

UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF ALABAMA  
SOUTHERN DIVISION

BOBBY SINGLETON, *et al.*, )  
)  
Plaintiffs, )  
)  
v. )  
)  
WES ALLEN, *in his official capacity as* )  
*Alabama Secretary of State, et al.*, )  
)  
Defendants. )

Case No.: 2:21-cv-1291-AMM

THREE-JUDGE COURT

EVAN MILLIGAN, *et al.*, )  
)  
Plaintiffs, )  
)  
v. )  
)  
WES ALLEN, *in his official capacity as* )  
*Alabama Secretary of State, et al.*, )  
)  
Defendants. )

Case No.: 2:21-cv-1530-AMM

THREE-JUDGE COURT

MARCUS CASTER, *et al.*, )  
)  
Plaintiffs, )  
)  
v. )  
)  
WES ALLEN, *in his official capacity as* )  
*Secretary of State of Alabama, et al.*, )  
)  
Defendants. )

Case No.: 2:21-cv-1536-AMM

REPORT AND RECOMMENDATION  
OF THE SPECIAL MASTER

**BEFORE THE SPECIAL MASTER:**

Pursuant to the Court’s September 5, 2023 preliminary injunction order and instructions, the Special Master is filing three proposed remedial plans for Alabama’s U.S. congressional map, attached to this Report and Recommendation as Exhibits 1-3. Per the Court’s instructions, each proposed plan remedies the likely violation of Section Two of the Voting Rights Act identified in the Court’s preliminary injunction order. Each proposed plan also complies with the U.S. Constitution and the Voting Rights Act; adheres to the one-person, one-vote requirement; and respects traditional redistricting principles, including compactness, contiguity, respect for political subdivisions, and maintenance of communities of interest. Per the Court’s instructions, this Report and Recommendation details the choices made to arrive at each proposed plan, the differences between and among the proposed plans, and why each plan remedies the likely vote dilution found by the Court.<sup>1</sup>

**I. INTRODUCTION AND PROCEDURAL BACKGROUND****A. Congressional Redistricting in Alabama**

Since 1973, Alabama has been apportioned seven seats in the U.S. House of Representatives. Injunction, Opinion, and Order (“PI Order”) at 31, *Milligan v. Allen*, 2:21-cv-1530 (N.D. Ala. Sept. 5, 2023), ECF No. 272.<sup>2</sup> After the 1990 census, the Alabama Legislature failed to enact a congressional redistricting plan. *See Wesch v. Hunt*, 785 F. Supp. 1491, 1497 (S.D. Ala. 1992) (three-judge court) (“*Hunt*”), *aff’d sub nom. Camp v. Wesch*, 504 U.S. 902 (1992), and *aff’d sub nom. Figures v. Hunt*, 507 U.S. 901 (1993). A federal court ultimately ordered

---

<sup>1</sup> In preparing the proposed remedial plans and this Report and Recommendation, the Special Master was assisted by the cartographer, David R. Ely of Compass Demographics, Inc., and Michael A. Scodro, Mitchell D. Holzrichter, and their team of attorneys at Mayer Brown LLP. The Special Master wishes to thank Mr. Ely and the Mayer Brown LLP team for their diligent work and analysis.

<sup>2</sup> For simplicity, this Report and Recommendation uses the citation to the filing in the *Milligan* docket for documents filed in each of the *Milligan*, *Caster*, and *Singleton* dockets.

elections held according to a plan that created one majority-Black district (District 7). *Wesch v. Folson*, 6 F.3d 1465, 1467-68 (11th Cir. 1993); *Hunt*, 785 F. Supp. at 1498; *id.* at App. A.

**B. Background of this Litigation**

After release of the 2020 census data, the State cartographer prepared the 2021 Alabama Congressional Plan (the “2021 Plan”). PI Order at 31. Three plaintiff groups brought suit in an effort to stop the 2022 congressional elections from proceeding under the 2021 Plan. *Allen v. Milligan*, 599 U.S. 1, 16 (2023). One plaintiff group, led by Dr. Marcus Caster of Washington County, challenged the 2021 Plan under Section Two of the Voting Rights Act. *See Caster v. Allen*, 2:21-cv-1536-AMM (N.D. Ala.). Another group, led by Evan Milligan of Montgomery County, challenged the 2021 Plan under Section Two and the Fourteenth Amendment’s Equal Protection Clause. *See Milligan v. Allen*, 2:21-cv-1530-AMM (N.D. Ala.). The third plaintiff group, led by Alabama legislator Bobby Singleton, challenged the 2021 Plan as a racial gerrymander in violation of the Equal Protection Clause. *See Singleton v. Allen*, 2:21-cv-1291-AMM (N.D. Ala.).

**C. The 2022 Initial Injunction Order**

The *Singleton* and *Milligan* actions were consolidated for preliminary injunction proceedings before a three-judge panel of the U.S. District Court for the Northern District of Alabama, made up of the Honorable Stanley Marcus, Senior U.S. Circuit Judge for the U.S. Court of Appeals for the Eleventh Circuit; the Honorable Anna M. Manasco, U.S. District Judge for the Northern District of Alabama; and the Honorable Terry F. Moorer, U.S. District Judge for the Southern District of Alabama. The *Caster* litigation proceeded in parallel before Judge Manasco. *Allen*, 599 U.S. at 16.

Following a multi-day preliminary injunction hearing in January 2022, the three-judge Court held in a 227-page opinion that the 2021 Plan likely violated Section Two. *Singleton v. Merrill*, 582 F. Supp. 3d 924, 1026 (N.D. Ala. 2022). The Court evaluated the Section Two claims

under the factors set forth in *Thornburg v. Gingles*, 478 U.S. 30 (1986). Under *Gingles*, a Section Two plaintiff must make three showings: that (1) the minority group is “sufficiently large” and geographically compact “to constitute a majority in a single-member district”; (2) the minority group is “politically cohesive”; and (3) the “white majority votes sufficiently as a bloc to enable it . . . to defeat the minority’s preferred candidate.” 478 U.S. at 50-51. A plaintiff establishing these three preconditions then must show that the political process is not equally open to minority voters under the “totality of the circumstances.” *Id.* at 79.

To satisfy these requirements, the plaintiffs submitted eleven illustrative congressional maps, including four prepared by the *Milligan* Plaintiffs’ expert, Dr. Moon Duchin, and seven prepared by the *Caster* Plaintiffs’ expert, Bill Cooper. *Singleton*, 582 F. Supp. 3d at 954. “At the preliminary injunction hearing, [Mr. Cooper] was qualified as an expert in redistricting, demographics, and census data without objection from any party.” *Id.* at 977. He testified that “he expected to be able to draw illustrative plans with two reasonably compact majority-Black congressional districts because, at the same time the Legislature enacted the [2021] Plan, the Legislature also enacted a redistricting plan for the State Board of Education” that included two majority-Black districts.<sup>3</sup> *Id.* at 978. Mr. Cooper further testified that each of his illustrative plans “achieves the goals of population equality, contiguity, compactness, respect for political subdivision boundaries, communities of interest, and non[-]dilution of minority voting strength.” *Id.* at 980 (alteration in original). The Court found Mr. Cooper’s testimony “highly credible.” *Id.* at 977.

---

<sup>3</sup> In a declaration submitted to the Court, Mr. Cooper explained that the State Board of Education plan includes two districts that are similar to the majority-Black districts in Mr. Cooper’s illustrative plans and that similarly split Mobile County. Declaration of William S. Cooper (“Cooper Decl.”) at ¶¶ 32-41, *Caster v. Allen*, 2:21-cv-01536 (N.D. Ala. Dec. 14, 2021), ECF No. 48.

In its opinion, the Court held that the *Milligan* Plaintiffs were substantially likely to establish a Section Two violation under *Gingles*. *Id.* at 1004-26. In reaching this conclusion, the Court relied on the eleven illustrative plans submitted by the Plaintiffs’ experts, as well as evidence presented by the Plaintiffs regarding the “totality of the circumstances.” *Id.* The Court also rejected the Defendants’ arguments that the illustrative plans unconstitutionally discriminated based on race because “[b]oth Dr. Duchin and Mr. Cooper consistently and repeatedly refuted the accusation that when they prepared their illustrative plans, they prioritized race above everything else.” *Id.* at 1029-30. Accordingly, the Court preliminarily enjoined the State from conducting elections using the 2021 Plan. *Id.* at 936.<sup>4</sup>

#### **D. The Supreme Court Affirms the Initial Injunction Order**

The Supreme Court affirmed the District Court’s preliminary injunction order in June 2023. *Allen*, 599 U.S. at 10. In conducting the *Gingles* analysis, the Court held that “the District Court correctly found that black voters could constitute a majority in a second district that was ‘reasonably configured.’” *Id.* at 19. The Court observed that the plaintiffs had “adduced eleven illustrative maps—that is, example districting maps that Alabama could enact—each of which contained two majority-black districts that comported with traditional districting criteria.” *Id.* at 20.

The Supreme Court then considered the illustrative plans offered by Dr. Duchin and Mr. Cooper. *Id.* With respect to compactness, the Court recounted the three-judge District Court’s conclusions that “the maps submitted by . . . [Dr. Duchin] ‘perform[ed] generally better on average than’ did [the 2021 Plan]” and that Mr. Cooper “produced districts roughly as compact as the

---

<sup>4</sup> Judge Manasco, presiding in *Caster*, also preliminarily enjoined Alabama from using the 2021 Plan. *Allen*, 599 U.S. at 17 n.2. Her opinion was based on the same evidentiary record that was before the three-judge Court, and she adopted in full that Court’s “recitation of the evidence, legal analysis, findings of fact, and conclusions of law.” *Id.*

existing plan.” *Id.* (alteration in original). The Supreme Court further observed that “none of plaintiffs’ maps contained any tentacles, appendages, bizarre shapes, or any other obvious irregularities that would make it difficult to find them reasonably compact.” *Id.* (internal quotation marks omitted).

In addition, the Supreme Court held that the “[p]laintiffs’ maps also satisfied other traditional districting criteria.” *Id.* “They contained equal populations, were contiguous, and respected existing political subdivisions, such as counties, cities, and towns.” *Id.* Accordingly, the Court “agree[d] with” the District Court in finding that “plaintiffs’ illustrative maps strongly suggested that Black voters in Alabama could constitute a majority in a second, reasonably configured district.” *Id.* (internal quotation marks omitted) (alteration in original).

Nor did the Supreme Court “find the State’s argument persuasive” “that plaintiffs’ maps were not reasonably configured because they failed to keep together a traditional community of interest within Alabama” by separating the Gulf Coast “into two different districts.” *Id.* at 20-21. The Court reasoned that “[o]nly two witnesses testified that the Gulf Coast was a community of interest,” and “testimony provided by one of those witnesses was partial, selectively informed, and poorly supported,” while “[t]he other witness . . . justified keeping the Gulf Coast together simply to preserve political advantage.” *Id.* at 21 (internal quotation marks omitted). The Supreme Court concluded that the District Court “understandably found this testimony insufficient to sustain Alabama’s overdrawn argument that there can be no legitimate reason to split the Gulf Coast region.” *Id.* (internal quotation marks omitted).<sup>5</sup>

---

<sup>5</sup> In addition, Chief Justice Roberts, writing for a plurality of the Court, examined the illustrative maps produced by Mr. Cooper in response to the State’s contention that these maps gave undue consideration to race. *Id.* at 30-33. The plurality noted the District Court’s finding that Mr. Cooper was “highly credible” and worked “to give ‘equal weight[]’ to all traditional redistricting criteria.” *Id.* at 31. The plurality cited Mr. Cooper’s testimony that, “while it was necessary for him to *consider* race, he also took several other factors into account, such as compactness, contiguity, and population equality,” all of which received “equal weighting.” *Id.* (emphasis in original). “And when asked squarely whether race predominated in his development

### **E. Remedial Proceedings Before the District Court**

After the Supreme Court’s ruling, the State informed the three-judge Court that the Legislature intended to “enact a new congressional redistricting plan that will repeal and replace the 2021 Plan.” *See* PI Order at 18. On July 21, 2023, the Alabama Legislature enacted a new redistricting plan (the “2023 Plan”), which Governor Ivey signed into law. *Id.* at 19.

