peru, and the Rutland County towns of Danby and Mt. Tabor. The district's 2020 population is 4,335.

These towns also form the current (2012) and prior (2002) Bennington-Rutland-1 single-member district.

The 1992 reapportionment plan placed Dorset, Landgrove, Peru, Danby and Winhall in a single-member district, while in 1982, Dorset, Landgrove, Peru, Danby, Mt. Tabor, and Winhall were part of a two-member district with Manchester. The 1974 plan had Danby, Pawlet, and Rupert together in a single-member district, with Dorset, Peru, Landgrove, Winhall and Manchester in a two-member district. In the first apportionment plan, in 1965, Dorset, Landgrove, Peru, and Winhall were together with Manchester in a two-member district.

In 1974, Mt. Tabor was linked in a single-member district with Mt. Holly, Tinmouth, and Wallingford. The first apportionment plan, in 1965, made a two-member district out of Danby, Middletown Springs, and Mt. Tabor, plus Clarendon, Ira, Shrewsbury, Tinmouth, and Wallingford.

Substantial equality

The 4,335 population of this district is 48 residents fewer than the ideal, a deviation of -1.1%.

Geographical compactness and contiguity

Using Maptitude's measure of compactness, the district earns a Reock score of 0.62 and a Polsby-Popper rating of 0.66. All towns within the district are contiguous.

Adherence to county boundaries and other existing political subdivisions
This district breaks the Bennington-Rutland county line. Dorset, Landgrove, and Peru are Bennington County towns, while Danby and Mt. Tabor are Rutland County towns.

Danby and Mt. Tabor form the southeastern corner of Rutland County. No towns in the

district are divided.

Patterns of geography, social interaction, trade, political ties, and common interests Route 7 runs north and south between Dorset, Mt. Tabor, and Danby. Peru is linked to Landgrove via Route 11 and to Mt. Tabor via Route 10, which extends eastward to Landgrove and westward to Danby. All towns are members of the Taconic and Green School District, and the commercial centers serving the district are Manchester to the south and Rutland to the north.

Caledonia County

The Alternate plan has seven House districts that include at least one Caledonia County town, five of which will be described in this section*:

- three districts that consist solely of Caledonia County towns;
- one district (New-Caledonia-Essex) that has a majority of its population in Caledonia County but also includes one Essex County towns; and
- one district (Caledonia-Washington) that has a majority of its population in Caledonia County but also includes one Washington County town

Redistricting work in Caledonia County focused primarily on the current two-member Caledonia-3 district, which consists solely of St. Johnsbury. At population 7,364, Caledonia-3 is 1,210 people below the ideal—a percentage deviation of -14.1%. The goal for this district was to group St. Johnsbury with one or more towns to maintain the two-member district.

At the same time, other regional population decreases—most pronounced to the east in

* The remaining two districts (New-Essex-Caledonia, Orange-Caledonia) are described in the Essex County and Orange County sections of this report.

Essex County but also in Orleans County-- required rearranging some adjacent districts that in turn caused ripple effects in Caledonia.

As a result we we also made adjustments to the current Caledonia-4 two-member district, described more fully in the district report, below.

Caledonia-1

Caledonia-1 is a single-member district consisting of Barnet, Ryegate, and Waterford. Its 2020 population is 4,096 people.

This is the current Caledonia-1 district.

In the 2002 and 1992 plans, this same configuration of towns was also a single-member-district. In 1982, Barnet and Waterford were joined with Kirby and a part of St. Johnsbury to make a single-member district, while Ryegate was a single-member district with Groton and Newbury.

In 1974, Barnet and Waterford joined with Concord to make a single-member district and Ryegate was again in a single-member district with Groton and Newbury. In the first apportionment plan, in 1965, Barnet and Waterford joined with Concord in a single-member district and Ryegate was linked with Newbury in another single-member district. This status-quo district was also part of the LAB's tentative proposal, and none of the member towns submitted feedback to the Board.

Substantial equality

The 4,096 population of this district is 191 residents fewer than the ideal, a deviation of 4.5%.

Geographical compactness and contiguity

Using Maptitude's measure of compactness, the district earns a Reock score of 0.35 and a Polsby-Popper rating of 0.36. All towns within the district are contiguous.

Adherence to county boundaries and other existing political subdivisions
This district consists of three Caledonia County towns and none are divided.

Patterns of geography, social interaction, trade, political ties, and common interests
All towns in the district are within the jurisdiction of Environmental District #7 for Act
250 and other state land-use purposes, and all are part of the Northeast Kingdom Sold
Waste Management District. Barnet and Waterford are members of the Caledonia Coop
Unified Union School District, while Ryegate is in the Blue Mountain Union School
District.

Route 5 and Interstate 91 link all three towns as well as local roads; Route 93 has its northern terminus in Waterford. All towns have the Connecticut River and New

Hampshire as their eastern or southern border. St. Johnsbury and Littleton, NH are regional commerce centers.

Caledonia-2

Caledonia-2 is a single-member district consisting of Hardwick, Stannard, and Walden. Its 2020 population is 4,084 people.

This is the current Caledonia-2 district.

In the 2002, 1992, and 1982 plans, the same group of towns formed a single-member district, while in 1974 they were joined with Danville, Peacham, and Woodbury as a two-member district.

In the first apportionment plan, in 1965, Hardwick and Walden made up a single-member district, while Stannard was in a single-member district along with Albany, Craftsbury, Greensboro, and Wolcott.

This status-quo district was also part of the LAB's tentative proposal. Of the three member towns, only Walden submitted feedback to the Board, in which they expressed their support.

Substantial equality

The 4,084 population of this district is 203 residents fewer than the ideal, a deviation of -4.7%.

Geographical compactness and contiguity

Using Maptitude's measure of compactness, the district earns a Reock score of 0.54 and a Polsby-Popper rating of 0.65. The district is contiguous.

Adherence to county boundaries and other existing political subdivisions
This district consists of three Caledonia County towns and none are divided.

Patterns of geography, social interaction, trade, political ties, and common interests
All towns in the district are within the jurisdiction of Environmental District #7 for Act
250 and other state land-use purposes. Hardwick and Walden are part of the Central
Vermont Sold Waste Management District; Stannard is in the Northeast Kingdom
District. For schools, Hardwick and Stannard are both part of the Orleans Southwest
Supervisory Union, while Walden is in the Caledonia Central SU.

Route 15 connects Hardwick and Walden. The Stannard Mountain Road links Stannard to the other two towns, along with other local roads. Hardwick is a center of commerce within the district; St. Johnsbury is a regional hub.

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New-Caledonia-3

New-Caledonia-3 is a two-member district consisting of Lyndon, Newark, Sheffield, Sutton, and Wheelock. Its 2020 population is 8,429 people.

Lyndon and Sutton are in the current two-member Caledonia-3 district; Newark is in the current one-member Essex-Caledonia-Orleans district; and Sheffield and Wheelock are in the current two-member Orleans-Caledonia district.

In 2002 and 1992, Lyndon and Sutton were in a two-member district with Burke, while in 1982 these towns were grouped with East Haven in a single-member district.

Meanwhile, in 2002 Sheffield and Wheelock were in a two-member district with Barton, Craftsbury, Glover, and Greensboro; in 1992 the configuration was Sheffield and Wheelock plus Albany, Barton, Craftsbury, Glover, Greensboro, and Westmore as a two-member district. In 1982, Sheffield and Wheelock were linked with Danville and Peacham as part of a single-member district.

In 2002, Newark was in a single-member district with the Essex County towns of Averill, Brighton, Canaan, East Haven, Ferdinand, Lemington, Lewis and Norton, plus Avery's Gore, Warner's Grant and Warren Gore; and the Orleans County town of Westmore. The 1992 plan placed Newark with Averill, Avery's Gore, Brighton, Canaan, East Haven, Ferdinand, Lewis, Norton, Warner's Grant, and Warren Gore in a single-member district; in 1982, Newark was grouped in a single-member district with Averill, Avery's Gore, Brighton, Canaan, Lewis, Norton, Warner's Grant and Warren Gore.

The 1974 and 1965 plans grouped Lyndon, Newark, Sheffield, Sutton, and Wheelock with Burke, East Haven, and Kirby in a two-member district.

For the towns in this district, the LAB initially proposed that:

- Sheffield, Sutton, and Wheelock form one district, with Burke;
- Lyndon be split into two parts, each part paired with part of St. Johnsbury to form a district; and
- Newark be grouped in a district with Brunswick, Concord, East Haven, Ferdinand, Granby, Guildhall, Kirby, Lunenburg, Maidstone, and Victory.

Lyndon, Newark, and Sutton provided feedback to the Board about this proposal, and their comments indicated that New-Caledonia-3 would more closely accommodate date their preferences—for example, Lyndon does not want to be divided; Newark prefers being grouped with Sheffield, Sutton, and Wheelock; and Sutton requested Newark join their district.

Substantial equality

The 8,429 population of this district is 145 residents below than the ideal, a deviation of -1.7%.

Geographical compactness and contiguity

Using Maptitude's measure of compactness, the district earns a Reock score of 0.50 and a Polsby-Popper rating of 0.39. The district is contiguous.

Adherence to county boundaries and other existing political subdivisions
This district consists of five Caledonia County towns and none are divided.

Patterns of geography, social interaction, trade, political ties, and common interests All towns in the district are within the jurisdiction of Environmental District #7 for Act 250 and other state land-use purposes; all are in the Northeast Kingdom Solid Waste Management District; and all are members of the Kingdom East Unified Union School District.

Route 122 and Interstate 91 connect Lyndon, Wheelock, and Sheffield; Lyndon and Wheelock are also linked via the South Wheelock Road. Sutton connects to Lyndon, Sheffield, Wheelock on local roads, and also using Route 5 via West Burke. Newark is joined to Sutton via local roads.

New-Caledonia-Essex

New-Caledonia-Essex is a two-member district consisting of St. Johnsbury (Caledonia County) and Concord and Kirby (Essex County). Its 2020 population is 9,080 people.

In the current and prior (2002) plans, St. Johnsbury has comprised its own two-member Caldeonia-3 district; in the same years, Concord and Kirby have been in the one-member Essex-Caledonia district.

The 1992 plan also made St. Johnsbury a two-member district, while in 1982 a major part of St. Johnsbury was a two-member district and the remaining part was in a single-member district with Barnet, Kirby, and Waterford. In 1974 and 1965, St. Johnsbury was subdivided into one two-member and one single-member district.

In the 1992 plan, Concord and Kirby joined with Bloomfield, Brunswick, Granby, Guildhall, Lunenburg, Maidstone, and Victory in a single-member district. In 1982, Concord was grouped with Bloomfield, Brunswick, Ferdinand, Granby, Guildhall, Lemington, Lunenburg, Maidstone, and Victory in one single-member district; meanwhile, Kirby was in a single-member district with Barnet, Waterford, and part of St. Johnsbury.

In 1974 and 1965, Concord was grouped with Barnet and Waterford to form a single-member district, while Kirby joined with Burke, East Haven, Lyndon, Newark, Sheffield, Sutton and Wheelock in a two-member district.

For the towns in this district, the LAB initially proposed that:

• St. Johnsbury be split into two parts, each part paired with part of Lyndon to form a

district; and

• Kirby and Concord be grouped in a district with Brunswick, East Haven, Ferdinand, Granby, Guildhall, Kirby, Lunenburg, Maidstone, and Victory.

As noted in the county overview, the current Caledonia-3 district (St. Johnsbury) has deviation -14%, as does the current Essex-Caledonia district, to the east. Our goal was to group St. Johnsbury with one or more towns to form a two-member district with acceptable deviation, as well as address the large deviations in nearby Essex. While the Kirby BCA expressed support for remaining in a district with predominantly Essex County towns, we believe the New-Caledonia-Essex district is part of a balanced solution to the population challenges in the region that also avoids dividing St. Johnsbury.

Substantial equality

The 9,080 population of this district is 506 residents larger than the ideal, a deviation of +5.9%.

Geographical compactness and contiguity Using Maptitude's measure of compactness, the district earns a Reock score of 0.43 and a Polsby-Popper rating of 0.37. The district is contiguous.

Adherence to county boundaries and other existing political subdivisions
This district consists of one Caledonia County town and two Essex County towns. None are divided

Patterns of geography, social interaction, trade, political ties, and common interests All towns in the district are within the jurisdiction of Environmental District #7 for Act 250 and other state land-use purposes. Concord and Kirby are in the Northeast Kingdom Solid Waste Management District, while St. Johnsbury has its own approved plan. Each town is in its own school district/supervisory union.

Route 2 links all towns in the district along with local roads. St. Johnsbury is a district and regional center for commerce and services.

Caledonia-Washington

Caledonia-Washington is a single-member district consisting of Danville and Peacham (Caledonia County) and Cabot (Washington County). Its 2020 population is 4,493 people.

This is the current and prior (2002) Caledonia-Washington district.

In the 1992 plan, Cabot, Danville, and Peacham also formed a single-member district. In 1982, Danville and Peacham formed a single-member district with Sheffield and Wheelock, while Cabot was part of a two-member district with East Montpelier, Marshfield, Plainfield, and Woodbury.

The 1974 House plan grouped Danville and Peacham with Hardwick, Stannard, Walden, and Woodbury in a two-member district; Cabot was in a single-member district with Calais and Marshfield.

The 1965 apportionment plan placed Danville Peacham together with Groton in a single-member district, and made Cabot, Marshfield, and Plainfield a single-member district.

This status-quo district was also part of the LAB's tentative proposal, and none of the member towns submitted feedback to the Board.

Substantial equality

The 4,493 population of this district is 206 residents larger than the ideal, a deviation of +4.8%.

Geographical compactness and contiguity

Using Maptitude's measure of compactness, the district earns a Reock score of 0.54 and a Polsby-Popper rating of 0.54. The district is contiguous.

Adherence to county boundaries and other existing political subdivisions
This district consists of two Caledonia County towns and one Washington County town.
None are divided.

Patterns of geography, social interaction, trade, political ties, and common interests The two Caledonia towns in the district are within the jurisdiction of Environmental District #7 for Act 250 and other state land-use purposes; Cabot, from Washington County, is in District #5. All three towns are in the Northeast Kingdom Solid Waste Management District, and maintain school districts that are members of Caledonia Central Supervisory Union.

Route 2 connects Cabot and Danville and Danville and Peacham are linked via the Danville-Peacham Road; local roads provide additional routes between the towns. Hardwick and St. Johnsbury are regional centers for commerce and services.

Chittenden County

The Alternate plan contains 26 House districts that include at least one Chittenden County town, 25 of which will be described in this section.*
All 25 of these districts consist solely of Chittenden County towns.

* The remaining district (Washington-Chittenden) is described in the Washington County section of this report.

While several current districts in Chittenden County have negative deviations, the county is heavily dominated by districts with large positive deviations—including the two largest in the state and five of the top ten:

- #1 Chittenden-7-3, +30.0% (part of South Burlington)
- #2 Chittenden-7-2, +27.5% (part of South Burlington)
- #5 Chittenden-8-2, +20.5% (part of Essex)
- #6 Chittenden-2, +17.8% (Williston)
- #10 Chittenden-8-1, +9.7% (part of Essex)

In particular, population growth in the suburban region around Burlington necessitated shifting two House members to this area, one of which will represent a region that overlaps South Burlington and Williston (the single-member New-Chittenden-7-5 district) and the other of which will represent Westford, part of Essex, and part of Milton (the two-member New-Chittenden-8-3 district.)

Chittenden-1

Chittenden-1 is a single-member district consisting of the town of Richmond. Its 2020 population is 4,167 people.

This is the current Chittenden-1 district.

In the 2002 and 1992 plans, Richmond was also a single-member district, while in 1982 Richmond and Williston were paired as a two-member district. In 1974, Richmond was joined with Bolton, Jericho, and Williston in a two-member district, and in the first apportionment plan, in 1965, Richmond shared a single-member district with Bolton, Huntington, and Underhill.

This status-quo district was also part of the LAB's tentative proposal, and was supported by the Richmond BCA.

Substantial equality

The 4,167 population of this district is 120 residents smaller than the ideal, a deviation of -2.8%.

Geographical compactness and contiguity

Using Maptitude's measure of compactness, the district earns a Reock score of 0.52 and a Polsby-Popper rating of 0.70. The district is contiguous.

Adherence to county boundaries and other existing political subdivisions This district consists of one Chittenden County town in its entirety.

<u>Patterns of geography, social interaction, trade, political ties, and common interests</u> Richmond is within the jurisdiction of Environmental District #4 for Act 250 and other state land-use purposes, and is part of the Chittenden Solid Waste Management District.

Along with Bolton, Huntington, Jericho, and Underhill, Richmond is a member of the Mount Mansfield Unified Union School District.

Interstate 89 and Route 2 transect the town, along the Winooski River. The Jericho Road heads north; Hinesburg Road and Huntington Road head west and south. The Williston and Burlington areas serve as the principal commercial centers for the district.

New-Chittenden-2

New-Chittenden-2 is a two-member district consisting of most of the town of Williston. Its 2020 population is 8,722 people. The remainder of Williston (1,381 residents) is part of New-Chittenden-7-5.

Currently, Williston forms its own two-member district, Chittenden-2.

In 2002, Williston also formed a two-member district; however, in the 1992 plan Williston was split into two single-member districts, one of them including the town of St. George and part of the town of Shelburne. In 1982, Williston and Richmond together formed a two-member district, and in 1974 Williston was a single-member district by itself.

In the first apportionment plan, in 1965, Williston shared a two-member district with Charlotte, Shelburne, and St. George.

In the decade since enactment of the current district plan, the population of Williston has grown to a size (10,103 people) that is now too large to be represented by just two House members, but not large enough for three. Moreover, given similar increases in population in adjacent towns and districts, the best option was to retain a two-member district for the majority of the town, and to join the remaining part of Williston with a part of South Burlington.

In its feedback to the Board, Williston acknowledges that it will need to be divided into *at least* two districts; its preference, in fact, is to be split into *exactly* two districts—namely, using a two-member district as we do here. (The plan supported by the LAB majority divides the town between three districts.)

The Williston BCA also requests that the portion of the town not included in a two-member district "...be absorbed by a neighboring town which shares the same sense of community, the same school district, and other similar geo-political ideologies as Williston." As noted above, large population increases in neighboring towns and districts precluded the possibility of "absorbing" such a portion of Williston into an existing (or minimally adjusted) district; the same challenges also prevented joining a part of Williston with towns that share a school district (currently, Charlotte, Hinesburg, Shelburne, and St. George.)

Substantial equality

The 8,722 population of this district is 148 residents larger than the ideal, a deviation of +1.7%.

Geographical compactness and contiguity

Using Maptitude's measure of compactness, the district earns a Reock score of 0.61 and a Polsby-Popper rating of 0.44. The district is contiguous.

Adherence to county boundaries and other existing political subdivisions
This district consists of part of one Chittenden County town. (It is one of the 10 Vermont towns that must be divided at least once.)

Patterns of geography, social interaction, trade, political ties, and common interests Williston is within the jurisdiction of Environmental District #4 for Act 250 and other state land-use purposes, and is part of the Chittenden Solid Waste Management District. Along with Charlotte, Hinesburg, Shelburne, and St. George, Williston is a member of the Champlain Valley Unified Union School District.

The part of Williston in this district includes all of the town that is north of the Interstate, plus two additional portions south of 89: one bordered on the south by Meadowridge Road, and the other lying west of Oak Hill Road; north of Old Creamery and Walker Roads; and east of South Brownell Road. Interstate 89 and Route 2 transect the town east to west, and Route 2A south to north; the Winooski River forms the town (and district) northern border.

Williston still retains a rural character in its southern and eastern sections; the northwesterly section is dominated by the dense retail centers at Tafts Corners and an industrial-commercial core along Industrial Park Road. Williston and the Burlington area are the principal commercial centers for the district.

Chittenden-3

Chittenden-3 is a two-member district consisting of Jericho and Underhill. Its 2020 population is 8,233 people.

This is the current Chittenden-3 district.

In 2002, 1992, and 1982, Jericho and Underhill were part of a two-member district with Bolton, and in the 1974 plan, the three towns joined with Richmond for a two-member district.

In 1965, as part of the first apportionment plan, Jericho and a part of Essex formed a single-member district, and Underhill joined Bolton, Huntington, and Richmond in a single-member district.

The LAB's initial tentative plan proposed dividing this district—and the town of Jerichointo two single-member districts. (This division is also in the LAB majority's final plan.) The BCAs of both towns submitted feedback to the Board that opposed this split.

To support remaining as a two-member district, Jericho notes that the towns "... share many municipal and community resources, some of which are schools, the Deborah Rawson Memorial Library, the Underhill-Jericho Fire Department, [and] the Underhill Jericho Park District..." In addition to these jointly governed endeavors and services, Underhill also includes the Jericho Underhill Land Trust and the Jericho Underhill Water District.

We see no reason to go against the request of the towns and have retained the current two-member district as part of the Alternate House plan.

Substantial equality

The 8,233 population of this district is 341 residents smaller than the ideal, a deviation of -4.0%.

Geographical compactness and contiguity

Using Maptitude's measure of compactness, the district earns a Reock score of 0.50 and a Polsby-Popper rating of 0.59. The district is contiguous.

Adherence to county boundaries and other existing political subdivisions This district consists of two Chittenden County towns in their entirety.

Patterns of geography, social interaction, trade, political ties, and common interests
Jericho and Underhill are within the jurisdiction of Environmental District #4 for Act 250
and other state land-use purposes, and are part of the Chittenden Solid Waste
Management District. Along with Bolton, Huntington, and Richmond, the two towns are
members of the Mount Mansfield Unified Union School District. As noted in the district
summary, above, they also share and jointly oversee many community resources and
services.

Jericho and Underhill are linked by Route 15 and Pleasant Valley Road; Browns River runs from Underhill through the northern part of Jericho. Underhill lies directly to the west of Mount Mansfield, and Underhill State Park provides camping and hiking access to the Long Trail. The Burlington area serves as the principal commercial center for the district.

New-Chittenden-4-1

New-Chittenden-4-1 is a one-member district consisting of Charlotte and a portion (208 residents) of Hinesburg. Its 2020 population is 4,120 people. The remainder of Hinesburg (4,490 people) forms the New-Chittenden-4-2 district.

Charlotte is currently in the single-member Chittenden-4-1 district, along with 58 residents of Hinesburg; the remainder of Hinesburg forms the current Chittenden-4-2 district.

Similarly, in 2002 Charlotte and two small sections of Hinesburg formed a single-member district, while in 1992 Charlotte was joined with a part of Shelburne in a single-member district. In 1982 and 1974, Charlotte was joined with a part of Shelburne in a two-member district.

The 1965 apportionment plan placed Charlotte with Shelburne, St. George, and Williston in a two-member district.

The Charlotte BCA submitted feedback in opposition to the LAB's tentative proposal, which also called for the town to be joined with a (slightly larger) portion of Hinesburg. In stating their preference to be a district on their own, they point to the fact that the town's population "falls within the 10% deviation required by law on its own..." In its feedback, the Hinesburg BCA also requests that each town be placed in its own singlemember district, noting, "Though we recognize that both communities deviate from the ideal district size of 4287, neither exceeds the threshold of 10 percent."

The reference to a 10% "requirement" or "threshold" is an unfortunate misunderstanding of the <u>Substantial equality</u>criterion. While it is true that district deviations (positive or negative) that exceed 10% are almost certainly unconstitutional, deviations between 8% and 10% are not necessarily acceptable-- especially those over 8.5%-- and that is why we have worked to develop a plan with all deviations below 8%.

We do, however, acknowledge and respect the concerns of Charlotte and Hinesburg—in particular, about a portion of Hinesburg that feels "cut off" in such an arrangement. Another option to consider that avoids this issue is for Charlotte and Hinesburg to form a two-member district together. In addition to the benefit that no town would be divided, such a district would have smaller deviation than either of the separated districts: with combined population 8,610, such a district would have deviation just +0.4%, so nearly ideal size.

Substantial equality

The 4,120 population of this district is 167 residents smaller than the ideal, a deviation of -3.9%.

Geographical compactness and contiguity

Using Maptitude's measure of compactness, the district earns a Reock score of 0.61 and a Polsby-Popper rating of 0.72. The district is contiguous.

Adherence to county boundaries and other existing political subdivisions
This district consists of two Chittenden County towns, one of which is divided.

Patterns of geography, social interaction, trade, political ties, and common interests

Charlotte and Hinesburg are within the jurisdiction of Environmental District #4 for Act 250 and other state land-use purposes, and are part of the Chittenden Solid Waste Management District. Along with St. George, Shelburne, and Williston, Charlotte and Hinesburg are members of the Champlain Valley Unified Union School District.

Route 7 runs north and south through Charlotte. Charlotte's western boundary is Lake Champlain and New York State. Lewis Creek wanders through the town on the south and the LaPlatte River does the same on the north. The commercial center for the district is the Burlington and Williston areas.

New-Chittenden-4-2

New-Chittenden-4-2 is a single-member district consisting of most of the town of Hinesburg. Its 2020 population is 4,490 people. The remainder of Hinesburg (208 people) is joined with Charlotte as part of the New-Chittenden-4-1 district.

The majority of Hinesburg currently comprises the single-member Chittenden-4-2 district; the remainder (58 people) is joined with Charlotte as part of the Chittenden-4-1 district.

In the 2002 plan, the majority of Hinesburg also formed a single-member district, and two small sections were joined with Charlotte in another single-member district.

In 1992, Hinesburg was a single-member district itself, while in 1982 Hinesburg was linked with St. George and a portion of Shelburne to form a single-member district. In 1974, Hinesburg was included in a single-member district with Huntington and St. George.

The 1965 apportionment plan placed Hinesburg in a single-member district by itself.

(See the New-Chittenden-4-1 district overview for a discussion of BCA feedback about these districts.)

Substantial equality

The 4,490 population of this district is 203 residents smaller than the ideal, a deviation of +4.7%.

Geographical compactness and contiguity

Using Maptitude's measure of compactness, the district earns a Reock score of 0.54 and a Polsby-Popper rating of 0.60. The district is contiguous.

Adherence to county boundaries and other existing political subdivisions This district consists of one Chittenden County town, which is divided.

Patterns of geography, social interaction, trade, political ties, and common interests

Hinesburg is within the jurisdiction of Environmental District #4 for Act 250 and other state land-use purposes, and is part of the Chittenden Solid Waste Management District. Along with Charlotte, St. George, Shelburne, and Williston, Hinesburg is a member of the Champlain Valley Unified Union School District.

Route 116 runs north and south through Hinesburg, connecting it to South Burlington on the north and Starksboro on the south. Hinesburg provides a small commercial center for the district; larger regional hubs are in the Burlington and Williston areas.

Chittenden-5-1 and 5-2

Chittenden-5-1 and 5-2 are two single-member districts. Chittenden-5-1 encompasses a part of the Town of Shelburne, and is generally all of Shelburne westerly and southerly of a line beginning at the intersection of Spear Street and the Shelburne-Charlotte town line, then proceeding northerly along the center line of Spear Street to Munroe Brook, then westerly along the thread of Munroe Brook to Shelburne Bay. Its 2020 population is 4,261. Chittenden-5-2 consists of the balance of Shelburne and the town of St. George, with a 2020 population of 4,250 residents.

These are the current and Chittenden-5-1 and 5-2 districts; 2002 saw the same district configurations.

In 1992, Shelburne was split into three single-member districts, one of which included a part of Shelburne with Charlotte, another including St. George and a part of Williston, and the third containing only a part of Shelburne. In 1982, most of Shelburne was in a two-member district with Charlotte, and a small portion was in a single-member district with Hinesburg and St. George. In 1974, Shelburne shared a two-member district with Charlotte, and St. George was placed in a single-member district with Hinesburg and Huntington.

The first apportionment plan, in 1965, paired Shelburne and St. George in a two-member district.

The Shelburne BCA provided feedback to the Board about its initial proposal to split Shelburne using an alternate division scheme, and requested a return to the current districts.

Substantial equality

The 4,261 population of the Chittenden-5-1 is district is 26 residents smaller than the ideal, a deviation of -0.6%. The 4,250 population of the Chittenden-5-2 is district is 37 residents smaller than the ideal, a deviation of -0.9%.

Geographical compactness and contiguity

Using Maptitude's measure of compactness, the district earns a Reock score of 0.56 and a Polsby-Popper rating of 0.63. Using Maptitude's measure of compactness, the district

earns a Reock score of 0.37 and a Polsby-Popper rating of 0.54. Both districts are contiguous.

Adherence to county boundaries and other existing political subdivisions

Both districts consist of Chittenden County towns only. Shelburne is divided between the districts; St. George is undivided.

Patterns of geography, social interaction, trade, political ties, and common interests Shelburne and St. George are within the jurisdiction of Environmental District #4 for Act 250 and other state land-use purposes, and are part of the Chittenden Solid Waste Management District. Along with Charlotte, Hinesburg, and Williston, St. George and Shelburne are members of the Champlain Valley Unified Union School District.

