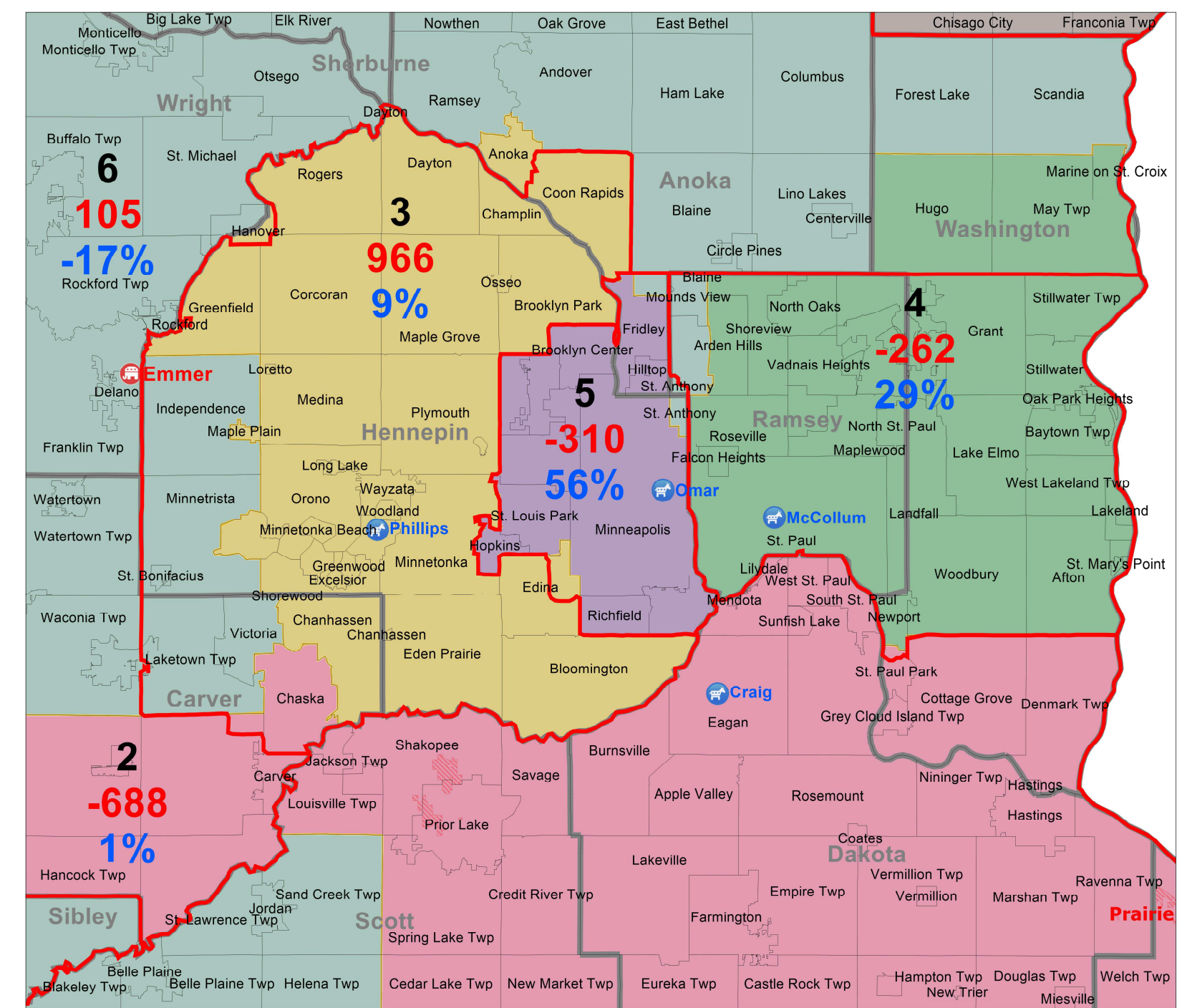
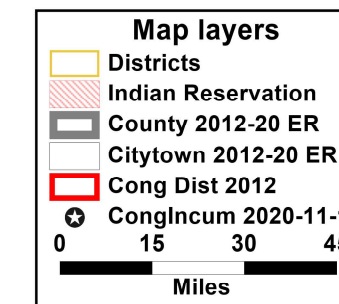