All three groups of Plaintiffs objected to the 2023 Plan. The parties and interested non-parties submitted briefs addressing the 2023 Plan, *id.* at 23-26, and on August 14, 2023, the Court held a remedial hearing in the *Milligan* and *Caster* cases and, on August 15, 2023, held a preliminary injunction hearing in the *Singleton* case, *id.* at 26.

### **F. The September 2023 Injunction Order**

On September 5, 2023, the Court issued the PI Order, holding that the 2023 Plan failed to “remedy the likely Section Two violation that [the Court had] found and the Supreme Court affirmed.” PI Order at 6. The Court reaffirmed its prior holding that a proper remedy for the Section Two violation requires creation of an additional district in which Black voters “have an opportunity to elect a representative of their choice.” *Id.* at 3, 6-7.<sup>6</sup> The Court also reaffirmed its prior findings that Dr. Duchin and Mr. Cooper were “highly credible” expert witnesses and reiterated its determination that “the eleven illustrative maps presented in the preliminary

---

of the illustrative plans, Cooper responded: ‘No. It was a consideration. This is a Section [Two] lawsuit, after all. But it did not predominate or dominate.’” *Id.* The plurality thus concluded that the “District Court did not err in finding that race did not predominate in Cooper’s maps in light of the evidence before it.” *Id.* at 32.

<sup>6</sup> The Court explained that an “opportunity” or “Black-opportunity” district means a district in which a “meaningful number” of non-Black voters often “join[] a politically cohesive black community to elect” the Black-preferred candidate. PI Order at 33 n.9 (quoting *Cooper v. Harris*, 581 U.S. 285, 303 (2017) (alteration in original)). The Court distinguished an opportunity district from a majority-Black district, in which Black residents comprise “50 percent or more of the voting population and . . . constitute a compact voting majority” in the district. *Id.* (quoting *Bartlett v. Strickland*, 556 U.S. 1, 19 (2009) (plurality opinion) (alteration in original)).

injunction are reasonably configured and are altogether consonant with traditional redistricting criteria.” *Id.* at 33, 37, 166-67.

Moreover, the Court “d[id] not find that the 2023 Plan respects communities of interest or county lines better than the Plaintiffs’ illustrative maps.” *Id.* at 150. The Court also reiterated its prior finding that “the Black Belt ‘stands out . . . as quite clearly a community of interest of substantial significance’ but the State ‘overstate[s] the point’ about the Gulf Coast.” *Id.* at 156 (quoting *Singleton*, 582 F. Supp. 3d at 1012, 1014) (alteration in original).<sup>7</sup> The District Court further explained that “[t]he evidence about the Gulf Coast . . . is still considerably weaker than the record on the Black Belt, which rests on extensive stipulated facts and includes extensive expert testimony, and which spanned a range of demographic, cultural, historical, and political issues.” *Id.*

Further, the Court observed that as the Plaintiffs established and the State concedes, in the new District 2 shown in the 2023 Plan, “Black voters remain an ineffective minority of voters.” *Id.* at 166. The Court held that this “undermines the State’s assertion that the 2023 Plan remedies the cracking of Black voting strength in the Black Belt simply by splitting the Black Belt into fewer districts.” *Id.* “In turn,” the District Court explained, the evidence “explains the reason why there remains a need to split the Gulf Coast: splitting the Black Belt as the 2023 Plan does dilutes Black voting strength, while splitting the Gulf Coast precipitates no such racially discriminatory harm.” *Id.*

Regarding the Wiregrass, the Court found that “the evidence about the community of interest in the Wiregrass is sparse in comparison to the extensive evidence about the Black Belt

---

<sup>7</sup> The Supreme Court’s plurality opinion quoted Mr. Cooper’s testimony “that the relevant community of interest here—the Black Belt—was a ‘*historical*’ feature’ of the State, not a demographic one.” *Allen*, 599 U.S. at 32 n.5 (emphasis in original). “The Black Belt,” Mr. Cooper explained, “was defined by its ‘historical boundaries’—namely, the group of ‘rural counties plus Montgomery County in the central part of the state.’” *Id.*



and the somewhat new evidence about the Gulf Coast.” *Id.* at 167. “Further,” the Court observed, “there is substantial overlap between the Black Belt and the Wiregrass” because “[t]hree of the nine Wiregrass Counties (Barbour, Crenshaw, and Pike) are also in the Black Belt.” *Id.* “Accordingly,” the Court noted, “any districting plan must make tradeoffs with these communities to meet equal population and contiguity requirements.” *Id.*

The District Court further addressed the State’s suggestion that “there can be no legitimate reason to split Mobile and Baldwin counties.” *Id.* at 66. The Court cited a declaration by Alabama Representative Sam Jones, the first Black Mayor of Mobile, who “explains the many economic, cultural, religious, and social ties between much of Mobile and the Black Belt, in contrast to Baldwin County, which shares ‘little of these cultural or community ties’ with Mobile.” *Id.* The Court also relied on an expert report prepared by Dr. Joseph Bagley, who contrasted the “intimate historical and socioeconomic ties” that the “City of Mobile and the northern portion of Mobile County, including Prichard, have . . . with the Black Belt,” with the “‘ahistorical’ effort to treat the Wiregrass or ‘Mobile and Baldwin Counties as inviolable’” communities of interest. *Id.* at 66-67 (alteration in original).<sup>8</sup> The Court further noted that “the Legislature has repeatedly split Mobile

---

<sup>8</sup> Dr. Bagley’s report contains an extensive list of common features characterizing the Black Belt community: “the fertility of the soil”; “the current poverty experienced by its residents”; “Indian Removal, chattel slavery, cotton production, Reconstruction and Redemption, sharecropping, convict leasing, white supremacy, lynching, disenfranchisement, the birth of Historically Black Colleges and Universities (HBCUs), struggles for civil and voting rights, Black political and economic organization, backlash in the form of violence and economic reprisal, repressive forms of taxation, white flight, prolonged struggle against vote dilution and a war on absentee balloting, blues and jazz music, folklore, quilting, military heroism, hunting, and fishing”; as well as “profound racial inequality resulting from persistent racial subordination.” Second Supplemental Declaration of Joseph Bagley, Ph.D. (“Bagley Report”) at 2, *Milligan v. Allen*, 2:21-cv-1530 (N.D. Ala. July 28, 2023), ECF No. 200-15. Many of those characteristics, Dr. Bagley opined, “could also be applied to metropolitan Mobile,” including, for example, a history of chattel slavery, cotton production, Black political organization, white supremacy, struggles for civil and voting rights, and school segregation, as well as current poverty. *Id.* at 2-3. The Declaration submitted by Representative Samuel Jones also spoke to the “economic, cultural, religious, and social ties between much of Mobile and the Black Belt, in contrast to Baldwin County, which shares ‘little of these cultural or community ties.’” PI Order at 66 (quoting Declaration of

and Baldwin Counties in creating maps for the State Board of Education districts in Alabama, and the Legislature did so at the same time it drew the 2021 Plan.” *Id.* at 164.

Based on these findings, the Court affirmed that the 2023 Plan failed to remedy the likely Section Two violation found by the Court and affirmed by the Supreme Court, in the 2021 Plan. *Id.* at 6. The Court thus enjoined the State from conducting any elections under the 2023 Plan. *Id.*

### **G. The District Court’s Instructions to the Special Master**

In the PI Order, the Court directed the Special Master to commence work on a remedial map, with instructions to follow by separate order. PI Order at 7. That same day, the Court issued its separate order providing specific instructions for the Special Master’s use in drafting the remedial map. *See* Order (“SM Order”), *Milligan v. Allen*, 2:21-cv-01530-AMM (N.D. Ala. Sept. 5, 2023), ECF No.273.<sup>9</sup>

In the SM Order, the Court directed the Special Master and his team to file, by September 25, 2023, three proposed remedial maps to remedy the likely Section Two violation identified by the Court. *Id.* at 6-7. Each plan was to include color maps with inset maps sufficient to clearly show the boundaries between political subdivisions within the State, along with demographic data for each proposed map (including population deviations for each district, the Black voting-age population of each district, and any other relevant criteria). *Id.* at 6.

The Court further directed the Special Master and his team to file a Report and Recommendation along with the proposed plans, detailing the choices made in crafting each

---

Representative Samuel Jones at 4, *Milligan v. Allen*, 2:21-cv-1530 (N.D. Ala. July 28, 2023), ECF No. 200-9).

<sup>9</sup> The Court previously appointed the undersigned as Special Master through an order issued on February 7, 2022. *See* Order, *Milligan v. Allen*, 2:21-cv-01530 (N.D. Ala. Feb. 7, 2022), ECF No. 130. In the same order, the Court appointed Dr. Nathaniel Persily as a cartographer. *Id.* at 6. Mr. Persily subsequently withdrew as cartographer, and the Court appointed David R. Ely to serve in that capacity. *See* Order at 4, *Milligan v. Allen*, 2:21-cv-01530-AMM (N.D. Ala. Aug. 8, 2023), ECF No. 226.

proposed plan, the differences between and among the proposed plans, and why each plan remedies the likely vote dilution that the Court found. *Id.* Specifically, the Court stated that the Report and Recommendation should discuss the facts and offer legal analysis supporting the districts’ compliance with the U.S. Constitution, the Voting Rights Act, traditional redistricting criteria, and the other criteria listed in the SM Order. *Id.* at 6-7.

The Court further directed that each of the Special Master’s proposed remedial plans:

- Completely remedy the likely Section Two violation identified in the PI Order. Each map shall remediate the essential problem found in the 2023 Plan—the unlawful dilution of the Black vote in Alabama’s congressional redistricting regime. To that end, each proposed map shall “include either an additional majority-Black congressional district, or an additional district in which Black voters otherwise have an opportunity to elect a representative of their choice.” [Preliminary Injunction Memorandum and Order, *Milligan v. Allen*, 2:21-cv-01530-AMM (N.D. Ala. Jan. 24, 2022), ECF No. 107.]
- Comply with the U.S. Constitution and the Voting Rights Act.
- Comply with the one-person, one-vote principle guaranteed by the Equal Protection Clause of the Fourteenth Amendment, based on data from the 2020 Census. Any remedy shall ensure that one person’s “vote in a congressional election” is as “nearly as is practicable . . . worth as much as another’s.” *Wesberry v. Sanders*, 376 U.S. 1, 7-8 (1964).
- Respect traditional redistricting principles to the extent reasonably practicable. . . . [C]onsistent with the limitations on court-drawn maps, the Special Master shall consider traditional redistricting criteria, such as compactness, contiguity, respect for political subdivisions, and maintenance of communities of interest.

*Id.* at 7-9.