Route 116 passes through the edge of both Shelburne and St. George and is the only link road. The western boundary of Shelburne (part of Chittenden-5-1) is Lake Champlain and New York State; Route 7 runs through the town north and south. Chittenden-5-2 includes Shelburne Pond, and Route 2A provides a link from St. George to Williston. Burlington and Williston are the main commerce and service hubs for the districts.

New-Chittenden-6-1 through 6-6 (Burlington)

The city of Burlington currently is divided among seven districts, six of which (Chittenden-6-1 to 6-6) consist of exclusively a part of Burlington: Chittenden-6-2 and Chittenden-6-6 are single-member districts, and the remaining four are two-member districts (for a total of 10 representatives.) The seventh district, the two-member Chittenden-6-7, consists primarily of the city of Winooski, plus an adjacent portion of Burlington (656 residents).

The LAB's Alternate district plan includes only New-Chittenden-6-7, which consists of Winooski alone as a two-member district; and the portion of Burlington that is currently part of Chittenden-6-7 has been absorbed back into the City. As a result, some changes to the all-Burlington districts were needed. However, except for some minor shifts to the current district boundaries, the Alternate district plan for Burlington maintains the general contours of these districts—in particular, the number of representatives per district remains the same.

In response to the LAB's October 15, 2021 tentative House plan for Burlington, four BCA members preferred keeping a mix of single- and two-member districts, while one BCA member supported moving to all single-member districts.

Substantial equality

- New-Chittenden-6-1 population: 9,020; deviation: 446; pct deviation: +5.2%
- New-Chittenden-6-2 population: 4,542; deviation: 255; pct deviation: +5.9%
- New-Chittenden-6-3 population: 8,954; deviation: 380; pct deviation: +4.4%
- New-Chittenden-6-4 population: 8,978; deviation: 404; pct deviation: +4.7%

- New-Chittenden-6-5 population: 8,738; deviation: 164; pct deviation: +1.9%
- New-Chittenden-6-6 population: 4,511; deviation: 224; pct deviation: +5.2%

Geographical compactness and contiguity

- New-Chittenden-6-1 Reock: 0.34; Polsby-Popper: 0.31
- New-Chittenden-6-2 Reock: 0.33; Polsby-Popper: 0.30
- New-Chittenden-6-3 Reock: 0.38; Polsby-Popper: 0.42
- New-Chittenden-6-4 Reock: 0.46; Polsby-Popper: 0.41
- New-Chittenden-6-5 Reock: 0.46; Polsby-Popper: 0.36
- New-Chittenden-6-6 Reock: 0.51; Polsby-Popper: 0.50

Adherence to county boundaries and other existing political subdivisions All districts consist of a part of the Chittenden County city of Burlington.

Patterns of geography, social interaction, trade, political ties, and common interests Burlington is within the jurisdiction of Environmental District #4 for Act 250 and other state land-use purposes, and is part of the Chittenden Solid Waste Management District. The city comprises its own school district.

There is an extensive system of major (Routes 2, 7, and 127) and local roads in Burlington, plus Interstate 89, linking all parts to each other. Burlington is its own center for commerce and services, as well as for the surrounding region.

New-Chittenden-6-7

New-Chittenden-6-7 is a two-member district consisting of the city of Winooski. Its 2020 population is 7,997 people.

Winooski is in the current Chittenden-6-7 two-member district, along with a part (656 residents) of Burlington. The 2002 plan also formed a two-member district with Winooski and a part of Burlington.

In 1992, Winooski was a two-member district with a small part of Colchester (a portion of the St. Michael's campus), while in 1982 Winooski was a two-member district on its own. In 1974 and 1965, Winooski was entitled to a two-member district for a major part of the city, with a smaller part associated with part of Burlington as a single-member district.

The LAB's tentative plan for Winooski splits the city into two districts, which they oppose. In their feedback to the Board, the Winooski BCA noted "In our condensed City, we have one polling place. There are concerns of additional administrative burdens, costs and staffing if two polling places need to be maintained. Two separate districts would also divide inequities in our City and possibly appear to discriminate. Issues pertaining to but not limited to representation of all residents, legislator candidate availability, and housing. It has been determined that the west side of Winooski has increased poverty

levels. In March 2022, Winooski will to be the first City implementing all citizen voting and are doing our best to navigate through this new process."

We see no reason to go against Winooski's request and have included their preferred twomember district as part of the Alternate House plan.

Substantial equality

The 7,997 population of this district is 577 residents smaller than the ideal, a deviation of -6.7%.

Geographical compactness and contiguity

Using Maptitude's measure of compactness, the district earns a Reock score of 0.56 and a Polsby-Popper rating of 0.57. The district is contiguous.

Adherence to county boundaries and other existing political subdivisions This district consists of one Chittenden County city in its entirety.

Patterns of geography, social interaction, trade, political ties, and common interests Winooski is within the jurisdiction of Environmental District #4 for Act 250 and other state land-use purposes, and is part of the Chittenden Solid Waste Management District. The city comprises its own School District.

Along with local/city roads, Routes 2, 7, and 15 run through Winooski and connect the city to the wider region. Winooski is its own center for commerce and services, plus nearby Burlington.

New-Chittenden-7-1 through 7-5 (South Burlington; South Burlington & Williston)

The city of South Burlington currently is divided into four single-member districts: Chittenden-7-1 to 7-4.

In 2002, the city also was divided into four single-member districts.

In 1992, the plan subdivided South Burlington into three single-member districts, and combined a part of South Burlington with a part of Burlington. In 1982, South Burlington was subdivided into three single-member districts. In 1974 and 1965, the city's subdivision was one two-member district and one single-member district.

In the decade since enactment of the current district plan, the population of South Burlington has grown to a size (20,292 people) that is now too large to be represented by four House members. The city is also somewhat under-populated for five representatives, with a deviation of -5.3%. Combined with similar population increases over the last decade in nearby Williston and Essex, and to avoid creating additional population pressure ripple effects, the best option was to join a part of southeastern South Burlington

(part of the current Chittenden-7-2) with an adjacent part of Williston into the single-member New-Chittenden-7-5 district.

In its feedback to the Board, South Burlington expressed its desire to have five representatives for South Burlington alone, citing "growth already occurring and those in the pipeline." While the potential for future growth may appear to be a reasonable consideration, the Board is constrained by law to use the 2020 census as the basis for redistricting. In addition, as noted above, we must find a districting plan that takes into account regional population shifts as a whole, not just for any one town or city.

Substantial equality

- New-Chittenden-7-1 population: 4,535; deviation: 248; pct deviation: +5.8%
- New-Chittenden-7-2 population: 4,165; deviation: -122; pct deviation: -2.8%
- New-Chittenden-7-3 population: 4,216; deviation: -71; pct deviation: -1.7%
- New-Chittenden-7-4 population: 4,357; deviation: 70; pct deviation: +1.6%
- New-Chittenden-7-5 population: 4,400; deviation: 113; pct deviation: +2.6%

Geographical compactness and contiguity

- New-Chittenden-7-1 Reock: 0.22; Polsby-Popper: 0.25
- New-Chittenden-7-2 Reock: 0.53; Polsby-Popper: 0.40
- New-Chittenden-7-3 Reock: 0.40; Polsby-Popper: 0.38
- New-Chittenden-7-4 Reock: 0.36; Polsby-Popper: 0.30
- New-Chittenden-7-5 Reock: 0.32; Polsby-Popper: 0.27

Adherence to county boundaries and other existing political subdivisions All districts are within Chittenden County. Four districts consist of a part of the city of South Burlington, and one consists of a part of South Burlington and a part of Williston.

Patterns of geography, social interaction, trade, political ties, and common interests South Burlington is within the jurisdiction of Environmental District #4 for Act 250 and other state land-use purposes, and is part of the Chittenden Solid Waste Management District. The city comprises its own school district.

The primary north-south connectors for these districts are Routes 2A, 7, and 16; local Roads such as Dorset and Spear Streets are also highly travelled. Route 2 and Interstates 89 and 189 are east-west connectors. South Burlington is its own center for commerce and services, as well as nearby Williston and Burlington.

New-Chittenden-8-1, 8-2, and 8-3 (Essex, Westford, and nearby region)

New-Chittenden-8-1 is a two member district consisting of a part of Essex and a part (914 residents) of Colchester; New-Chittenden-8-2 is two-member district consisting of a part of Essex; and New-Chittenden-8-3 is a two-member district consisting of Westford, the part of Essex not in 8-1 or 8-2, and a part (352 residents) of Milton.

The towns of Essex and Westford are currently divided three districts: the two-member Chittenden-8-1 (part of Essex); the two-member Chittenden-8-2 (part of Essex); and the single-member Chittenden-8-3 (Westford and part of Essex.) In 2002, Essex and Westford were arranged into three districts with largely the same configuration.

In 1992, Essex was split into a two-member district on its own, with the remainder joined with a part of Westford and a part of Milton in a single-member district. In 1982, the reapportionment plan split Essex into two, two-member districts, and Westford was paired with Fairfax in a single-member district. In 1974, Essex and Westford shared a two-member district.

In 1965, the first apportionment plan awarded Essex a two-member district and a part of a single-member district with Jericho, and Westford was joined with Georgia, South Hero, and a part of Milton to form a single-member district.

[The district history for Colchester is in the descriptions for New-Chittenden-9-1 and 9-2, and for Milton is in the description for New-Chittenden-10.]

In the decade since enactment of the current district plan, the combined populations of Essex (22,094 people) and Westford (2,062 people) has grown to a size (24,156) that is too large to be represented by five House members, as it is now; however, they are somewhat under-populated for six representatives, with a deviation of -6.1%.

Combined with similar population increases over the last decade in nearby Williston and South Burlington, and to avoid creating additional population pressure ripple effects, the best option was to combine Essex and Westford with (1) an additional 914 people from southeastern Colchester (the "fort" area) and (2) an additional 352 people from western Milton. We then divided this combined population--25,422 people—into three, two-member districts (on average, -1.2% deviation.)

In their responses to the LAB's initial district plan, the BCAs of both Essex and Westford expressed a preference for six House members to represent the two towns only (the initial plan proposed combining a part of Western Milton with Westford and Essex.) Essex notes that the "...existing legislative districts are in an area that has experienced significant population growth since the last

redistricting process, and that additional gains are projected in the decade ahead." The towns also request that districts boundaries take into account the contours of the Essex-Westford School District.

While the potential for future population growth may appear to be a reasonable consideration, the Board is constrained by law to use the 2020 census as the basis for redistricting. In addition, as noted above, we must find a districting plan that takes into account regional population shifts as a whole, not just for any one town, city, or district.

Substantial equality

• New-Chittenden-8-1 population: 8,137; deviation: -437; pct deviation: -5.1%

- New-Chittenden-8-2 population: 8,741; deviation: 167; pct deviation: +1.9%
- New-Chittenden-8-3 population: 8,544; deviation: -30; pct deviation: -0.3%

Geographical compactness and contiguity

- New-Chittenden-8-1 Reock: 0.45; Polsby-Popper: 0.32
- New-Chittenden-8-2 Reock: 0.45; Polsby-Popper: 0.22
- New-Chittenden-8-3 Reock: 0.46; Polsby-Popper: 0.42

Adherence to county boundaries and other existing political subdivisions
All districts are within Chittenden County. Portions of three towns are included, plus one additional town in its entirety.

Patterns of geography, social interaction, trade, political ties, and common interests
All towns are within the jurisdiction of Environmental District #4 for Act 250 and other
state land-use purposes, and are part of the Chittenden Solid Waste Management District.
Essex and Westford comprise the Essex Westford Educational Community Unified
Union School District, and each of Colchester and Milton comprise their own school
district.

There is an extensive system of roads in the district, including Routes 2A (north-south); 15 (east-west); 117 (east from Essex Junction); and 128 (north-south between Westford and Essex). Additional local roads link Colchester to Essex and Milton to Westford. Essex Junction and the greater Burlington commercial centers serve this district.

New-Chittenden-9-1 and 9-2 (Colchester and nearby region)

New-Chittenden-9-1 is a two-member district consisting of a part (7,562 residents) of the city of Colchester and a part (1,194 residents) of Milton. New-Chittenden-9-2 is two-member district consisting of the part of Colchester not in New-Chittenden-9-1. The 2020 district populations are 8,756 for New-Chittenden-9-1 and 9,048 for New-Chittenden-9-2.

Colchester is currently divided between the two-member districts Chittenden-9-1 and Chittenden-9-2, and in 2002 was similarly divided into two, two-member districts.

In 1992, nearly all of Colchester was split into two two-member districts, and a portion of the St. Michael's College campus was combined with Winooski to form a two-member district. In the 1982 plan, Colchester was split into two two-member districts. In 1974 and 1965, Colchester was divided into a two-member district on its own and a single-member district with Milton

Feedback from the Colchester BCA focused on the LAB's initial proposal to divide the city into four districts; their preference is to have two two-member districts, as they do now.

- New-Chittenden-9-1 population: 8,756; deviation: 182; pct deviation: +2.1%
- New-Chittenden-9-2 population: 9,048; deviation: 474; pct deviation: +5.5%

Geographical compactness and contiguity

- New-Chittenden-9-1 Reock: 0.38; Polsby-Popper: 0.24
- New-Chittenden-9-2 Reock: 0.39; Polsby-Popper: 0.32

Adherence to county boundaries and other existing political subdivisions

Both districts are within Chittenden County. One district contains a portion of one city only; the other contains portions of one city and one town.

Patterns of geography, social interaction, trade, political ties, and common interests
All towns are within the jurisdiction of Environmental District #4 for Act 250 and other
state land-use purposes, and are part of the Chittenden Solid Waste Management District.
Colchester and Milton each comprise their own school district.

New-Chittenden-10

New-Chittenden-10 is a two-member district consisting of most of the town of Milton. Its 2020 population is 9,177 people. The remainder of Milton is in New-Chittenden-9-1 (1,194 residents) and New-Chittenden-8-3 (352 residents.)

The town of Milton is currently divided between the two-member Chittenden-10 and the two-member Grand-Isle districts. In 2002, Milton was similarly divided between its own two-member district and a two-member district with Grand Isle County towns.

In 1992, a part of Milton was combined with a part of Essex and a part of Westford in a single-member district, while the rest of Milton formed a two-member district. In 1982, the reapportionment plan made Milton a two-member district on its own, while in 1974 part of Milton was a single-member district and the balance of Milton shared a two-member district with Colchester

In 1965, the first apportionment plan divided Milton into a single-member district of its own and part of a two-member district with Colchester.

Feedback from the Milton BCA expressed a desire for the status quo—in particular, they did not support being divided into four single-member districts as the LAB's initial plan proposed.

With population 10,723, Milton is too large to be a two-member district but not large enough to warrant three representatives on its own. Therefore, some portion of the town must be grouped with residents from outside Milton to form one or more additional districts. The proposed districts for Milton arose from combined goals to (1) create a district with only towns from Grand Isle County, and (2) address Chittenden County

population growth, especially to the east and south.

Substantial equality

The 9,177 population of this district is 603 residents larger than the ideal, a deviation of +7.0%.

Geographical compactness and contiguity

Using Maptitude's measure of compactness, the district earns a Reock score of 0.50 and a Polsby-Popper rating of 0.45. The district is contiguous.

Adherence to county boundaries and other existing political subdivisions This district consists of part of one Chittenden County town.

Patterns of geography, social interaction, trade, political ties, and common interests Milton is within the jurisdiction of Environmental District #4 for Act 250 and other state land-use purposes, and is part of the Chittenden Solid Waste Management District. The town comprises its own school district.

Interstate 89 and Route 7 transect the town, which is bordered on the west by Lake Champlain. Milton has its own village center for shopping, and the Burlington area is the regional hub for services and commerce.

Essex County

The Alternate plan contains three* House districts that include at least one Essex County town, two of which will be described in this section:

- one district (New-Essex-Caledonia) that has a majority of its population in Essex County but also includes one town from Caledonia County; and
- one district (New-Essex-Orleans) that has a majority of its population in Essex County but also includes three towns from Orleans County.

Essex County, the furthest reach of the Northeast Kingdom, has 5,920 residents according to the 2020 U.S. Census. Prior reapportionments have secured two House seats for the county, by including in these districts towns from Caledonia and Orleans Counties. The Alternate plan preserves the status quo in this regard; however, in one of the districts—New-Essex-Orleans—the resident population from Essex and Orleans are nearly equal.

Each of the two currently existing districts in this region has large negative deviation (-14.3% for Essex-Caledonia, -12.3% for Essex-Caledonia-Orleans) so adjustments were

* The remaining district (New-Caledonia-Essex) is described in the Caledonia County section of this report.

needed for this reason in any case. We also worked to form districts that are geographically less dispersed.

New-Essex-Caledonia

The New-Essex-Caledonia single-member district consists of the Essex County towns of Bloomfield, Brunswick, East Haven, Ferdinand, Granby, Guildhall, Lunenburg, Maidstone, and Victory, and the Caledonia County town of Burke. The district's 2020 population is 4,112.

Currently, the Essex-Caledonia District consists of the Essex County towns of Brunswick, Concord, Granby, Guildhall, Lunenburg, Maidstone, and Victory, and the Caledonia County town of Kirby; Burke is in a two-member district with Lyndon and Sutton; and East Haven and Ferdinand are in a single-member district with Newark (Caledonia County); Averill, Avery's Gore, Brighton, Bloomfield, Canaan, Lemington, Lewis, Norton, Warner's Grant, and Warren Gore (Essex County); and Westmore (Orleans County).

In 2002, the same towns that comprise the current district, plus Bloomfield, formed a single-member district, while East Haven and Ferdinand were in a single-member district along with Averill, Avery's Gore, Brighton, Canaan, Lemington, Lewis, Newark, Norton, Warner's Grant, Warren Gore, and Westmore. Meanwhile, in 2002 Burke was grouped with Lyndon and Sutton in a two-member district.

In the 1992 plan, Bloomfield, Brunswick, Granby, Guildhall, Lunenburg, Maidstone, and Victory were in a single-member district with Concord and Kirby; East and Ferdinand were grouped with Averill, Avery's Gore, Brighton, Canaan, Lewis, Newark, Norton, Warner's Grant, and Warren Gore in a single-member district; and Burke

In 1982, Bloomfield, Brunswick, Ferdinand, Granby, Guildhall, Lunenburg, Maidstone, and Victory were in a single-member district with Concord and Lemington, while Burke and East Haven joined Lyndon and Sutton in a single-member district.

In 1974, Bloomfield, Brunswick, Ferdinand, Granby, Guildhall, Lunenburg, Maidstone and Victory formed a single-member district with Averill, Avery's Gore, Canaan, Lemington, Lewis, Norton, Warner's Grant, and Warren Gore, while Burke and East Haven were grouped with Lyndon, Newark, Sheffield, Sutton, and Wheelock in a two-member district.

In the first apportionment, from 1965, Bloomfield, Brunswick, Granby, Guildhall, Lunenburg, Maidstone and Victory formed a single-member district with Canaan, Lemington, Warner's Grant and Warren Gore, while Burke and East Haven formed a two-member district with Kirby, Lyndon, Newark, Sheffield, Sutton, and Wheelock. Unorganized towns were not mentioned in that year's plan.

The 4,112 population of this district is 175 residents smaller than the ideal, a deviation of -4.1%.

Geographical compactness and contiguity

Using Maptitude's measure of compactness, the district earns a Reock score of 0.45 and a Polsby-Popper rating of 0.34. The district is contiguous.

Adherence to county boundaries and other existing political subdivisions

This district consists of nine Essex County towns and one Caledonia County town. None are divided.

Patterns of geography, social interaction, trade, political ties, and common interests All towns are within the jurisdiction of Environmental District #7 for Act 250 and other state land-use purposes, and all except Burke are part of the Northeast Kingdom Solid Waste Management District; Burke has its own approved plan.

Bloomfield, Brunswick, East Haven, Ferdinand, Granby, Guildhall, Maidstone, and Victory are members of the Northeast Kingdom Choice School District, with Kirby and Norton, while Burke and Lunenburg are members of the Kingdom East Unified School District, with Concord, Lyndon, Newark, Sheffield, Sutton, and Wheelock.

The Connecticut River and the New Hampshire border run along the eastern edge of this district. Route 102 follows the river, linking the border towns of Bloomfield, Brunswick, Maidstone, and Guildhall; Route 2 then connects to Lunenburg. Route 105 links Bloomfield, Brunswick, and Ferdinand; Granby and Victory Roads connect Guildhall, Granby, Victory, and Burke. Route 114 links Burke and East Haven.

Franklin County

The Alternate plan contains seven House districts that include at least one Franklin County town, six of which will be described in this section.*

All districts described here consist of Franklin County towns only.

All but one of the eight existing Franklin County districts have positive population deviations, with three districts in the top ten statewide:

- #7 Franklin-2, +17.0% (Fairfax)
- #8 Franklin-1, +13.0% (Georgia)
- #9 Franklin-3-2, +10.5% (part of St. Albans Town)

* The remaining district (New-Grand-Isle-Franklin) is described in the Caledonia County section of this report.

Therefore, redistricting work focused on forming districts that would address these population pressures, while (as usual) avoiding division of towns when possible and respecting other statutory criteria for redistricting.

New-Franklin-1

New-Franklin-1 is a two-member district consisting of Georgia and a portion (3,989 residents) of the town of Fairfax. The 2020 population is 8,834 people. The remainder of Fairfax is in New-Franklin-6, with Fairfield and Fletcher.

In the current plan, Georgia comprises the single-member Franklin-1 district and Fairfax the single-member Franklin-2 district.

In 2002, the two towns formed a two-member district, while in 1992 Georgia comprised a single-member district and Fairfax was paired with Fletcher in another single-member district.

In the 1982 plan, Georgia was joined with a part of St. Albans Town in a single-member district and Fairfax was paired with Westford in a single-member district. In 1974, Georgia was placed in a two-member district with Alburg, Grand Isle, Isle La Motte, North Hero, and South Hero; meanwhile, Fairfax was part of a single-member district with Fairfield and a portion of St. Albans Town.

In the first apportionment plan, in 1965, Georgia was part of a single-member district with South Hero, Westford, and a part of Milton, and Fairfax was again part of a single-member district with Fairfield and a portion of St. Albans Town.

Georgia and Fairfax provided feedback to the Board about the initial tentative plan, which proposed divisions to each town; both towns opposed these districts.

Georgia requested that the town continue to comprise its own single-member district; however, with population 4,845 residents (deviation +13.0%), Georgia is too large to be represented by just one House member.

Fairfax (population 5,014) acknowledged that it is too large to be its own single-member district, and proposed a two-member district consisting of Fairfax, Fletcher, and Fairfield—with the possible inclusion of a part of Georgia.

Given their population sizes, it is evident that at least one of Georgia or Fairfax must be divided. The Alternate plan has chosen to divide the larger town—Fairfax—between New-Franklin-1 (with all of Georgia) and New-Franklin-6 (with Fairfield and Fletcher.)

The 8,834 population of this district is 260 residents larger than the ideal, a deviation of +3.0%.

Geographical compactness and contiguity

Using Maptitude's measure of compactness, the district earns a Reock score of 0.48 and a Polsby-Popper rating of 0.57. The district is contiguous.

Adherence to county boundaries and other existing political subdivisions
This district consists of two Franklin County towns, one of which is divided.

Patterns of geography, social interaction, trade, political ties, and common interests
Both towns are within the jurisdiction of Environmental District #6 for Act 250 and other
state land-use purposes; Georgia part of the Northwest Vermont Solid Waste
Management District, while Fairfax has its own approved plan. With Fletcher, Georgia
and Fairfax are part of the Franklin West Supervisory Union.

Routes 104 and 104A provide direct links between the towns; Interstate 89 runs through north and south through the eastern part of Georgia and the northwest corner of Fairfax. The Lamoille River passes through both towns. St. Albans, to the north, is the nearest regional hub for commerce and services.

Franklin-3-1

Franklin-3-1 is a two-member district consisting of St. Albans City and a portion (2,253 residents) of St. Albans Town. The 2020 population is 9,130 people. The remainder of St. Albans Town is in New-Franklin-3-2 and Franklin-4.

This is the current Franklin-3-1 two-member district.

In 2002, St. Albans City comprised a two-member district on its own, and St. Albans Town was grouped with Fairfield and Fletcher in another two-member district.

In 1992, St. Albans City shared a two-member district with a portion of St. Albans Town, and the remainder of the Town was a single-member district. The 1982 plan gave the City of St. Albans a two-member district; meanwhile, St. Albans Town was split into one single-member district on its own, and another single-member district with Georgia.

In 1974 and 1965, St. Albans City was split into one single-member and one two-member district, while St. Albans Town was divided into one single-member district on its own and another single-member district with Fairfax and Fairfield.

In its feedback to the Board, the St. Albans City BCA expressed support for the LAB's proposed division of the city into two single-member districts. If desired, the present district could be so divided.

The 9,130 population of this district is 556 residents larger than the ideal, a deviation of +6.5%.

Geographical compactness and contiguity

Using Maptitude's measure of compactness, the district earns a Reock score of 0.43 and a Polsby-Popper rating of 0.48. The district is contiguous.

Adherence to county boundaries and other existing political subdivisions

This district consists of one Franklin County city and one Franklin County town, which is divided.

Patterns of geography, social interaction, trade, political ties, and common interests St. Albans City and Town are within the jurisdiction of Environmental District #6 for Act 250 and other state land-use purposes and both are part of the Northwest Vermont Solid Waste Management District. With Fairfield, they are part of the Maple Run Unified School District.

This district contains rural, farming regions as well as dense urban and suburban areas. Routes 7, 36, 38, and 104, plus Interstate 89, are the main roads in the district. St. Albans City is the district center for commerce and services.

New-Franklin-3-2

New-Franklin-3-2 is a single-member district consisting of a portion of St. Albans Town. The 2020 population is 4,486 people. The remainder of St. Albans Town is in Franklin-3-1 and New-Franklin-4.

St. Albans Town is currently split between the two-member Franklin-3-1 district (with St. Albans City) and the single-member Franklin-3-2 district.

In 2002, St. Albans Town was in a two-member district with Fairfield and Fletcher.

In 1992, a portion of St. Albans Town shared a two-member district with St. Albans City, and the remainder of the Town was a single-member district. The 1982 plan split the Town into one single-member district with Georgia and another single-member district on its own. In 1974 and 1965, the St. Albans Town qualified for one single-member district on its own and as part of another single-member district with Fairfax and Fairfield.

Note: St. Albans Town did not submit feedback about the LAB's initial district plan; however, the LAB's Alternate plan proposes a different division of the town.

The 4,486 population of this district is 199 residents larger than the ideal, a deviation of +4.6%.

Geographical compactness and contiguity

Using Maptitude's measure of compactness, the district earns a Reock score of 0.34 and a Polsby-Popper rating of 0.27. The district is contiguous.

Adherence to county boundaries and other existing political subdivisions This district consists of a portion of one Franklin County town.

Patterns of geography, social interaction, trade, political ties, and common interests St. Albans Town is within the jurisdiction of Environmental District #6 for Act 250 and other state land-use purposes and is part of the Northwest Vermont Solid Waste Management District. With Fairfield and ST. Albans City, it is part of the Maple Run Unified School District.

This portion of St. Albans town contains rural, farming regions as well as lakeshore seasonal and recreational use areas. Routes 7, 36, 38, 104, and 105, plus Interstate 89, all cross the district. St. Albans City is the regional center for commerce and services.

New-Franklin-4

New-Franklin-4 is a two-member district consisting of Franklin, Highgate, Sheldon, a portion of St. Albans town, and a portion of Swanton. The 2020 population is 8,035 people. The remainder of St. Albans Town is in Franklin-3-1 and New-Franklin-3-2, and the remainder of Swanton is in Grand-Isle-Franklin.

Franklin and Highgate are currently in the two-member Franklin-5 district (with Berkshire and Richford); Sheldon and Swanton comprise the current two-member Franklin-4 district; and the portion of St. Albans in this district is currently in the single-member Franklin-3-2 district.

In 2002, Franklin and Highgate were likewise grouped with Berkshire and Richford in a two-member district, as were Swanton and Sheldon.

The 1992 and 1982 plans paired Franklin and Highgate in a single-member district, Sheldon and Fairfield in a single-member district, and Swanton and Alburg in a two-member district.

In 1974 and 1965, Swanton and Highgate formed a two-member district, while Sheldon and Franklin were part of a single-member district with Berkshire.

[The New-Franklin-3-2 overview contains the district history for the portion of St. Albans Town included here.]

Of the towns in this district, only the Franklin BCA submitted feedback to the Board. The LAB's initial proposal divides the town, with a portion combined with Highgate in one district and another portion with Berkshire and Richford. The Franklin BCA urged the LAB to keep all of the town joined with Franklin; in response, we adjusted our preliminary district plan so that Franklin and Highgate would be kept together.