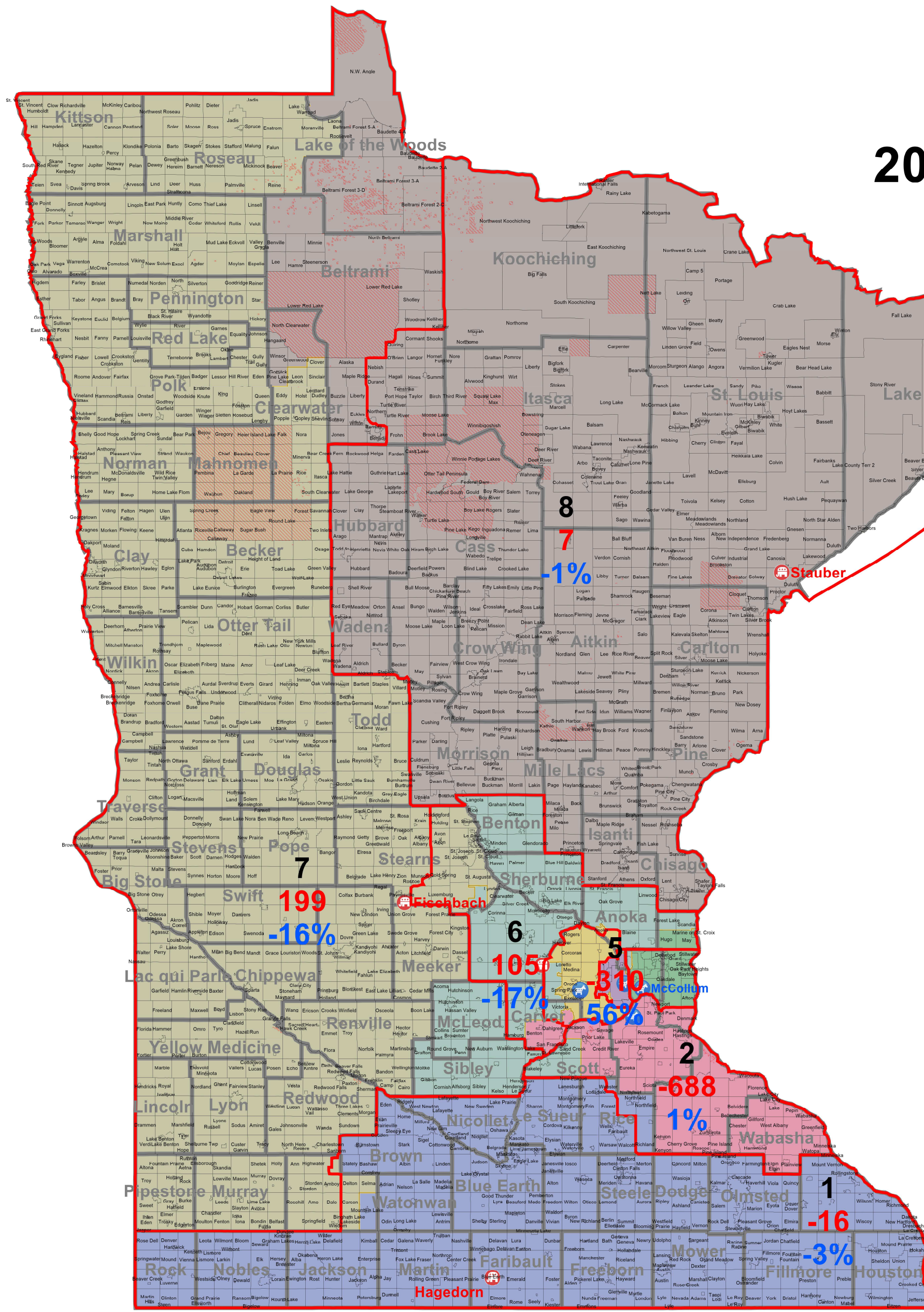