The Court instructed the Special Master and his team to consider as background, among other things, the eleven illustrative plans submitted by the *Milligan* and *Caster* Plaintiffs; the remedial maps submitted by the *Singleton* Plaintiffs (known as the “Whole County Plans”); and the State’s 2021 Plan and 2023 Plan, each of which had been found likely to violate Section Two. *Id.* at 9-10. The Court further explained that the Special Master and his team also could consider the Reapportionment Committee Redistricting Guidelines, which were adopted by the Alabama Legislature’s Reapportionment Committee in drawing both the 2021 Plan and the 2023 Plan, and

which the Court approved in its preliminary injunction order, and the findings adopted by the Alabama Legislature in connection with the 2023 Plan. *Id.* at 10. Finally, the Court noted that the Special Master and his team may consider all the record evidence received in the first preliminary injunction hearing in January 2022, record evidence received by the Court at the remedial hearing in the *Milligan* and *Caster* cases conducted on August 14, 2023, and record evidence received at the preliminary injunction hearing in the *Singleton* case on August 15, 2023. *Id.*

#### **H. Filings and Proceedings Before the Special Master**

Judge Manasco created a new docket to receive filings and submissions intended for the Special Master. *See In re Redistricting 2023*, 2:23-mc-01181-AMM (N.D. Ala.).<sup>10</sup> To meet the deadlines for submissions of the proposed remedial maps and the Report and Recommendation, the Special Master issued an Order setting a schedule for parties and non-parties to submit proposed remedial maps and comments for consideration by the Special Master. Am. Order (Doc. # 2). The following parties and non-parties submitted proposed remedial plans to the Special Master:

1. A plan by non-party Quin Hillyer (Doc. # 4) (the “Hillyer Plan”);
2. A plan by the *Singleton* Plaintiffs (Doc. # 5) (the “Singleton Plan”);
3. A plan by Representative Chris Pringle, House Chair of the Alabama Legislature’s Reapportionment Committee (Doc. # 6) (the “Pringle Plan”);
4. A plan by the *Milligan* and *Caster* Plaintiffs (Doc. # 7) (the “VRA Plaintiffs Plan”);
5. A plan by non-party Alabama Democratic Conference (“ADC”) (Doc. # 10) (the “ADC Plan”);
6. Two plans by non-parties Zac McCrary and Stephen Wolf (Doc. # 11) (the “McCrary Plans”);
7. Two plans by non-parties Professor Bernard Grofman and Mr. Zachary Griggy, both of the University of California at Irvine, and Dr. Jonathan Cervas of the Carnegie Mellon Institute for Security and Technology (Doc. # 15) (the “Grofman Plans”); and
8. Three plans by non-party Michael Moriarty (Doc. # 26) (the “Moriarty Plans”).

---

<sup>10</sup> References to the filings in this docket are designated as “(Doc. # \_\_).”

In addition to these proposed remedial plans, the Special Master also had available for consideration the eleven illustrative plans prepared by Dr. Duchin and Mr. Cooper, previously reviewed by the District Court and Supreme Court. The Special Master also received a number of comments from both parties and non-parties regarding the submitted proposed remedial plans. The Special Master received the following comments:

1. Comments from the Campaign Legal Center (Doc. # 13);
2. Comments from the Brennan Center for Justice at N.Y.U. School of Law (Docs. # 20, 33);
3. Comments from *amicus curiae* Congresswoman Terri Sewell (Doc. # 21);
4. Comments from Alabama Secretary of State Wes Allen (Docs. # 22, 30);
5. Comments from the *Caster* and *Milligan* Plaintiffs (Docs. # 23, 35); and
6. Comments from the *Singleton* Plaintiffs (Docs. # 24, 34).

The Special Master received, reviewed, and carefully considered the proposed remedial plans and comments filed by the parties and interested non-parties, which were very helpful to the Special Master and his team in crafting his proposed remedial plans. The Special Master commends the parties and non-parties who filed proposed plans and comments, which were necessarily done on an expedited basis but were nonetheless of extremely high quality and were clearly the product of extensive work and thoughtful analysis.

## **II. RECOMMENDED REMEDIAL PLANS**

As explained above, the Court set out specific criteria for each plan the Special Master recommends. SM Order at 7-9. In evaluating plans proposed by the parties and interested non-parties, as well as the plans ultimately proposed by the Special Master, he assessed whether each plan ensured compliance with the first three criteria set out in the Court's order: whether the plan (1) completely remedies the likely Section Two violation; (2) complies with one-person, one-vote principles, as evidenced by population equality; and (3) otherwise complies with the U.S. Constitution and the Voting Rights Act. The Special Master also considered other traditional redistricting criteria—in particular compactness, contiguity, respect for political subdivisions, and maintenance of communities of interest. Finally, the Special Master minimized changes to the

Legislature's 2023 Plan to the extent possible by maintaining most district boundaries and retaining the vast majority of people within the same districts they were in under the 2023 Plan. While the Special Master did not consider political factors, like partisanship or incumbency, the Special Master confirmed after finalizing the recommended remedial plans that incumbents would continue to reside in separate districts with one exception: the incumbents currently representing Districts 1 and 2 would both reside in District 1 in the three proposed remedial plans, which was necessary to remedy the Section Two violation without violating other traditional criteria to separate them.

The Special Master is recommending three remedial plans, each described in full below. Maps of the recommended remedial plans and the other plans submitted to the Special Master, as well as the demographic characteristics, election performance results, and other attributes of each plan, are included as Exhibits 1 through 16.<sup>11</sup> A listing of counties, voting districts, and blocks within each recommended remedial plan is included in each of Exhibits 1 through 3, and block equivalency files for the three remedial plans in PDF format are being uploaded to the docket.

As an initial matter, the Special Master emphasizes that neither he nor his cartographer, Mr. Ely, used racial population data when drawing district boundaries, nor did he "target" any particular Black population percentage in any district. Instead, where Mr. Ely needed to deviate from the 2023 Plan boundaries, he prioritized following county, voting district (precinct), and municipal boundaries. He also sought to keep the 18 core Black Belt counties intact and within two districts (Districts 2 and 7). Mr. Ely also had median income data from the U.S. Census Bureau's American Community Survey, as relevant to the social and economic factors identified

---

<sup>11</sup> Mr. Moriarty prepared his plans using Dave's Redistricting, a free and commonly used website. Unfortunately the link to his third plan was not accessible, and therefore the same map and data that the Special Master prepared for the other plans using Maptitude could not be produced for that third plan.

in the Legislature's guidelines and findings. After preparing each draft plan, Mr. Ely performed an election analysis (discussed below) to determine how frequently the Black-preferred candidate would have won past election contests in each district.

#### **A. Proposed Remedial Plan 1**

The Special Master generally approves of the VRA Plaintiffs Plan as a Section Two remedy, and his Remedial Plan 1 is a modest variation on that plan. The *Milligan* and *Caster* Plaintiffs proposed the VRA Plaintiffs Plan as a modification to the second illustrative plan submitted by their expert, Mr. Cooper.<sup>12</sup> As explained above, *supra* Section I(C)-(D), both the District Court and the Supreme Court reviewed Mr. Cooper's illustrative maps and his testimony. *Singleton*, 582 F. Supp. 3d at 957, 977; *Allen*, 599 U.S. at 31. The District Court found Mr. Cooper's testimony "highly credible," 582 F. Supp. 3d at 977, and observed that Mr. Cooper "worked hard to give 'equal weighting' to all traditional redistricting criteria," *id.* at 1006; *see also Allen*, 599 U.S. at 20 (majority op.) (observing that Mr. Cooper "produced districts roughly as compact as the existing plan," "none of plaintiffs' maps contained any tentacles, appendages, bizarre shapes, or any other obvious irregularities that would make it difficult to find them compact," "Plaintiffs' maps also satisfied other traditional districting criteria," and these maps "contained equal populations, were contiguous, and respected existing political subdivisions, such as counties, cities, and towns") (internal quotation marks omitted); *id.* at 32 (plurality op.) (noting that "[t]he District Court did not err in finding that race did not predominate in Cooper's maps").

The modifications made by the VRA Plaintiffs to the second illustrative Cooper plan, described in Dr. Duchin's report, were intended to, among other things, keep all 18 core Black Belt counties intact and within Districts 2 and 7 and to enhance population overlap with the 2021

---

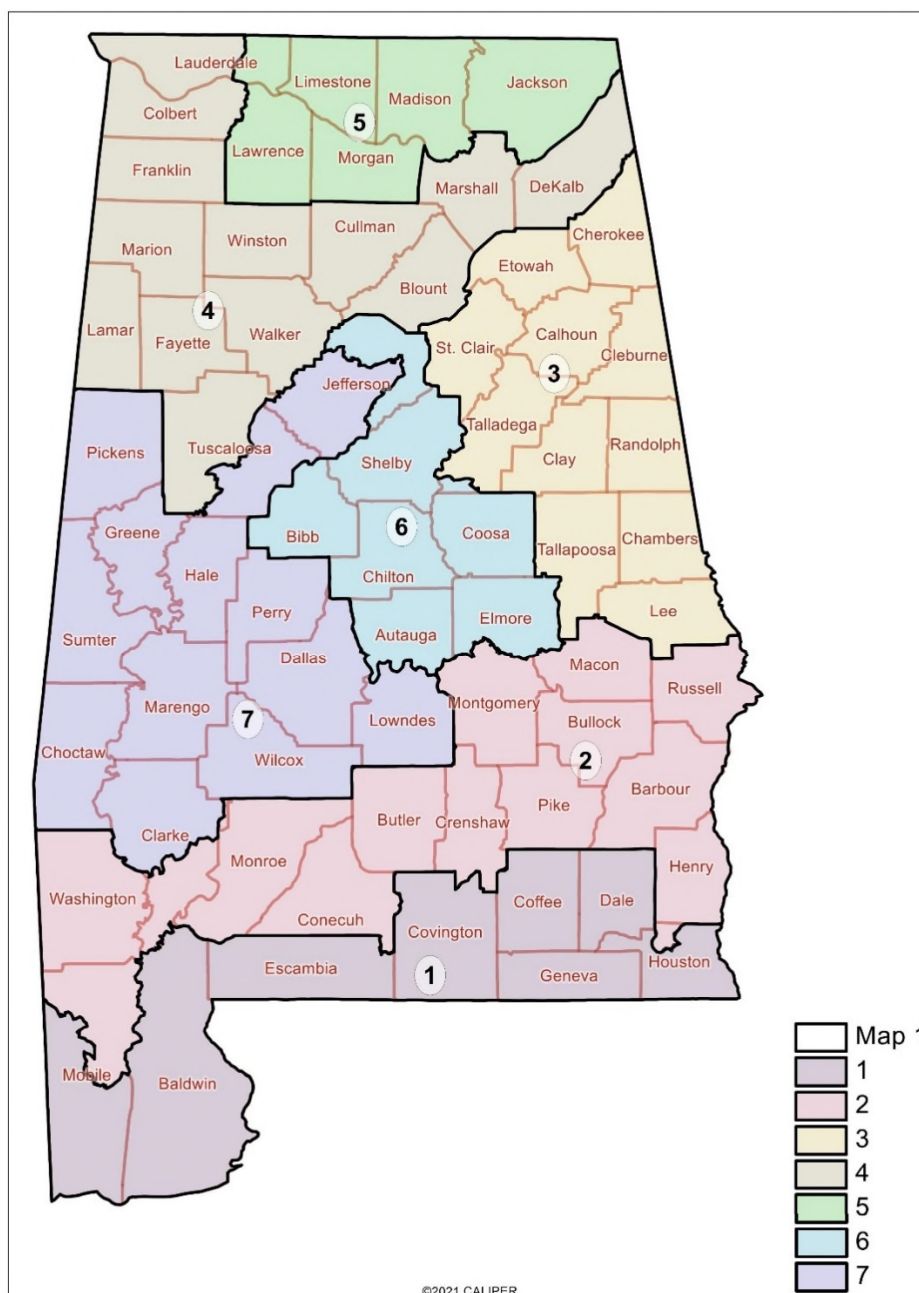
<sup>12</sup> A copy of Mr. Cooper's second illustrative plan is shown as Figure 12 to his declaration. Cooper Decl. at 25, ¶ 54, Fig. 12.