(We note that the majority's final proposal also divides Franklin in a way that could be avoided by combining the two districts of which Franklin is a part.)

Substantial equality

The 8,035 population of this district is 539 residents smaller than the ideal, a deviation of -6.3%.

Geographical compactness and contiguity

Using Maptitude's measure of compactness, the district earns a Reock score of 0.53 and a Polsby-Popper rating of 0.46. The district is contiguous.

Adherence to county boundaries and other existing political subdivisions
This district consists of five Franklin County towns, two of which are divided.

Patterns of geography, social interaction, trade, political ties, and common interests All towns are within the jurisdiction of Environmental District #6 for Act 250 and other state land-use purposes and are part of the Northwest Vermont Solid Waste Management District. Franklin, Highgate, and Swanton are members of the Missisquoi Valley School District; Sheldon is in the Northern Mountain Valley Unified Union School District; and St. Albans is part of the Maple Run Unified School District.

Local Roads and Route 207 link Franklin, Highgate and Swanton, and Route 120 connects Franklin and Sheldon. Route 105 also links the portions of St. Albans Town and Swanton in this district with Highgate. The Missisquoi River runs through portions of Swanton, Highate, and Sheldon, and Lake Carmi is in central Franklin. Franklin and Highgate have their northern border with Canada. Depending on where they reside, people in this district look to Swanton, St. Albans, or Enosburg Falls for shopping and services.

New-Franklin-5

New-Franklin-5 is a two-member district consisting of Bakersfield, Berkshire, Enosburg, Montgomery, and Richford. The 2020 population is 9,160 people.

Bakersfield is in the current single-member Franklin-6 district (with Fairfield and Fletcher); Berkshire and Richford are in the current two-member Franklin-5 district (with Franklin and Highgate); and Enosburg and Montgomery comprise the current single-member Franklin-7 district.

In 2002, Bakersfield and Enosburg formed a single-member district; Berkshire and Franklin formed a single-member district; and Montgomery was in a single-member district with Jay, Lowell, Troy, and Westfield.

The 1992 plan made a two-member district out of Bakersfield, Berkshire, Enosburg, and Richford, while Montgomery was again grouped in a single member district with Jay, Lowell, Troy, and Westfield. In 1982, Berkshire and Richford together formed a single-member district, as did Enosburg and Montgomery.

In 1974 and 1965, Berkshire and Franklin combined with Sheldon for a single-member district, while Richford and Montgomery formed a single-member district. In 1974, Bakersfield and Enosburg were grouped with Fletcher in a single-member district, and in 1965, Bakersfield and Enosburg alone formed a single-member district.

None of the towns in this district submitted feedback about the LAB's initial proposal.

Substantial equality

The 9,160 population of this district is 586 residents larger than the ideal, a deviation of +6.8%.

Geographical compactness and contiguity

Using Maptitude's measure of compactness, the district earns a Reock score of 0.51 and a Polsby-Popper rating of 0.59. The district is contiguous.

Adherence to county boundaries and other existing political subdivisions
This district consists of five Franklin County towns, none of which are divided.

Patterns of geography, social interaction, trade, political ties, and common interests All towns are within the jurisdiction of Environmental District #6 for Act 250 and other state land-use purposes and are part of the Northwest Vermont Solid Waste Management District. In addition, they are all members of the Franklin Northeast Supervisory Union.

Bakersfield, Berkshire, and Enosburg are linked via Route 108, as well as local Roads. Route 105 connects Enosburg and Richford, and Route 118 links Berkshire, Enosburg, and Montgomery. Berkshire and Richford have northern border with Canada. For shopping and services, Enosburg Falls and Richford provide local options.

New-Franklin-6

New-Franklin-6 is a one-member district consisting of Fairfield, Fletcher, and a portion (1,025 residents) of Fairfax. The 2020 population is 4,415 people.

Fairfield and Fletcher are currently grouped with Bakersfield in the Franklin-6 single-member district; Fairfax comprises the current Franklin-2 single-member district.

In 2002, Fairfield and Fletcher formed a two-member district with St. Albans Town,

while Fairfax and Georgia formed a two-member district.

The 1992 plan paired Fairfield and Sheldon as a single-member district, and Fletcher and Fairfax as another single-member district. In 1982, Fairfield and Sheldon again formed a single-member district; Fletcher was grouped with Cambridge and Waterville to form a single-member district; and Fairfax was placed with Westford in a single-member district.

In 1974 and 1965, Fairfield was aligned with Fairfax and St. Albans Town in a single-member district. Meanwhile, in 1974, Fletcher was part of a single-member district with Bakersfield and Enosburg, and in 1965 Fletcher was part of a two-member district with Belvidere, Cambridge, Eden, Hyde Park, Johnson, and Waterville.

As noted in the New-Franklin-1 district overview, in its feedback to the Board Fairfax (population 5,014) acknowledged that it is too large to be its own single-member district, and proposed a two-member district consisting of Fairfax, Fletcher, and Fairfield—with the possible inclusion of a part of Georgia.

Given their population sizes, it is evident that at least one of Georgia or Fairfax must be divided. The Alternate plan has chosen to divide the larger town—Fairfax—between New-Franklin-1 (with all of Georgia) and New-Franklin-6 (with Fairfield and Fletcher.)

Substantial equality

The 4,415 population of this district is 128 residents larger than the ideal, a deviation of +3.0%.

Geographical compactness and contiguity

Using Maptitude's measure of compactness, the district earns a Reock score of 0.48 and a Polsby-Popper rating of 0.35. The district is contiguous.

Adherence to county boundaries and other existing political subdivisions
This district consists of three Franklin County towns, one of which is divided.

Patterns of geography, social interaction, trade, political ties, and common interests All towns are within the jurisdiction of Environmental District #6 for Act 250 and other state land-use purposes and are part of the Northwest Vermont Solid Waste Management District. Fairfax and Fletcher are members of the Franklin West Supervisory Union, while Fairfield is in the Maple Run Unified School District.

Fairfax and Fletcher are linked via the Fairfax-Fletcher Road, and Fletcher and Fairfield by the Fairfield Road. The closest hub for commerce and services is St. Albans City.

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Grand Isle County

The Alternate plan contains two House districts that include at least one Grand Isle County town, both of which will be described in this section:

- one district that consists of Grand Isle County towns only; and
- one district that has a majority of its population in Grand Isle County, but which also includes part of a Franklin County town.

As was the case at the time of the previous reapportionment, the 2020 population of Grand Isle County, 7,293, is too large to be represented by just one House member, but not quite large enough to be represented by two.

One way to approach this situation is to create a two-member district that joins all the towns in the county with additional population from another county. The current district plan does just that: all towns in Grand Isle County are combined with a part of Milton to form the two-member Grand Isle-Chittenden district.

Another option is to create two single-member districts: one consisting of only Grand Isle County towns, and another consisting of a combination of towns both in and outside of Grand Isle County. In the Alternate plan, we take the second approach.

New-Grand Isle

New-Grand Isle is a single-member district consisting of Grand Isle, South Hero, and a portion (512 residents) of North Hero. Its 2020 population is 4,272 people. The remainder of North Hero is in New-Grand Isle-Franklin.

In the current plan, Grand Isle, South Hero, and North Hero are in the Grand Isle-Chittenden two-member district, along with Isle La Motte, Alburg, and a portion of Milton. In 2002, the same configuration of towns formed a two-member district.

The 1992 and 1982 plans placed Grand Isle, Isle La Motte, North Hero, and South Hero in a single-member district, while in 1974, Grand Isle, North Hero, and South Hero joined Alburg, Isle La Motte, and Georgia to form a two-member district.

In 1965, in the first apportionment plan, Grand Isle and North Hero were grouped with Alburg and Isle La Motte as a single-member district, and South Hero was joined with Georgia, Westford, and a part of Milton to form another single-member district.

The LAB's initial district plan proposed dividing the current Grand Isle-Chittenden district into two single-member districts (with a slightly different portion of Milton.) This plan included splitting the town of Grand Isle between districts. The Board received feedback all the Grand Isle County towns except North Hero, and none supported the proposed plan.

Grand Isle and South Hero would prefer to have all (not just a portion) of North Hero included in a single-member district, but this grouping of towns has population 4,699 people, or deviation +9.6%. We believe that New-Grand Isle is a reasonable compromise in order to achieve an acceptable deviation of -0.3%.

Substantial equality

The 4,272 population of this district is 15 residents smaller than the ideal, a deviation of -0.3%.

Geographical compactness and contiguity Using Maptitude's measure of compactness, the district earns a Reock score of 0.23 and a Polsby-Popper rating of 0.22. The district is contiguous, although in some places only by virtue of bridges and causeways.

Adherence to county boundaries and other existing political subdivisions
This district consists of three Grand Isle County towns, one of which is divided.

Patterns of geography, social interaction, trade, political ties, and common interests All towns are within the jurisdiction of Environmental District #6 for Act 250 and other state land-use purposes and are part of the Northwest Vermont Solid Waste Management District. They are all members of the Grand Isle Supervisory Union.

Routes 2 runs north and south through the Islands, and at the southern end of South Hero connects across the causeway to the mainland. A substantial amount of the district's economy is based on recreation and farming. The Burlington area is the commercial center for the district.

New-Grand Isle-Franklin

New-Grand Isle-Franklin is a two-member district consisting of Alburg, Isle La Motte, a portion (427 residents) of North Hero (all from Grand Isle County), and a portion (5,886 residents) of Swanton (from Franklin County). Its 2020 population is 8,907 people. The remainder of North Hero is in New-Grand Isle, and the remainder of Swanton is in New-Franklin-4.

In the current plan, Alburg, Isle La Motte, and North Hero are in the Grand Isle-Chittenden two-member district, along with Isle Grand Isle, South Hero, and a portion of Milton. In 2002, the same configuration of towns formed a two-member district.

The 1992 and 1982 plans paired Alburg and Swanton as a two-member district, and grouped Isle La Motte and North Hero with Grand Isle and South Hero in a single-member district.

In 1974, Alburg, Isle La Motte, and North Hero joined Grand Isle, South Hero, and Georgia as a two-member district; Swanton and Highgate formed a two-member district.

In 1965, in the first apportionment plan, Alburg, Isle La Motte, and North Hero were grouped with Grand Isle as a single-member district, and Swanton and Highgate again formed a two-member district.

The LAB's initial district plan proposed dividing the current Grand Isle-Chittenden district into two single-member districts (with a slightly different portion of Milton.) This plan included splitting the town of Grand Isle between districts. The Board received feedback all the Grand Isle County towns except North Hero, and none supported the proposed plan.

While directed toward the LAB's tentative proposal, feedback from Alburg and Isle La Motte included conflicting desires to have a single-member district for the northern towns of the county and also to keep the county undivided. With county population 7,293, it is not possible to achieve both of these requests simultaneously. The New-Grand Isle-Franklin district keeps Isle La Motte and Alburg together and joins them with most of Swanton, their closest connection the mainland.

Substantial equality

The 8,907 population of this district is 333 residents larger than the ideal, a deviation of +3.9%.

Geographical compactness and contiguity

Using Maptitude's measure of compactness, the district earns a Reock score of 0.21 and a Polsby-Popper rating of 0.49. The district is contiguous, although in some places only by virtue of bridges and causeways.

Adherence to county boundaries and other existing political subdivisions
This district consists of three Grand Isle County towns, one of which is divided, and a portion of one Franklin County town.

<u>Patterns of geography, social interaction, trade, political ties, and common interests</u> All towns are within the jurisdiction of Environmental District #6 for Act 250 and other state land-use purposes and are part of the Northwest Vermont Solid Waste Management District. The Island towns are all members of the Grand Isle Supervisory Union; Swanton is a member of the Missisquoi Valley School District.

Route 2 runs north and south through the Islands, excepting Isle La Motte, reachable by Route 129 from Alburg; Route 78 links Alburg to the mainland at Swanton. A substantial amount of the district's economy is based on recreation and farming. Commercial ties are in Swanton and St. Albans.

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Lamoille County

The Alternate plan contains five House districts that include at least one Lamoille County town, four of which will be described in this section:

- three districts that consist solely of Lamoille County towns; and
- one district (New-Lamoille-Washington) that has a majority of its population in Lamoille County but also includes two towns from Washington County.

The most significant population change in this region occurred in Lamoille-1 (Stowe), which is currently a single-member district. With 2020 Census population 5,223 residents-- 21.8% larger than the ideal—we modified the district by adding a portion of the eastern part of Stowe to the current Lamoille-Washington district. This was the only change made to districts in the region.

New-Lamoille-1

New-Lamoille-1 is a one-member district consisting of a portion of Stowe. Its 2020 population is 4,429 people.

This is the current Lamoille-1 district, minus a portion of Stowe (794 people) that has been joined with the New-Lamoille-Washington district (described below.)

The 2002 plan also formed a single-member district with Stowe as its only town. In 1992 and 1982, Stowe and Morristown shared a two-member district, while in 1974, Stowe was part of a two-member district with Cambridge, Johnson, and Waterville. The first apportionment plan (1965) put Stowe with Morristown and Elmore in a two-member district.

This district is similar to the single-member, all-Stowe district that was in the LAB's tentative proposal (and is unchanged in the final majority plan.) Feedback from Stowe's BCA indicates a general acceptance of this district, recognizing that the town must either be divided (or else be joined with another town in a two-member district.)

Substantial equality

The 4,429 population of this district is 142 residents more than the ideal, a deviation of +3.3% (significantly improved from its current -+21.8% deviation.)

Geographical compactness and contiguity

Using Maptitude's measure of compactness, the district earns a Reock score of 0.53 and a Polsby-Popper rating of 0.50. The district is contiguous.

^{*} The remaining district (Orleans-Lamoille) will be described in the Orleans County section of this report.

Adherence to county boundaries and other existing political subdivisions

This district is entirely within Lamoille County, and consists of a portion of Stowe.

Patterns of geography, social interaction, trade, political ties, and common interests
Stowe is within the jurisdiction of Environmental District #5 for Act 250 and other state
land-use purposes, and is part of the Lamoille Regional Sold Waste Management District.
With Elmore and Morristown, Stowe is a member of the Lamoille South Unified Union
School District. (However, the town is currently in the process of leaving the district.)

Route 100 runs through the town north to south; Route 108 runs over Smuggler's Notch to reach Jeffersonville, past the ski areas, although the Notch itself is closed to through traffic during the winter months. The town is in the Green Mountains and the Waterbury River flows through it. To the south, Route 100 connects to Waterbury and Interstate 89.

Lamoille-2

Lamoille-2 is a two-member district consisting of a Belvidere, Hyde Park, Johnson, and Wolcott. Its 2020 population is 8,539 people.

This is the current Lamoille-2 district.

In 2002 and 1992, Belvidere was in a single-member district with Cambridge and Waterville; Hyde Park was combined with Wolcott in a single-member district; and Johnson was in a single-member district with Eden.

The 1982 plan grouped Belvidere, Johnson, and Eden in a single-member district; Hyde Park and Wolcott were combined with Elmore in a single-member district. In 1974, Belvidere and Hyde Park were part of a two-member district with Eden, Elmore, and Morristown; Johnson was combined with Waterville, Cambridge, and Stowe in a two-member district; and Wolcott was in a single-member district with Albany, Barton, Craftsbury, Glover and Greensboro.

In 1965, Belvidere, Hyde Park, and Johnson were grouped with Cambridge, Eden, Fletcher, and Waterville, in a two-member district, while Wolcott was in a single-member district with Albany, Craftsbury, Greensboro, and Stannard.

The LAB's initial tentative district plan proposed a comprehensive overhaul of all the districts in this region (and are unchanged in the final, majority plan.) The feedback from town BCAs in this district was mixed: Hyde Park likes the tentative proposal's single-member district for them; Wolcott prefers having a two-member district (with other Lamoille county towns); and Belvidere is "comfortable" with a single-member district that includes Johnson, but also feels a two-member district provides good representation for them.

The status quo Lamoille-2 district balances these views while also achieving nearly ideal population size. It also doesn't create additional division of towns in the region (beyond that of Stowe), which the majority plan does (though not for any town in this district.)

Substantial equality

The 8,539 population of this district is 35 residents smaller than the ideal—a deviation of -0.4%.

Geographical compactness and contiguity

Using Maptitude's measure of compactness, the district earns a Reock score of 0.33 and a Polsby-Popper rating of 0.32. The district is contiguous.

Adherence to county boundaries and other existing political subdivisions
This district is entirely within Lamoille County, and no towns are divided.

Patterns of geography, social interaction, trade, political ties, and common interests
All towns in the district are within the jurisdiction of Environmental District #5 for Act
250 and other state land-use purposes, and are part of the Lamoille Regional Sold Waste
Management District. Belvidere, Hyde Park, and Johnson are members of the Lamoille
North Unified Union School District, while Wolcott comprises its own elementary school
district and is a member of the Orleans Southwest Supervisory Union.

The most direct connection between Belvidere and the other three towns in the district is to Hyde Park via Eden, using Routes 108 and 100. Route 15 links Hyde Park to Johnson (west) and Wolcott (east). Local commerce activity is in Hyde Park, Johnson, and nearby Morrisville and Jeffersonville. There are no large centers of commerce in or near the district.

Lamoille-3

Lamoille-3 is a single-member district consisting of Cambridge and Waterville. Its 2020 population is 4,525 people.

This is the current Lamoille-3 district.

Under the 2002 and 1992 plans, Cambridge and Waterville were in a single-member district with Belvidere; in 1982, they were joined with Fletcher in a single-member district.

In 1974, Cambridge and Waterville joined Johnson and Stowe in a two-member district, and in 1965, the two towns were grouped in a two-member district with Belvidere, Eden, Fletcher, Hyde Park, and Johnson.

Substantial equality

The 4,525 population of this district is 238 residents larger than the ideal—a deviation of

+5.6%

Geographical compactness and contiguity

Using Maptitude's measure of compactness, the district earns a Reock score of 0.38 and a Polsby-Popper rating of 0.43. The district is contiguous.

Adherence to county boundaries and other existing political subdivisions
This district is entirely within Lamoille County, and no towns are divided.

Patterns of geography, social interaction, trade, political ties, and common interests Cambridge and Waterville are within the jurisdiction of Environmental District #5 for Act 250 and other state land-use purposes and are part of the Lamoille Regional Sold Waste Management District. Along with Belvidere, Hyde Park, and Johnson, both towns are members of the Lamoille North Unified Union School District.

Route 109 connects Waterville and Cambridge. The local commercial center is Jeffersonville, located in the northwest corner of Cambridge, and nearby Johnson. There are no large centers of commerce in or near the district.

Of the two town BCAs, only Cambridge submitted feedback to the LAB regarding its tentative proposal (which remains unchanged in the final majority plan.) Their brief report notes a tie vote in the BCA regarding support for the proposed district.

New-Lamoille-Washington

New-Lamoille-Washington is a two-member district consisting of Elmore, Morristown, and a portion of Stowe (from Lamoille County) and Woodbury and Worcester (from Washington County). Its 2020 population is 9,006 people.

This is the current Lamoille-Washington district, plus a portion of the town of Stowe (794 residents); the remainder of Stowe (4,429 people) comprises the New-Lamoille-1 district. In the 2012 district plan, all of Stowe formed the Lamoille-1 single-member district.

Under the 2002 plan, the same four towns (Elmore, Morristown, Woodbury, and Worcester) comprised a two-member district, and Stowe formed its own single-member district. In 1992, Elmore and Worcester were grouped with Middlesex and a part of Montpelier in a single-member district; Morristown and Stowe formed a two-member district; and Woodbury was in a two-member district with Calais, East Montpelier, Marshfield, and Plainfield.

In 1982, Elmore was in a single-member district with Hyde Park and Wolcott; Morristown and Stowe formed a two-member district; Woodbury was in a two-member district with Cabot, East Montpelier, Marshfield, and Plainfield; and Worcester joined Calais and Middlesex in a single-member district.

In the 1974 plan, Elmore and Morristown were grouped with Stowe to form a two-member district; Woodbury was part of a two-member district with Danville, Hardwick, Peacham, Stannard, and Walden; and Worcester was part of a two-member-district with Duxbury, Middlesex, and Waterbury.

In the first reapportionment plan, in 1965, Elmore and Morristown were combined with Stowe to form a two-member district; Woodbury was grouped with Calais and East Montpelier in a single-member district; and Worcester was grouped with Middlesex and Waterbury in a two-member district.

The LAB's initial tentative district plan called for a comprehensive overhaul of all the districts in this region, and the districts are unchanged in the final, majority plan. Feedback from town BCAs in this district is mixed and at times in conflict: Woodbury likes being in the tentative proposal's one-member district with Worcester and Calais, but this district includes a portion of East Montpelier which their BCA strongly opposes; Morristown—which is split between two districts in the majority plan-- prefers a two-member district composed of some but not all of the towns in the current district and strongly opposes being divided; Stowe wants its portion to be in a 1-member district, which would require division of another town.

The status quo district provides a balance between these competing interests while maintaining Substantial equality of representation and minimizing division of towns.

Substantial equality

The 9,006 population of this district is 432 residents larger than the ideal—a deviation of +5.0%.

Geographical compactness and contiguity

Using Maptitude's measure of compactness, the district earns a Reock score of 0.43 and a Polsby-Popper rating of 0.38. The district is contiguous.

Adherence to county boundaries and other existing political subdivisions
This district includes three Lamoille County towns—one of which, Stowe, is dividedand two Washington County towns.

Patterns of geography, social interaction, trade, political ties, and common interests All towns in the district are within the jurisdiction of Environmental District #5 for Act 250 and other state land-use purposes, and all except Woodbury are part of the Lamoille Regional Sold Waste Management District; Woodbury is the Central Vermont District. Elmore and Morristown are part of the Lamoille South Unified Union School District, while Worcester is in the Washington Central Unified District and Woodbury is linked with Orleans county towns as part of the Orleans Southwest Supervisory Union.

Morristown and Stowe are connected via Route 100, while Elmore, Morristown, and Worcester are all linked along Route 12. Woodbury's connection to the other towns in the district is through Calais, via Route 14 and the Worcester Road. Local commerce

centers are in Morrisville and Hardwick; larger centers such as Montpelier and Barre are also accessible to residents the southernmost parts of the district.

Orange County

The Alternate plan contains seven* House districts that include at least one Orange County town, four of which will be described in this section:

- two districts that consist solely of Orange County towns;
- one district (Orange-Caledonia) that has a majority of its population in Orange County but also includes one town from Caledonia County; and
- one district (New-Orange-Washington) that has a majority of its population in Orange County but also includes one town from Washington County.

Of the four districts described in this section, two are identical to the current district (Orange-2 and Orange-Caledonia). The remaining two districts (New-Orange-1, New-Orange-Washington) were formed as the result of adjustments made to current districts that aim to balance the requests received in feedback from town BCAs, or as a result "ripple-effects" arising from changes in nearby districts.

New-Orange-1

New-Orange-1 is a two-member district consisting of Chelsea, Corinth, Vershire, Washington, and Williamstown. Its 2020 population is 7,907 people.

This is the current and former (2002) Orange-1 two-member district, minus the town of Orange.

In 1992, Chelsea, Vershire, Washington, and WIlliamstown were part of a two-member district with Orange, while Corinth and Bradford comprised a single-member district. The 1982 district plan grouped Chelsea, Washington, and Williamstown with Orange, Topsham and Tunbridge in a two-member district; Corinth, Vershire, and Bradford formed a single-member district.

In 1974, Chelsea and Washington were part of a single-member district with Orange and Tunbridge; Corinth was in a single-member district with Bradford and Topsham; Vershire was in a single-member district with Fairlee, Thetford, and West Fairlee; and Williamstown was grouped with Barre Town and part of Barre City in a single-member district.

* The remaining three districts (New-Washington-Orange, Windsor-Orange-1, Windsor-Orange-2) are described in the Washington and Windsor County sections of this report.

The 1965 apportionment plan formed a two-member district with Chelsea, Corinth, Washington, Williamstown, Brookfield, and Topsham, and grouped Vershire with Bradford, Fairlee, Thetford, Strafford, and West Fairlee in another two-member district.

Feedback from the BCAs of three towns in this district indicate they would welcome being part of a single-member versus a two-member district. While it is possible to create two single-member districts using most or all of the same towns, the most likely arrangements include dividing Washington, which they oppose (and Corinth recognizes may not be an acceptable tradeoff.) While other arrangements may be possible, the options we explored either would require division of other towns in the region or produce districts with little or no geographic connection.

This district balances some these competing priorities by keeping Washington whole and reducing the number of member towns from six to five.

Substantial equality

The 7,907 population of this district is 667 residents smaller than the ideal—a deviation of -7.8%.

Geographical compactness and contiguity

Using Maptitude's measure of compactness, the district earns a Reock score of 0.48 and a Polsby-Popper rating of 0.65. The district is contiguous.

Adherence to county boundaries and other existing political subdivisions This district is entirely within Orange County, and no towns are divided.

Patterns of geography, social interaction, trade, political ties, and common interests Chelsea, Corinth, and Vershire are within the jurisdiction of Environmental District #3 for Act 250 and other state land-use purposes, while Washington and Williamstown are in District #5. The district is split between three Solid Waste Management Districts: Central Vermont (Chelsea, Washington, Williamstown); Northeast Kingdom (Corinth): and Greater Upper Valley (Vershire). The towns do not share any school districts or supervisory unions.

The main connecting roads in this district are Route 110 (Chelsea and Washington) and Route 113 (Chelsea and Vershire). Smaller roads provide additional direct links: Eagle Hollow Road (between Vershire and Corinth); Cookeville/West Corinth Road (Between Corinth and Washington); and Chelsea/Williamstown Road (between Washington and Williamstown.) Barre and Bradford are the closest commerce centers serving residents in the district

Orange-2

Orange-2 is a single-member district consisting of Bradford, Fairlee, and West Fairlee. Its 2020 population is 4,398 people.

This is the current and former (2002) Orange-2 district.

In 1992, Bradford and Corinth comprised a single-member district; Fairlee, Thetford, and West Fairlee formed a separate single-member district.

The 1982 plan combined Bradford, Corinth, and Vershire in a single-member district; Fairlee, Thetford, and West Fairlee again comprised a single-member district.

In 1974, Bradford, Corinth, and Topsham formed a single-member district, and Fairlee, Thetford, Vershire, and West Fairlee formed a single-member district.

In the first apportionment plan, in 1965, Bradford, Fairlee, Strafford, Thetford, Vershire, and West Fairlee formed two-member district.

The LAB's tentative district plan proposed this same (status quo) district, and it is also part of the majority's final proposal. (None of the member towns submitted feedback.)

Substantial equality

At a 2020 population of 4,398, this district is 111 residents larger than the ideal—a deviation of +2.6%.

Geographical compactness and contiguity

Using Maptitude's measure of compactness, the district earns a Reock score of 0.52 and a Polsby-Popper rating of 0.54. The district is contiguous.

Adherence to county boundaries and other existing political subdivisions This district is entirely within Orange County, and no towns are divided.

Patterns of geography, social interaction, trade, political ties, and common interests All towns in the district are within the jurisdiction of Environmental District #3 for Act 250 and other state land-use purposes. Bradford and Fairlee are in the Central Vermont Solid Waste Management District, and West Fairlee is in the Upper Valley District. Bradford is a member of the Oxbow Unified Union School District, while Fairlee and West Fairlee are members of the Rivendell Interstate District.

Interstate 91 links Bradford and Fairlee, which is connected to West Fairlee via Route 244. A few smaller routes (e.g. Wild Hill Road) connect West Fairlee directly with Bradford. The commerce center for the district is Bradford.

The eastern border of Bradford and Fairlee is the Connecticut River, which is also the state border with New Hampshire. Route 91 connects the district to northern Vermont and New Hampshire, and to southern Vermont and New England.

Orange-Caledonia

Orange-Caledonia is a single-member district consisting of Newbury and Topsham, from Orange County, and Groton from Caledonia County. Its 2020 population is 4,476 people.

This is the current Orange-Caledonia district.

The 2002 and 1992 reapportionment plans also grouped Newbury, Topsham, and Groton in a single-member district; in 1982, Newbury, Groton, and Ryegate formed a one-member district, while Topsham was joined with Chelsea, Orange Tunbridge, Washington, and Williamstown in a two-member district.

In 1974, Newbury, Groton, and Ryegate formed a single-member district and Topsham was in a single-member district with Bradford and Corinth.

The first apportionment plan, in 1965, put Newbury with Ryegate in a single-member district, and Topsham with Bradford, Chelsea, Corinth, Washington, and Williamstown in a two-member district.

The LAB's initial tentative proposal grouped Newbury and Topsham with Orange in place of Groton in a single-member district, and is unchanged in the majority's final district plan.