Congressional Plan 2022 PW 8C03

2019 State Demographer Population Estimate 2012-20 Party Index

Whole Cities



Partisanship

Thursday, April 8, 2021

6:09 PM

Partisanship - 2012-20 Index

| | | Dem Index | Rep Index | Third Index |
|---|---------------|------------------|------------------|-------------|
| Districts with a Plurality | | 4 | 4 | 0 |
| Percent of Total Seats | | 50 % | 50 % | |
| Proportional Seat Gap | | Dem Vote | Rep Vote | Third Vote |
| Statewide Vote | | 51 % | 44 % | 6 % |
| | | Dem Seats | Rep Seats | Third Seats |
| Proportional Seats | | 4 | 3 | |
| Gap (Districts with a plurality minus proportional seats) | | | 1 | |
| | Total | Democratic | Republican | Third |
| Competitive Districts (8% Plurality or less) | 3 | 1 | 2 | 0 |
| Safe Seats (20% Plurality or more) | 2 | 2 | 0 | 0 |
| Mean-Median Gap | Dem Minus Rep | Dem Vote | Rep Vote | Third Vote |
| Mean Vote | | 51 % | 44 % | 6 % |
| Median Vote | | 47 % | 47 % | 6 % |
| Gap (Ideal is 0.) | 7 % | 4 % | -4 % | 0 % |
| Lopsided Wins Gap (Democratic winning margin minus Republican winning margin. Ideal is 0.) | Dem Minus Rep | Dems Win By | Reps Win By | |
| | 15 % | 24 % | 9 % | |
| Declination (Losing and winning Democratic pluralities graphed from smallest to largest. Difference of angles of losing and winning graphs converted to a scale of -1 to 1. Ideal is 0.) | 18 % | | | |
| Efficiency Gap (Democratic wasted votes minus Republican wasted votes. Ideal is 0.) | Dem Minus Rep | Dem Wasted Votes | Rep Wasted Votes | |
| | 10 % | 33 % | 23 % | |

Note: Percentage totals may not add due to rounding.

| District | Index Votes | Dem Plurality | Dem Index % | Rep Index % | Third Index % |
|----------|-------------|---------------|-------------|-------------|---------------|
| 1 | 4,157,983 | (3) | 45.4 | 48.5 | 6.0 |
| 2 | 4,438,655 | 1 | 47.9 | 46.5 | 5.6 |

| District | Index Votes | Dem Plurality | Dem Index % | Rep Index % | Third Index % |
|---------------------|-------------------|---------------|-------------|-------------|---------------|
| 3 | 4,720,959 | 9 | 52.0 | 43.2 | 4.9 |
| 4 | 4,267,870 | 29 | 61.8 | 32.5 | 5.7 |
| 5 | 4,229,914 | 56 | 74.9 | 19.1 | 6.0 |
| 6 | 4,277,358 | (17) | 38.8 | 55.4 | 5.7 |
| 7 | 4,227,230 | (16) | 39.5 | 55.0 | 5.5 |
| 8 | 4,579,358 | (1) | 46.4 | 47.8 | 5.7 |
| State Total: | 34,899,327 | | 17,736,165 | 15,201,653 | 1,961,508 |
| | | | 51 | 44 | 6 |

Definitions:

Dem Plurality = Dem Index - Rep Index (a negative number is a Republican plurality)
 Dem Index = 2012 Obama+2014 Franken+Dayton+Simon+Otto+Swanson+2016 Clinton
 +2018 Smith+Walz+Simon+Blaha+Ellison+2020 Biden+Smith
 Rep Index = 2012 Romney+2014 McFadden+Johnson+Severson+Gilbert+Newman+2016 Trump
 +2018 Housley+Johnson+Howe+Myhra+Wardlow+2020 Trump+Lewis
 Third Index = 2012 Johnson+Harris+Goode+Morstad+Stein+Carlson+Lindsay+Anderson+Write-In
 +2014 Carlson+Johnson+Write-In+Nicollet+Holbrook+Wright+Write-In
 +Helland+Odden+Write-In+Dean+Iverson+Schwartzbacker+Write-In
 +Borgos+Dawkins+O'Connor+Vacek+Write-In
 +2016 Castle+Vacek+Kennedy+Stein+De La Fuente+McMullin+Johnson+Write-In
 +2018 Wellington+Trooien+Write-In+Wright+Welter+Write-In+Denney+Write-In
 +Ford+Dock+Write-In+Johnson+Write-In
 +2020 De La Fuente+Hawkins+West+Pierce+La Riva+Kennedy+Jorgensen+Write-In
 + O'Connor+Steinberg+Write-In

Districts & Their Incumbents

Thursday, April 8, 2021

6:09 PM

Number of Incumbents Paired: 0
Number of Open Seats: 0
Democrat v. Democrat: 0
Republican v. Republican: 0
Democrat v. Republican: 0

| DISTRICT | NAME | PARTY | Previous District |
|----------|--------------------|-------|-------------------|
| 1 | Jim Hagedorn | R | 1 |
| 2 | Angie Craig | DFL | 2 |
| 3 | Dean Phillips | DFL | 3 |
| 4 | Betty McCollum | DFL | 4 |
| 5 | Ilhan Omar | DFL | 5 |
| 6 | Tom Emmer | R | 6 |
| 7 | Michelle Fischbach | R | 7 |
| 8 | Pete Stauber | R | 8 |