Plan. *See* VRA Plaintiffs Plan (Doc. # 7) at 6-7. The VRA Plaintiffs Plan also sought to keep the individual plaintiffs within one of the two resulting opportunity districts (District 2 or 7). *Id.* at 7.

In preparing Remedial Plan 1, the Special Master sought to minimize changes to the 2023 *Plan*, rather than the 2021 plan. *See* Section III(A)(1) below. Indeed, compared to the 2023 Plan, Remedial Plan 1 makes no changes to Districts 3, 4, and 5 and makes only minimal changes to Districts 6 and 7. The configuration of Districts 1 and 2 aligns with the approach taken in the VRA Plaintiffs Plan.



### Remedial Plan 1



The Special Master is cognizant that the VRA Plaintiffs do not directly challenge District 6 (*see, e.g.*, Secretary Allen’s Comments to Proposed Remedial Plans (Doc. # 22) at 2), and the Special Master therefore sought to minimize, if not avoid, any change to that district. District 6 sits in the center of the state and adjacent to challenged districts, however, requiring some changes to District 6. Still, the Special Master’s proposed Remedial Plan 1 (as well as Remedial Plans 2

and 3) retains 94.1% of the population of District 6 as defined in the 2023 Plan. The shift of 5.9% of the population of District 6 was necessary for two reasons:

- First, the shift resulted from changes to District 7. Under the 2023 Plan, District 7 extended south and east to include Conecuh County, leaving only Escambia County with which to reconfigure Districts 1 and 2, which are at the heart of this case. Without adding population in the northern portion of District 7 (*i.e.*, in Jefferson County), the Special Master would have needed to split one county—and likely several counties—along Alabama’s southern border, contrary to the Legislature’s goal of minimizing county splits and avoiding less compact, more contorted districts. The Special Master determined it was more in line with the Legislature’s guidelines and the Court’s instructions to shift the population of District 7 modestly northward within Jefferson County, thereby minimizing county splits and providing more compact districts to the south.
- Second, to minimize county splits, the Special Master proposes placing Elmore County, which the 2023 Plan split between Districts 2 and 6, entirely in District 6. The Special Master recognizes that the Grofman Plan, devised to minimize changes to the 2023 Plan, would similarly restore Elmore County to District 6.

These decisions resulted in a shift of 5.9% of the district population from District 2 to District 6 (within Elmore County) and the same shift from District 6 to District 7 (within Jefferson County, the only other county split between District 6 and another district).

The foregoing measures also required redrawing the boundary between Districts 6 and 7 in Jefferson County. In considering the new boundary, Mr. Ely followed existing precinct lines along the border of the city of Birmingham—breaking precincts only where needed to equalize population—to incorporate as many residents of Birmingham as possible in a single district. Approximately 71% of the population moved from District 6 to District 7 lies within Birmingham in Remedial Plans 1 and 2 (while 89% of that population lies within Birmingham in Remedial Plan 3).<sup>13</sup> This shift resulted in restoring a greater percentage of the Birmingham population in a single

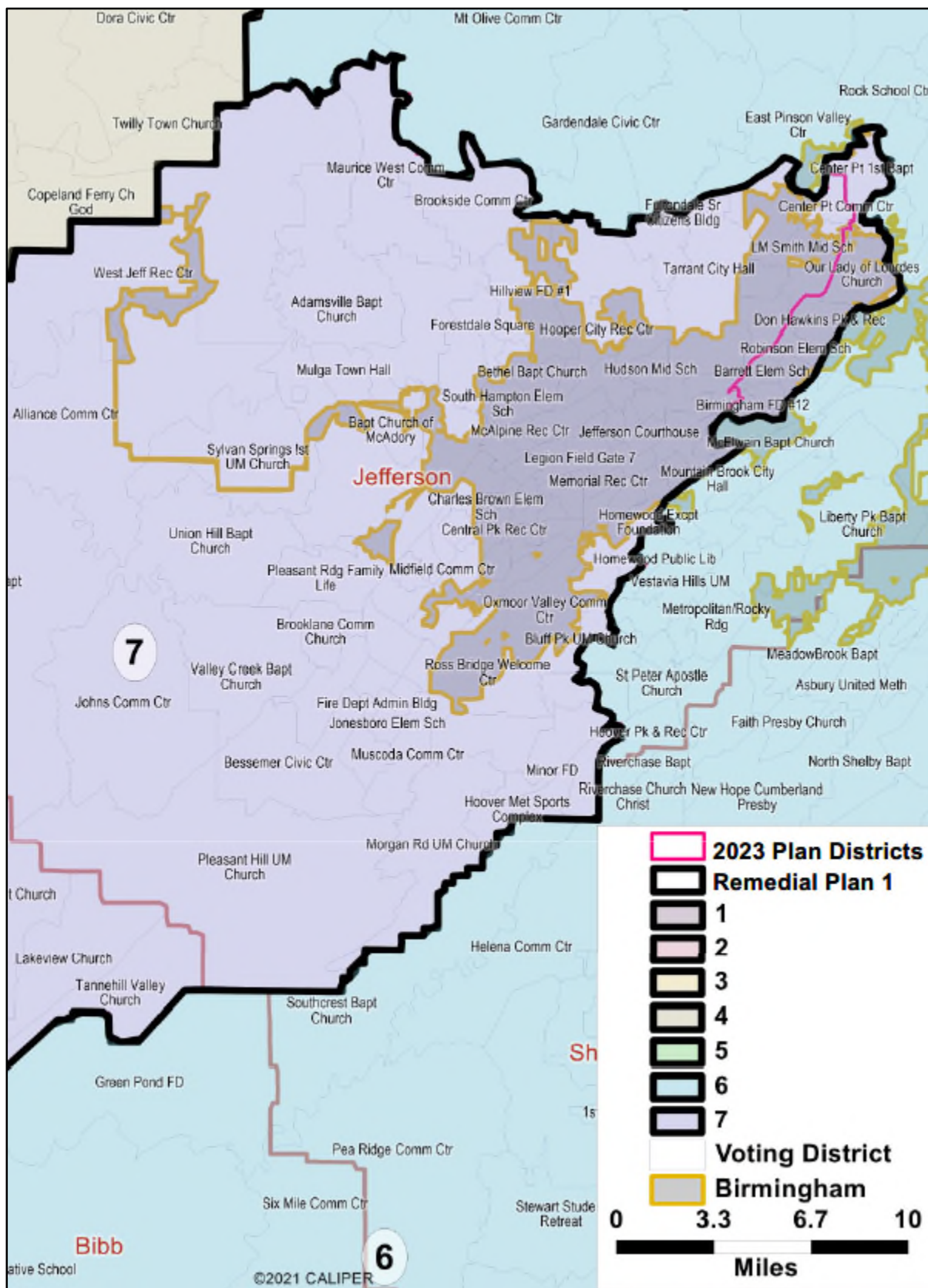
---

<sup>13</sup> Remedial Plans 1 and 2 generally follow the eastern boundary proposed by the VRA Plaintiffs Plan in Jefferson County, while making other adjustments to equalize population caused by conforming to the 2023 Plan rather than the 2021 Plan. Because Remedial Plan 3 was developed without reference to the VRA Plaintiffs Plan, as discussed below, the boundary differs and resulted in an even higher percentage of the population shift from District 6 to District 7 coming from Birmingham.

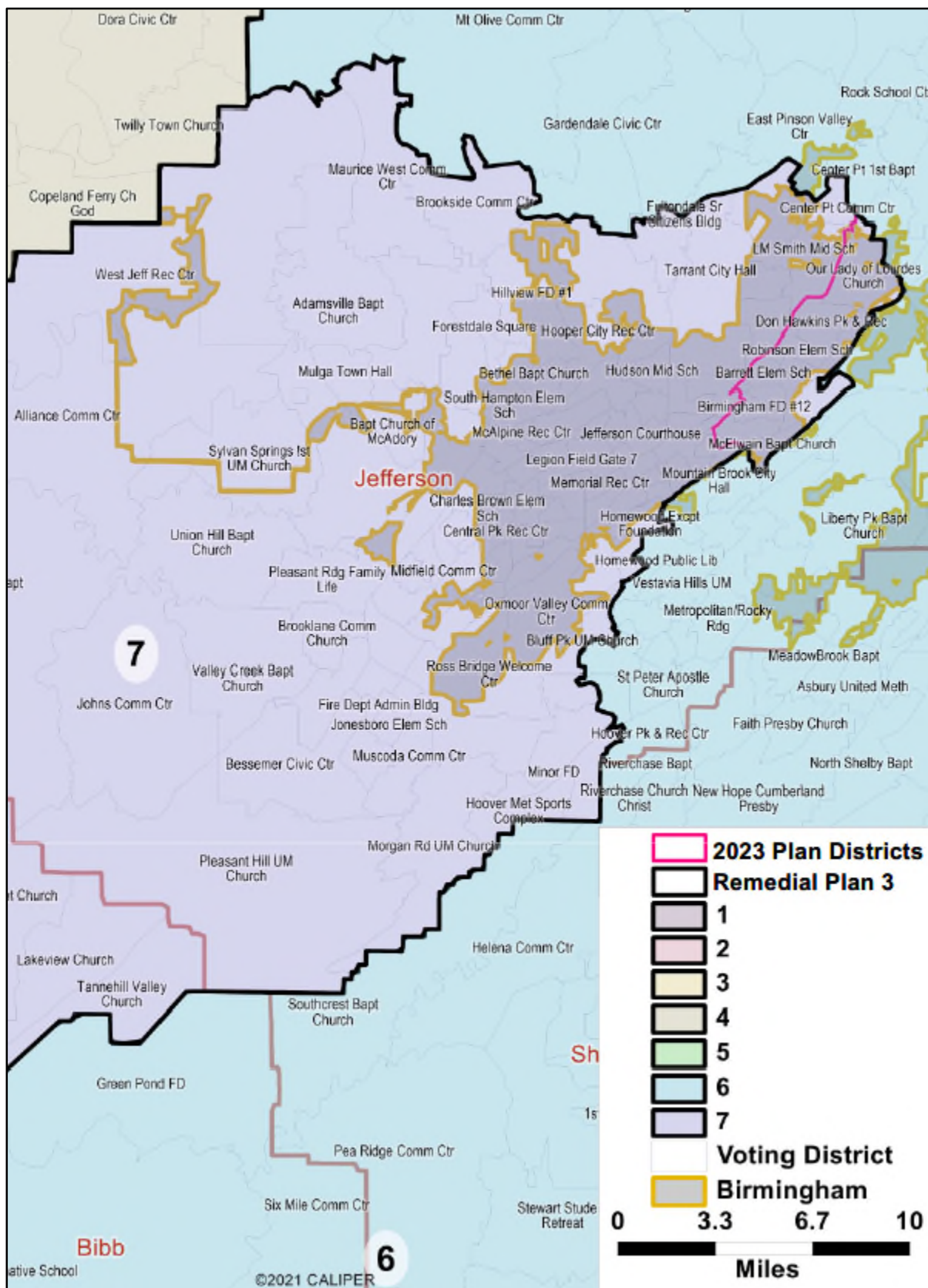
district: while the 2023 Plan included 74.7% of the city population in District 7, the recommended remedial plans increased that percentage to 89.6% (Remedial Plans 1 and 2) or 93.3% (Remedial Plan 3).

Below are maps of the Birmingham region showing Remedial Plan 1 and Remedial Plan 3, as well as the boundaries from the 2023 Plan (pink lines) and the city of Birmingham (gold lines and shaded). (Remedial Plan 2 is the same as Remedial Plan 1 in this region, so there is no separate Birmingham-region map for Remedial Plan 2 below.) These maps illustrate the boundary adjustments along the border of the city, which occur along its northeastern quadrant. There was no other portion of the city of Birmingham in District 6 in the 2023 Plan adjacent to District 7 and of sufficient population that could have been added to District 7. In other words, this was the obvious portion of District 6 to be added to District 7.