In their feedback to the Apportionment Board, Newbury and Topsham each stated their preference for remaining with Groton. Newbury in particular notes long-standing community ties, including a school district with Groton, and not much connection with Orange. (Orange did not submit feedback to the LAB.)

On the other hand, Groton likes being grouped with other Caledonia county towns.

However, moving Orange into this district and moving Groton out sets off a "chain reaction" in the majority plan that affects at least three other districts to the north and west, culminating in a complete overhaul of several districts in Lamoille County and the unnecessary division of two towns—Morristown and East Montpelier.

While there may be a workable way to regroup Groton in a district with only Caledonia towns—a reasonable goal-- we believe the majority plan creates too much disruption to nearby towns and districts.

Substantial equality

At a 2020 population of 4,476, this district is 189 residents larger than the ideal—a deviation of +4.4%.

Geographical compactness and contiguity

Using Maptitude's measure of compactness, the district earns a Reock score of 0.44 and a Polsby-Popper rating of 0.50. The district is contiguous.

Adherence to county boundaries and other existing political subdivisions
This district includes two towns from Orange County and one town from Caledonia
County. No towns are divided.

Patterns of geography, social interaction, trade, political ties, and common interests
Two of the towns in the district—Newbury and Topsham--are within the jurisdiction of
Environmental District #3 for Act 250; Groton is in District #7. All towns are part of the
Northeast Kingdom Solid Waste Management District. Although each town is in a
different school district, these districts are all part of the Orange East Supervisory Union.

Route 302 links Newbury and Groton (via Ryegate) and town roads connect Newbury with Topsham (e.g., Fuller/Swamp Roads) and Topsham with Groton (e.g., Powder Spring Road). Newbury has eastern border on the Connecticut River and the State of New Hampshire, and Interstate 91 connects the town to northern Vermont and New Hampshire and to southern Vermont and New England.

Whereas Orange and Topsham residents regard the Barre-Montpelier area as the nearest commercial center, Newbury residents look to Bradford or Woodsville, New Hampshire.

New-Orange-Washington

New-Orange-Washington is a two-member district consisting of Braintree, Brookfield, and Randolph, from Orange County, and Roxbury, from Washington County. Its 2020 population is 7,903 people.

This is the current Orange-Washington-Addison district, minus Granville-- the only Addison County town.

In the 1992 and 1982 plans, Braintree, Brookfield, and Randolph comprised a two-member district, while Roxbury was in a two-member district with Moretown and Northfield. In 1974, Braintree, Brookfield, and Randolph were grouped with Bethel in a two-member district, and Roxbury was combined with Berlin and Northfield in a two-member district.

In 1965, Braintree and Randolph were in a two-member district with Bethel; Brookfield was placed in a two-member district with Chelsea, Corinth, Topsham, Washington, and Williamstown; and Roxbury, Berlin, and Northfield formed a two-member district.

The LAB's initial tentative plan proposed two single-member districts that together comprise the four towns in New-Orange-Washington; however, to create two separate districts, their plan splits Randolph in two pieces.

The Apportionment Board received feedback about this plan from Braintree, Brookfield, and Randolph. Randolph, in particular, opposed the (manifestly unnecessary) division of their community, and noted that "...a significant majority of the BCA felt that any benefit

accrued from the smaller single-member districts would not offset the disadvantages created by severing the community," as well as "the close social, trade, political ties and common interests of Randolph, Brookfield and Braintree. For example, the towns have long shared a school supervisory district, union high school, and services such as our solid waste transfer station and senior center."

Brookfield's BCA concurred with these sentiments, and expressed a clear preference for remaining as a two-member district with all of Randolph. (Braintree declined to express an outright preference, but did note that the "Braintree BCA did discuss the advantages of having a smaller district made up of almost entirely rural communities, but does feel connected to the greater Randolph area and sees disadvantages of not being in a district with most/all of the Town of Randolph."

The two-member district proposed here, New-Orange-Washington, is the most reasonable choice for these towns.

Substantial equality

With its 2020 population at 7,903, this district is 671 residents smaller than the ideal—a deviation of -7.8%.

Geographical compactness and contiguity

Using Maptitude's measure of compactness, the district earns a Reock score of 0.54 and a Polsby-Popper rating of 0.67. The district is contiguous.

Adherence to county boundaries and other existing political subdivisions
This district includes three towns from Orange County and one town from Washington County. No towns are divided.

Patterns of geography, social interaction, trade, political ties, and common interests The three Orange County towns in the district are within the jurisdiction of Environmental District #3 for Act 250, and are in the Orange Southwest Unified, Union School District; Roxbury (Washington County) is in Environmental District #5 and is part of the Montpelier-Roxbury School District. All towns are members of the Mountain Alliance Solid Waste Management District.

Route 12 connects Brookfield, Randolph, and Roxbury, and Route 12A is a direct link between Braintree and Randolph. Route 14 and Interstate 89 also run between Randolph and Brookfield. As for commercial centers, Roxbury looks to Northfield, Braintree to Randolph and Brookfield to either Randolph or Barre-Montpelier.

Orleans County

The Alternate plan has seven* House districts that include at least one Orleans County

*One district (New-Essex-Orleans) is described in the Essex County section of this report.

town, six of which will be described in this section:

- five districts that consist solely of Orleans County towns; and
- one district (Orleans-Lamoille) that has a majority of its population in Orleans County but also includes one town in Lamoille County.

Percentage deviations for the current Orleans County districts described in this section range from -7.7% for the two-member Orleans-1 (Brownington, Charleston, Derby, Holland, and Morgan) to +7.1% for the one-member Orleans-Lamoille (Eden, Jay, Lowell, Westfield, and a portion of Troy.) While these deviations are not themselves too extreme, population challenges in Essex county have unavoidably affected Orleans towns and districts; in particular, rearrangements that were needed to reduce deviations in the current Essex-Caledonia-Orleans district (-12.3%) and the Essex-Caledonia District (-14.3%) caused ripple effects westward in Caledonia and Orleans counties.

At the same time, we strove to accommodate BCA feedback, primarily regarding requested groupings of towns and preference for type of district (single- or double-member.)

New-Orleans-1-1

New-Orleans-1-1 is a one-member district consisting of the town of Derby. Its 2020 population is 4,579 people.

Currently, Derby is in the two-member Orleans-1 district, with Brownington, Charleston, Holland, and Morgan, and this same group of towns also formed a two-member district in 2002, 1992, and 1982.

In the 1974 plan, Derby and Holland shared a single-member district, while in 1965, Derby, Holland and Morgan formed a single-member district.

Substantial equality

With a 2020 population of 4,579, this district is 292 residents larger than the ideal—a deviation of +6.8%.

Geographical compactness and contiguity

Using Maptitude's measure of compactness, the district earns a Reock score of 0.49 and a Polsby-Popper rating of 0.44. The district is contiguous.

Adherence to county boundaries and other existing political subdivisions
This district consists solely of the Orleans County town of the Derby, in its entirety.

Patterns of geography, social interaction, trade, political ties, and common interests

Derby is within the jurisdiction of Environmental District #7 for Act 250, and is a member of the North Country Supervisory Union. The town is part of the Northeast Kingdom Solid Waste Management District.

Derby borders Holland, Morgan, and Charleston to the east; Routes 111 and 6a/105 provide connecting roads. Brownington and Coventry are on the southern boundary, while Newport and Lake Memphremagog are to the west. Interstate 91 runs north and south through Derby to the northern boundary with Canada.

The main commercial center of the region is Newport City.

New-Orleans-1-2

New-Orleans-1-2 is a one-member district consisting of Barton, Brownington, and Westmore. Its 2020 population is 4,271 people.

Currently, Barton is in the two-member Orleans-Caledonia district with Albany, Craftsbury, Golver, Greensboro, Sheffield, and Wheelock; Brownington is grouped with Charleston, Derby, Holland, and Morgan in the two-member Orleans-1 district; and Westmore is part of the one-member Essex-Caledonia-Orleans district, with Averill, Avery's Gore, Bloomfield, Brighton, Canaan, East Haven, Ferdinand, Lemington, Lewis, Newark, Norton, Warner's Grant, and Warren Gore.

In 2002, Barton was part of a two-member district with Craftsbury, Golver, Greensboro, Sheffield, and Wheelock; Brownington was in a two-member district with Charleston, Derby, Holland, and Morgan; and Westmore was part of a single-member district that consisted of the same towns as the current Essex-Caledonia-Orleans district, except for Bloomfield.

The 1992 and 1982 plans placed Barton and Westmore in a two-member district with Albany, Craftsbury, Glover, Greensboro, Sheffield and Wheelock; in both plans Brownington was again grouped with Charleston, Derby, Holland and Morgan in a two-member district.

In 1974, Barton was in a two-member district with Albany, Craftsbury, Glover, Greensboro, and Wolcott; Brownington was aligned with Coventry, the town of Newport, and Newport City in a two-member district; and Westmore was grouped with Brighton, Charleston, and Morgan in a single-member district.

Under the first apportionment plan, from 1965, Barton, Brownington, and Westmore were part of a two-member district with Coventry, Glover, and Irasburg.

Two towns in this district—Barton and Westmore—submitted feedback to the Board regarding their proposed districts: in the majority's plan, Barton and Glover form one district, while Westmore is joined with Holland, Morgan in another district, along with a

selection of Essex County towns, gores, and grants.

The brief comment in favor of their district submitted by the Barton BCA ("...this proposed district would result in more local representation of our community") suggests they welcome being in a single-member district, which is also true of New-Orleans-1-2. Meanwhile, feedback from Westmore includes their preference to be joined with Barton and Glover in that proposed district, noting several common interests as well as community and geographic ties. Based on this feedback, New-Orleans-1-2 appears to be a better fit for Westmore. (For its part, Glover also indicates a preference to be in a single-member district, though not specifically linked with Barton; see New-Orleans-3, below.)

Substantial equality

With its 2020 population at 4,271, this district is 16 residents smaller than the ideal—a deviation of -0.4%.

Geographical compactness and contiguity Using

Maptitude's measure of compactness, the district earns a Reock score of 0.55 and a Polsby-Popper rating of 0.53. The district is contiguous.

Adherence to county boundaries and other existing political subdivisions
This district consists only of Orleans County towns, and none are divided.

Patterns of geography, social interaction, trade, political ties, and common interests All towns are within the jurisdiction of Environmental District #7 for Act 250, and are part of the Lake Region Union Elementary-Middle and Union High School Districts. Brownington and Westmore are members of the Northeast Kingdom Solid Waste Management District; Barton has its own approved plan.

Barton and Brownington are linked by Route 58; Brownington and Westmore by Route 5A; and Westmore and Barton by Route 16. In addition, Barton is crossed by Route 5 southeast to northwest and by Interstate 91 south to north. Crystal Lake (Barton) and Lake Willoughby (Westmore) are prominent natural features of the region and recreation hubs. Barton and Orleans are local centers of commerce for the region, along with Newport city to the north.

New-Orleans-2-1

New-Orleans-2-1 is a one-member district consisting of Coventry, Irasburg, Newport Town, and part of the town of Troy. (The remainder of Troy is in the Orleans-Lamoille district.) Its 2020 population is 4,298 people.

All of the towns in this district (and the same part of Troy) are currently in the twomember Orleans-2 district, along with the city of Newport. In 2002, Coventry, Irasburg, and Newport Town were in a two-member district with Newport City, while Troy was grouped with Jay and Westfield in a one-member district. The 1992 plan also placed Coventry, Irasburg, and Newport Town together with Newport City in a two-member district; Troy was grouped with Jay, Lowell, Montgomery, and Westfield in a one-member district.

In 1982, Coventry, Newport Town, and Newport City formed a two-member district, and in 1974 the same towns were joined with Brownington; meanwhile, in both 1982 and 1974, Troy was grouped with Irasburg, Jay, Lowell, and Westfield to form a single-member district.

In the first apportionment plan, in 1965, the town of Newport and Newport City formed a two-member district by themselves, while Troy shared a single-member district with Jay, Lowell, and Westfield.

Of the towns in this district, only Irasburg submitted feedback to the Board about the majority's plan, which groups the town with Albany, Craftsbury, and Greensboro: their preference is to be in a district with Albany, Coventry, and Brownington. While New-Orleans-2-1 doesn't completely satisfy their wishes, it may be a better fit for Irasburg since the district includes Coventry and other towns with which it has been grouped in the past.

Substantial equality

With a 2020 population of 4,298, this district is 11 residents larger than the ideal—a deviation of +0.3%.

Geographical compactness and contiguity

Using Maptitude's measure of compactness, the district earns a Reock score of 0.52 and a Polsby-Popper rating of 0.53. The district is contiguous.

Adherence to county boundaries and other existing political subdivisions
This district consists only of Orleans County towns; the town of Troy is divided between New-Orleans-2-1 and Orleans Lamoille.

Patterns of geography, social interaction, trade, political ties, and common interests All towns are within the jurisdiction of Environmental District #7 for Act 250, and all but Irasburg are members of North Country Supervisory Union; Irasburg is part of the Orleans Central SU. Irasburg, Newport Town, and Troy are all in the Northeast Kingdom Solid Waste Management District, while Coventry has its own approved plan.

Coventry is linked to Irasburg and Newport via Routes 5 and 14, and Newport and Troy are connected by Routes 100 and 105. Interstate 91 also runs south to north through the eastern side of Coventry. The west shore of Lake Memphremagog is in Newport Town; the southernmost portion of the lake, South Bay, dips into Coventry at the town's boundary with Newport City, which is also the commerce center for the district.

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New-Orleans-2-2

New-Orleans-2-2 is a single-member district consisting of the city of Newport. Its 2020 population is 4,455 people.

Currently, Newport City is part of the two-member Orleans-2 district, with Coventry, Irasburg, Newport Town, and part of Troy.

Except for Troy, in 2002 and 1992 Newport City was grouped with the same towns in a two-member district. In 1982, Newport City formed a two-member district with Coventry and Newport Town, while in 1974 the same group, along with Brownington, formed a two-member district.

In the first apportionment plan, in 1965, the town of Newport and Newport City formed a two-member district by themselves.

The Newport City BCA unanimously supports being its own district.

Substantial equality

With its 2020 population at 4,455, this district is 168 residents larger than the ideal—a deviation of +3.9%.

Geographical compactness and contiguity Using Maptitude's measure of compactness, the district earns a Reock score of 0.55 and a Polsby-Popper rating of 0.45. The district is contiguous.

Adherence to county boundaries and other existing political subdivisions
This district consists solely of the Orleans County city of Newport, in its entirety.

Patterns of geography, social interaction, trade, political ties, and common interests Newport City is its own school district and maintains its own solid waste management plan. The city is within the jurisdiction of Environmental District #7 for Act 250 and other state land-use purposes, and is a member of the North Country Supervisory Union.

The city straddles the lower portion of Lake Memphremagog and is the commerce hub of the region. Routes 5 and 100 link to towns in the south, west, and northeast, while Route 101 connects east to Interstate 91.

New-Orleans-3

New-Orleans-3 is a single-member district consisting of Albany, Craftsbury, Glover, and Greensboro. Its 2020 population is 4,244 people.

The four towns in this district are currently in the two-member Orleans-Caledonia district, with Barton and the Caledonia towns of Sheffield and Wheelock; in the 2002 and 1992 plans, these seven towns also formed a two-member district.

In 1982, Albany, Craftsbury, Glover, and Greensboro were grouped with Barton and Westmore in a single-member district, while in 1974 they were linked with Barton and Wolcott in a two-member district. The first apportionment plan, from 1965, brought together Albany, Craftsbury, and Greensboro with Stannard and Wolcott to form a single-member district, while Glover joined with Barton, Brownington, Coventry, Irasburg, and Westmore in a two-member district.

The LAB's initial, tentative proposal placed Albany, Craftsbury, and Greensboro in a district with Irasburg, and paired Glover with Barton. Of the four towns in New-Orleans-3, only Glover submitted feedback about their proposed district (which is the same in the majority's final plan). While the Glover BCA s supports being in a one-member district, they don't comment specifically about Barton—only their desire to have "better access to one person... a familiar face, whom we would have confidence [would] accurately represent our values and perspectives."

Substantial equality

With a 2020 population of 4,244, this district is 43 residents smaller than the ideal—a deviation of -1.0%.

Geographical compactness and contiguity

Using Maptitude's measure of compactness, the district earns a Reock score of 0.61 and a Polsby-Popper rating of 0.75. The district is contiguous.

Adherence to county boundaries and other existing political subdivisions
This district consists solely of Orleans County towns, and none are divided.

Patterns of geography, social interaction, trade, political ties, and common interests All towns are within the jurisdiction of Environmental District #7 for Act 250 and other state land-use purposes, and all but Craftsbury are part of the Northeast Kingdom Solid Waste Management District; Craftsbury is in the Lamoille Regional District. Albany and Glover are members of the Orleans Central Supervisory Union, while Craftsbury and Greensboro are in the Orleans Southwest SU.

Route 14 and local roads connect Albany to Craftsbury and Greensboro; Glover is linked to Craftsbury via Mud Island Road to South Albany Road. Route 16 connects Glover and Greensboro. Hardwick serves as the center of much commerce for these towns.

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Orleans-Lamoille

Orleans-Lamoille is a single-member district consisting of Jay, Lowell, Westfield, and part of Troy, from Orleans County, and the town of Eden, from Lamoille County. (The remainder of Troy is in New-Orleans-2-1.) Its 2020 population is 4,593 people.

This is the current Orleans-Lamoille district.

In the 2002 and 1992 plans, Jay, Lowell, Troy, and Westfield formed a single-member district with Montgomery, while Eden was in a single-member district with Johnson.

In 1982 and 1974, Jay, Lowell, Troy, and Westfield were grouped with Irasburg as a single-member district; meanwhile, in 1982, Eden and Belvidere were part of a single-member district with Johnson, and in 1974, Eden, Belvidere, Elmore, Hyde Park, and Morristown formed a two-member district.

Under the first reapportionment plan, in 1965, Jay, Lowell, Troy, and Westfield shared a single-member district, while Eden was in a two-member district with Belvidere, Cambridge, Fletcher, Johnson, Hyde Park, and Waterville.

The LAB's initial, tentative proposal placed Jay, Lowell, Troy, and Westfield in a district with part of Newport Town, and paired Eden with Hyde Park (these districts are unchanged in the majority's final plan.) None of the towns in the Orleans-Lamoille district submitted feedback to the Apportionment Board.

Substantial equality

With a 2020 population of 4,593, this district is 306 residents larger than the ideal—a deviation of +7.1%.

Geographical compactness and contiguity

Using Maptitude's measure of compactness, the district earns a Reock score of 0.38 and a Polsby-Popper rating of 0.41. The district is contiguous.

Adherence to county boundaries and other existing political subdivisions
This district consists of four Orleans County towns-- one of which is divided—and one Lamoille County town.

Patterns of geography, social interaction, trade, political ties, and common interests All towns except Eden are within the jurisdiction of Environmental District #7 for Act 250 and other state land-use purposes; Eden is in District #5. Jay, Troy, and Westfield are part of the Northeast Kingdom Solid Waste Management District; Eden is in the Lamoille Regional District; and Lowell has its own approved plan.

For schools, all the Orleans towns are part of the North Country Supervisory Union, while Eden is part of the Lamoille North SU.

Route 100 runs south to north through Eden, Lowell, Westfield, and Troy; Jay and

Westfield have a direct connection via Route 242 and Cross/North Hill Roads; and Jay and the part of Troy in this district are linked via Routes 242, 105, and 101. The Green Mountains and the Long Trail also run through all towns except Troy. Newport City is the regional center of commerce.

Rutland County

The Alternate plan has 17 House districts that include at least one Rutland County town, 14 of which will be described in this section*:

- 11 districts that consist solely of towns in Rutland County;
- one district (New-Rutland-Bennington) that has a majority of its population in Rutland County but also includes one Bennington County town; and
- two districts (New-Rutland-Windsor-1, New-Rutland-Windsor-2) that have a majority of their populations in Rutland County but also include at least one Windsor County town

Current Rutland County districts are notable for the their large percentage deviations, especially in the negative direction—including Rutland-1 (Ira, Poultney, -21.0%) with the largest negative deviation in the state; Rutland-6 (Brandon, Pittsford, Sudbury, -12.1%); and Rutland-5-4 (northwest Rutland City,

-11.9%)—but also including two districts (Rutland-Windsor-1, +9.5%) and (Rutland-Windsor-2, +8.5%) that are in the top 20 in the state for positive deviations.

These population realities were the central focus of the region, combined with the everpresent goal, whenever possible, to keep communities intact and preserve established connections and inter-town relationships.

New-Rutland-1

New-Rutland-1 is a single-member district consisting of Ira, Poultney, and part (659 residents) of the town of Wells. Its 2020 population is 4,047 people. (The remainder of Wells is in New-Rutland-Bennington.)

In the current district plan, Ira and Poultney form the Rutland-1 single-member district, and Wells is part of the Rutland-Bennington single-member district, along with Middletown Springs, Pawlet, and a part of Tinmouth (from Rutland County) and Rupert (from Bennington County).

^{*}Three districts (New-Addison-Rutland, Bennington-Rutland, New-Windsor-Addison-Rutland) are described in the Addison, Bennington, and Windsor County sections, respectively, of this report.

In 2002, Poultney and a portion of Ira formed a single-member district; the other part of Ira was in a two-member district with Clarendon, Proctor, and West Rutland. Meanwhile, Wells was in a single-member district with Middletown Springs, Pawlet, and a part of Rupert.

The 1992 and 1982 reapportionment plans gave Poultney a single-member district by itself; Ira was combined with Clarendon, Proctor, and West Rutland to form a two-member district; and Wells was grouped with Middletown Springs, Pawlet, and Rupert in a one-member district.

In 1974, Poultney and Wells were part of a two-member district with Castleton, and Ira joined Middletown Springs and West Rutland in a single-member district. The first apportionment plan, in 1965, made Poultney a single-member district by itself; Ira was in a two-member district with Danby, Clarendon, Middletown Springs, Mount Tabor, Shrewsbury, Tinmouth, and Wallingford; and Wells was grouped with Pawlet and Rupert to form a single-member district.

New-Rutland-1 is approximately the same district as the LAB's initial, tentative proposal, which also contained Ira and Poultney, and a slightly larger part of Wells. The BCAs of Poultney and Wells submitted feedback to the Board about this proposed district, with Poultney in favor (no change recommended) and Wells opposed—not surprisingly, because of the proposal to split the town.

As noted in the county overview, above, the current Rutland-1 district has deviation - 21.0%, the largest deviation in the state. We considered many options to resolve this population challenge, but were unable to find an alternate solution that did not split another town (as the majority's final proposal does) or create additional challenging ripple effects.

Substantial equality

With its 2020 population at 4,047, this district is 240 residents smaller than the ideal—a deviation of -5.6% (significantly improved from its current deviation.)

Geographical compactness and contiguity

Using Maptitude's measure of compactness, the district earns a Reock score of 0.32 and a Polsby-Popper rating of 0.30. The district is contiguous.

Adherence to county boundaries and other existing political subdivisions
This district consists of three Rutland County towns-- one of which is divided.

Patterns of geography, social interaction, trade, political ties, and common interests All towns are within the jurisdiction of Environmental District #1 for Act 250 and other state land-use purposes and are also part of the Rutland County Solid Waste Management District. For schools, all towns in the district are members of the Greater Rutland County Supervisory Union.

Poultney and Wells are linked by Routes 30 and 31; they also share Lake St. Catherine and each borders New York state to the west. Connections to Ira are through Middletown Springs via Routes 140 and 133, or through Castleton via Route 4A. Poultney serves as a commerce center within the district, while Rutland and Fair Haven are larger regional commerce hubs.

New-Rutland-2

New-Rutland-2 is a two-member district consisting of Clarendon, Proctor, Wallingford, West Rutland, and part (200 residents) of Mount Holly. Its 2020 population is 8,718 people.

Clarendon, Proctor, Wallingford, and West Rutland are in the current two-member Rutland-2 district with a portion of Tinmouth; all of Mount Holly is currently in Rutland-Windsor-2.

In the 2002 district plan, Clarendon, Proctor, and West Rutland formed a two-member district with Ira; Wallingford was grouped with Tinmouth and Shrewsbury in a single-member district; and Mount Holly formed a single-member district with Ludlow and Plymouth.

In 1992 and 1982, Clarendon, Proctor, and West Rutland also formed a two-member district with Ira. Meanwhile, Wallingford and Mount Holly were in a single-member district with Tinmouth and Mount Tabor, though without Mount Tabor in 1982.

In 1974, Clarendon was part of a single-member district with Mendon and Shrewsbury; Proctor was in a two-member district with Chittenden, Pittsford, and Sherburne (Killington); West Rutland was grouped with Ira and Middletown Springs in a single-member district; and Mount Holly and Wallingford joined Mount Tabor and Tinmouth in a two-member district.

Under the first apportionment plan, in 1965, Clarendon and Wallingford were combined with Danby, Ira, Middletown Springs, Mount Tabor, Shrewsbury, and Tinmouth in a two-member district; Proctor and West Rutland were each in its own single-member district; and Mount Holly joined with Londonderry, Ludlow, and Weston to form a two-member district.

The BCAs of all towns except Clarendon submitted feedback to the Board about its initial, tentative proposal, and West Rutland specifically requested continuing with the existing two-member district; except for the Mount Holly portion, New-Rutland-2 is the same as the current Rutland-2. Mount Holly, Proctor, and Wallingford liked their proposed district, and Proctor notes benefits from being in a one-member district. (In the majority's final plan, however, Proctor's district has changed considerably.)

Substantial equality

With a 2020 population of 8,718, this district is 144 residents larger than the ideal—a deviation of +1.7%.

Geographical compactness and contiguity

Using Maptitude's measure of compactness, the district earns a Reock score of 0.27 and a Polsby-Popper rating of 0.22. The district is contiguous.

Adherence to county boundaries and other existing political subdivisions

This district consists of five Rutland County towns-- one of which is divided. *Note: the portion of Mount Holly—200 people from the western boundary with Wallingford—that is included in this district was done so in order to reduce the deviation in New-Rutland-Windsor-2 to below 8%.*

Patterns of geography, social interaction, trade, political ties, and common interests All towns are within the jurisdiction of Environmental District #1 for Act 250 and other state land-use purposes and are also part of the Rutland County Solid Waste Management District. For schools, the towns are divided between three Unified Union Districts: Mill River (Clarendon, Wallingford); Quarry Valley (Proctor, West Rutland); and Ludlow-Mount Holly (Mount Holly).

Route 7 connects Wallingford and Clarendon directly; continuing north through Rutland town and city, Routes 3 and 4 provide links to Proctor and West Rutland. Wallingford and Mount Holly are connected via Routes 103 and 140. Wallingford and West Rutland have their own centers of commerce, and Rutland is the regional hub for shopping and other services.

New-Rutland-3-1

New-Rutland-3-1 is a single-member-member district consisting of the town of Castleton. Its 2020 population is 4,458 people.

In the current and prior (2002) plans, Castleton has been part of a two-member district with Fair Haven, Hubbardton, and West Haven (currently Rutland-3.)

In 1992, Castleton formed a two-member district with Fair Haven and West Haven; in 1982, the same towns joined with Hubbardton in a two-member district.

In 1974, Castleton was grouped with Poultney and Wells in a two-member district, while the 1965 apportionment plan placed Castleton with Hubbardton and Sudbury in a single-member district.

This district is identical in the LAB's tentative proposal (as well as the majority's final plan), and the Castelton BCA expressed approval in their feedback.

Substantial equality

With a 2020 population of 4,458, this district is 171 residents larger than the ideal—a deviation of +4.0%.

Geographical compactness and contiguity

Using Maptitude's measure of compactness, the district earns a Reock score of 0.65 and a Polsby-Popper rating of 0.76. The district is contiguous.

Adherence to county boundaries and other existing political subdivisions This district consists of one Rutland County town in its entirety.

Patterns of geography, social interaction, trade, political ties, and common interests Castleton is within the jurisdiction of Environmental District #1 for Act 250 and other state land-use purposes; is a part of the Rutland County Solid Waste Management District; and is a member of the Slate Valley Unified Union School District.

The district is home to Castleton University, a four-year residential institution that is part of Vermont's Higher Education system and significant employer for the surrounding and extended communities. The bulk of Lake Bomoseen is within the town and is a hub for recreation. The town itself has a small selection of shops and services; Fair Haven and Rutland are the centers of commerce for the region.

New-Rutland-3-2

New-Rutland-3-1 is a single-member-member district consisting of Benson, Fair Haven, and West Haven. Its 2020 population is 3,949 people.

In the current and prior (2002) plans, Fair Haven and West Haven have been part of a two-member district along with Castleton and Hubbardton (the current Rutland-3), and Benson has been grouped with Orwell, Shoreham, and Whiting as part of a single-member Addison-Rutland district.