Core Constituencies

Thursday, April 8, 2021

6:24 PM

| | | | | | | |
|--|----------------|--|-------------------|--|--------------------------------|---------|
| | [19POP] | | [20VOTERS] | | Average Core of Prior District | 93% |
| | | | | | Population Moved | 437,046 |
| Plan: 2022 PW 8C03, District 1 -- | | | 710,026 | | Total Population | |

From Plan: 2020 PW CBase19

| | | | | |
|---------|---------|-----|---------|-----|
| Dist. 1 | 683,966 | 96% | 376,429 | 96% |
| Dist. 2 | 26,060 | 4% | 15,101 | 4% |

| | | | | | |
|--|--|--|----------------|--|-------------------------|
| Plan: 2022 PW 8C03, District 2 -- | | | 709,354 | | Total Population |
|--|--|--|----------------|--|-------------------------|

From Plan: 2020 PW CBase19

| | | | | |
|---------|---------|-----|---------|-----|
| Dist. 2 | 671,144 | 95% | 407,257 | 95% |
| Dist. 3 | 27,750 | 4% | 16,047 | 4% |
| Dist. 4 | 292 | 0% | 157 | 0% |
| Dist. 6 | 10,168 | 1% | 6,655 | 2% |

| | | | | | |
|--|--|--|----------------|--|-------------------------|
| Plan: 2022 PW 8C03, District 3 -- | | | 711,008 | | Total Population |
|--|--|--|----------------|--|-------------------------|

From Plan: 2020 PW CBase19

| | | | | |
|---------|---------|-----|---------|-----|
| Dist. 3 | 676,497 | 95% | 422,564 | 95% |
| Dist. 5 | 14,623 | 2% | 9,907 | 2% |
| Dist. 6 | 19,888 | 3% | 10,251 | 2% |

| | | | | | |
|--|--|--|----------------|--|-------------------------|
| Plan: 2022 PW 8C03, District 4 -- | | | 709,780 | | Total Population |
|--|--|--|----------------|--|-------------------------|

From Plan: 2020 PW CBase19

| | | | | |
|---------|---------|-----|---------|-----|
| Dist. 4 | 690,964 | 97% | 386,763 | 97% |
| Dist. 6 | 18,816 | 3% | 12,622 | 3% |

| | | | | | |
|--|--|--|----------------|--|-------------------------|
| Plan: 2022 PW 8C03, District 5 -- | | | 709,732 | | Total Population |
|--|--|--|----------------|--|-------------------------|

From Plan: 2020 PW CBase19

| | | | | |
|---------|---------|------|---------|------|
| Dist. 5 | 709,732 | 100% | 393,386 | 100% |
|---------|---------|------|---------|------|

| | | | | | |
|--|--|--|----------------|--|-------------------------|
| Plan: 2022 PW 8C03, District 6 -- | | | 710,147 | | Total Population |
|--|--|--|----------------|--|-------------------------|

From Plan: 2020 PW CBase19

| | | | | |
|---------|---------|-----|---------|-----|
| Dist. 2 | 23,943 | 3% | 13,720 | 3% |
| Dist. 3 | 26,927 | 4% | 18,123 | 4% |
| Dist. 4 | 37,131 | 5% | 21,014 | 5% |
| Dist. 5 | 15,528 | 2% | 9,668 | 2% |
| Dist. 6 | 555,756 | 78% | 331,124 | 78% |
| Dist. 7 | 50,862 | 7% | 29,530 | 7% |

| | | | | | |
|--|--|--|----------------|--|-------------------------|
| Plan: 2022 PW 8C03, District 7 -- | | | 710,241 | | Total Population |
|--|--|--|----------------|--|-------------------------|

From Plan: 2020 PW CBase19

| | | | | |
|---------|---------|-----|---------|-----|
| Dist. 1 | 1,016 | 0% | 690 | 0% |
| Dist. 6 | 127,504 | 18% | 67,913 | 17% |
| Dist. 7 | 581,721 | 82% | 323,455 | 83% |