### Remedial Plan 1: Birmingham Region



### Remedial Plan 3: Birmingham Region



## B. Proposed Remedial Plan 2

Remedial Plan 2 offers a specific modification of Remedial Plan 1. Remedial Plan 1 splits seven counties. Dr. Duchin explained in her report in support of the VRA Plaintiffs Plan that the plan was designed to ensure that the individual *Milligan* and *Caster* plaintiffs, who she understood to reside in Dothan, Montgomery, and Mobile, would reside in Districts 2 and 7. See VRA Plaintiffs Plan (Doc. # 7). Dothan is a city in Houston County, so the Special Master infers that Dr. Duchin split Houston County for that purpose. While the Special Master appreciates the reasoning behind that outcome, the law does not require that result, and pursuing that result should not undermine traditional redistricting principles.<sup>14</sup>

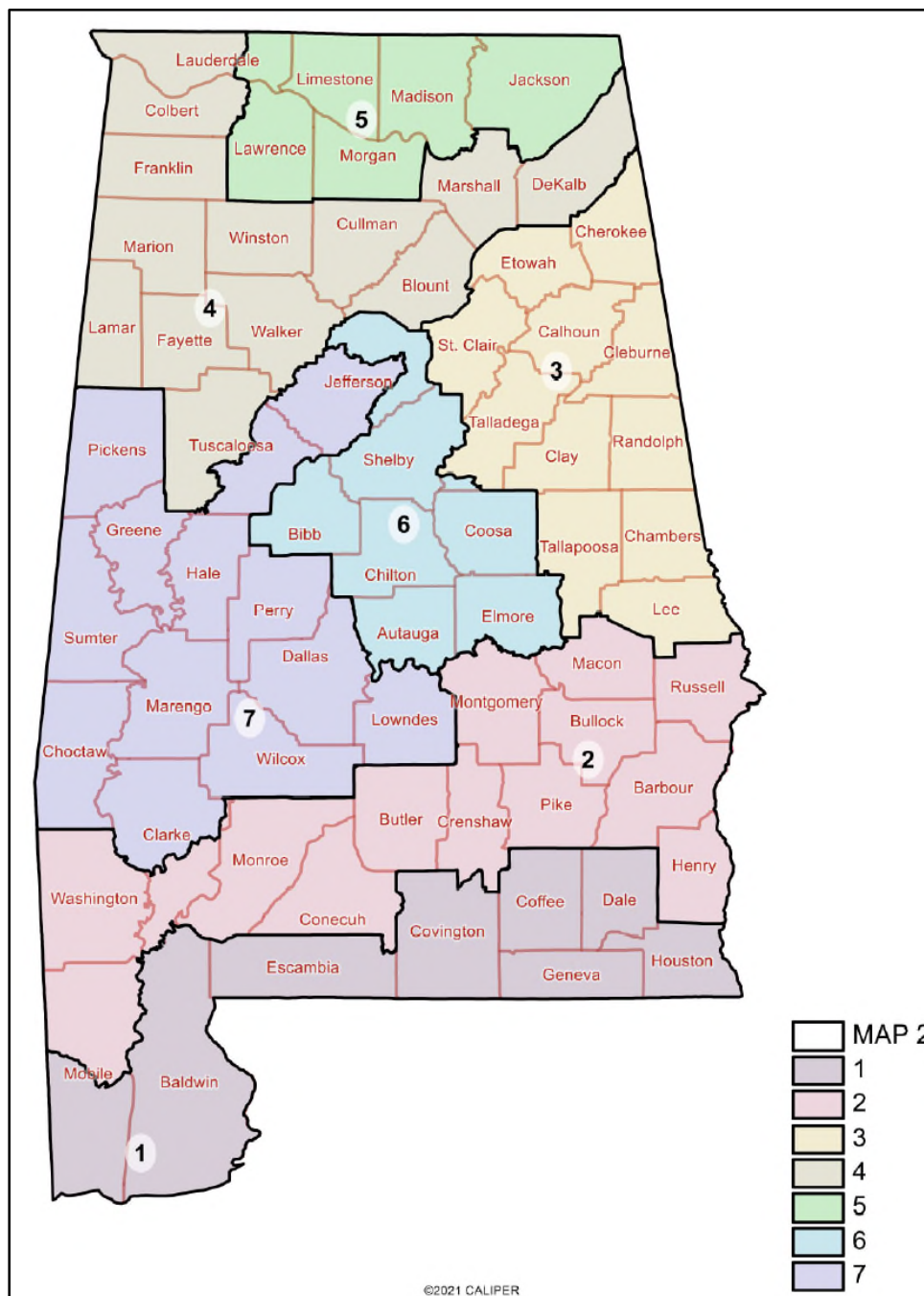
Cognizant of the Legislature’s desire that “[t]he congressional districting plan shall contain no more than six splits of county lines,” PI Order at App. A; Ala. Laws 2nd Sp. Sess. Act 2023-563, Section 1(3)(d), proposed Remedial Plan 2 reduces the number of county splits from seven to six by keeping Houston County, part of the Wiregrass region, entirely in District 1, which would then include all but one of the Wiregrass counties that are not part of the Black Belt. This modification also would rebalance population in the vicinity of the city of Mobile. This results in a slight increase in the portion of the Mobile population included in a single district: Remedial Plan 1 would include 70.8% of that population in District 2, while Remedial Plan 2 would include

---

<sup>14</sup> Although the rights protected by the Constitution and the Voting Rights Act belong to individuals, not to groups of voters, individual plaintiffs need not be included in redrawn maps so long as the maps remedy the harm. See *League of United Latin Am. Citizens v. Perry*, 548 U.S. 399, 429-30 (2006) (“[i]f the inclusion of the plaintiffs would necessitate the exclusion of others, then the State cannot be faulted for its choice [to exclude plaintiffs]”); *Shaw v. Hunt*, 517 U.S. 899 at 917 n.9 (1996) (the obligation to remedy a vote-dilution injury suffered by plaintiffs “does not mean that a Section [Two] plaintiff has the right to be placed in a majority-minority district once a violation of the statute is shown”); *Perez v. Perry*, SA-11-CV-360, 2012 WL 13124278, at \*22 (W.D. Tex. Mar. 19, 2012) (“Plaintiffs produce no authority to show that every Hispanic voter who was shown to be within a hypothetical or potential *Gingles* district must be placed into an opportunity district.”).

71.9% of that population in District 2. Remedial Plan 2 is otherwise geographically the same as Remedial Plan 1. It is also very similar to the Grofman 2023 Plan.

### Remedial Plan 2



### C. Proposed Remedial Plan 3

Mr. Ely prepared Remedial Plan 3 without reference to any other illustrative or suggested party or non-party remedial plan. Rather, he proceeded first by holding Districts 3, 4, and 5

unchanged from the 2023 Plan and then seeking to minimize changes to Districts 6 and 7. He next preserved the Black Belt within Districts 2 and 7, without splitting any of those counties. Like Remedial Plan 2, Remedial Plan 3 splits only six counties. While Remedial Plans 1 and 2 place Henry County, considered to be part of the Wiregrass, in District 2 with the Black Belt, Remedial Plan 3 would place Henry County with the majority of Wiregrass counties in District 1.

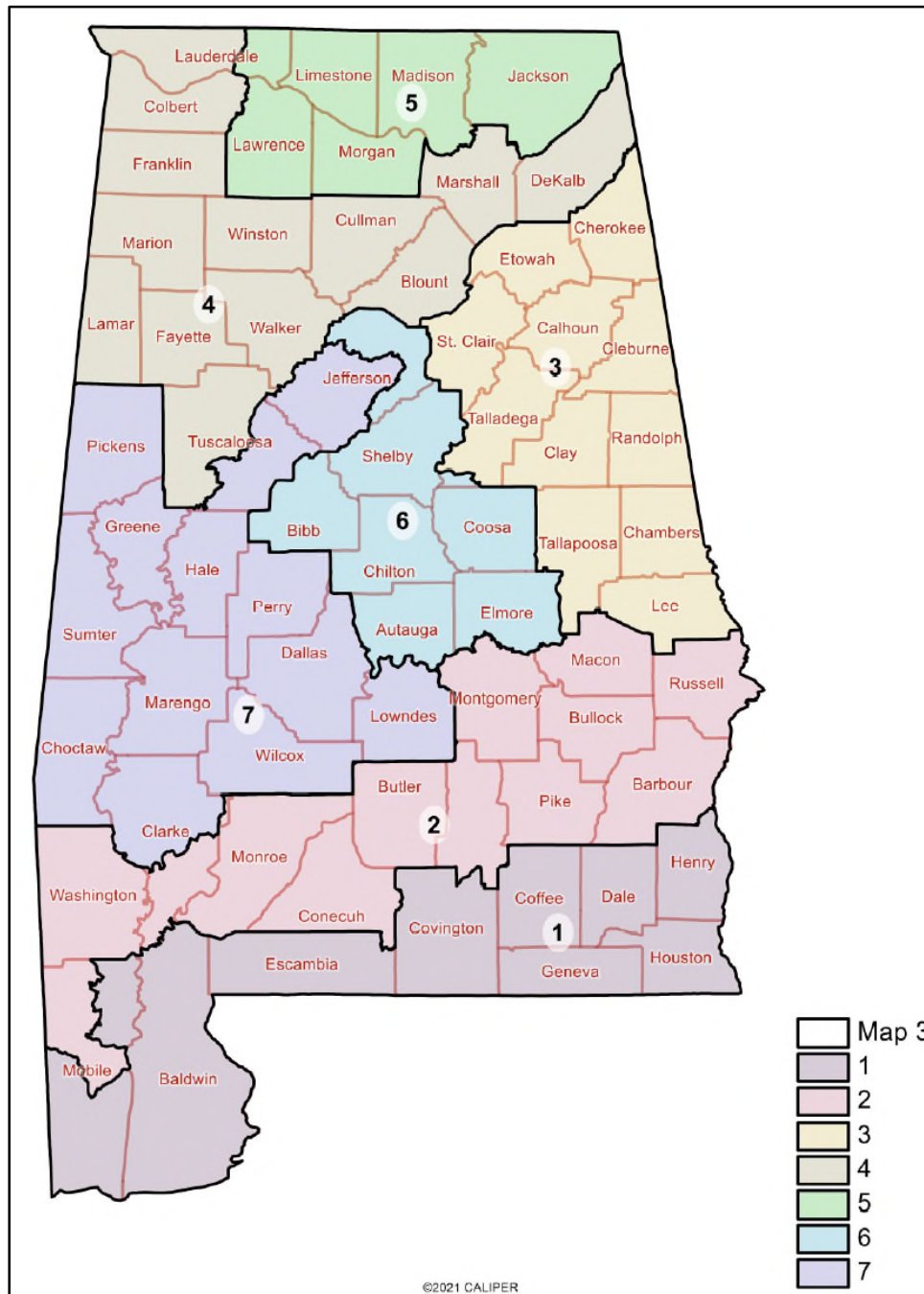
Mr. Ely also sought to better preserve the cities of Mobile and Birmingham within single districts and to follow municipal boundaries where possible. He also sought to minimize splitting voting districts (precincts) except where needed to equalize population; doing so resulted in jagged borders in certain places because precincts are not square. Compared to the Special Master's other proposed remedial plans, Plan 3 preserves a greater portion of the population of the cities of Birmingham and Mobile within a single district, as shown in Table 1 below. To keep more of the city of Mobile in District 2 in Remedial Plan 3, an equivalent portion of Mobile County needed to shift to District 1, which Plan 3 achieves to the north of the city of Mobile, along the border with Baldwin County in the nearest vicinity to District 1. Mr. Ely accessed median income data from the U.S. Census Bureau's American Community Survey, which is relevant to the social and economic factors identified in the Legislature's guidelines and findings, to confirm an appropriate bifurcation of Mobile County outside the city of Mobile. The area southeast of Interstate 10 was kept in District 1 for better congruity with Baldwin County.