The 1992 reapportionment plan grouped Fair Haven and West Haven with Castleton in a two-member district, and put Benson with Hubbardton, Orwell, and Shoreham in a single-member district. In 1982, Fair Haven and West Haven joined Castleton and Hubbardton in a two-member district, while Benson was part of a single-member district with Orwell, Shoreham, and Bridport.

In 1974, Benson and West Haven were in a single-member district with Hubbardton, Orwell, and Shoreham, while Fair Haven formed its own single-member district.

In the 1965 plan, Benson and West Haven were in a single-member district with Orwell, Shoreham, and Whiting; meanwhile, Fair Haven formed its own single-member district.

The Board received feedback from Benson and Fair Haven about the LAB's initial

proposed district for them, and as in the Alternate plan, these towns are grouped with West Haven; however, the majority's district also includes a part of Hubbardton.

The Benson BCA expressed their support, noting in particular more commonality with towns in this district (versus those to the north in their current district.) On the other hand, the Fair Haven BCA noted their preference to remain as a two-member district with the current configuration of towns. While this district does not satisfy that request, we believe that New-Rutland-3-1 and New-Rutland-3-2 provide a reasonable overall balance of preferences for the district member towns.

Substantial equality

With a 2020 population of 3,949, this district is 338 residents smaller than the ideal—a deviation of -7.9%.

Geographical compactness and contiguity

Using Maptitude's measure of compactness, the district earns a Reock score of 0.43 and a Polsby-Popper rating of 0.34. The district is contiguous.

Adherence to county boundaries and other existing political subdivisions
This district consists of three Rutland County towns, and none are divided.

Patterns of geography, social interaction, trade, political ties, and common interests All towns are within the jurisdiction of Environmental District #1 for Act 250 and other state land-use purposes, and are members of the Solid Waste Alliance Communities. In addition, they are all part of the Slate Valley Unified Union School District. Fair Haven is a commercial center within the district.

Route 22A links the towns north and south, and Route 4 also connects from Fair Haven west to Whitehall, NY and east to Rutland—the nearest regional hubs for additional commerce and services. All towns have the Poultney River as their western border with New York; heading north, the river merges with the southernmost part of Lake Champlain.

New-Rutland-4

New-Rutland-4 is a single-member-member district consisting of most of Rutland town (all but 71 residents) and a small portion (121 residents) of Mendon. Its 2020 population is 3,974 people. (The remainder of Rutland Town is in New-Rutland-5-4, and the remainder of Mendon is in New-Rutland-Windsor-1.)

Rutland Town comprises the current single-member Rutland-4 district, while Mendon is part of the single-member Rutland-Windsor-1 district, along with Bridgewater (from Windsor), Chittenden, and Killington.

In the 2002, 1992, and 1982 plans, Rutland Town also formed its own single-member

district. Meanwhile, in 2002 and 1992, Mendon, Bridgewater, Chittenden, and Killington also formed a single-member district, while in 1982, Mendon shared a single-member district with Bridgewater, Chittenden, and Shrewsbury.

In 1974, Rutland Town and a part of Rutland City shared a single-member district, and Mendon was in a two-member district with Clarendon and Shrewsbury. In the first apportionment plan, in 1965, Rutland Town was split between a part that shared a two-member district with Rutland City and another part that shared a two-member district with Chittenden and Mendon.

The BCAs of Rutland Town and Mendon submitted feedback to the Apportionment Board. The LAB's initial plan proposed dividing Rutland Town between three separate districts, which their BCA unanimously opposed. (The majority plan subsequently made several changes to these districts, but Rutland Town remains split three ways in their final proposal.)

The decision to move even a small number of residents into a different district was not made lightly, but came as a result of regional population pressures in combination with Rutland Town's geographic position in between Rutland City—with large negative deviation—and the current Rutland-Windsor-1 district to the east, with large positive deviation.

Substantial equality

With a 2020 population of 3,974, this district is 313 residents smaller than the ideal—a deviation of -7.3%.

Geographical compactness and contiguity

Using Maptitude's measure of compactness, the district earns a Reock score of 0.40 and a Polsby-Popper rating of 0.14. The district is contiguous.

Adherence to county boundaries and other existing political subdivisions
This district consists of two Rutland County towns, each of which is divided. (Further information about these divisions is in the district overview, above, and in the "patterns of geography" discussion, below.)

Patterns of geography, social interaction, trade, political ties, and common interests Both Rutland Town and Mendon are within the jurisdiction of Environmental District #1 for Act 250 and other state land-use purposes; Rutland is a member of the Solid Waste Alliance Communities, while Mendon is affiliated with the Rutland County District. The two towns are part of separate school districts for grades K-8; for grades 9-12, many of the students attend the same area high schools.

Rutland Town completely surrounds Rutland City at its center, and is a separate political entity. As noted above, shifting 71 residents from Rutland Town to the New-Rutland-5-4 district—the northwest part of Rutland City—is one part of a combined effort to stabilize

deviations in the region; including a portion of southeastern Mendon in New-Rutland-4 is the other part.

Route 7 divides Rutland north and south, while Route 4 travels east and west. The portion of Mendon in the district lies south of Notch Road, which connects to Rutland Town at Killington Road. Rutland City is the regional hub for commerce and services.

New-Rutland-5-1, New-Rutland-5-2, New-Rutland-5-3, New-Rutland-5-4

These four districts together consist of Rutland City and a part (71 people) of Rutland Town (in New-Rutland-5-4.) Their combined population is 15,878 people, or an average of approximately 3,970 people per district. (The actual populations are, respectively: 3,960, 3,970, 3,988, and 3,960.)

Rutland City currently is divided into the Rutland 5-1, 5-2, 5-3, and 5-4 single-member districts; these were the same configuration of districts in 2002.

The 1992 and 1982 reapportionment plans gave Rutland City one two-member district and three single-member districts. In 1974, Rutland City had three two-member districts and one single-member district. In 1965, the City had three two-member districts and split a fourth two-member district with Rutland Town.

The LAB's tentative plan proposed several changes to the current Rutland City districts, especially to the western districts (5-3 and 5-4) portions of which would have been combined with a large part of Rutland Town. (The majority's current map is somewhat changed for their tentative one, but also includes significantly rearranged districts in the Rutland City and adjacent region.)

In response, the Rutland City BCA proposed one change—moving 114 people from the northwest corner of district 5-1 to 5-4. This adjustment would increase the population of the current Rutland-5-4 from 3,779 to 3,893 people, and improve its deviation somewhat: from -11.9% to -9.2%. The LAB's Alternate plan includes this change proposed by the Rutland City BCA.

Further, in order to bring all district deviations below $\pm 8\%$ deviation, we include two additional small shifts between districts and also from Rutland Town to district 5-4.

Substantial equality

The population of New-Rutland-5-1 is 3,960 people, or 327 fewer residents than a perfect district (a deviation of -7.6%). New-Rutland-5-2, at 3,970 residents, is 317 fewer than ideal (a deviation of -7.4%). New-Rutland-5-3 has population 3,988, which is 299 fewer than an ideal district (a deviation of -7.0%). New-Rutland 5-4, with 3,960 residents, is 327 below the ideal (a deviation of -7.6%).

Geographical compactness and contiguity

Using Maptitude's measure of compactness, the four districts Reock scores are 0.55, 0.61, 0.53, and 0.54, and their Polsby-Popper ratings are 0.50, 0.68, 0.60, and 0.38. All districts are contiguous.

Adherence to county boundaries and other existing political subdivisions
Districts 5-1, 5-2, and 5-3 consist solely of a portion of Rutland City; district 5-4 also includes part of Rutland Town.

Patterns of geography, social interaction, trade, political ties, and common interests Rutland City and Rutland Town are within the jurisdiction of Environmental District #1 for Act 250 and other state land-use purposes; Rutland City is part of the Rutland County Solid Waste Management District, while Rutland Town is a member of the Solid Waste Alliance Communities. Rutland City maintains its own school district for all grades.

Route 7 divides Rutland north and south, while Route 4 travels east and west. Rutland City is the regional hub for commerce and services.

New-Rutland-6

New-Rutland-6 is a single-member district consisting of the town of Brandon. Its 2020 population is 4,129 people.

Brandon is currently in the two-member Rutland-6 district, with Pittsford and Sudbury.

In 2002, Brandon comprised a single-member district, while in 1992 and 1982, Brandon joined Pittsford in a two-member district. In the 1974 plan, Brandon was combined with Sudbury in a single-member district, and under the first apportionment, in 1965, Brandon, Goshen, and Pittsford were together in a two-member district.

The town of Brandon also formed a one-member district in the majority's tentative plan, and their BCA supports this change.

Substantial equality

With its 2020 population at 4,129, this district is 158 residents smaller than the ideal—a deviation of -3.7%.

Geographical compactness and contiguity

Using Maptitude's measure of compactness, the district earns a Reock score of 0.55 and a Polsby-Popper rating of 0.72. The district is contiguous.

Adherence to county boundaries and other existing political subdivisions This district consists of one Rutland County town in its entirety.

Patterns of geography, social interaction, trade, political ties, and common interests

Brandon is within the jurisdiction of Environmental District #1 for Act 250 and other state land-use purposes, and is in the Rutland County Solid Waste Management District. The town is a member of the Otter Valley Unified Union School District, and operates its own schools for all grades.

Brandon is traversed by Route 7 north and south; Route 73 runs east and west and nearby Brandon Gap (in Goshen) provides a year-round route across the Green Mountains. The Brandon Swamp Wildlife Management Area encompasses a significant portion of the town. Brandon village is its own commerce center; Rutland is also a regional hub to the south.

New-Rutland-7

New-Rutland-7 is a single-member district consisting of Chittenden and Pittsford. Its 2020 population is 4,129 people.

Chittenden is currently in the Rutland-Windsor-1 single-member district-- with Bridgewater, Killington, and Mendon—and this same configuration of towns also formed a one-member district in 2002. Meanwhile, Pittsford is currently in the two-member Rutland-6 district with Brandon and Sudbury, and in 2002 was paired with just Sudbury in a single-member district.

The 1992 plan featured the same one-member district for Chittenden as the current one, while in 1982 Chittenden was grouped with Mendon, Killington, and Shrewsbury. During the same years—1992 and 1982—Pittsford and Brandon together formed a two-member district.

In 1974, Chittenden and Pittsford joined Proctor and Sherburne (now Killington) in a two-member district. Under the first apportionment, in 1965, Chittenden was placed in a single-member district with Mendon and Rutland Town, while Pittsford was grouped with Brandon and Goshen in a two-member district.

While the Pittsford BCA expressed an interest in joining with Chittenden in a one-member district, feedback from the Chittenden BCA focused more closely on the LAB's initial tentative plan (which proposed grouping the town with part of Mendon and part of Rutland town) and their desire to preserve all or most of the status quo. It is therefore difficult to gauge their support for this paring with Pittsford.

Substantial equality

With a 2020 population of 4,099, this district is 188 residents smaller than the ideal—a deviation of -4.4%.

Geographical compactness and contiguity

Using Maptitude's measure of compactness, the district earns a Reock score of 0.48 and a Polsby-Popper rating of 0.48. The district is contiguous.

Adherence to county boundaries and other existing political subdivisions This district consists of two Rutland County towns in their entirety.

Patterns of geography, social interaction, trade, political ties, and common interests
Both towns in the district are within the jurisdiction of Environmental District #1 for Act
250 and other state land-use purposes. Chittenden is a member of the Solid Waste
Alliance Communities, while Pittsford is part of the Rutland County Solid Waste
Management District. While they are in different Unified School Districts, the towns are
both members of the Rutland Northeast Supervisory Union and tuition high school
students to the same area schools.

Route 7 runs north and south through Pittsford, and local roads connect the two towns. A large part of Chittenden consists of Green Mountain Forest land and the Chittenden Reservoir is a major recreation area. Rutland serves as the primary commerce hub for the district.

New-Rutland-Bennington

New-Rutland-Bennington is a single-member district consisting of Middletown Springs, Pawlet, Tinmouth, part (555 residents) of Wells (from Rutland County) and Rupert (from Bennington County.) Its 2020 population is 4,024 people. (The remainder of Wells is in New-Rutland-1.)

The current Rutland-Bennington single-member district consists of Middletown Springs, Pawlet, part of Tinmouth, Wells, and Rupert.

In 2002, Middletown Springs, Pawlet, Wells, and a portion of Rupert in the single-member district, and Tinmouth was in a single-member district with Shrewsbury and Wallingford.

The 1992 and 1982 reapportionment plans placed Middletown Springs, Pawlet, Wells, and Rupert in a single-member district. Meanwhile, in 1992 Tinmouth was grouped with Mount Holly, Mount Tabor, and Wallingford in a single-member district, and in 1982 was grouped with just Mount Holly and Wallingford.

In 1974, Middletown Springs shared a single-member district with Ira and West Rutland; Pawlet and Rupert were in a single-member district with Danby; Wells was in a two-member district with Castleton and Poultney; and Tinmouth was again grouped with Mount Holly, Mount Tabor, and Wallingford in a single-member district.

In the first apportionment plan, in 1965, Middletown Springs and Tinmouth were part of a two-member district with Clarendon, Danby, Ira, Mount Tabor, Shrewsbury, and Wallingford, while Pawlet, Rupert, and Wells formed a single-member district.

This district is nearly identical to what was proposed in the LAB's initial tentative proposal; in response, the Board received feedback from Rupert, Tinmouth, and Wells. While Rupert supported the given configuration of towns, Tinmouth expressed a preference to be grouped with Clarendon, Shrewsbury, and Wallingford, noting community ties and an orientation eastward for shopping and services. Wells opposes being divided.

We looked for ways to accommodate the requests from Tinmouth and Wells, but continued to encounter population-driven challenges in the region, primarily from the current Rutland-1 district to the north (deviation -21.0%) and the current Rutland-Windsor-2 to the east of Wallingford (deviation +8.5%.)

Substantial equality

With a 2020 population of 4,024, this district is 263 residents smaller than the ideal—a deviation of -6.1%.

Geographical compactness and contiguity

Using Maptitude's measure of compactness, the district earns a Reock score of 0.35 and a Polsby-Popper rating of 0.42. The district is contiguous.

Adherence to county boundaries and other existing political subdivisions
This district consists of four Rutland County towns, one of which is divided, and one (undivided) Bennington County town.

Patterns of geography, social interaction, trade, political ties, and common interests All the Rutland County towns in the district are within the jurisdiction of Environmental District #1 for Act 250 and other state land-use purposes; Rupert is in District #8. For Solid Waste Management, the district is split between three different districts, and likewise for school districts/supervisory unions.

Middletown Springs and Tinmouth are linked via Routes 133 and 140, and Route 133 continues south to Pawlet. Route 30 provides a direct connection between Wells, Pawlet, and Rupert; Pawlet and Rupert are also linked via Route 153. Wells, Pawlet, and Rupert are all border New York to the west, and Granville, NY is a convenient commerce center for many residents in the district. For others, Wallingford and Rutland are the main sources for shopping and services.

New-Rutland-Windsor-1

New-Rutland-Windsor-1 is a single-member district consisting of Killington and a portion (1,028 residents) of Mendon (from Rutland County) and Bridgewater and Stockbridge (from Windsor County.) Its 2020 population is 4,056 people. (The remainder of Mendon is in New-Rutland-4.)

In the current district plan, Bridgewater, Killington, and Mendon are joined with Chittenden in the single-member Rutland-Windsor-1 district, while Stockbridge is grouped with Bethel, Pittsfield, and Rochester in the single-member Windsor-Rutland district.

The 2002 and 1992 plans also combined Bridgewater, Killington, and Mendon with Chittenden in a single-member district; in 1982 the configuration was Bridgewater, Killington, Mendon, and Shrewsbury. In each of these years, Stockbridge was also grouped with Bethel, Pittsfield, and Rochester to form a single-member district.

In 1974, Bridgewater was combined with Barnard, Plymouth, Reading, and Woodstock in a two-member district; Mendon was in a two-member district with Clarendon and Shrewsbury; Killington was with Chittenden, Pittsford, and Proctor in a single-member district; and Stockbridge joined with Goshen, Granville, Hancock, Pittsfield, and Rochester in a single-member district.

The first apportionment, in 1965, placed Bridgewater and Killington in a two-member district with Barnard, Plymouth, Pomfret, and Woodstock; Mendon shared a single-member district with Chittenden and Rutland Town; and Stockbridge formed a single-member district with Granville, Hancock, Pittsfield, and Rochester.

This district includes three of the four towns from the current Rutland-Windsor-1 district: Bridgewater, Mendon, and Killington. The decision to move Chittenden to the single-member Rutland-7 district (with Pittsford) arose out of the need to makes adjustments to several districts to the west of Rutland-Windsor-1, all with large negative deviations; for similar reasons we included a small portion of Mendon (121 residents) in New-Rutland-4.

Feedback from BCAs indicated that these three towns wish to preserve all or most of their current district; we believe New-Rutland-Windsor-1 is a reasonable balance. The most dissatisfied town in the district is Stockbridge: they would prefer to remain with other Windsor County towns to the north. Unfortunately, we were unable to find a district grouping to accommodate this request.

Substantial equality

With its 2020 population at 4,056, this district is 231 residents smaller than the ideal—a deviation of -5.4%.

Geographical compactness and contiguity

Using Maptitude's measure of compactness, the district earns a Reock score of 0.55 and a Polsby-Popper rating of 0.49. The district is contiguous.

Adherence to county boundaries and other existing political subdivisions
This district consists of two Rutland County towns, one of which is divided, and two (undivided) Windsor County towns. The portion of Mendon (121 residents) that is in

New-Rutland-4 is one part of a combined effort to reduce large negative deviations in several Rutland City districts and also the large positive deviation (+9.5%) of the current Rutland-Windsor-1 district.

Patterns of geography, social interaction, trade, political ties, and common interests The two Rutland County towns in the district are within the jurisdiction of Environmental District #1 for Act 250 and other state land-use purposes, while the two Windsor County towns are in District #3. For Solid Waste Management, the district is split between three different districts, and likewise for school districts/supervisory unions.

Stockbridge and Killington are linked via Route 100, and Route 4 connects Killington east to Bridgewater and west to Mendon. Killington is a hub for skiing and other recreation and tourism. The nearest hub for commerce and services is Rutland, though some residents may also find Bethel or Woodstock a convenient destination.

New-Rutland-Windsor-2

New-Rutland-Windsor-2 is a single-member district consisting of Shrewsbury and a portion (1,185 residents) of Mount Holly (from Rutland County) and Ludlow (from Windsor County.) Its 2020 population is 4,453 people. (The remainder of Mount Holly is part of New-Rutland-2.)

Ludlow, Mount Holly, and Shrewsbury form the current Rutland-Windsor-2 single-member district.

In 2002, Ludlow and Mount Holly shared a single member district with Plymouth, while Shrewsbury shared a single-member district with Tinmouth and Wallingford.

The 1992 plan put Ludlow and Shrewsbury together with Plymouth in a single-member district; Mount Holly was grouped in a single-member district with Mount Tabor, Tinmouth, and Wallingford.

In 1982 and 1974, Ludlow was combined with Cavendish and Weathersfield in a two-member district. Meanwhile, the 1982 plan grouped Mount Holly with Tinmouth and Wallingford to form a single-member district, and the 1974 plan put Mount Holly together with Mount Tabor, Tinmouth, and Wallingford in a two-member district.

The first apportionment plan, in 1965, combined Ludlow and Mount Holly with Londonderry and Weston in a two-member district, and put Shrewsbury with seven other towns (Clarendon, Danby, Ira, Middletown Springs, Mount Tabor Tinmouth, and Wallingford) in a two-member district.

Substantial equality

With its 2020 population at 4,453 residents, this district is 166 residents larger than the

ideal—a deviation of +3.9%.

Geographical compactness and contiguity

current Rutland-Windsor-2 district.

Using Maptitude's measure of compactness, the district earns a Reock score of 0.35 and a Polsby-Popper rating of 0.37. The district is contiguous.

Adherence to county boundaries and other existing political subdivisions
This district consists of two Rutland County towns, one of which is divided, and one
(undivided) Windsor County town. We included a portion of Mount Holly (200 residents)
in New-Rutland-2 to decrease the moderately large positive deviation (+8.5%) of the

Patterns of geography, social interaction, trade, political ties, and common interests
The two Rutland County towns in the district are within the jurisdiction of Environmental
District #1 for Act 250 and other state land-use purposes, while Ludlow (Windsor
County) is in District #3. For Solid Waste Management, the district is split between three
different districts. Ludlow and Mount Holly are part of the Ludlow-Mt Holly Unified
Union School District, while Shrewsbury is in the Mill River Unified Union School
District

Route 103 connects all three towns in the district (via a small portion of the northeast corner of Wallingford.) Ludlow is a center of commerce for the district, and also a destination for skiing and other tourism. Rutland is an additional regional center for shopping and services.

Washington County

The Alternate plan has eleven* House districts that include at least one Washington County town, eight of which will be described in this section:

- six districts that consist solely of Washington County towns;
- one district (Washington-Chittenden) that has a majority of its population in Washington County but also includes towns in Chittenden County; and
- one district (New-Washington-Orange) that has a majority of its population in Washington County but also includes a town in Orange County.

The existing districts in this region are notable—especially compared to many districts in other regions of the state—for their modest population deviations: from -7.6% for Washington-2 (Barre town) to +4.5% for Washington-6 (Calais, Marshfield, Plainfield).

* The remaining three districts (Caledonia-Washington, New-Lamoille-Washington, New-Orange-Washington) will be described as part of the Caledonia, Lamoille, and Orange County sections, respectively, of this report.

Meanwhile, of the 15 Washington County town BCAs that submitted feedback to the Apportionment Board, 12 stated a preference for the status quo.

Therefore, the overall approach we took in this region was to reduce the largest district population deviation while also respecting -- as much as feasible—the overwhelming preference of towns to preserve the status quo.

One current district where not all members prefer the status quo is Washington-Chittenden, which consists of Waterbury, from Washington County, and Bolton, Buels gore, and Huntington, from Chittenden County. The Apportionment Board heard testimony from select board members and other residents of Bolton and Huntington in which they expressed a desire to be separated from Waterbury and grouped in a district with Chittenden County towns—with a strong desire to be place with other towns that are part of the Mount Mansfield Unified School District (Jericho, Richmond, Underhill). After considering several such options, as well as the preferences of those other towns (and of Waterbury), we were not able to find a grouping other than the status quo that we felt does a better job of balancing the (often conflicting) regional preferences.

Although the Bolton and Huntington BCAs welcome their proposed district in the majority's map, this arrangement does so at the expense of dividing Waterbury, which Waterbury strongly opposes.

Washington-1

Washington-1 is a two-member district consisting of Berlin and Northfield. Its 2020 population is 8,767 people.

This is the current Washington-1 district.

In 2002, Berlin was in a single-member district with a portion of Barre City, and Northfield was in a two-member district with Moretown and Roxbury. The 1992 House plan placed Berlin with a part of Barre in a two-member district, while in the 1982 plan, Berlin and a part of Montpelier formed a single-member district. The 1992 and 1982 plans placed Northfield with Moretown and Roxbury in a two-member district, while the 1974 and 1965 plans put Northfield with Berlin and Roxbury in a two-member district.

Substantial equality

The 8,767 population of this district is 193 residents more than the ideal, a deviation of +2.3%.

Geographical compactness and contiguity

Using Maptitude's measure of compactness, the district earns a Reock score of 0.45 and a Polsby-Popper rating of 0.48. The district is contiguous.

Adherence to county boundaries and other existing political subdivisions

Both towns in this district are in Washington county, and neither is divided.

Patterns of geography, social interaction, trade, political ties, and common interests Route 12 connects the two towns directly; to the east, Interstate 89 provides an additional link. The Dog River runs from Northfield to Berlin where it meets the Winooski River, and streams from the Northfield Range-- which runs through both towns—feed Berlin Pond. Nearby commercial centers serving the district are Barre and Montpelier. Berlin and Northfield are members of the Central Vermont Regional Planning Commission and the Central Vermont Solid Waste District. They are both within the jurisdiction of Environmental District #5 for Act 250 and other state land use purposes.

New-Washington-Orange

New-Washington-Orange is a two-member district consisting of Barre town (from Washington County) and Orange (from Orange County.) Its 2020 population is 8,971 people.

This is the current two-member Washington-2 district (Barre town), plus the town of Orange.

In 2002, 1992, 1982, and 174, Barre town formed a two-member district.

The town of Orange is currently part of the two-member Orange-1 district, along with Chelsea, Corinth, Vershire, Washington, and Williamstown; the same six towns also formed a two-member district in 2002. In 1992, Orange was part of a two-member district with Chelsea, Tunbridge, Vershire, Williamstown, and Washington, while in 1982 the district included Topsham instead of Vershire. In 1974, Orange was in a single-member district with Chelsea, Tunbridge, and Washington.

In first apportionment plan of 1965, Barre town and Orange together formed a twomember district.

Substantial equality

The 8,971 population of this district is 397 residents more than the ideal, a deviation of +4.6%.

<u>Geographical compactness and contiguity</u> Using Maptitude's measure of compactness, the district earns a Reock score of 0.46 and a Polsby-Popper rating of 0.43. The district is contiguous.

Adherence to county boundaries and other existing political subdivisions
This district includes one town each from Washington and Orange counties. Neither town is divided. In the feedback provided by the Barre town BCA, they expressed their strong desire not to be divided into two single-member districts, as is proposed in the LAB's

final plan, and to remain a two-member district; both are true for this district.

The inclusion of Orange in this district arose out of an effort to balance conflicting preferences by some of the member towns in the current Orange-1 district, along with the overall statutory aim to avoid dividing towns. (Discussed more fully in the description for the New-Orange-1 district.)

Patterns of geography, social interaction, trade, political ties, and common interests Orange and Barre town are connected via Route 302, which runs east and west, and also by Route 110, which links the southwest corner of Orange to East Barre. Barre City and nearby Montpelier are the commercial centers of the region.

Washington-3

Washington-3 is a two-member district consisting of all of Barre city. Its 2020 population is 8,491 people.

This is the current Washington-3 two-member district.

In 2002, Barre City was split into three single-member districts, one of which was in combination with the town of Berlin. The 1992 plan subdivided Barre City into a single-member district by itself and a two-member district with Berlin. In the 1982 and 1974 plans, Barre City was subdivided into three single-member districts, but the 1974 plan also gave a part of the City to a single-member district with Williamstown and Barre Town. In the first apportionment, in 1965, Barre City had four single-member districts.

The Apportionment Board's majority proposal splits Barre city into two single-member districts, which Barre city opposed. In its feedback to the Board, the BCA expressed its support for remaining a two-member district, noting that "Barre City is a contiguous whole, and can best be represented together; the issues that face the city do not stop at legislative lines," and that "Electing two representatives city-wide offers more opportunities for non-traditional candidates, including from multiple parties."

Substantial equality

The 8,491 population of this district is 83 residents smaller than the ideal, a deviation of 1.0%.

Geographical compactness and contiguity

Using Maptitude's measure of compactness, the district earns a Reock score of 0.49 and a Polsby-Popper rating of 0.45. The district is contiguous.

Adherence to county boundaries and other existing political subdivisions
This district is entirely within Washington County and the city of Barre is not divided.

Patterns of geography, social interaction, trade, political ties, and common interests Barre city is a member of the Central Vermont Regional Planning Commission, the Central Vermont Solid Waste District, and is part of the District #5 Environmental District for Act 250 and other state land use permits. The district is served by Interstate 89 and Route 302 east and west, and Route 14 north and south. Barre city is its own commercial center.

Washington-4

Washington-4 is a two-member district consisting of all of the city of Montpelier. Its 2020 population is 8,074 people.

This is the current two-member Washington-4 district.

In 2002, Montpelier was also a two-member district, while in 1992, the city was subdivided into a two-member district and a single-member district with Elmore, Middlesex and Worcester. In the 1982 plan, Montpelier was also subdivided into a two-member and a one-member district—in that case, with Berlin. In 1974 and 1965, Montpelier consisted of two, single-member districts.

Substantial equality

The 8,074 population of this district is 500 residents smaller than the ideal, a deviation of -5.8%.

Geographical compactness and contiguity

Using Maptitude's measure of compactness, the district earns a Reock and Polsby-Popper rating of 0.43. The district is contiguous.

Adherence to county boundaries and other existing political subdivisions

This district is entirely within Washington County and the city of Montpelier is not divided. Feedback from the Montpelier BCA indicated a preference for remaining a two-member district.

Patterns of geography, social interaction, trade, political ties, and common interests Montpelier is the shire town of Washington County and the capital of Vermont. It is a member of the Central Vermont Regional Planning Commission, the Central Vermont Solid Waste District, and is within the District #5 Environmental District for Act 250 and other state land use permits. Montpelier has its own high school.

Montpelier is served by Interstate 89 and Route 2 east and west and Route 12 north and south; Route 302 heads south then east towards Barre. The Winooski River and the North Branch flow through the City. Montpelier is its own commercial center.