Plan: 2022 PW 8C03, District 8 --

710,049

Total Population

From Plan: 2020 PW CBase19

| | | | | |
|---------|---------|-----|---------|-----|
| Dist. 7 | 36,538 | 5% | 17,994 | 4% |
| Dist. 8 | 673,511 | 95% | 402,627 | 96% |

Population Summary

Thursday, April 8, 2021

6:11 PM

| | | | | |
|---------------------------|----------------|---------------------|---------------|----------------|
| Overall Range: | | | 0.23 Percent | 1,654 Persons |
| Largest District: | 711,008 | Deviation: | 0.14 Percent | 966 Persons |
| Smallest District: | 709,354 | Deviation: | -0.10 Percent | -688 Persons |
| | | Mean Deviation: | 0.04 Percent | 319 Persons |
| | | Standard Deviation: | 450 | 450.30 Persons |
| Ideal District: | 710,042 | | | |

| District | Population | Deviation | % Devn. |
|----------|------------|-----------|---------|
| 1 | 710,026 | -16 | 0.00% |
| 2 | 709,354 | -688 | -0.10% |
| 3 | 711,008 | 966 | 0.14% |
| 4 | 709,780 | -262 | -0.04% |
| 5 | 709,732 | -310 | -0.04% |
| 6 | 710,147 | 105 | 0.01% |
| 7 | 710,241 | 199 | 0.03% |
| 8 | 710,049 | 7 | 0.00% |

State Total: 5,680,337

Contiguity Report

Thursday, April 8, 2021

6:11 PM

| District | Number of Distinct Areas |
|----------|--------------------------|
| 1 | 1 |
| 2 | 1 |
| 3 | 1 |
| 4 | 1 |
| 5 | 1 |
| 6 | 1 |
| 7 | 1 |
| 8 | 1 |

Political Subdivison Splits Between Districts

Thursday, April 8, 2021

6:11 PM

Number of subdivisions split into multiple districts:

| | |
|---------------------|---|
| County 2012-20 ER | 9 |
| Citytown 2012-20 ER | 0 |

Number of times a subdivision is split into multiple districts:

| | |
|-------------------|----|
| County 2012-20 ER | 13 |
|-------------------|----|

Number of splits involving no population:

| | |
|---------------------|---|
| County 2012-20 ER | 0 |
| Citytown 2012-20 ER | 0 |

| County 2012-20 ER | Citytown 2012-20 ER | District | [19POP] |
|-------------------|---------------------|----------|---------|
|-------------------|---------------------|----------|---------|

Split Counties:

| | | | |
|------------|--|---|---------|
| Anoka | | 3 | 82,693 |
| Anoka | | 5 | 51,293 |
| Anoka | | 6 | 228,660 |
| Carver | | 2 | 37,918 |
| Carver | | 3 | 26,278 |
| Carver | | 6 | 42,983 |
| Clearwater | | 7 | 7,809 |
| Clearwater | | 8 | 999 |
| Cottonwood | | 1 | 2,675 |
| Cottonwood | | 7 | 8,541 |
| Hennepin | | 3 | 602,037 |
| Hennepin | | 5 | 658,439 |
| Hennepin | | 6 | 19,508 |
| Ramsey | | 4 | 517,436 |
| Ramsey | | 6 | 40,819 |
| Scott | | 2 | 124,516 |
| Scott | | 6 | 23,943 |
| Stearns | | 6 | 1,577 |
| Stearns | | 7 | 158,635 |
| Washington | | 2 | 45,555 |
| Washington | | 4 | 192,344 |
| Washington | | 6 | 24,852 |

Measures of Compactness Report (PSW)

Thursday, April 8, 2021

6:14 PM

Number of cut edges: 537

| | Reock | Polsby-Popper | Area/Convex Hull | Population Polygon | Population Circle | Ehrenburg | Schwartzberg | Alternate Schwartzberg | Perimeter | Length-Width |
|-----------|-------|---------------|------------------|--------------------|-------------------|-----------|--------------|------------------------|-----------|--------------|
| Mean | 0.39 | 0.29 | 0.74 | 0.72 | 0.37 | 0.35 | 1.73 | 1.94 | | 56.87 |
| Min | 0.22 | 0.16 | 0.60 | 0.24 | 0.15 | 0.20 | 1.30 | 1.37 | | 2.30 |
| Max | 0.58 | 0.53 | 0.85 | 0.93 | 0.66 | 0.53 | 2.31 | 2.51 | | 203.43 |
| Std. Dev. | 0.14 | 0.11 | 0.08 | 0.24 | 0.23 | 0.11 | 0.29 | 0.34 | | 87.11 |
| Sum | | | | | | | | | 4,513.99 | |