**Table 1**  
**Percentage of Population in a Single District**

<b>City</b>	<b>2023 Plan</b>	<b>Remedial Plan 1</b>	<b>Remedial Plan 2</b>	<b>Remedial Plan 3</b>
Birmingham	74.7%	89.6%	89.6%	93.3%
Mobile	100.0%	70.8%	71.9%	90.4%



### Remedial Plan 3



### III. ANALYSIS

As explained above, the Court set out specific criteria for each plan the Special Master proposes. SM Order at 7-9. In evaluating plans suggested by the parties and interested non-parties, as well as the three plans he is now recommending to the Court, the Special Master sought to ensure compliance with the first three criteria set out in the Court’s order: that the plan (1)

completely remedies the likely Section Two violation; (2) complies with one-person, one-vote principles, as evidenced by population equality; and (3) otherwise complies with the U.S. Constitution and the Voting Rights Act. The Special Master analyzed the overlap of proposed plan districts with the districts in the Legislature’s 2023 Plan to verify that any changes were necessary to comply with the Court’s order to provide a complete remedy. The Special Master also considered other traditional redistricting criteria—in particular compactness, contiguity, respect for political subdivisions, and maintenance of communities of interest. Each of those considerations is described in greater detail below.

#### **A. Consideration of the Plan Enacted by the Alabama Legislature**

As the three-judge Court explained, “[r]edistricting is primarily the duty and responsibility of the State.” PI Order at 7 (quoting *Abbott v. Perez*, 585 U.S. ---, 138 S. Ct. 2305, 2324 (2018)). Thus, a court “should follow the policies and preferences of the State” to the extent they do not violate the federal Constitution or the Voting Rights Act. *White v. Weiser*, 412 U.S. 783, 795 (1973). A court “should not, in the name of state policy, refrain from providing remedies fully adequate to redress constitutional violations which have been adjudicated and must be rectified.” *Id.* at 797; *see also Upham v. Seamon*, 456 U.S. 37, 43 (1982) (a court’s “modifications of a state plan are limited to those necessary to cure any constitutional or statutory defect”).

##### **1. The 2021 versus the 2023 Plan**

The Court explained that the Special Master “may consider, as background, among other things, . . . the 2021 Plan and the 2023 Plan, which were both found to likely violate Section [Two].” SM Order at 9-10. To defer to legislative preferences to the extent possible—where doing so would not interfere with the Special Master’s duty to provide a complete remedy—he first had to determine whether those preferences are better reflected in the 2021 Plan or the 2023 Plan. As the Court noted, “the 2023 Plan is enacted, not merely proposed” as a remedy. PI Order at 114, n.19. In fact, the 2023 Plan replaces the 2021 Plan in its entirety: Senate Bill 5, enacted as Act

2023-563, replaces any reference to Pringle Congressional Plan 1 with references to Livingston Congressional Plan 3-2023. Ala. Laws 2nd Sp. Sess. Act 2023-563. Accordingly, the Special Master follows the 2023 Plan where possible and appropriate. Defendant Secretary of State Allen urges this same approach. *See* Secretary Allen’s Comments to Proposed Remedial Plans (Doc. # 22) at 1 (“Any court-drawn remedial plan must keep in place the existing 2023 Plan, except to the extent necessary to comply with the District Court’s injunction.”).

The Legislature’s Reapportionment Committee also adopted guidelines in 2021, and the Legislature (as a whole) adopted legislative findings as part of Senate Bill 5. PI Order at App. A; *id.* at App. B; *see also* Ala. Laws 2nd Sp. Sess. Act 2023-563. The guidelines and findings also were considered to the extent not precluded by the need to remedy the Section Two violation, as explained in greater detail below.

2. Core retention in the Special Master’s three proposed remedial plans

The three remedial plans recommended by the Special Master preserve boundaries from the 2023 Plan except where modifications are needed to remedy the Section Two violation. Table 2 below summarizes the percentage of the population of each district in the 2023 Plan that is retained in that same district under each of the Special Master’s three proposed remedial plans. As shown below, three districts (Districts 3, 4, and 5) are entirely unchanged, and two (Districts 6 and 7) are modified minimally. Only two districts, the two at the heart of the likely Section Two violation the Court found (Districts 1 and 2), are modified substantially.

**Table 2**  
**Core Retention of Districts in Proposed Remedial Plans**  
**Compared to the 2023 Plan by Population**

<b>District</b>	<b>Remedial Plan 1</b>	<b>Remedial Plan 2</b>	<b>Remedial Plan 3</b>
District 1	71.3%	66.6%	64.2%
District 2	64.0%	59.3%	56.9%
District 3	100.0%	100.0%	100.0%

District 4	100.0%	100.0%	100.0%
District 5	100.0%	100.0%	100.0%
District 6	94.1%	94.1%	94.1%
District 7	92.7%	92.7%	92.7%
<b>Statewide</b>	<b>88.9%</b>	<b>87.5%</b>	<b>86.9%</b>

The VRA Plaintiffs Plan, Singleton Plan, and Pringle Plan were all designed as modifications of the 2021 Plan, rather than the 2023 Plan; therefore, when compared to the Special Master's proposed remedial plans, those plans understandably depart more significantly from 2023 Plan boundaries.<sup>15</sup>

Several of the suggested plans, however, depart from the 2023 Plan in more fundamental respects. The Singleton Plan, for example, aims to create an opportunity district comprising Jefferson County and a small portion of neighboring Shelby County. To accomplish this, the plan would remove more than half of the population of District 6 (364,402 people) as this district appears in the 2023 Plan, far more than necessary to remedy the Section Two violation. Indeed, the Singleton Plan changes every district in the state when compared to the 2023 Plan, resulting in a statewide core retention of only 66.5%, lower than the core retention of any plan considered by the Special Master other than the Moriarty Plans.<sup>16</sup> The Special Master concludes that because the Singleton Plan would deviate more significantly than was needed, this was a policy aim better suited for the Legislature.

---

<sup>15</sup> The statewide core retentions of the VRA Plaintiffs Plan, Singleton Plan, and Pringle Plan when compared to the 2021 Plan are 82.2%, 74.6%, and 90.2%, respectively.

<sup>16</sup> As acknowledged above, the Singleton Plan was based on the 2021 Plan rather than the 2023 Plan. When compared to the 2021 Plan, the Singleton Plan changed only Districts 2, 3, 6, and 7. Nonetheless, even compared to the 2021 Plan, the Singleton Plan's statewide core retention is only 74.6%, lower than the statewide core retention of the Special Master's proposed remedial plans when compared to the 2023 Plan.

The ADC Plan and the Hillyer Plan also propose significant changes to the districts beyond the minimum needed to remedy the Section Two violation. Like the Singleton Plan, both the ADC Plan and the Hillyer Plan changed every district in the state, resulting in a statewide core retention of only 68.5% and 70.8%, respectively.

The Grofman Plan based on the 2023 Plan would preserve 87.5% of the population within the same districts as the 2023 Plan and would disturb the same number of districts as each of the Special Master’s recommended remedial plans. The Grofman Plan based on the 2021 Plan would understandably preserve a smaller share of the core population (75.3% statewide).

Both McCrary Plans would change all but one district from the 2023 Plan, including District 4. The Moriarty Plans do not meaningfully resemble the 2023 Plan (or the 2021 Plan), resulting in the lower core retention scores (53.8% and 52.8%, respectively).

**Table 3**  
**Statewide Core Retention of Proposed Remedial Plans**  
**Compared to the 2023 Plan by Population (Ranked by Retention)**

<b>Plan</b>	<b>Core Retention</b>	<b>Districts Modified</b>
Pringle Plan	89.6%	7
Remedial Plan 1	88.9%	4
Remedial Plan 2	87.5%	4
Grofman 2023 Plan	87.5%	4
Remedial Plan 3	86.9%	4
VRA Plaintiffs Plan	80.9%	7
McCrary Plan A	78.2%	6
Grofman 2021 Plan	75.3%	7
Hillyer Plan	70.8%	7
McCrary Plan B	70.3%	6
ADC Plan	68.5%	7
Singleton Plan	66.5%	7
Moriarty Plan 1	53.8%	7
Moriarty Plan 2	52.8%	7

**B. Remedy of Section Two Violation**

The Court directed that each proposed plan “[c]ompletely remedy the likely Section [Two] violation identified in this Court’s order of September 5, 2023.” SM Order at 7. “To that end, each proposed map shall include either an additional majority-Black congressional district, or an additional district in which Black voters otherwise have an opportunity to elect a representative of their choice.” *Id.* (internal quotation marks and citations omitted).

As the Court noted, performance analyses are commonly used to evaluate Section Two remedial plans. PI Order at 133. A performance analysis assesses whether, using recent election results, a candidate preferred by a particular group would be elected from a proposed opportunity district. While there is no “baseline level at which a district must perform to be considered an ‘opportunity’ district,” there is a “‘denial of opportunity in the real sense of that term’” if a “cohesive majority will ‘often, if not always, prevent’ minority voters from electing the candidate of their choice in the purportedly remedial district.” PI Order at 133-34 (quoting *League of United Latin Am. Citizens v. Perry*, 548 U.S. 399, 427, 429 (2006)). In other words, a performance analysis in this case should demonstrate that the Black-preferred candidate often would win an election in the subject district.

The parties’ experts used a variety of different elections for their performance analyses of the 2023 Plan. The *Milligan* Plaintiffs’ expert, Dr. Baodong Liu, considered eleven biracial statewide elections between 2014 and 2022. *See* PI Order at 137; Expert Remedial Report of Baodong Liu, Ph.D., at 1, *Milligan v. Allen*, 2:21-cv-1530 (N.D. Ala. July 28, 2023), ECF No. 200-1. The *Caster* Plaintiffs’ expert, Dr. Palmer, considered seventeen contested statewide elections between 2016 and 2022. PI Order at 137; Expert Report of Maxwell Palmer, Ph.D. in Support of Caster Plaintiffs’ Objections at 2, ¶ 8, *Caster v. Allen*, 2:21-cv-1536 (N.D. Ala. July 28, 2023), ECF No. 179-2. The Legislature used seven statewide election contests. PI Order at

138; Joint Stipulated Facts for Remedial Proceedings at 5-6, ¶ 9, *Milligan v. Allen*, 2:21-cv-1530 (N.D. Ala. Aug. 10, 2023), ECF No. 251. The Court-appointed cartographer, Mr. Ely, calculated election results using election data provided by the Legislature (prepared on its behalf by Dr. M.V. “Trey” Hood, an expert retained by the State) for twelve election contests and using data provided by the *Milligan* Plaintiffs (prepared on their behalf by Dr. Liu) for twelve election contests. Seven election contests overlapped, resulting in a total of seventeen distinct election contests.<sup>17</sup> The Special Master also received election data from the *Caster* and *Singleton* plaintiffs, which unfortunately could not be used for this analysis.<sup>18</sup>

Each of the Special Master’s three proposed remedial plans includes two districts (Districts 2 and 7) in which the Black-preferred candidate often wins the election. Table 4 below summarizes the number of election contests in each district that the Black-preferred candidate would have won and the average percentage margin of victory (if positive and shaded in blue) or defeat (if negative) of that candidate in those seventeen contests.