Washington-5

Washington-5 is a one-member district consisting of East Montpelier and Middlesex. Its 2020 population is 4,377 people.

This is the current Washington-5 one-member district.

East Montpelier and Middlesex also formed a single-member district in 2002, while in 1992, East Montpelier was grouped with Calais, Woodbury, Marshfield, and Plainfield in a two-member district; Middlesex was combined with Worcester, Elmore, and a part of Montpelier in a single-member district. In the 1982 plan, East Montpelier was combined with Cabot, Woodbury, Marshfield, and Plainfield in two-member district, while Middlesex and Worcester joined Calais in a single-member district. In 1974, East Montpelier and Plainfield formed a two-member district, while Middlesex and Worcester were part of a two-member district with Duxbury and Waterbury. The first apportionment, in 1965, put East Montpelier, Calais and Woodbury together in a single-member district, and placed Middlesex with Worcester and Waterbury in a two-member district.

In its response to the LAB's initial, tentative plan, the East Montpelier BCA strenuously opposed the division of the town into two separate districts, which that plan proposed (and is also true for the final, majority plan). The alternative district map keeps all of East Montpelier in one district with Middlesex, which both towns prefer.

Substantial equality

At a 2020 population of 4,377, this district is 90 residents larger than the ideal, a deviation of +2.1%.

Geographical compactness and contiguity

Using Maptitude's measure of compactness, the district earns a Reock score of 0.45 and a Polsby-Popper rating of 0.37. The district is contiguous.

Adherence to county boundaries and other existing political subdivisions

This district is entirely within Washington County and there are no town divisions.

Patterns of geography, social interaction, trade, political ties, and common interests
East Montpelier and Middlesex are members of the Central Vermont Regional Planning
Commission and the Central Vermont Solid Waste District; they are also within the
jurisdiction of Environmental District #5 for Act 250 and other state land use purposes.
Both towns are in the Washington Central Unified Union School District.

Routes 2 and 12 connect East Montpelier and Middlesex (via Montpelier); Interstate 89 provides an alternate link. Wrightsville Reservoir, on the North Branch of the Winooski River, lies at the border of the towns.

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Washington-6

Washington-6 is a one-member district consisting of Calais, Marshfield, and Plainfield. The 2020 district population is 4,480 people.

This is the current Washington-6 one-member district.

The 2002 district plan also grouped Calais with Marshfield and Plainfield in a single-member district, while in 1992, East Montpelier and Woodbury joined with Calais, Marshfield, and Plainfield in a two-member district. In the 1982 plan, Calais, Middlesex, and Worcester formed a one-member district, while Marshfield and Plainfield joined Cabot, East Montpelier, and Woodbury in a two-member district. In 1974, East Montpelier and Plainfield were a two-member district, while Cabot, Calais, and Marshfield formed a single-member district. The first apportionment, in 1965, put East Montpelier, Calais and Woodbury together in a single-member district, and placed Cabot, Marshfield, and Plainfield in a two-member district.

Substantial equality

At a 2020 population 4,480, this district is 193 residents larger than the ideal, a deviation of +4.5%.

Geographical compactness and contiguity

Using Maptitude's measure of compactness, the district earns a Reock score of 0.48 and a Polsby-Popper rating of 0.57. The district is contiguous.

Adherence to county boundaries and other existing political subdivisions

This district is entirely within Washington County and there are no town divisions.

Patterns of geography, social interaction, trade, political ties, and common interests Calais, Marshfield, and Plainfield are all within the jurisdiction of Environmental District #5 for Act 250 and other state land use purposes. Marshfield and Plainfield are members of the Twinfield Union School District, while Calais is a member of the Washington Central Unified Union School District.

Plainfield is linked to Marshfield via Route 2 and to Calais via 214 and 14. Calais and Marshfield have a direct connecting route on the smaller Calais-Marshfield road. The primary commercial centers that serve the district are Barre and Montpelier.

Washington-7

Washington-7 is a two-member district consisting of Duxbury, Fayston, Moretown, Waitsfield, and Warren. The 2020 district population is 8,351 people.

This is the current Washington-7 two-member district.

In 2002, Duxbury was joined with Buels gore and Huntington (from Chittenden County) and Waterbury in a two-member district; Fayston, Waitsfield, and Warren comprised a single-member district; and Moretown was in a two-member district with Northfield and Roxbury.

In 1992 and 1982, Duxbury was in the same two-member district with Buels gore, Huntington, and Waterbury; Fayston was part of a single-member district with Granville, Waitsfield, and Warren; and Moretown was in the same two-member district with Northfield and Roxbury.

In 1974, Duxbury was a part of a two-member district with Middlesex, Waterbury, and Worcester, while Fayston, Moretown, Waitsfield, and Warren formed a single-member district.

In the 1965 apportionment plan, Duxbury, Fayston, Moretown, Waitsfield, and Warren formed a single-member district.

Substantial equality

With its 2020 population of 8,351, this district is 223 residents smaller than the ideal, for a deviation of -2.6%.

Geographical compactness and contiguity

Using Maptitude's measure of compactness, the district earns a Reock score of 0.50 and a Polsby-Popper rating of 0.53. The district is contiguous.

Adherence to county boundaries and other existing political subdivisions

This district is entirely within Washington County and there are no town divisions.

Patterns of geography, social interaction, trade, political ties, and common interests
These towns are all within the District #5 Environmental District for Act 250 and other
state land use permits and-- along with Waterbury-- form the Harwood Unified Union
School District.

Route 100 is the connecting road through these towns (technically, Route 100 passes very close to Fayston, and one takes Center Fayston Road or Route 17 into Fayston from Route 100). Warren, Waitsfield and Fayston are commonly known as the Mad River Valley, and the Mad River runs down to the Winooski River through Moretown. The Long Trail runs through Duxbury and Fayston. The commercial centers serving the district are Waterbury and Montpelier.

The LAB's tentative district plan proposed dividing this district into two one-member districts; Fayston was divided into two parts, one part for each district.

The BCAs of four of the five towns in this district (all but Duxbury) provided feedback to the Apportionment Board, and all expressed a preference to remain as a two-member district—especially Fayston. Preserving the status quo was the most practical way to satisfy statutory redistricting requirements as well the wishes of the towns in the district.

Washington-Chittenden

Washington-Chittenden is a two-member district consisting of Waterbury (from Washington County) and Bolton, Buels gore and Huntington (from Chittenden County). The 2020 district population is 8,595 people.

This is the current Washington-Chittenden district.

In 2002, 1992, and 1982, Waterbury and Duxbury were in a two-member district with Duxbury, Buels gore and Huntington. In the 1974 plan, Waterbury joined Duxbury, Middlesex, and Worcester in a two-member district, while Huntington was placed in a single-member district with Hinesburg and St. George.

Meanwhile, in 2002, 1992, and 1982, Bolton was in a two-member district with Jericho and Underhill, and in 1974 the three towns together with Richmond formed a two-member district.

In the first apportionment plan of 1965, Waterbury, Middlesex, and Worcester were a two-member district; Bolton and Huntington were grouped with Richmond and Underhill in a single-member district,

Substantial equality

With a 2020 population of 8,595, this district is 21 residents larger than the ideal, for a deviation of 0.2%.

Geographical compactness and contiguity

Using Maptitude's measure of compactness, the district earns a Reock score of 0.33 and a Polsby-Popper rating of 0.30. The district is contiguous.

Adherence to county boundaries and other existing political subdivisions
This district includes towns from Washington and Chittenden Counties. No towns are divided.

Patterns of geography, social interaction, trade, political ties, and common interests
Bolton and Huntington are not linked by any roads, though the Long Trail does connect
the two towns. Bolton and Waterbury are linked by Route 2 and Interstate 89.
Huntington is not linked to Waterbury by any road (this is true of the existing
Washington-Chittenden-1 district). The commercial center for the district is the
Burlington and Williston areas for Huntington, Buels Gore and Bolton, and Waterbury
for the Waterbury portion of this district.

Although the smaller towns of Huntington and Bolton supported the LAB majority's proposed single-member district, the Waterbury BCA objected strongly to the proposed

Windham County

The Alternate plan contains 11 House districts that include at least one Windham County town, 10 of which will be described in this section*:

- eight districts that consist of only Windham County towns;
- one district that has a majority of population in Windham County but also includes one Bennington County town; and
- one district that has a majority of population in Windham County but also includes two Windsor County towns.

Current Windham County districts are notable for the wide range of population deviations represented: from the fourth-largest positive deviation in the state (for Windham-Bennington-Windsor, +20.6%) to the second-largest negative deviation (for Windham-3, -18.0%.) There are also several districts with very small deviation as well: for example, Windham-1 with +0.6%, and Windham-6, with +0.8%.

Nevertheless, in this region large negative deviations are the most common, and became the focus of redistricting work.

Windham-1

Windham-1 is a single-member district consisting of Guilford and Vernon. The 2020 district population is 4,312 people.

This is the current Windham-1 district.

In 2002 and 1992, the same pair of towns also formed a single-member district, while in 1982 they were combined with a part of Brattleboro in a single-member district. In the 1974 plan, Guilford and Vernon joined Halifax to form a single-member district.

In the first apportionment plan, in 1965, Guildford and Vernon were grouped with Halifax and Marlboro as a single-member district.

This district was unchanged in the LAB's tentative proposal (and also in the majority's final plan) and neither Guilford nor Vernon submitted feedback to the Board.

* The remaining district (New-Windsor-Windham) is described in the Windsor County section of this report.

Substantial equality

With a 2020 population of 4,312, this district is 25 residents larger than the ideal—a deviation of +0.6%.

Geographical compactness and contiguity

Using Maptitude's measure of compactness, the district earns a Reock score of 0.43 and a Polsby-Popper rating of 0.60. The district is contiguous.

Adherence to county boundaries and other existing political subdivisions This district consists of two Windham County towns in their entirety.

Patterns of geography, social interaction, trade, political ties, and common interests Guilford and Vernon are within the jurisdiction of Environmental District #2 for Act 250 and other state land-use purposes, and both are part of the Windham Solid Waste Management District. They are also both members of the Windham Southeast Supervisory Union.

Route 5 and Interstate 91 closely follow the north-south border between the towns. Vernon's eastern boundary is the Connecticut River and the State of New Hampshire; the southern border of Guilford and Vernon is Massachusetts. Brattleboro is the regional hub for commerce and services.

New-Windham-2-1, New-Windham-2-2, New-Windham-2-3 (Brattleboro)

These three single-member districts together encompass the city of Brattleboro and the surrounding town. Their combined population is 12,184 people, or an average of approximately 4,061 people per district. (The actual district populations are, respectively: 4,068, 4,057, and 4,059.)

Brattleboro currently is divided into the Windham-2-1, 2-2, and 2-3 single-member districts, and was similarly divided in the 2002 and 1992 plans.

In 1982, Brattleboro was subdivided into three single-member districts and an additional part of the town was joined with Guilford and Vernon to form another single-member district. In 1974, Brattleboro had four single-member districts and in 1965 it had five single-member districts.

The Brattleboro BCA submitted feedback about the LAB's initial district plan; members of the Board also had several conversations with a BCA member to clarify elements of the redistricting process and answer questions.

Substantial equality

- New-Windham-2-1 population: 4,068; deviation: -219; pct deviation: -5.4%
- New-Windham-2-2 population: 4,057; deviation: -230; pct deviation: -5.3%
- New-Windham-2-3 population: 8,059; deviation: -228; pct deviation: -5.3%

Geographical compactness and contiguity

- New-Windham-2-1 Reock: 0.48; Polsby-Popper: 0.66
- New-Windham-2-2 Reock: 0.43; Polsby-Popper: 0.49
- New-Windham-2-3 Reock: 0.42; Polsby-Popper: 0.41

Adherence to county boundaries and other existing political subdivisions These three districts each consist of a part of one Windham County town.

<u>Patterns of geography, social interaction, trade, political ties, and common interests</u> Brattleboro is within the jurisdiction of Environmental District #2 for Act 250 and other state land-use purposes, and is part of the Windham Solid Waste Management District. Brattleboro belongs to the Windham Southeast School District.

Brattleboro is the largest town in Windham County and its eastern boundary is the Connecticut River and the State of New Hampshire. Interstate 91 and Route 5 run north and south; Route 9 runs east and west through the town; and Route 30 extends northwest from Brattleboro, ultimately reaching its northern terminus in Middlebury. Brattleboro serves as its own commercial center.

New-Windham-3

New-Windham-3 is a two-member district consisting of Brookline, Rockingham, and Westminster. The 2020 district population is 8,388 people.

Brookline, Rockingham, and a small portion of northeast Westminster are currently in the two-member Windham-3 district, along with Athens, Grafton, and Windham. The bulk of Westminster is currently in the two-member Windham-4, with Dummerston and Putney. This same configuration also formed a two-member district in 2002.

In 1992 and 1982, Westminster was in a two-member district with Dummerston, Athens, and Putney, and in 1974, Westminster was in a two-member district with the same towns plus Grafton.

In the first apportionment plan, in 1965, part of Westminster was with Putney to form a single-member district, while Rockingham and the remaining part of Westminster was placed with Athens in a two-member district.

In the 1992 plan, Rockingham was in a two-member district with Grafton, Windham and a part of Springfield. In 1982, Rockingham, Grafton and Windham were a two-member district. The 1974 plan put Rockingham in a two-member district by itself.

The first apportionment, in 1965, joined combined Rockingham with Athens and a part of Westminster, in a single-member district

In 1992, Brookline and Townshend formed a single-member district with Marlboro and Newfane. In 1982, Brookline, Newfane, Townshend, Marlboro, and Dover made up a single-member district. In 1974, Brookline, Newfane, and Townshend made a single-member district with Stratton, Wardsboro, and Windham.

In the first apportionment plan, in 1965, Brookline and Newfane were linked with Dummerston in a single-member district.

The LAB's tentative (and final) proposal consists of a division of this district into two single-member districts, achieved by splitting Rockingham. The Rockingham BCA opposes this division.

The Westminster and Brookline BCAs both proposed different district configurations. Westminster proposed adjusting their current district and keeping two-member representation. Brookline suggested a district comprising Brookline, Athens, Newfane, Townshend, and Grafton. Unfortunately, these two proposals are incompatible, and Brookline's in particular, while making sense geographically and in view of connections among towns, ran up against the demands of shifting population numbers. The members of the Board's minority were unable to find a way to accommodate their suggestions that would achieve Substantial equality of representation.

Substantial equality

With a 2020 population of 8,388, this district is 186 residents smaller than the ideal—a deviation of -2.2%.

Geographical compactness and contiguity

Using Maptitude's measure of compactness, the district earns a Reock score of 0.29 and a Polsby-Popper rating of 0.35. The district is contiguous.

Adherence to county boundaries and other existing political subdivisions This district consists of three Windham County towns in their entirety.

Patterns of geography, social interaction, trade, political ties, and common interests All towns are within the jurisdiction of Environmental District #2 for Act 250 and other state land-use purposes, and Brookline and Westminster are part of the Windham Solid Waste Management District; Rockingham is in the Southern Windsor/Windham Counties district. Rockingham and Westminster are in the Windham Northeast Supervisory Union; Brookline is in the Windham Central SU.

Route 5 and Interstate 91 connect Rockingham and Westminster, which both have the Connecticut River and the state of New Hampshire as their eastern border. The only roads that link Brookline to the rest of the district are Routes 35 and 121 via Athens and the southeast corner of Grafton. Bellows Falls (in Rockingham) is a local center for commerce and services; Springfield is a regional hub to the north.

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New-Windham-4

New-Windham-4 is a single-member district consisting of Dummerston and Putney. The 2020 district population is 4,482 people.

Dummerston and Putney are currently in the two-member Windham-4 district, along with most of Westminster. A similar configuration of these three towns also formed a two-member district in 2002.

In 1992 and 1982, Dummerston and Putney were in a two-member district with Athens and Westminster; in 1974, the town grouping also included Grafton.

In the first apportionment plan, in 1965, Dummerston formed a single-member district with Brookline and Newfane, and Putney joined part of Westminster to form a single-member district.

The current Windham-3 and Windham 4 two-member, adjacent districts are, respectively, the #2 and #4 districts statewide for largest negative

deviation: -18.0% and -14.4%. Moreover, the combined population of the two districts, 14,344 people, is too small to be represented by four House members (the "ideal" for four members 17,148 people.)

This presented a challenge that we were only able to solve by joining Westminster with towns to the north.

Substantial equality

With a 2020 population of 4,482, this district is 195 residents larger than the ideal—a deviation of +4.5%.

Geographical compactness and contiguity

Using Maptitude's measure of compactness, the district earns a Reock score of 0.37 and a Polsby-Popper rating of 0.49. The district is contiguous.

Adherence to county boundaries and other existing political subdivisions This district consists of two Windham County towns. Neither is divided.

Patterns of geography, social interaction, trade, political ties, and common interests
Both towns are within the jurisdiction of Environmental District #2 for Act 250 and other
state land-use purposes, and are part of the Windham Solid Waste Management District.
Dummerston and Putney are part of the Windham Southeast School District, with
Brattleboro and Guilford.

The eastern border of Dummerston and Putney is the Connecticut River and the State of New Hampshire. Route 5 and Interstate 91 connect Dummerston and Putney north and south. The commercial center that serves the district is Brattleboro or Keene, New Hampshire.

New-Windham-5

New-Windham-5 is a single-member district consisting of Newfane, Townshend, and most (1,622 residents) of Marlboro. The 2020 district population is 4,558 people. The remainder of Marlboro is in New-Windham-6.

Newfane, Townsend, and Marlboro currently form the Windham-5 district. The same grouping of towns also formed a single-member district in 2002.

In 1992, Marlboro, Newfane, and Townshend formed a single-member district with Brookline; in 1982, the same four towns formed a single-member district with Dover. In the 1974 plan, Newfane and Townshend made a single-member district with Brookline, Stratton, Wardsboro, and Windham, while Marlboro was in a two-member district with Dover, Wilmington, Readsboro, Searsburg, Somerset, Stamford, and Whitingham.

In the first apportionment plan, in 1965, Newfane was grouped with Brookline and Dummerston in a single-member district and Townshend joined Grafton, Jamaica, Stratton, Wardsboro, and Windham in a single-member district. In the same year, Marlboro was in a single-member district with Guilford, Halifax, and Vernon.

The current Windham-5 district is unchanged in the LAB's tentative and final (majority) plans, which Newfane supports. (Neither Marlboro nor Townshend submitted feedback to the Board.)

We chose to move a portion of Marlboro to New-Windham-6 in order to reduce the +8.7% deviation for the current Windham-5 to below 8%, which was our goal for the all districts in the plan.

Substantial equality

With its 2020 population of 4,558, this district is 271 residents larger than the ideal—a deviation of +6.3%.

Geographical compactness and contiguity

Using Maptitude's measure of compactness, the district earns a Reock score of 0.30 and a Polsby-Popper rating of 0.38. The district is contiguous.

Adherence to county boundaries and other existing political subdivisions
This district consists of three Windham County towns, one of which is divided.

Patterns of geography, social interaction, trade, political ties, and common interests All towns are within the jurisdiction of Environmental District #2 for Act 250 and other state land-use purposes, and are part of the Windham Solid Waste Management District. They are all members of the Windham Southeast Supervisory Union.

Route 30 connects Townshend to Newfane and local roads connect Newfane and Marlboro. The West River runs through Townshend and Newfane. The commercial center that serves the district is Brattleboro or Keene, New Hampshire.

New-Windham-6

New-Windham-6 is a single-member district consisting of Halifax, Wilmington, Whitingham, and a portion (100 residents) of Marlboro. The 2020 district population is 4,470 people. The remainder of Marlboro is in New-Windham-5.

Halifax, Wilmington, and Whitingham comprise the current Windham-6 single-member district. In 2002, the same configuration of towns also formed a single member district.

The 1992 and 1982 plans placed Halifax, Wilmington, and Whitingham in a single-member district with Searsburg and Somerset. In 1974, Halifax joined Vernon and Guilford in a single-member district, while Wilmington and Whitingham were in a two-member district with Readsboro, Searsburg, Somerset, Stamford, Dover, and Marlboro.

In the 1965 plan, Halifax was grouped with Guilford, Marlboro, and Vernon in a single-member district, and Wilmington and Whitingham were placed in a single-member district with Dover, Pownal, Readsboro, Searsburg, and Stamford.

The current Windham-6 district is unchanged in the LAB's tentative and final (majority) plans, and none of the member towns submitted feedback to the Board. We chose to move a portion of Marlboro to New-Windham-6 in order to reduce the +8.7% deviation for the current Windham-5 to below 8%, which was our goal for the all districts in the plan.

Substantial equality

With a 2020 population of 4,470, this district is 183 residents larger than the ideal—a deviation of +4.3%.

Geographical compactness and contiguity

Using Maptitude's measure of compactness, the district earns a Reock score of 0.51 and a Polsby-Popper rating of 0.60. The district is contiguous.

Adherence to county boundaries and other existing political subdivisions
This district consists of four Windham County towns, one of which is divided.

Patterns of geography, social interaction, trade, political ties, and common interests All towns are within the jurisdiction of Environmental District #2 for Act 250 and other state land-use purposes, and all but Whitingham are part of the Windham Solid Waste Management District; Whitingham has its own approved plan. Halifax, Wilmington, and Whitingham belong to the Windham Southwest Supervisory Union; Marlboro is in Windham Central

Route 100 links Wilmington and Whitingham, and Route 112 then connects to Halifax. The Harriman Reservoir overlaps Wilmington and Whitingham. Halifax and Whitingham are bordered on the south by the state of Massachusetts. Brattleboro is the regional hub for commerce and services.

New-Windham-Bennington

New-Windham-Bennington is a single-member district consisting of Dover, Somerset, Stratton, Wardsboro, (all from Windham County) and Winhall (from Bennington County). The 2020 district population is 4,295 people.

In the current plan, Dover, Somerset, and Wardsboro are grouped with Readsboro, Searsburg, Stamford, and a small portion of southwest Whitingham in the single-member Windham-Bennington district, while Stratton and Winhall are joined with Jamaica, Londonderry and Weston in the single-member Windham-Bennington-Windsor district. Except for the portion of Whitingham, in 2002 these configurations of towns also formed two single-member districts in 2002.

In the 1992 plan, Dover, Stratton, and Wardsboro were part of a single-member district with Jamaica and Londonderry; Somerset was in a single-member district with Searsburg, Halifax, Whitingham, and Wilmington; and Winhall was in a single-member district with Danby, Dorset, Landgrove, and Peru.

In the 1982 plan, Dover was part of a single-member district with Brookline, Marlboro, Newfane, and Townshend; Somerset was in a single-member district with Searsburg, Halifax, Whitingham and Wilmington; Stratton and Wardsboro were grouped in a single-member district with Jamaica, Londonderry, and Weston; and Winhall was combined with Danby, Dorset, Landgrove, Manchester, Mount Tabor, and Peru in a two-member district.

In 1974, Dover and Somerset were in a two-member district with Marlboro, Wilmington, Readsboro, Searsburg, Stamford, and Whitingham; Stratton and Wardsboro were grouped in a single-member district with Brookline, Newfane, Townshend, and Windham; and Winhall was part of a two-member district with Dorset, Peru, Landgrove, and Manchester.

In the first apportionment plan, in 1965, Dover was in a two-member district with Pownal, Readsboro, Searsburg, Stamford, Whitingham, and Wilmington; Stratton and Wardsboro were combined with Grafton, Jamaica, Townshend, and Windham in a single-member district; and Winhall was in a two-member district with Dorset, Landgrove, Manchester, and Peru. Somerset was not mentioned in the 1965 plan, apparently being considered an unorganized town or a town without voters.

The LAB's initial, tentative plan rearranged many of the towns in the current Windham-Bennington and Windham-Bennington-Windsor districts, along with other towns in the

region, into several newly-configured districts.

Of the five towns in New-Windham-Bennington, Dover, Stratton, and Winhall provided feedback to the Board.

Dover requested to retain Windham-Bennington unchanged, while Stratton and Winhall each proposed configurations of towns with some overlap but also some disagreement. (We also received similar, partially-conflicting feedback-- regarding preferred groupings of towns-- from Jamaica, Londonderry, and Weston.)

While it was not possible to fully accommodate all requests and preferences, this district does keep Dover, Somerset, and Wardsboro together, as well as Stratton and Winhall.

Substantial equality

With a 2020 population of 4,295, this district is 8 residents larger than the ideal—a deviation of +0.2%.

Geographical compactness and contiguity

Using Maptitude's measure of compactness, the district earns a Reock score of 0.44 and a Polsby-Popper rating of 0.54. The district is contiguous.

Adherence to county boundaries and other existing political subdivisions
This district consists of four Windham County towns and one Bennington County town, none of which is divided

Patterns of geography, social interaction, trade, political ties, and common interests All towns are within the jurisdiction of Environmental District #2 for Act 250 and other state land-use purposes, and all but Winhall are part of the Windham Solid Waste Management District; Winhall has its own approved plan. Dover, Stratton, and Wardsboro belong to the Windham Central Supervisory Union, while Winhall is a member of the Bennington-Rutland SU.

Dover and Wardsboro are linked via Route 100, and Wardsboro connects to Stratton and Winhall via local roads. This district is almost entirely contained within the Green Mountain National Forest and is dominated by mountainous terrain; Mount Snow and Stratton Mountain ski areas are both in the district.

Manchester and Brattleboro are the nearest regional hubs for commerce and services.

New-Windham-Windsor

New-Windham-Windsor is a single-member district consisting of Jamaica and Londonderry (from Windham County) and Andover and Weston (from Windsor County). The 2020 district population is 4,115 people.

In the current plan, Andover is in the single-member Windsor-3-1 district, with Baltimore, Chester, and a part of northwest Springfield; Jamaica, Londonderry, and

Weston are grouped with Stratton and Winhall in the single-member Windham-Bennington-Windsor district. Each of these configurations (with a slightly different portion of Springfield) also formed single-member districts in the 2002 plan.

In 1992, Andover and Weston were grouped with Baltimore and Chester as a single-member district, while Jamaica and Londonderry were in a single-member district with Dover and Wardsboro.

In 1982, Andover was paired with Chester to form a single-member district; Jamaica, Londonderry, and Weston were part of a single-member district with Stratton and Wardsboro. The 1974 plan made a two-member district out of Andover, Jamaica, Londonderry, and Weston.

The first apportionment plan, in 1965, made a single-member district out of Andover and Chester; created a two-member district consisting of Londonderry, Ludlow, Mount Holly, and Weston; and grouped Jamaica with Grafton, Stratton, Townshend, Wardsboro, and Windham in a single-member district.

As noted in the district overview for New-Windham-Bennington, the LAB's initial, tentative plan rearranged many of the towns in the current Windham-Bennington and Windham-Bennington-Windsor districts, along with other towns in the region, into several newly-configured districts.

Three of the four towns in New-Windham-Windsor—Jamaica, Londonderry, and Weston-- provided feedback to the Board, which included some coinciding preferences but also unresolvable disagreement regarding their requested grouping of towns. (We also received similar, partially conflicting feedback from Stratton and Winhall, involving overlapping configurations of towns in this region.)

While it was not possible to fully accommodate all requests and preferences, this district does keep Londonderry and Weston together, which they each prefer.

Substantial equality

With a 2020 population of 4,115, this district is 172 residents smaller than the ideal—a deviation of -4.0%.

Geographical compactness and contiguity Using Maptitude's measure of compactness, the district earns a Reock score of 0.35 and a Polsby-Popper rating of 0.37. The district is contiguous.

Adherence to county boundaries and other existing political subdivisions
This district consists of two Windham County towns and two Windsor County towns, none of which is divided.

Patterns of geography, social interaction, trade, political ties, and common interests
All towns are within the jurisdiction of Environmental District #2 for Act 250 and other

state land-use purposes, but are split between three Solid Waste Management Districts as well as three supervisory unions.

Route 100 links Jamaica, Londonderry, and Weston, and Weston a=connects to Andover via the Chester Mountain and Andover-Weston Roads. Route 11 also links Andover and Londonderry directly. Ludlow, Springfield, and Bellows falls are regional commerce hubs for the district.

Windsor County

The Alternate plan contains thirteen* House districts that include at least one Windsor County town, ten of which will be described in this section:

- six districts that consist solely of Windsor County towns;
- two districts (Windsor-Orange-1, Windsor-Orange-2) that have a majority of their population in Windsor County but also include one or more towns in Orange County;
- one district (New-Windsor-Windham) that has a majority of its population in Windsor County but also includes several towns from Windham County; and
- one district (New-Windsor-Addison-Rutland) that has a majority of its population in Windsor County but also includes towns from Addison and Rutland counties.