Higher Number is Better

Lower Number is Better

| District | Reock | Polsby-Popper | Area/Convex Hull | Population Polygon | Population Circle | Ehrenburg | Schwartzberg | Alternate Schwartzberg | Perimeter | Length-Width |
|----------|-------|---------------|------------------|--------------------|-------------------|-----------|--------------|------------------------|-----------|--------------|
| 1 | 0.22 | 0.31 | 0.83 | 0.93 | 0.16 | 0.30 | 1.75 | 1.80 | 703.46 | 188.69 |
| 2 | 0.25 | 0.28 | 0.71 | 0.66 | 0.21 | 0.30 | 1.78 | 1.89 | 323.74 | 43.85 |
| 3 | 0.54 | 0.22 | 0.69 | 0.49 | 0.37 | 0.31 | 1.77 | 2.14 | 164.24 | 4.02 |
| 4 | 0.58 | 0.53 | 0.85 | 0.88 | 0.66 | 0.45 | 1.30 | 1.37 | 100.64 | 2.30 |
| 5 | 0.48 | 0.33 | 0.80 | 0.85 | 0.58 | 0.44 | 1.60 | 1.74 | 71.46 | 5.75 |
| 6 | 0.36 | 0.16 | 0.60 | 0.24 | 0.18 | 0.20 | 2.31 | 2.51 | 537.06 | 2.40 |
| 7 | 0.28 | 0.21 | 0.76 | 0.79 | 0.15 | 0.26 | 1.77 | 2.16 | 1,339.30 | 203.43 |
| 8 | 0.42 | 0.27 | 0.71 | 0.89 | 0.65 | 0.53 | 1.52 | 1.94 | 1,274.09 | 4.52 |

Measures of Compactness Summary

| | |
|-------------------------------|--|
| Reock | The measure is always between 0 and 1, with 1 being the most compact. |
| Polsby-Popper | The measure is always between 0 and 1, with 1 being the most compact. |
| Area / Convex Hull | The measure is always between 0 and 1, with 1 being the most compact. |
| Population Polygon | The measure is always between 0 and 1, with 1 being the most compact. |
| Population Circle | The measure is always between 0 and 1, with 1 being the most compact. |
| Ehrenburg | The measure is always between 0 and 1, with 1 being the most compact. |
| Schwartzberg | The measure is usually greater than or equal to 1, with 1 being the most compact. |
| Alternate Schwartzberg | This measure is always greater than or equal to 1, with 1 being the most compact. |
| Perimeter | The Perimeter test computes one number for the whole plan. If you are comparing several plans, the plan with the smallest total perimeter is the most compact. |
| Length-Width | A lower number indicates better length-width compactness. |

Communities of Interest (Condensed)

Thursday, April 8, 2021

6:14 PM

Whole Indian Reservation : 11
Indian Reservation Splits: 4
Zero Population Indian Reservation Splits: 0

| District | Indian Reservation | Population | % Pop | District | Indian Reservation | Population | % Pop |
|----------|----------------------------|------------|---------|----------|--------------------|------------|-------|
| 1 | Ho-Chunk Nation | 12 | 100.00% | | | | |
| 2 | Shakopee Mdewakanton Sioux | 1,437 | 100.00% | | | | |
| 2 | Prairie Island | 151 | 100.00% | | | | |
| 7 | Minnesota Chippewa | 1 | 7.95% | | | | |
| 7 | Upper Sioux | 30 | 100.00% | | | | |
| 7 | Lower Sioux | 36 | 100.00% | | | | |
| 7 | White Earth | 9,686 | 100.00% | | | | |
| 7 | Red Lake | 16 | 0.28% | | | | |
| 8 | Minnesota Chippewa | 7 | 92.05% | | | | |
| 8 | Mille Lacs | 3,171 | 100.00% | | | | |
| 8 | Leech Lake | 10,228 | 100.00% | | | | |
| 8 | Fond du Lac | 4,882 | 100.00% | | | | |
| 8 | Bois Forte | 439 | 100.00% | | | | |
| 8 | Grand Portage | 587 | 100.00% | | | | |
| 8 | Red Lake | 5,881 | 99.72% | | | | |