---

<sup>17</sup> There are slight differences in the outcomes reported for the same election. For example, using the Legislature’s data, the Black-preferred candidate for Lt. Governor in 2018 would have won District 2 in proposed Remedial Plan 1 by 13.7%, while the margin of victory would have been 13.9% using the *Milligan* Plaintiffs’ data. The difference likely arises from the method each party’s expert used to disaggregate and reaggregate election data to align to changing geographic and voting district boundaries. The differences were immaterial to the outcome of the Special Master’s analysis.

<sup>18</sup> The *Caster* Plaintiffs’ data was limited to Districts 2 and 7. The *Singleton* Plaintiffs’ data was not in a format that could easily be imported into Maptitude, the mapping software used by Mr. Ely, within the time needed to undertake the analysis, and may have been incomplete, having been limited to proposed Districts 6 and 7 in the *Singleton* Plan.

**Table 4**  
**Election Performance of the Black-Preferred Candidate**  
**in Districts Included in the Proposed Remedial Plans,**  
**out of 17 Election Contests (and Average Margin of Victory or Defeat)**

<b>District</b>	<b>Remedial Plan 1</b>	<b>Remedial Plan 2</b>	<b>Remedial Plan 3</b>
District 1	0 contests (-52.4%)	0 contests (-50.6%)	0 contests (-51.7%)
District 2	15 contests (+10.3%)	13 contests (+8.2%)	16 contests (+10.3%)
District 3	0 contests (-40.1%)	0 contests (-40.1%)	0 contests (-40.1%)
District 4	0 contests (-57.7%)	0 contests (-57.7%)	0 contests (-57.7%)
District 5	0 contests (-29.3%)	0 contests (-29.3%)	0 contests (-29.3%)
District 6	0 contests (-42.7%)	0 contests (-42.7%)	0 contests (-42.9%)
District 7	17 contests (+29.3%)	17 contests (+29.3%)	17 contests (+28.8%)

As explained above, Remedial Plan 2 began with Remedial Plan 1 and then restored Houston County to District 1, which in turn required moving an equal number of people from District 1 to District 2 to equalize population. This was accomplished in Mobile County, the only county split between Districts 1 and 2 in Remedial Plan 2. That change modestly reduced the performance of the Black-preferred candidate in District 2. In particular, the 2022 elections in District 2 would have been very close (all within 5%), and the modest shift in population was enough to change the outcome of two of those contests. In Remedial Plan 3, in contrast, the Black-preferred candidate performed slightly better, comparable to Remedial Plan 1.

The VRA Plaintiffs Plan also would provide two districts (Districts 2 and 7) in which the Black-preferred candidate often would win the election. The average margins of victory in those two districts are comparable to the margins of victory in those same districts in Remedial Plans 1 and 3.

Black-preferred candidates would have performed better under the ADC Plan, with the Black-preferred candidate winning every election in the two Black opportunity districts and a higher average margin of victory. Similarly, McCrary Plan B would have elected the Black-preferred candidate in every election in those two districts, albeit with a slightly smaller margin of



victory. And the Black-preferred candidate would have won almost every election contest in the second opportunity district in McCrary Plan A. As explained elsewhere in this Report, however, those plans compromised other districting principles, including by making significant and unnecessary changes to the 2023 Plan. Moreover, the Special Master is cognizant that an opportunity district does not need to *guarantee* victory by the Black-preferred candidate. *See, e.g., Gingles*, 478 U.S. at 34 (explaining that Section Two guarantees Black voters the opportunity “to participate in the political process and to elect representatives of their choice”).

The Grofman 2023 Plan would have performed similarly to Remedial Plan 2. As noted above, those two plans are generally very similar. The Moriarty Plans would have allowed Black-preferred candidates to prevail, but with slimmer margins of victory, particularly in District 7. And under the Hillyer Plan, the Black-preferred candidate would have won in the second opportunity district by a lower average margin of victory, 5.1%.

The Singleton Plan performs comparably to Remedial Plan 2, electing the Black-preferred candidate in 13 of 17 elections by an average margin of 6.6% in the second opportunity district (District 6, which is Jefferson County). The VRA Plaintiffs have asserted that District 6 in the Singleton Plan is unlikely to be a performing opportunity district. *See* VRA Plaintiffs’ Comments at 5-7 (Doc. # 23). In any event, as explained above, the Singleton Plan crafts District 6 by modifying the 2023 Plan well beyond the minimum needed to remedy the Section Two violation.

Finally, the Pringle Plan would not remedy the Section Two violation. That plan includes one district (District 7) that often would elect the Black-preferred candidate. The next-best district (District 2) would almost never elect the Black-preferred candidate, and the Black-preferred candidate would have lost elections by an average margin of 6.1%.

The Special Master and cartographer emphasize that they did not use any measure of Black population or voting age population as a proxy for performance. Districts were not drawn to attain any particular threshold of Black population, such as 50%. Rather, after they were drawn, districts

were tested to determine how often the Black-preferred candidate would win elections within those districts. In fact, some of the performing opportunity districts do not have a majority Black voting age population (“BVAP”) as shown in Table 5 immediately below.

**Table 5**  
**BVAP of Remedial Plan Opportunity Districts**

<b>District</b>	<b>Remedial Plan 1</b>	<b>Remedial Plan 2</b>	<b>Remedial Plan 3</b>
District 2	50.1%	48.5%	48.7%
District 7	52.8%	52.8%	51.9%

The *Singleton* Plaintiffs cite *Cooper* for the proposition that establishing a “racial target” to make Black voters “no less than a majority of the voting-age population” is unconstitutional without a “meaningful legislative inquiry” into whether Section Two could be satisfied by districts “created without a focus on race.” *Singleton* Plan at 2 (Doc. # 5) (citing *Cooper v. Harris*, 581 U.S. 285, 303 (2017)). But the Special Master did not use a “racial target” or seek to achieve any particular level of Black voting-age population in the districts in the proposed remedial plans. Accordingly, that language from *Cooper* is inapplicable here.

The *Singleton* Plaintiffs also argue that the VRA Plaintiffs Plan, which provided the starting point for the Special Master’s proposed Remedial Plan 1, impermissibly used “non-negotiable racial targets” and is a “race-based” plan. *Singleton* Plaintiffs’ Comments on Proposed Remedial Plans at 1-2 (Doc. # 24). Mr. Cooper testified, however, that race “did not predominate or dominate” in the development of his plans, which were the basis for the VRA Plaintiffs Plan, and the District Court credited this testimony. *Singleton*, 582 F. Supp. 3d at 978, 1006; *see also Allen*, 599 U.S. at 32 (plurality op.) (agreeing with District Court’s finding that “race did not predominate in Cooper’s maps”). As the District Court found, “Dr. Duchin and Mr. Cooper consistently and repeatedly refuted the accusation that when they prepared their illustrative plans, they prioritized race above everything else.” *Singleton*, 582 F. Supp. 3d at 1029.

### **C. Population Equality**

The Court directed that each proposed plan “[c]omply with the one-person, one-vote principle guaranteed by the Equal Protection Clause of the Fourteenth Amendment, based on data from the 2020 Census.” SM Order at 8. In practice, that means there should be “no *de minimis* population variations, which could practicably be avoided, but which nonetheless meet the standard of Art. I, § 2 [of the Constitution] without justification.” *Id.* (quoting *Karcher v. Daggett*, 462 U.S. 725, 734 (1983)).

All of the proposed remedial plans under meaningful consideration had a population deviation of only one person, with three exceptions. The creators of the Hillyer Plan, Moriarty Plan 1, and Moriarty Plan 2 drew congressional districts without breaking existing voting districts (precincts). This makes it virtually impossible to equalize population, resulting in maximum population deviations of 1,193, 1,187, and 1,127 people, respectively. The Special Master determined it was possible and therefore necessary to equalize population within a one-person differential.

### **D. Other Compliance with the U.S. Constitution and Voting Rights Act**

The Court directed that each proposed plan “[c]omply with the U.S. Constitution and the Voting Rights Act.” SM Order at 7. As described above, the Special Master has confirmed that his proposed remedial plans comply with (1) the population equality principles required by Article 1, Section Two of the U.S. Constitution and the Equal Protection Clause of the Fourteenth Amendment (*see supra*, Section C), and (2) the prohibition on vote dilution under the Voting Rights Act, also described above (*see supra*, Section B). In addition, as described below, the Special Master has confirmed that the proposed remedial plans do not constitute racial gerrymanders prohibited by the Equal Protection Clause or intentional discrimination prohibited by the Equal Protection Clause and Fifteenth Amendment.

The Equal Protection Clause prohibits separating citizens into different voting districts on the basis of race when race has predominated over traditional race-neutral districting principles and the race-based sorting of voters is not narrowly tailored to serve a compelling state interest, such as to comply with the Voting Rights Act. *Cooper*, 581 U.S. 291; *see also Bethune-Hill v. Va. State Bd. of Elections*, 580 U.S. 178, 187 (2017). The prohibition on racial gerrymandering does not require map drawers to be entirely blind to racial demographics, but racial demographics must not predominate. *Allen*, 599 U.S. at 30-31. As the Supreme Court plurality explained: “When it comes to considering race in the context of districting, we have made clear that there is a difference between being aware of racial considerations and being motivated by them. . . . The former is permissible; the latter is usually not.” *Id.* at 30 (quoting *Miller v. Johnson*, 515 U.S. 900, 916 (1995)). In addition, the Equal Protection Clause and Fifteenth Amendment prohibit drawing legislative districts with the intent to discriminate against racial or ethnic minority voters. *Miller*, 515 U.S. 911; *see also Rogers v. Lodge*, 458 U.S. 613, 617 (1982) (explaining that redistricting plans are unconstitutional if “conceived or operated as purposeful devices to further racial discrimination by minimizing, cancelling out or diluting the voting strength of racial elements in the voting population” (quoting *Whitcomb v. Chavis*, 403 U.S. 124, 149 (1971))).

The Special Master’s proposed remedial plans are neither prohibited racial gerrymanders nor intentionally discriminatory. As explained above, while the Special Master confirmed that Black residents had an opportunity to elect candidates of their choice through an election performance analysis, the boundaries within the recommended remedial plans were not drawn on the basis of race. In fact, the Special Master’s cartographer, Mr. Ely, did not display racial demographic data while drawing districts or examining others’ proposed remedial plans within the mapping software, Maptitude. Instead, Mr. Ely relied on other characteristics and criteria, such as preserving the Black Belt community of interest, restoring counties that had been split, and preserving precincts and municipalities to the extent possible. *See Allen*, 599 U.S. at 32 (plurality

op.) (upholding District Court’s finding that “race did not predominate in Cooper’s maps,” one of which was the starting point for the VRA Plaintiffs Plan and thus for the Special Master’s proposed Remedial Plan 1).

Indeed, for each proposed remedial plan, Mr. Ely needed to adjust boundaries from the 2023 Plan within a county in only two places: in Jefferson County (near the city of Birmingham) and Mobile County (near the city of Mobile). As explained above, in Jefferson County, Mr. Ely shifted voting districts along the border of Birmingham, such that most of the population that was moved from District 6 to District 7 lies within the city of Birmingham—89% in the case of Remedial Plan 3. Similarly, between Remedial Plan 1 and Remedial Plan 3, Mr. Ely increased the portion of the city of Mobile within a single district (District 2) from 70.8% to 90.4%.