The existing districts in this region are notable—especially compared to many districts in other regions of the state—for their modest population deviations: from -4.7% for Windsor-4-2 (portion of Hartford) and Windsor-Orange-1 (Royalton, Tunbridge) to +5.5% for Windsor-Orange-2 (Norwich, Sharon, Strafford, Thetford). Meanwhile, of the 15 Windsor County town BCAs that submitted feedback to the Apportionment Board, nine stated a preference for the status quo; an additional three towns requested a mutually agreeable small change to their current district.

Therefore, the overall approach we took in this region was to create districts that (for the most part) preserve the status quo, while also attempting to accommodate the requests of those towns that expressed a desire for change.

Windsor-1

Windsor-1 is a two-member district consisting of Hartland, West Windsor, and Windsor. Its 2020 population is 8,349 people.

* The remaining three districts (New-Rutland-Windsor-1, New-Rutland-Windsor-2, New-New-Windham-Windsor) will be described as part of the Rutland and Windham County sections of this report.

This is the current Windsor-1 district.

In 2002 and 1992, Hartland and West Windsor formed one single-member district and Windsor was a separate single-member district, while in 1982 and 1974, Hartland, West Windsor, and Windsor formed a two-member district.

In 1965, Hartland was in a single-member district with a portion of Hartford, while West Windsor, Windsor, and Reading comprised a two-member district.

Of the three towns in this district, only the Windsor BCA provided feedback to the Apportionment Board about their initial, proposed district. The LAB's majority plan (which is unchanged in the final proposal) divides the current Windsor-1 into two single-member districts, one of which combines Hartland and a portion of West Windsor, and the other combines Windsor and the remainder of West Windsor. The Windsor BCA opposed this division and instead suggested forming a single-member district with Windsor and all of West Windsor.

However, West Windsor and Windsor together have population 4,903, which is a deviation of 14.4% over the ideal one-member district size. By preserving the status quo, the alternate proposal leaves West Windsor undivided and together with Windsor.

Substantial equality

At a 2020 population of 8,595, this district is 225 residents smaller than the ideal, for a deviation of -2.6%.

Geographical compactness and contiguity

Using Maptitude's measure of compactness, the district earns a Reock score of 0.50 and a Polsby-Popper rating of 0.62. The district is contiguous.

Adherence to county boundaries and other existing political subdivisions All towns in this district are from Windsor County, and none are divided.

Patterns of geography, social interaction, trade, political ties, and common interests
The towns in this district are within the jurisdiction of Environmental District #7 for Act
250 and other state land use permit purposes, and they are all part of the Windsor
Southeast Supervisory Union. Hartland is a member of the Greater Upper Valley Solid
Waste Management District, while West Windsor and Windsor are part of the Southern
Windsor/Windham Counties district. The eastern border of both Hartland and Windsor is
the Connecticut River, which is also the state boundary with New Hampshire.

Route 44 links West Windsor and Windsor, and Windsor is connected to Hartland by Route 5 and Interstate 91. Local routes (County Road, Brownsville-Hartland Road) link West Windsor and Hartland. The commercial centers serving the district are Windsor and White River Junction-West Lebanon, New Hampshire. Interstate 91 connects the district north and south to other parts of Vermont and New England.

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New-Windsor-2

New-Windsor-2 is a two-member district consisting Baltimore, Cavendish, and Weathersfield. Its 2020 population is 4,463 people.

This is the current Windsor-2 district, plus Baltimore. The 2012 district plan grouped Baltimore with Andover, Chester, and a small portion of Springfield.

In 2002, Andover, Baltimore, and Chester were part of a single-member district along with a similar, but not identical, portion of Springfield, while Cavendish and Weathersfield formed a single-member district.

In 1992, Weathersfield and Cavendish also formed a single-member district, and Baltimore was in a district with Andover, Chester, and Weston. Previously, in the 1982 and 1974 plans, Weathersfield and Cavendish joined Ludlow in a two-member district, while Baltimore was in a two-member district with a portion of Springfield.

The first apportionment plan, in 1965, made Weathersfield and Cavendish into a single-member district; Baltimore was paired with Springfield in a two-member district.

Substantial equality

With a 2020 population of 4,463, this district is 176 residents larger than the ideal, for a deviation of +4.1%.

Geographical compactness and contiguity

Using Maptitude's measure of compactness, the district earns a Reock score of 0.48 and a Polsby-Popper rating of 0.64. The district is contiguous.

Adherence to county boundaries and other existing political subdivisions All towns in this district are from Windsor County, and none are divided.

Patterns of geography, social interaction, trade, political ties, and common interests
All towns in the district are part of the Southern Windsor/Windham Counties Solid Waste
Management District, and are within the jurisdiction of Environmental District #2 for Act
250 and other state land use permit purposes.

Baltimore and Cavendish are part of the Green Mountain Unified School District (with Andover and Chester); Weathersfield is its own school district, and is a member of the Windsor Southeast Supervisory Union. The eastern border of Weathersfield is the Connecticut River, which is also the state boundary with New Hampshire.

Route 131 connects Weathersfield and Cavendish, while Baltimore links to Weathersfield via local routes (Baltimore/Green Valley Road; Graves/Quarry Road.) Springfield serves as the commercial center for this district to the east and south, and Ludlow to the west. Claremont, NH, is an additional nearby hub, via 131 to the east. Interstate 91 connects the district north and south to other parts of Vermont and New England.

New-Windsor-3

New-Windsor-3 is a two-member district consisting of the entire city of Springfield. Its 2020 population is 9,062 people.

This is the current Windsor-3 district, plus the remaining small portion of Springfield (342 people) who are in the current Windsor-3-1 district.

This part of Springfield (excluding a small but different northwest portion) was also a two-member district in 2002.

The 1992 reapportionment plan subdivided one part of Springfield as a two-member district and placed the remaining part in a two-member district with Rockingham, Grafton, and Windham. In 1982, 1974, and 1965, Springfield was subdivided into two parts—one formed a single-member district on its own; the other was linked with the town with Baltimore to form a two-member district.

Substantial equality

At a 2020 population of 9,062, this district is 488 residents larger than the ideal, for a deviation of +5.7%.

Geographical compactness and contiguity

Using Maptitude's measure of compactness, the district earns a Reock score of 0.62 and a Polsby-Popper rating of 0.75. The district is contiguous.

Adherence to county boundaries and other existing political subdivisions

The entire Windsor County city of Springfield is included in this district, which the city strongly prefers: "Keeping the boundaries of Springfield intact with two-member representation causes the least amount of havoc and is easily understood by voters. The population of Springfield is 9062 and is within the allowed deviation percentage. The BCA feels strongly that Springfield would more likely be efficiently and coherently represented in Montpelier if we're all pulling the same wagon and should be a two-member single district."

Patterns of geography, social interaction, trade, political ties, and common interests Springfield is within the jurisdiction of Environmental District #2 for Act 250 and other state land use permit purposes, and is part of the Southern Windsor/Windham Counties Solid Waste Management District. The city comprises its own school district. The eastern border of Springfield is the Connecticut River, which is also the state boundary with New Hampshire.

The city itself is the commercial center of the district and is a hub for smaller communities in the district—such as North Springfield, West Springfield, and Hardscrabble Corner. Interstate 91 connects the district north and south to other parts of

Vermont and New England.		
V 4 1 N E 1 1		

Windsor-4-1

Windsor-4-1 is a single-member district consisting of Barnard, Pomfret, and a portion of Hartford. Its 2020 population is 4,424 people.

This is the current Windsor-4-1 district. The remainder of Hartford comprises the current two-member Windsor-4-2 district.

In 2002 and 1992, Barnard, Pomfret and a portion of western Hartford also formed a one-member district, while the remainder of Hartford formed a two-member district. In 1982, Barnard and Pomfret were part of a two-member district with Bridgewater, Plymouth, Reading, and Woodstock, while a portion of Hartford was combined with Norwich in a single-member district. In 1974, Barnard, Bridgewater, Plymouth, Reading, and Woodstock formed a two-member district; Hartford was a two-member district on its own; and Pomfret and Sharon were in a two-member district with Norwich, Royalton, and Strafford.

The 1965 apportionment plan gave Barnard and Pomfret a two-member district with Bridgewater, Plymouth, Sherburne (Killington), and Woodstock. Hartford consisted of a two-member district on its own, a single-member district with Norwich, and a single-member district with Hartland

Substantial equality

With a 2020 population of 4,424 residents, this district is 137 residents larger than the ideal, for a deviation of +3.2%.

Geographical compactness and contiguity

Using Maptitude's measure of compactness, the district earns a Reock score of 0.41 and a Polsby-Popper rating of 0.53. The district is contiguous.

Adherence to county boundaries and other existing political subdivisions

This district lies entirely within Windsor County, and both Barnard and Pomfret are undivided. With 2020 population 10,686, Hartford is too large to be a two-member district, so must be divided into two districts, at minimum. The alternate plan preserves the status quo, which divides Hartford between this district and the two-member Windsor-4-2 district (described below.)

The majority plan proposes dividing Hartford between three, single-member districts—one of which is similar to Windsor-4-1, but with 221 fewer residents of Hartford. The remainder of Hartford is then split into two single-member districts. In their feedback to the LAB, Hartford noted that "the BCA voted unanimously to recommend the alternate plan, as drafted/proposed by Jeanne Albert."

Patterns of geography, social interaction, trade, political ties, and common interests All towns are in the jurisdiction of Environmental District #3 (Springfield) for Act 250 and other land use permit programs, but each is in its own Solid Waste Management District. Barnard and Pomfret are part of the Windsor Central Unified Union School District (with Bridgewater, Killington, Plymouth, Reading, and Woodstock); the city of Hartford comprises its own school district.

Pomfret and Barnard are connected directly by the Stage and East Barnard Roads and via Woodstock by Pomfret Road and Route 12. The Hartford portion of the district has Route 4 for part of its eastern/southeastern border; via Woodstock, Route 4 links Hartford to Pomfret. The commercial centers serving the district are Woodstock, White River Junction (in Hartford), and West Lebanon, New Hampshire. The White River and Interstate 89 cut through Hartford running northwest to southeast.

Windsor-4-2

Windsor-4-2 is a two-member district consisting of that portion of Hartford not included in Windsor-4-1. Its 2020 population is 8,170 people.

This is the current Windsor-4-2 district. The remainder of Hartford is part of the current one-member Windsor-4-1 district.

In 2002 and 1992, Barnard, Pomfret and a portion of western Hartford also formed a one-member district, while the remainder of Hartford formed a two-member district. In 1982, a portion of Hartford was combined with Norwich in a two-member district; in 1974, Hartford was a two-member district on its own.

In the 1965 apportionment plan, Hartford consisted of a two-member district on its own, a single-member district with Norwich, and a single-member district with Hartland.

Substantial equality

At a 2020 population of 8,170, this district is 404 residents smaller than the ideal, for a deviation of -4.7%.

Geographical compactness and contiguity

Using Maptitude's measure of compactness, the district earns a Reock score of 0.36 and a Polsby-Popper rating of 0.34. The district is contiguous.

Adherence to county boundaries and other existing political subdivisions

This district lies entirely within Windsor County. With 2020 population 10,686, Hartford is too large to be a two-member district, so must be divided into two districts, at minimum. The alternate plan preserves the status quo, which divides Hartford between this district and the two-member Windsor-4-1 district (described above.)

The majority plan proposes dividing Hartford between three, single-member districts—

one of which is similar to Windsor-4-1, but with 221 fewer residents of Hartford. The remainder of Hartford is then split into two single-member districts. In their feedback to the LAB, Hartford noted that "the BCA voted unanimously to recommend the alternate plan, as drafted/proposed by Jeanne Albert."

Patterns of geography, social interaction, trade, political ties, and common interests Hartford is in the jurisdiction of Environmental District #3 (Springfield) for Act 250 and other land-use permit programs, and comprises its own district for schools and solid waste management.

The commercial centers serving the district are Woodstock, White River Junction (in Hartford), and West Lebanon, New Hampshire. Interstates 89 and 91 cross each other in this part of Hartford--the only town in Vermont that includes portions of both highways. These routes connect Hartford to other parts of the state and to northern and southern New England. The Connecticut River forms the eastern boundary of the district, as well as the border with New Hampshire, and the White River cuts through Hartford northwest to southeast.

Windsor-5

Windsor-5 is a single-member district consisting of Plymouth, Reading, and Woodstock. Its 2020 population is 4,333 people.

This is the current Windsor-5 district.

In 2002, Plymouth was in single-member district with Ludlow and Mount Holly (from Rutland County), and Woodstock and Reading comprised a single-member district.

The 1992 plan grouped Plymouth in a single-member district with Ludlow and Shrewsbury (from Rutland County), while Woodstock and Reading again formed a single-member district. In 1982, Plymouth, Reading, and Woodstock were part of a two-member district with Barnard, Bridgewater, and Pomfret; the 1974 plan included a district with the same towns except Pomfret.

The 1965 apportionment plan grouped Plymouth and Woodstock with Barnard, Bridgewater, Pomfret, and Sherburne (from Rutland County-- now Killington) in a two-member district. Reading, West Windsor, and Windsor comprised another two-member district.

Substantial equality

At a 2020 population of 4,333, this district is 46 residents larger than the ideal, for a deviation of +1.1%.

Geographical compactness and contiguity

Using Maptitude's measure of compactness, the district earns a Reock score of 0.48 and a

Polsby-Popper rating of 0.52. The district is contiguous.

Adherence to county boundaries and other existing political subdivisions
This district lies entirely within Windsor County and no towns are divided.

Patterns of geography, social interaction, trade, political ties, and common interests All towns in the district are within the jurisdiction of Environmental District #3 (Springfield) for Act 250 and other land-use permit programs, and are members of the Windsor Central Unified Union School District (along with Barnard, Bridgewater, Killington, and Pomfret.) Plymouth and Reading are part of the Southern Windsor/Windham Counties Solid Waste Management District; Woodstock is in the Greater Upper Valley District.

Route 106 links Woodstock and Reading, which is linked to Plymouth via Tyson and Kingdom Roads. Via Bridgewater, Route 100A and Route 4 also Plymouth to Woodstock. The commercial centers serving the district are Woodstock and White River Junction-West Lebanon, New Hampshire; Plymouth also has commercial ties with Ludlow.

Windsor-Orange-1

Windsor-Orange-1 is a single-member district consisting of Royalton (Windsor County) and Tunbridge (Orange County). Its 2020 population is 4,087 people.

This is the current Windsor-Orange-1district.

In 2002, Royalton and Tunbridge also formed a single-member district.

Under the 1992 reapportionment plan, Royalton was in a two-member district with Norwich and Sharon (Windsor County) and Strafford (Orange County); Tunbridge shared a two-member district with the Orange County towns Chelsea, Orange, Topsham, Vershire, Washington, and Williamstown. In 1982, Royalton was combined with Sharon and Strafford in a single-member district, and Tunbridge shared a two-member district with Chelsea, Orange, Topsham, Washington, and Williamstown. In 1974, Royalton was in a two-member district with Norwich, Pomfret, Sharon and Strafford, while Tunbridge was in a single-member district with Chelsea, Orange, and Washington.

The 1965 apportionment plan formed a single-member district with Royalton, Tunbridge, and Sharon.

Substantial equality

At a 2020 population of 4,087, this district is 200 residents smaller than the ideal, for a deviation of -4.7%.

Geographical compactness and contiguity

Using Maptitude's measure of compactness, the district earns a Reock score of 0.44 and a Polsby-Popper rating of 0.66. The district is contiguous.

Adherence to county boundaries and other existing political subdivisions
This district has one town from Windsor County and one from Orange County. Neither town is divided.

Patterns of geography, social interaction, trade, political ties, and common interests Royalton and Tunbridge are within the jurisdiction of Environmental District #2 (Springfield) for Act 250 and other land use permit programs, but are in separate Solid Waste Management Districts. Although they belong to different school districts, these districts are both part of the White River Valley Supervisory Union. Royalton is home to Vermont Law School, and Tunbridge hosts the annual "World's Fair."

Route 110 joins Royalton and Tunbridge, running north and south, and the valley that it follows, along the First Branch of the White River, defines the geography of the district. The White River and Interstate 89 runs through Royalton northwest to southeast.

The commercial center for the district to the north is in Randolph or Barre and Montpelier, or to the south in White River Junction and Lebanon, New Hampshire.

Windsor-Orange-2

Windsor-Orange-2 is a two-member district consisting of Norwich and Sharon (in Windsor County) and Strafford and Thetford (in Orange County). Its 2020 population is 9,041 people.

This is the current and former (2002) Windsor-Orange-2 district.

In 1992, Norwich, Sharon, and Strafford were in a two-member district with Royalton, while Thetford was grouped with Fairlee and West Fairlee to form a single-member district. In the 1982 plan, Sharon, Strafford, and Royalton formed a single-member district, while Norwhich was joined with a portion of Hartford in another single-member district. Thetford was again grouped with Fairlee and West Fairlee in a single-member district.

In 1974, Norwich, Sharon, and Strafford were in a two-member district with Pomfret and Royalton; Thetford was combined with Fairlee, West Fairlee, and Vershire to form a single-member district.

In the first apportionment plan, in 1965, Norwich was in a single-member district with a portion of Hartford; Sharon was in a single-member district with Roylaton and Tunbridge; and Strafford and Thetford were grouped with Bradford, Fairlee, West Fairlee, and Vershire in a two-member district.

All four towns in this district submitted feedback to the LAB regarding the Board's initial, tentative proposal. In that plan (which is unchanged in the majority's final proposal) the town of Norwich is divided into two pieces, one of which is joined with Sharon and the other with Strafford and Thetford. All towns expressed a preference for the status quo, two-member district; Norwich, in particular, opposes being divided.

Substantial equality

With its 2020 population at 9041, this district is 467 residents larger than the ideal, for a deviation of +5.4%.

<u>Geographical compactness and contiguity</u> Using Maptitude's measure of compactness, the district earns a Reock score of 0.57 and a Polsby-Popper rating of 0.74. The district is contiguous.

Adherence to county boundaries and other existing political subdivisions
This district has two towns from Windsor County and two from Orange County. No town is divided.

Patterns of geography, social interaction, trade, political ties, and common interests All towns in the district are within the jurisdiction of Environmental District #3 for Act 250 and other land use permit programs, and are also members of the Greater Upper Valley Solid Waste Management District. Norwich comprises its own supervisory K-6 district, and belongs to the Dresden Interstate School District (with Hanover, NH) for grades 7 to 12. While Sharon, Strafford, and Thetford each comprise their own school district, Sharon and Strafford belong to the White River Valley Supervisory Union. Norwich and Thetford are bounded to the east by the Connecticut River, which is also the state border with New Hampshire.

Norwich is linked to Sharon via Beaver Meadow Road, and to Thetford via the Union Village Road, Route 32, and Interstate 91. Thetford connects to Strafford via Route 132, which continues to Sharon, and interstate 89 crosses Sharon northwest to southeast. The main centers of commerce for the district are Hanover and Lebanon/West Lebanon in NH, and White River Junction, VT.

New-Windsor-Windham

New-Windsor-Windham is a single-member district consisting of Chester (from Windsor County) and Athens, Grafton, and Windham (from Windham County). Its 2020 population is 4,479 people.

In the current district plan, Chester is in the single-member Windsor-3-1 district, with Andover, Baltimore, and a portion of northwest Springfield. Athens, Grafton, and Windham are in the current two-member Windham-3 district, along with Brookline and Rockingham.

In 2002, Chester, Andover, Baltimore, and a similar, but not identical, portion of Springfield formed a single-member district, while Grafton, Athens, and Windham were part of a two-member district with Brookline, Rockingham, and a portion of Westminster.

In 1992, Chester, Andover, Baltimore, and Weston formed a single-member district; Grafton and Windham were in a two-member district with Rockingham and part of Springfield; and Athens was in a two-member district with Dummerston, Putney, and Westminster.

In 1982, Chester and Andover formed a single-member district; Grafton and Windham formed a two-member district with Rockingham; and Athens was in a two-member district with Dummerston, Putney, and Westminster.

The 1974 House plan made a two-member district with Chester and a part of Springfield; Athens and Grafton were in a two-member district with Dummerston, Putney, and Westminster; and Windham was combined with Brookline, Newfane, Stratton, Townshend, and Wardsboro in a single-member district.

In the first apportionment plan, in 1965, Chester and Andover formed a single-member district; Athens, Rockingham, and a part of Westminster formed a single-member district; and Grafton and Windham were grouped with Jamaica, Stratton, Townshend, and Wardsboro in a single-member district.

The LAB received feedback from two of the towns in this district—Chester and Grafton—both of whom expressed a strong preference to remain in their status quo district. The comments from the Chester BCA noted their longstanding ties with Andover and Baltimore (e.g., same school district, common library, emergency services); Grafton's BCA emphasized "…increased access to State Legislators [in a two-member district], increased potential for diversity of political representation within the State House, and … a better balance of representation between the smaller rural Towns (such as Grafton) and the larger primate Town within the legislative district." Both towns noted the desire to be in a district that did not overlap counties.

We considered several alternatives to the current district, but weren't able to find alternate groupings of towns that would address the concerns expressed and also accommodate regional population pressures as well as preferences of nearby towns. For example, while the current Windsor-3 district is appropriately sized for a single-member district, it includes a portion of northwest Springfield. Given that Springfield has been divided in this way for two decades, we felt it was important to make Springfield whole. This reduction in population from the current Windsor-3-1 then yields a district with deviation -11.3%, which then must be adjusted. In combination with other challenges to the south and west (and the desire to avoid splitting towns), this district configuration appears to be the best option.

Substantial equality

At a 2020 population of 4,479, this district is 192 residents larger than the ideal, for a

deviation of +4.5%.

Geographical compactness and contiguity

Using Maptitude's measure of compactness, the district earns a Reock score of 0.42 and a Polsby-Popper rating of 0.44. The district is contiguous.

Adherence to county boundaries and other existing political subdivisions
This district has one town from Windsor County and three from Windham County. No town is divided.

Patterns of geography, social interaction, trade, political ties, and common interests. The towns in this district are within the jurisdiction of Environmental District #2 for Act 250 and other state land-use permit purposes, and all but Windham are part of the Southern Windsor/Windham Counties Sold Waste Management District; Windham is in the Londonderry Group. Athens and Grafton are members of the Windham Northeast Union Elementary and Bellows Falls Union High School Districts; Windham comprises its own K-6 school district, and is part of the West River Unified Union District for grades 7 to 12; and Chester is part of the Green Mountain Unified School district.

Route 35 provides a direct north/south link between Athens, Grafton, and Chester, while Grafton and Windham are connected east/west via Route 121. Route 11 provides an alternate link (via Andover) between Chester and Windham. The main commerce centers for the region are Ludlow, Springfield, and Bellows Falls.

New-Windsor-Addison-Rutland

New-Windsor-Addison-Rutland is a single-member district consisting of Bethel and Rochester (from Windsor County); Granville and Hancock (from Addison County); and Pittsfield (from Rutland County). Its 2020 population is 4,205 people.

In the current plan, Bethel, Rochester, Pittsfield, and Stockbridge form the Windsor-Rutland district; Granville is in the Orange-Washington-Addison district with Braintree, Brookfield, Randolph, and Roxbury; and Hancock is grouped with Cornwall, Goshen, Leicester, Ripton, and Salisbury in Addison-2. In 2002, the districts were nearly identical to the current ones; the only difference being Roxbury was not part of Orange-Washington-Addison.

Bethel and Rochester were in the same single-member district with Pittsfield and Stockbridge in the 1992 and 1982 plans. The 1992 and 1982 plans combined Hancock with Goshen, Leicester, Ripton, Salisbury, Sudbury and Whiting in a single-member district. The 1992 and 1982 plans placed Granville with Fayston, Waitsfield, Warren in a single-member district.

In 1974, Rochester, Hancock, and Granville were combined with Pittsfield, Stockbridge,

and Goshen in a single-member district, while Bethel was put in a two-member district with Braintree, Brookfield, and Randolph. The first apportionment plan, in 1965, made a single-member district out of Rochester, Granville, Hancock, Pittsfield, and Stockbridge, and put Bethel in a two-member district with Braintree, Brookfield and Randolph.

Substantial equality

With a 2020 population of 4,205, this district is 82 residents smaller than the ideal, for a deviation of -1.4%.

Geographical compactness and contiguity

Using Maptitude's measure of compactness, the district earns a Reock score of 0.42 and a Polsby-Popper rating of 0.34. The district is contiguous.

Adherence to county boundaries and other existing political subdivisions
This district has two towns from Windsor County, two towns from Addison County, and one town from Rutland County. No town is divided.

Patterns of geography, social interaction, trade, political ties, and common interests
The towns in this district are within their individual county jurisdictions for Act 250 and other state land-use permit purposes, and all towns except Pittsfield are part of the White River alliance for Solid Waste Management; Pittsfield is grouped with other Rutland towns. Similarly, all towns except Pittsfield are part of the White River Valley Supervisor Union, while Pittsfield tuitions all of its students to schools in the Windsor Central Unified Union District.

The most direct route between Bethel and Rochester is via Camp Brook and Bethel Mountain Roads. Routes 107 and 100 provide an alternate link between the towns, (through Stockbridge) and also to Pittsfield; Route 100 also connects Rochester, Hancock, and Granville. All towns except Bethel lie in the valley directly west of the Green Mountains and border the Green Mountain National Forest. Heading east through Bethel provides access to Interstate 89. The closest regional center for commerce is Randolph, though some residents in the district may head north to Waitsfield, west over the mountains to Brandon or Middlebury, and/or south and west to Rutland.

Appendix 1: Apportionment Board Member Information

Thomas A. Little, Shelburne, Vermont, Chair, is Vice President and General Counsel at Vermont Student Assistance Corporation in Winooski, Vermont. He chaired the Apportionment Board in 2010-2020. He represented Shelburne in the Vermont House of Representatives in the 1992 – 2002 sessions. Currently, he is Chair of the District 4 Environmental Commission, Chancellor of the Episcopal Diocese of Vermont, and Chair of the Board of Trustees of the University of Vermont Medical Center.

Edward Adrian, Burlington, Vermont, is Of Counsel at the Law Firm of Monaghan Safar Ducham PLLC in Burlington and previously served as the Chief Prosecuting Attorney at the Vermont Secretary of State's, Office of Professional Regulation. He is the former Vice-Chair of the Burlington Democratic Party. Ed was on the Burlington City Council from 2007-2012 and was Chair of the Burlington Library Commission from 2013-2017. A former commentator on Vermont Public Radio, currently Ed serves on the Vermont Commission on Women.

Jeanne Albert, Lincoln, VT, is a retired mathematics educator. From 1996 to 2008, she was a professor at Castleton State College (now Castleton University), and from 2008 to 2020 she was Director of STEM and Quantitative Support in Middlebury's Center for Teaching, Learning, and Research. Jeanne has served as a Board member for regional organizations including the Vermont State Colleges Faculty Federation, the New England Faculty Development Consortium, and the Appalachian Mountain Club's Three Mile Island Family Camp on Lake Winnipesaukee. She is currently Chair of Lincoln's town Democratic Party Committee.

Jeremy Hansen, Berlin, Vermont, a member of the Norwich University computer science faculty, earned his Ph.D. at the University of Wisconsin-Milwaukee in 2009 with a dissertation describing the structure of cryptographic hash algorithms. More recently, his research has explored the social implications and applications of technology, including privacy, computational social choice, security of implantable medical devices, and elections. He served on the Berlin Selectboard from 2013 to 2020. Jeremy founded and is Chair of the Governing Board of the public Internet service provider CVFiber.

Mary Houghton, Putney, Vermont, is retired from a career in the development and stewardship of affordable housing. She worked for the Burlington Community Land Trust (now the Champlain Housing Trust) and Brattleboro Housing Partnerships. She currently serves on the Boards of Directors of the Housing Foundation, Inc., and the Tri-Park Housing Cooperative.

Tom Koch, Barre Town, practiced law in Barre City for 40 years and is now retired. He represented the Town in the Vermont House of Representatives from 1977 to 1981 and again from 1997 to 2015. He is a member of the Barre Town, Washington County, and Vermont Republican Committees, and is Assistant Treasurer of the state Committee. He

is a member of Shepherd of the Hills Lutheran Church in Montpelier, where he serves on the Church Council.

Robert Roper, Stowe, Vermont, currently is the President of the Ethan Allen Institute and frequent guest host of True North Radio. He previously was Chairman of the Vermont Republican Party, Executive Director for the Vermont Chapter of FreedomWorks and Executive Director for Vermonters for Better Education. He served on the Apportionment Board in 2010-2020.