2022 Congressional Plan Comparison

| | 2002 Court | 2012 Court | 2020 PW CBase19 | 2022 PW 8C03 |
|--|---------------|---------------|--------------------|-----------------|
| Population Equality | | | | |
| Overall Range - Persons | 1 | 1 | 70,762 | 1,654 |
| Overall Range - Percent | 0.00% | 0.00% | 9.97% | 0.23% |
| | | | | |
| Political Subdivision Splits | | | | |
| Counties | | | | |
| Number split | 8 | 9 | 9 | 9 |
| Times split | 13 | 12 | 12 | 13 |
| Cities, Townships, Unorganized Territories | | | | |
| Number split | 7 | 7 | 8 | 0 |
| Times split | 7 | 7 | 8 | 0 |
| Precincts | | | | |
| Number split | 12 | 9 | 0 | 0 |
| Times split | 12 | 9 | 0 | 0 |
| | | | | |

| | 2002 Court | 2012 Court | 2020 PW CBase19 | 2022 PW 8C03 |
|--|-----------------------|-----------------------|----------------------------|-------------------------|
| Compactness | | | | |
| Reock Mean (higher is better) | .42 | .41 | .41 | .39 |
| Polsby-Popper Mean (higher is better) | .31 | .33 | .32 | .29 |
| Convex Hull (higher is better) | .77 | .77 | .77 | .74 |
| Population Polygon (higher is better) | .68 | .71 | .71 | .72 |
| Population Circle (higher is better) | .34 | .36 | .36 | .37 |
| Ehrenburg (higher is better) | .38 | .38 | .39 | .35 |
| Schwartzberg (lower is better) | 1.71 | 1.68 | 1.60 | 1.73 |
| Alternate Schwartzberg (lower is better) | 1.84 | 1.79 | 1.81 | 1.94 |
| Perimeter Length (shorter is better) | 4,226 | 4,243 | 4,284 | 4,514 |
| Length-Width (lower is better) | 62.64 | 63.66 | 63.59 | 56.87 |
| Cut edges (fewer is better) | 2,843 | 3,212 | 477 | 537 |
| Communities of Interest Splits | | | | |
| Indian Reservations | | | | |
| Number split | 2 | 2 | 2 | 2 |
| Times split | 2 | 2 | 2 | 2 |
| Cores of Prior Districts | | | | |
| Average core of prior district | | 92% | NA | 93% |
| Incumbent Pairs | | | | |
| Incumbents Paired | 2 | 2 | 0 | 0 |
| Open Seats | 1 | 1 | 0 | 0 |
| Democrat v. Democrat | 0 | 0 | 0 | 0 |
| Republican v. Republican | 0 | 0 | 0 | 0 |
| Democrat v. Republican | 1 | 1 | 0 | 0 |

| | 2002 Court | 2012 Court | 2020 PW CBase19 | 2022 PW 8C03 |
|---|-----------------------|--------------------------|----------------------------|--------------------------|
| Partisanship | 1998 Index | 2006-10 Index | 2012-20 Index | 2012-20 Index |
| Democratic Vote Statewide | 45% | 48% | 51% | 51% |
| Republican Vote Statewide | 46% | 45% | 44% | 44% |
| Third Party Vote Statewide | 9% | 7% | 6% | 6% |
| Democratic Plurality | 3 | 3 | 4 | 4 |
| Democratic Seat Gap (Districts with a plurality minus proportional seats) | (1) | (1) | 0 | 0 |
| Republican Plurality | 5 | 5 | 4 | 4 |
| Republican Seat Gap (Districts with a plurality minus proportional seats) | 1 | 1 | 1 | 1 |
| Competitive (Plurality 8% or less) | 3 | 5 | 4 | 3 |
| Safe (Plurality 20% or more) | 0 | 1 | 2 | 2 |
| Mean-Median Gap (Democratic minus Republican mean plurality minus median plurality. Ideal is 0.) | 3% | 7% | 7% | 7% |
| Lopsided Wins Gap (Democratic average winning plurality minus Republican average winning plurality. Ideal is 0.) | 4% | 15% | 13% | 15% |
| Declination (Losing and winning Democratic pluralities graphed from smallest to largest. Difference of angles of losing and winning graphs converted to a scale of -1 to 1. Ideal is 0.) | 14% | 29% | 16% | 18% |
| Efficiency Gap (Democratic wasted votes minus Republican wasted votes. Ideal is 0.) | 9% | 17% | 9% | 10% |