Appendix 2: Minority Report

Introduction

As noted in the Introduction to the Board's Report, 17 V.S.A. §1901 requires reapportionment of Vermont's legislative districts in such manner as to achieve substantially equal weighting of the votes of all voters in the choice of legislators. Chapter II of the Vermont Constitution establishes the same requirement, as does the Equal Protection provisions of the U.S. Constitution. This Substantial equality requirement is the overarching mandate of our law. ⁸ Based on this mandate, 17 V.S.A §1903(b) then lays out the standards and principles that

govern creation of legislative districts [emphasis added]:

The standard for creating districts for the election of Representatives to the General

The standard for creating districts for the election of Representatives to the General Assembly shall be to form representative districts with minimum percentages of deviation from the apportionment standard for the House of Representatives... The representative... districts shall be formed consistent with the following policies insofar as practicable:

- (1) Preservation of existing political subdivision lines;
- (2) recognition and maintenance of patterns of geography, social interaction, trade, political ties, and common interests;
- (3) use of compact and contiguous territory.

An apportionment plan with lower district percentage deviations—regardless of whether single- or two-member-- indicates that the voting weights of residents across the state will be more nearly equal than in plans with higher deviations. This is the appropriate and constitutionally understood measure of "substantial equality."

In its redistricting plan, the majority of the Board introduced a requirement—that all House districts elect one representative-- that is nowhere in our Constitution or statutes. To the contrary, both one- and two-member districts are endorsed in the Vermont Constitution, Ch. II, § 13, with no preference given for either type of district. Moreover, rather than (for example) striving to create as many single-member districts as possible—while following the directives in law for redistricting—the majority made single-member districts a foundational standard, against which the other statutory criteria must yield.

We believe that the majority erred in taking this approach.

⁸ The main argument of the single-member-district advocates is that a resident in a two-member House district is represented by two House members, while a resident in a single-member district is represented by one – and that this is fundamentally unequal and unfair. This misses the fundamental constitutional point, however, which is that in the former district there are twice as many residents, and thus the proportional representation is substantially equal. That is what our Constitution requires, and that is what the alternate House redistricting proposal offers.

With respect to Vermont's statutory standards and policies for redistricting, we compare several features of the all-single-member House district plan to those of the Alternate district plan proposed by the other three Board members. These comparisons will illustrate how the majority plan violates various elements of 17 V.S.A §1903.

17 V.S.A §1903(b) makes clear that while the Substantial equality of population standard (in apportionment parlance, the minimum deviation standard) is foundational, it must be considered in concert with other non-numerical factors and policies set forth there and in the Vermont Constitution; therefore, it is rarely (if ever) possible to achieve near-zero deviation for all or even most districts. However, a comparison of the Board's majority and alternate district plans shows that there were opportunities for the majority to improve district deviations which they declined to take *solely* because of their unilaterally imposed restriction to create only single-member districts.

In the following examples, the majority plan created two districts using the same "footprint" of towns as the alternate plan; therefore, absent the majority's imposition of a single-member district requirement, the two individual districts can be combined into a two-member district (as they are in the alternate plan) that has a lower deviation and doesn't affect any neighboring districts. In all cases, BCA feedback indicated a preference to remain undivided. (Note: this is not a comprehensive list.)

Example 1: Alternate plan district Washington-1, consisting of Berlin and Northfield. Population: 8,767; percentage deviation: +2.3%. (This is the current Washington-1 district.)

Majority plan splits Northfield to create two single-member districts

Washington-9: (Berlin, part of Northfield); population: 4,246; deviation: -1.0% Washington-10: (remainder of Northfield); population: 4,521; deviation: +5.5%

Example 2: Alternate plan district Windsor-Orange-2, consisting of Norwich, Sharon, Strafford, and Thetford.

Population: 9,041; percentage deviation: +5.4%. (This is the current Windsor-Orange-2 district.)

Majority plan splits Norwich to create two single-member districts

Windsor-5: (part of Norwich and Sharon); population: 4,491: deviation: +4.8% Windsor-Orange-2: (remainder of Norwich, Strafford, Thetford); population: 4,550; deviation: +6.1%

Example 3: Alternate plan district New-Orange-Washington, consisting of Braintree, Brookfield, Randolph, and Roxbury.

Population: 7,903; percentage deviation: -7.8%.

Majority plan splits Randolph to create two single-member districts.

Orange-5: (part of Randolph); population: 3,959; deviation: -7.7%

Washington-Orange: (Braintree, Brookfield, Roxbury, remainder of Randolph); population: 3,944; deviation: -8.0%

Looking more broadly at the district plans overall, the table below shows that-- compared to the LAB minority's alternate district map--the majority plan has a larger overall deviation as well as considerably more individual districts with large positive or negative deviations.

Percentage Deviation Summary							
	Majority Plan 1-member districts: 150	Alternate Plan 1-member districts: 66 2-member districts: 42					
Largest positive deviation	8.8%	7.5%					
Largest negative deviation	-9.0%	-7.9%					
Overall Percentage Deviation When enacted, the current plan had overall deviation 18.9%	17.8%	15.4%					
Number of districts at least 6% too large or too small (% of districts)	41 (27.3%)	22 (20.4%)					
Number of districts at least 7% too large or too small (% of districts)	23 (15.3%)	11 (10.2%)					
Number of districts at least 8% too large or too small (% of districts)	4 (2.7%)	0					

Whether at the individual district level or with respect to the plan overall, we conclude that the majority's proposal does not comply with the statutory requirement to form representative districts with *minimum* percentages of deviation from the apportionment standard.

Along with the foundational standard, Vermont law identifies three policies that guide the formation of legislative districts, and directs that districts must (the statutes uses "shall") — "insofar as practicable"— be formed consistent with these policy goals. As in the discussion above, with respect to these policies we compare the Board's majority and alternate district plans to show that there were opportunities for the majority to more closely achieve these goals, but which they refused to do *solely* because of their rigid, single-member district framework.

In this discussion it is natural to consider two of these policies together:

Policy 1: Preservation of existing political subdivision lines

<u>Policy 2: recognition and maintenance of patterns of geography, social interaction, trade, political ties, and common interests</u>

As noted in the introduction to the main report, Policy 1 places a significant value on avoiding subdividing towns and crossing county lines when drawing House districts. As a state policy, it emphasizes the robust sense of collective identity shared by residents of Vermont's cities, grants, gores, and towns, and the understandable disruption caused by separating parts of such entities into two or more legislative districts.

On the other hand, the nature and variation of town population sizes makes some splitting of towns unavoidable-- for example, for the 10 cities and towns whose population is too large to be even a two-member district (and thus must be divided into at least two districts); division of towns may also occur when the combined sizes of nearby towns cannot be made close enough to the ideal.

Similarly, Policy 2 envisions districts that "recognize and maintain" a sense of community—often beyond the scale of an individual town-- and requires looking more deeply at some of the non-numerical factors that help bind a district together into a coherent entity. Given their historical and regional knowledge and perspective, the input of town BCAs are especially critical during the process of developing districts that adhere to this policy.

Not surprisingly, it takes some care and persistence to create districts that, "insofar as practicable," minimize deviation, avoid dividing towns, take into account geographic barriers, and acknowledge and support community, social, and/or economic ties. The following examples provide instances where it is indeed possible to create districts that achieve these criteria, but which the majority consciously rejected because they were unwilling to allow any two-member districts. In particular, as indicated in BCA feedback, these examples show that the majority did not "recognize and maintain" shared community ties and interests, when it was clearly possible to do so.

Example 4: Alternate plan district Chittenden-6-7, consisting of the City of Winooski.

(This is the current Chittenden-6-7 district, minus the portion of Burlington that is currently included.)

Majority plan splits Winooski to create two single-member districts (Chittenden-11-1 and 11-2) against the wishes of the Winooski BCA.

As in our prior examples, the majority created two districts where a two-member district clearly is possible and where the BCA provided feedback to the Board requesting to be kept whole. Specifically, Winooski notes "... concerns of additional administrative

burdens, costs and staffing if two polling places need to be maintained. Two separate districts would also divide inequities in our City and possibly appear to discriminate." *

Example 5: Alternate plan district New-Windsor-3, consisting of the town of Springfield.

(This is the current Windsor-3-2 district, reunited with the portion of Springfield currently in Windsor-3-1.)

Majority plan splits Springfield to create two single-member districts (Windsor-10 and 11) against the wishes of the Springfield BCA.

In its feedback to the LAB, the Springfield BCA stressed that, "keeping the boundaries of Springfield intact with two-member representation causes the least amount of havoc and is easily understood by voters... The BCA feels strongly that Springfield would more likely be efficiently and coherently represented in Montpelier if we're all pulling the same wagon and should be a two-member single district."

Example 6: Alternate plan district Washington-7, consisting of Duxbury, Fayston, Moretown, Waitsfield, and Warren.

(This is the current Washington-7 district.)

Majority plan splits Fayston to create two single-member districts (Washington-8 and 11) against the wishes of the four member towns (all except Duxbury) that submitted feedback to the LAB.

This five-town district provides a useful contrast to the prior examples, which involved dividing a district that consists of just one city or town. Feedback provided to the Board describes a five-town community that wishes to maintain the connections and collaborative endeavors they have built over the past decade:

The Fayston BCA, "...with support from the other four towns in the current WA-7 double legislative district, respectfully requests the district be maintained in its current state... We wish to protect Fayston's integrity as a town, and as an integral part of the Mad River Valley's larger community."

Similarly, from Waitsfield: "The towns in the Mad River watershed share critical infrastructure, economic and recreational interests, and common identity, and should be kept together in the legislature."

Example 7: Alternate plan district Windsor-4-2, which consists of most of the town of Hartford. The remainder of Hartford is joined with Barnard and Pomfret in the 1-member Windsor-4-1 district. (These are the current districts.)

^{*} One of the members of the LAB majority, when asked, "So, Winooski's concerns don't matter?" replied, "Not in this [single-member district] framework." *See LAB meeting minutes for 11/22/21, https://sos.vermont.gov/apportionment-board/resources/.*

Majority plan splits Hartford into three pieces, two of which contain only parts of Hartford (Windosr-6 and 7); the remainder is joined with Barnard and Pomfret. The Hartford BCA opposes this "extra" division.

With population 10,686, Hartford is one of the 10 towns and cities in Vermont that are too large to be even a two-member district. In the current and alternate district plans, the majority of the town (8,170 residents) comprises the two-member Windsor-4-2 district; this is the portion that the majority plan divides into two single-member districts.

In its feedback to the LAB, the Hartford BCA noted its unanimous support for the alternate (status quo) plan and referenced several elements of the policies outlined in V.S.A 17 §1903(b):

"Demographically and geographically, Hartford residents see themselves as one community with similar interests, regardless of their location in Town... Dividing our current two-member district into two separate one-member districts divides our community in an unnatural way. The Seven Member Select Board members are elected at-large and serve the entire community rather than by ward or neighborhood; The Town of Hartford is a single School District rather than a unified district with other communities. The five-member School Board is also elected at large to serve the entire community."

As with our examination of district deviations, it is useful to compare overall differences in division of towns between the LAB's majority and alternate plans.

Town Division Summary							
	Majority Plan 1-member districts: 150	Alternate Plan 1-member districts: 66 2-member districts: 42					
Number of cities/towns divided Includes 10 cities/towns that must be divided Current plan has 21 divided towns	45	25					
Number of districts that include a split part of a town (% of districts) Current plan has 47 such districts (45%)	112 (75%)	56 (52%)					
Total portions of cities/towns in districts Current plan has 290 portions	329	294					
Number of split town portions beyond the 270 minimum needed Minimum number of portions needed = number of cities/towns/gores/grants (255) plus extra portions needed (15) for the 10 most populous towns	59	24					
Number of districts that cross a county boundary Current plan has 20 cross-county districts	16 (10.7%)	21 (19.4%)					

The first measure is perhaps the most straightforward and shows that the majority plan divides more than twice the number of towns as the current plan, and 80% more than the alternate plan. Furthermore, beyond the 10 towns and cities that must be divided in any plan, the majority divides over three times as many additional towns as the current plan (35 versus 11) and more than twice that of the alternate plan (35 versus 15).

The two additional measures displayed in the table provide a different way to consider the impact of town division: by focusing on the number of split portions of towns, we can capture the "excess" division that occurs when a town is divided into more pieces than necessary. For example, Middlebury has a viable population size (9,152) to be a two-member district (as it is in the current and alternate plans), but the majority plan splits the town into four different districts; similarly, Bennington (population 15,333) is split between two districts in the current and alternate plans, but is divided into five districts in the majority plan.

From the table it is evident that the majority plan divides many more communities than the Board's alternate plan. (Respect for county boundaries is the only policy priority that the majority plan achieves more closely than the alternate plan.) Further, as the examples above illustrate, many of these divisions are entirely unnecessary and go against the preferences of the affected communities—preferences that clearly address statutory policy goals and that are satisfied using a two-member district. Consequently, the majority plan violates the "as far as practicable" clause of V.S.A §1903(b). The Vermont Supreme Court in this regard has said

"Voters in a community are less effectively represented when their elected representative's principal constituency lies outside their community and has interests different from their own. These considerations are particularly relevant in this state, which has a long history of preserving the independence and integrity of local government."

	In re	Reapp	ortionmen	tof	Town	of H	artland,	et al.,	160	Vt.	9	(19	993).
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We conclude this minority report with a response to the majority's characterization of several features of their single-member "framework."

To justify excluding two-member districts from consideration, the first factor they identify is given below:

A general recognition that Vermont's current hybrid model of single and two representative districts creates unavoidable inequities regarding representation between residents of differently configured districts, which raise serious questions regarding equal representation for all citizens.

This "general recognition"—essentially, a point of view or opinion— is not supported by long-standing legal interpretation of "equal representation," and is (perhaps) based on a misunderstanding of the core underlying concepts. As we noted in the introduction to this

report, equal representation consists of the "equal weighting of the votes of all voters in the choice of legislators." Since an ideal two-member district has twice the number of residents as an ideal one-member district, equal weighting is preserved between the two types of districts.

Put another way, the weight of a person's vote is a measure of how much influence their vote has on the outcome of an election: indeed, the statutory directive to minimize percentage deviation embodies the recognition that residents in a district of either type with smaller population size have more influence over the outcome of an election than residents in a district of the same type that has larger population.

Compared to voters in a single-member district, to elect each of the two representatives for their district, voters in the two-member district must "compete" against twice as many other voters. Therefore, to elect each representative their votes have half the weight – or influence-- of a corresponding voter in a one-member district. Consequently, their two votes together then have the same weight as the voter in the single-member district.

The Vermont Supreme Court has examined the meaning of equality of representation, and substantial equality of representation in important redistricting decisions. These include In re Senate Bill 177, 130 Vt. 365 (1972); In re Senate Bills 177 & 83, 132 Vt. 182 (1974); and In re Reapportionment of Town of Hartland, et al., 160 Vt. 9 (1993). These decisions cite with approval important equality of representation redistricting decisions from the U.S. Supreme Court, including Mahan v. Howell, 410 U.S. 315 (1972), and Reynolds v. Sims, 377 U.S. 533 (1964) From these decisions flows the conclusion, we believe, that there is no constitutional requirement for single-member districts absent a demonstration of invidious discrimination. See Whitcomb v. Chavis, 403 U.S. 124, 142-143 (1971). The Town of Hartland decision likewise favorably points to this same line of cases.

We note in this context Vermont Attorney General Opinion No. 27 (February 8, 1973), which addressed the question, "Are multi-member legislative districts constitutional?" The opinion is not binding in the way that a Vermont Supreme Court decision is but is an authoritative statement of a point of law relevant to this discussion. The Opinion concluded that a reapportionment plan "utilizing multi-member districts which achieve representational equality approximately equal to a single-member district plan would conform to the Fourteenth Amendment to the United States Constitution."

The Board's minority members believe there is very solid constitutional grounds for continuing to use both single and multi-member legislative districts in Vermont's periodic reapportionment.

The second factor identified by the majority regarding their adoption of a single-member district plan is "overwhelming public support." To support this conclusion, they point to the results of a public engagement survey that was developed by LAB members and posted to the Apportionment Board's website. While those who submitted responses to the survey did strongly favor single-member districts, the results of the survey cannot be

used to characterize the level of support among Vermonters for an all-single-member district scheme, for two essential reasons:

- (1) The LAB's survey was designed to engage Vermonters in a once-in-a-decade process, not as a way to gauge public opinion using standard random-sampling methods. Consequently, respondents as a group do not constitute a representative sample from which conclusions can be drawn about the wider state population.
- (2) In addition, Vermont organizations that favor single-member districts-- including the VT Republican Party and VPIRG—encouraged their membership to complete the survey via email appeals, web newsletters, and direct links to the survey. This activity provides additional confirmation of the non-representative nature of survey respondents.

In support of their all-single-member district scheme, the third factor noted by the majority centers on testimony provided to the Board by Xusana Davis, the Executive Director of Racial Equity and Chair of the Vermont Racial Equity Task Force.

In her testimony, Executive Director Davis brought to our attention recommendations by Vermont's Racial Equity Task Force⁹, and urged the Board to bring an equity lens to all facets of our redistricting work. Within this realm, Davis indicated that single-member districts can be the better choice in some instances and for some communities; however, neither she nor the task force recommended having *only* single-member districts.

Specifically, the Task Force recommends that, "the Reapportionment Commission modernize its criteria to include racial and social equity as explicit considerations as it engages in its critical work." The members of the Board minority support this recommendation and we encourage the legislature to consider drafting appropriate legislation.

Finally, the majority recasts the predominantly negative BCA feedback in improper and misleading ways. We hope to clarify and correct the record here.

First, here is an overview of BCA feedback that categorizes their responses more clearly:

- 148 towns submitted feedback. Of these:
- 46 towns (31.1%) supported their district in the tentative proposal
- 97 towns (65.5%) opposed their district in the tentative proposal
- 5 towns (3.4%) submitted mixed feedback regarding their district in the tentative proposal (e.g., tie vote in BCA)

Thus, evidence from BCAs shows that towns that responded opposed the tentative plan for their district by more than a two-to-one margin over those that supported it.

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⁹ Report of the Vermont Racial Equity Task Force, January 15, 2021, p.30. https://racialequity.vermont.gov/sites/reap/files/doc_library/RETF-Report-2-Final.pdf

In their summary of these responses, the majority characterizes the BCAs that submitted no feedback as having "no objection" to their plan. However, the most we can say about towns that did not submit feedback is that we do not know whether they support or oppose the tentative proposal. In particular, characterizing these towns as having "no objection" is unwarranted and can mislead—especially so since the majority groups the non-responding towns with the (much smaller) number of towns that submitted positive feedback about their proposed districts.

In addition, they state that, "of the [97] remaining towns that requested changes to the draft map, only 34 proposed returning to a two-member house district scenario, and of those 34, 12 either proposed being joined with town(s) that specifically did not consent to such a pairing, or such a request would not be possible due to population shifts within current district and surrounding region regardless of the single-member district framework adopted by the Board."

However, these values are incorrect: of the 97 towns that opposed the tentative proposal's plan for their district:

- 47 indicated a desire to be in a two-member district. Further,
- 43 of these towns would be in a two-member under the alternate district plan.

Consequently, as indicated, the majority report understates the degree of negative feedback for the single-member district proposal, and undercounts the number of two-member districts that were possible to create. The alternate proposal, we believe, offers a more thoughtful, reasoned, transparent, data-driven, and fairer approach to redistricting the House – and certainly one that adheres to the law.

Consistent with this foregoing minority report, the undersigned members of the Board have presented an alternate House redistricting plan, which is available at the Vermont Secretary of State's website.

Respectfully submitted,

Jeanne Albert Mary Houghton Thomas A. Little

Appendix 3: Impacts of Census data delays and COVID-19

In early 2021, the U.S. Census Bureau notified the Apportionment Board that the release of the final and official Vermont redistricting dataset of the 2020 United States decennial census would be delayed from the federal statutory deadline of March 31, 2021 to a release date on or before September 30, 2021. This delay meant that the Board would be unable to meet its statutory deadlines. In February 2021, the Board asked the General Assembly to amend Chapter 34A of Title 17 to establish revised deadlines for the Board's 2021 work and reports. The General Assembly did so in Act 11 (H. 338), signed into law on April 21, 2021 by Governor Scott.

https://legislature.vermont.gov/Documents/2022/Docs/ACTS/ACT011/ACT011%20As%20Enacted.pdf

Act 11 required the Board to submit its proposals for the 2022 reapportionment of the House of Representatives and the Senate to the General Assembly not later than 90 days following the U.S. Census Bureau's release of Vermont's 2020 redistricting dataset. All other deadlines and procedures for the 2022 reapportionment of the House of Representatives and the Senate remained unchanged.

Had the census results been delivered on time, the Board's deadline to submit its final House and Senate plans would have been in August. When the Board learned of this significant delay, it adjusted its work plan accordingly but continued to meet to review estimated census data and discuss its overall approach to its work. (The Board had begun meeting in September 2020 in anticipation of receiving the census data in March 2021.) The delayed census dataset was delivered in mid-August, triggering several weeks of technical work uploading the data into the mapping software the Board used, testing the data in the software, and training Board members and Secretary of State staff on the software. The Board owes much to the Information Technology team at the General Assembly (the Office of Legislative Information Technology) for leading these efforts, and to the Secretary of State's staff for helping Board members to learn how to work with the mapping software. When these efforts were completed, the Board had some 10-12 weeks in which to use the mapping software to prepare draft maps of proposed new Senate and House districts that would comply with the reapportionment laws.

All of the Board's work (and all of the support it received from the Secretary of State's office, the Office of Legislative Information Technology, the Vermont Center for Geographic Information, and the inputs from members of the public and Boards of Civil Authority) was done during the COVID-19 pandemic and its profound changes to work and meeting practices, habits and protocols. These conditions challenged the progress of the Board's work.

Appendix 4: Role and Function of the Legislative Apportionment Board

As noted above, every 10 years, following the release of the U.S. Census data, state law requires reapportionment of Vermont's House and Senate districts "in such manner as to achieve substantially equal weighting of the votes of all voters in the choice of legislators." (17 V.S.A. §1901.) Chapter II of the Vermont Constitution establishes the same requirement, as does the Equal Protection provisions of the U.S. Constitution. This Substantial equality requirement is the overarching mandate of our law.

The decennial process starts with the Legislative Apportionment Board. The Board has a statutory duty to draw up a tentative proposal for changes to House district lines; to share that tentative proposal with town and city Boards of Civil Authority of the towns and cities that would be affected by the proposed tentative plan; and then to draw up a final proposal for consideration by the General Assembly.

Under the law, the Board's overall purpose is to provide advice and assistance to the General Assembly.

The Board was constituted in 2020 and has seven members. Each of the three major political parties chose a member; Governor Scott appointed one member from each party and the Chief Justice of the Vermont Supreme Court appointed the Board's Chair. The Board's meetings were open to the public and its records are public records.

The Board looked at each current House district's percentage deviation from the ideal district population, which can be either positive or negative. For example, a single-member district with population 4,487 is 200 residents over the apportionment standard (4,287 people for a single-member district), which is a deviation of +4.7%. A single-member district with population 3,987 is 300 residents below the standard, and a deviation of -7.0%. Similarly, a two-member district with population 9,074 is 500 residents over the apportionment standard (8,574 people for a two-member district), which is a deviation of +5.8%. A two-member district with population 8,524 is 50 residents below the standard, a deviation of -0.6%.

To the extent that a single- or two-member district has a significant negative deviation, it is over-represented for that type of district. And, to the extent that a district has a significant positive deviation, it is underrepresented. The difference between the district with the highest positive deviation and the lowest negative deviation is the "overall deviation" of the Vermont House apportionment. An apportionment plan with lower overall deviation indicates that the voting weights of residents in the smallest and largest districts are more nearly equal than in plans with higher overall deviation. Therefore, the

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Jeanne Albert was chosen by the Vermont Democratic Party, Robert Roper was chosen by the Vermont Republican Party, and Jeremy Hansen was chosen by the Vermont Progressive Party. Governor Scott appointed Democrat Edward Adrian, Progressive Mary Houghton and Republican Thomas Koch. Chief Justice Paul Reiber appointed Thomas A. Little as Chair.

overall deviation of a district plan provides a measurement of the degree to which the plan meets the constitutional requirement of substantial equality.

With 28 of the 104 current House districts having 9% or greater positive or negative deviation percentages, some district adjustments were clearly very likely required in order to align the House districts with the Constitution's equality of population mandate.

The 2001 and 2011 Apportionment Board Reports present a well-written explication of the constitutional and statutory principles that govern and guide this Board's work. We include an excerpt from the Board's 2001 report in Appendix 1. The 2001 report includes an analysis of the Vermont Supreme Court's important 1993 decision, In re Reapportionment of Town of Hartland, where the Court decided consolidated reapportionment disputes involving the constitutional and statutory issues of (i) substantial voting equality, (ii) Geographical compactness and contiguity, and (iii) patterns of geography, social interaction, trade, political ties and common interests. (160 Vt. 9 (1993).) 11

Since the Town of Hartland decision, only one challenge has been made to a reapportionment plan enacted by the General Assembly – to the 2002 reapportionment. In In re Reapportionment of Towns of Woodbury and Worcester, 177 Vt. 556 (2004), the residents of the Washington County towns of Woodbury and Worcester unsuccessfully challenged their new district, arguing that placing their towns in the Lamoille-Washington-1 two-member district violated the requirements of compactness and contiguity and did not respect county lines. The case did not involve a challenge based on population deviation. The Supreme Court appointed a factfinder who took testimony and issued finding on the Town's claims. The factfinder "found that all four towns have one or more boundaries in common with another town in the district, and that the T-shaped district 'in fact is contiguous and relatively compact.'" Id. at ¶ 12. The Court also noted that the challenged statewide redistricting plan "places ninety-eight towns in districts that cross county lines, which is not unusual. In fact, in this respect it is identical to the 1992 reapportionment plan we upheld in Hartland, 160 Vt. at 31, 624 A.2d at 336." Id. at ¶ 16. The Court concluded that the two towns had failed to clear the strong presumption in favor of a plan adopted by the General Assembly.

No challenge was filed against the 2012 reapportionment.

A good redistricting plan proposal, in addition to achieving Substantial equality of population across districts, must also demonstrate how the other standards beyond equality are met. In the Mahon case, the United States Supreme Court cautioned that an overall deviation of 16.4% "approach[es] tolerable limits." It explained that the ultimate inquiry is whether the legislature's plan "may reasonably be said to advance [a] rational state policy," and if so, "whether the population disparities among the districts that have

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¹¹ Challenges to a redistricting plan enacted by the General Assembly are filed directly with the Vermont Supreme Court. (17 V.S.A. §1909.)

resulted from the pursuit of this plan exceed constitutional limits." Mahan v. Howell 410 U.S. 315, 318 (1972).

As noted above, the law requires House districts with "minimum" deviation percentages. The law does not define "minimum," but Vermont and U.S. Supreme Court decisions tell us that an overall deviation under 10% is presumptively constitutional and one somewhat greater than 16% is probably, or may be, constitutional if the legislative record documents that other more complying options were tried without success and the plan advances rational state policies. Thus, an individual, single-member district with a deviation in the 9% range raises serious concerns and must be analyzed thoroughly and justified with credible, genuine reasons supported under the law.

In addition to the overall deviation, the Board is guided by three statutory directives relating to: (1) Preservation of existing political subdivision lines (i.e., town, city, and county boundaries); this directive is also found in the Vermont Constitution; (2) recognition and maintenance of patterns of geography, social interaction, trade, political ties and common interests; and (3) use of compact and contiguous territory. (17 V.S.A. §1903; VT Const. Ch. II, §13.) When ruling on a challenge to a redistricting plan, the courts give significant weight to these non-numerical factors. Putting a steep mountain in the middle of a multi-town district may yield district lines that are not intuitive from looking at a flat map of the state. Avoiding that type of unfortunate result, which may make a proposed district's percentage deviation greater than constitutionally desirable, can make a difference if a redistricting plan is challenged in court.

As mentioned, the Board's work to draw a new plan for House districts proceeded in two general phases. The first phase was developing a draft, tentative plan for review by Boards of Civil Authority. Under 17 V.S.A. §1905, any town that is divided into two or more districts or that is put in a district with another town is given an opportunity to comment on the Apportionment Board's plan before it is finalized. The Apportionment Board went beyond this requirement and sent the tentative House plan to all towns and cities for their review and comment.

In October and November, 148 Boards of Civil Authority (BCAs) commented on the tentative plan and in many cases proposed different district boundaries. In some cases, this involved towns trying to collaborate on a new mapping solution to a shared district line. The Apportionment Board then reviewed the various BCA recommendations. This is the point in its work where the Board's split over the "all single member House districts" question again made a broad consensus impossible. BCAs in towns and cities currently in two-member House districts generally (but with some exceptions) opposed eliminating their two-member districts. The Minutes of the Board meetings at which this question was discussed and debated reveal the depth and passion of this disagreement.

The Board then prepared two final House district maps: the All-single-member plan and the Alternate plan. By a vote of 4-3 taken on November 23, 2021, the Board adopted the all-single-member map as its final House proposal and delivered it to the Clerk of the House of Representatives on November 30, 2021.