#### **E. Compactness**

The three-judge Court recognized that compactness is a traditional redistricting principle. SM Order at 9. There is no single accepted measure of compactness, so the Special Master looked to the most commonly-used measures of compactness, including those employed by the parties’ own experts. The *Milligan* Plaintiffs’ expert, Dr. Duchin, used the Polsby-Popper score, the Reock score, and the cut-edges score. The *Caster* Plaintiffs’ expert, Mr. Cooper, used the Polsby-Popper score. In addition, the Special Master used the population polygon, a statistical measure that “examines the shape of a district and the location of where people live in and around the district.” *Bowman v. Chambers*, 586 F. Supp. 3d 926, 935 (E.D. Mo. 2022). The Court further acknowledged, however, that a visual assessment is also appropriate and that this should not be a “compactness beauty contest.” PI Order at 152-53, 175.

The Special Master’s three proposed remedial plans are “roughly as compact” as the 2021 and 2023 Plans adopted by the Legislature, even if slightly less so, and have none of the “tentacles, appendages, bizarre shapes, or any other obvious irregularities that would make it difficult to find them reasonably compact.” *See, e.g., Allen*, 559 U.S. at 20 (describing illustrative plan offered by

Bill Cooper). It is also notable that the 2023 Plan’s most compact district, District 2, was at the heart of the likely Section Two violation the Court found, while two of the three least compact districts, Districts 4 and 5, were in the northern part of the state. Consequently, any reconfiguration of the 2023 Plan that changed District 2 *and* preserved Districts 4 and 5 unchanged would necessarily diminish the overall compactness of the plan. The three proposed remedial plans are comparable to the 2021 Plan (which was slightly less compact than the 2023 Plan), even beating the 2021 Plan using the Polsby-Popper score. The Special Master concludes that the three proposed remedial plans are “reasonably compact.”

**Table 6**  
**Statewide Compactness Scores**

<b>Plan</b>	<b>Reock</b>	<b>Polsby-Popper</b>	<b>Population Polygon</b>	<b>Cut Edges</b>
Remedial Plan 1	0.35	0.23	0.68	3,829
Remedial Plan 2	0.35	0.24	0.68	3,647
Remedial Plan 3	0.35	0.24	0.69	3,597
2021 Plan	0.38	0.22	0.71	3,230
2023 Plan	0.41	0.28	0.75	3,246
ADC Plan	0.33	0.19	0.65	4,736
Grofman 2021 Plan	0.32	0.19	0.64	3,597
Grofman 2023 Plan	0.35	0.23	0.68	3,663
Hillyer Plan	0.37	0.24	0.71	3,043
McCrary Plan A	0.35	0.23	0.68	3,197
McCrary Plan B	0.35	0.24	0.68	3,179
Moriarty Plan 1	0.34	0.19	0.73	3,393
Moriarty Plan 2	0.34	0.15	0.71	3,917
Pringle Plan	0.35	0.23	0.71	3,256
Singleton Plan	0.41	0.23	0.70	3,086
VRA Plaintiffs Plan	0.32	0.20	0.65	3,957

## F. Contiguity

The Court also recognized that traditional redistricting principles include contiguity. SM Order at 9; *see also Allen*, 599 U.S. at 18 (listing contiguity as part of “traditional districting criteria”). The Reapportionment Committee Redistricting Guidelines, adopted by the Alabama Legislature’s Reapportionment Committee on May 5, 2021, require each district to be contiguous. PI Order at App. B.

All plans considered by the Special Master, including those submitted by parties and non-parties, have only contiguous districts.<sup>19</sup>

## G. Respect for Political Subdivisions

The Court directed the Special Master to respect, among other traditional redistricting principles, political subdivisions to the extent reasonably practicable. SM Order at 8-9.<sup>20</sup>

### 1. Counties

The parties placed particular emphasis on the number of county splits in a given plan. As part of Senate Bill 5, the Legislature found that “[t]he congressional districting plan shall contact

---

<sup>19</sup> A portion of southern Mobile County included in District 1 in each proposed remedial plan is connected to the rest of District 1 across Mobile Bay by the Mobile Bay Causeway (also known as the Old Spanish Trail). And even if the causeway were not there, the Legislature has recognized that “[c]ontiguity by water is allowed . . . .” PI Order at App. B; *see also, e.g., Lawyer v. Dep’t of Just.*, 521 U.S. 567, 5810-11 n.9 (1997) (upholding ruling that redrawn map in Florida was contiguous by water, even without a bridge, because state supreme court had upheld contiguity-by-water); *Bethune-Hill v. Va. State Bd. of Elections*, 368 F. Supp. 3d 872, 887 n.28 (E.D. Va. 2019) (water contiguity satisfies Virginia constitutional requirement of contiguity); *Wright v. Schoenberger*, 262 F. Supp. 2d 156, 158 (S.D.N.Y. 2003) (separation by water does not alone violate New York’s contiguity requirement); *Favors v. Cuomo*, No. 11-cv-5632, 2012 WL 928216, at \*11 (E.D.N.Y. Mar. 12, 2012) (same); *Mader v. Crowell*, 498 F. Supp. 226, 229 (M.D. Tenn. 1980) (Tennessee River separating two counties that comprised district did not render it noncontiguous under Tennessee Constitution).

<sup>20</sup> The Reapportionment Committee Redistricting Guidelines state that “[c]ontests between incumbents will be avoided whenever possible.” PI Order at App. B, ¶ II(j)(i). Protecting incumbents was not a consideration used in drawing the Special Master’s three proposed remedial plans. After the plans were drawn, however, the Special Master verified that no incumbents were moved from their districts in any of the proposed plans, except that the incumbents currently representing Districts 1 and 2 would both reside in District 1 in the three proposed remedial plans.

no more than six splits of county lines.” PI Order at App. A; *see also* Ala. Laws 2nd Sp. Sess. Act 2023-563. The Court held, however, that “the legislative finding cannot work that way,” that is, to preclude consideration of any plan with more than six county splits. PI Order at 175. All plans considered by the Court split between six and nine counties, out of sixty-seven total counties. PI Order at 173-74. As with compactness, the Court rejected the notion that this should be a “county-split beauty contest.” PI Order at 175-76.

As summarized above, two of the proposed plans (Remedial Plans 2 and 3) split only six counties, while the third (Remedial Plan 1) splits seven counties. The Grofman Plans, McCrary Plans, Pringle Plan, and Singleton Plan also split six counties each. The Hillyer Plan and VRA Plaintiffs Plan split seven counties each.

The outliers in this respect are the ADC Plan and Moriarty Plans, which split 11, 23, and 24 counties, respectively—far more than needed to remedy the Section Two violation.

## 2. Municipalities

The Special Master also considered municipality splits. A municipality in Alabama is allowed to cross county lines (*e.g.*, the city of Birmingham sits in both Jefferson and Shelby Counties); therefore, to the extent the Special Master seeks to minimize county splits, this effort may result in certain municipality splits. Municipalities are also irregularly shaped, which makes it more difficult to preserve a municipality within a single district without affecting other principles like compactness.

As explained above, to the extent the Special Master was required to shift residents from District 6 to District 7 to equalize population, he did so in a manner that would situate a greater proportion of the city of Birmingham in a single district (District 7). He followed the same approach in Mobile County, placing a larger portion of the city of Mobile in District 2.



The three proposed remedial plans also perform comparably to the 2023 Plan when measured by municipality splits, splitting 35, 34, and 31 municipalities, respectively, compared to 32 in the 2023 Plan.

### 3. Precincts

Finally, after avoiding county splits where possible, the Special Master also sought to minimize the number of split precincts. Because voters within a precinct generally share the same representatives for other levels of government, preserving precincts furthers the goal of minimizing splits of other governmental units as well. Minimizing precinct splits also reduces the administrative burden on election officials; if a district splits a precinct, that precinct may need to be split along the district line or use different ballots for the same election in different parts of the same precinct.

The three proposed remedial plans perform comparably to the 2023 Plan when measured by voting district splits, splitting 14, 13, and 14 voting districts, respectively, compared to 11 in the 2023 Plan.<sup>21</sup> Other plans split far more. For example, the Grofman 2023 Plan split 38 voting districts, the Hillyer Plan split 46 voting districts, and the ADC Plan split 108 voting districts.

### **H. Maintenance of Communities of Interest**

Finally, among traditional redistricting principles, the Court directed the Special Master to respect communities of interest to the extent reasonably practicable. The parties and the Court paid particular attention to communities known as the Black Belt, Gulf Coast, and Wiregrass. The Black Belt is a region comprising at least eighteen—and as many as twenty-three—counties. PI Order at 19-20, n. 7. (The Special Master used the core eighteen counties for analyzing proposed

---

<sup>21</sup> The Census Bureau and Maptitude use the generic term “voting district,” which is equivalent to a precinct in Alabama.

remedial plans.) The Gulf Coast comprises Baldwin and Mobile Counties. PI Order at 24, n.8. The Wiregrass comprises nine counties. *Id.*

There is overlap among these communities. For example, Mobile County is often connected with the Black Belt. PI Order at 156. And certain counties—Barbour, Crenshaw, and Pike—are claimed as part of both the Black Belt and the Wiregrass. PI Order at 167. The Court also opined that “the evidence about the community of interest in the Wiregrass is sparse in comparison to the extensive evidence about the Black Belt and the somewhat new evidence about the Gulf Coast.” *Id.* “Accordingly, any districting plan must make tradeoffs with these communities to meet equal population and contiguity requirements.” *Id.*; *see also id.* at 166 (explaining “need to split the Gulf Coast” to avoid splitting the Black Belt and diluting Black voting strength).

Every core Black Belt county is preserved unsplit within the proposed remedial plans, each of which situates all of these counties in one of the two Black opportunity districts (Districts 2 and 7). In addition, a significant portion of the city of Mobile, which the Court recognized has a common history and shares a community with the Black Belt, is included in District 2 with a large share of the Black Belt counties. *See* PI Order at 159. The Grofman 2023 Plan is similar.

By contrast, while the Singleton Plan keeps sixteen Black Belt counties within a single district (District 7), the other two Black Belt counties (Barbour and Russell), as well as Mobile, are in non-opportunity districts. Similarly, McCrary Plan B includes five core Black Belt counties in a non-opportunity district, and McCrary Plan A includes all Black Belt counties in two opportunity districts, except that a portion of Montgomery County is split off and included in a non-opportunity district.

The Pringle Plan keeps the Black Belt within two districts, but separate from the city of Mobile, and one of those districts is not a performing opportunity district. Both Moriarty Plans

split the Black Belt among *three* districts, the ADC Plan splits the Black Belt among *four* districts, and the Hillyer Plan splits the Black Belt among *five* districts.

#### IV. CONCLUSION

As detailed above, each of the three remedial plans proposed by the Special Master remedies the likely Section Two violation that the Court identifies. Each proposed plan also complies with the U.S. Constitution, the Voting Rights Act, the one-person, one-vote principle, and traditional redistricting principles.

The three proposed remedial plans are substantially similar but offer differences for the Court's consideration. Remedial Plan 1 is most similar to the VRA Plaintiffs Plan but splits one more county than the Legislature's six-county limit. Remedial Plan 2 reduces the county splits to six while otherwise tracking Remedial Plan 1, diminishing the expected election performance of Black-preferred candidates in the second opportunity district. Remedial Plan 3 is the most compact of the three plans, has only six county splits, includes two opportunity districts that perform comparably to those included in Remedial Plan 1, and retains the largest portion of the population of the city of Mobile (90.4%) and the city of Birmingham (93.3%) within a single district, but at the expense of slightly diminishing core retention of the 2023 Plan statewide (to 86.9%, which still should be acceptable).

As described throughout this Report, the Special Master gave serious consideration to each of the plans proposed by parties and non-parties alike, as well as their comments to each other's submissions, all of which greatly aided the preparation of the three proposed remedial plans and this Report. Among those plans, certain features bear repeating in conclusion:

- The VRA Plaintiffs' Plan was a modification of the 2021 Plan. The Special Master made the adjustments described above to produce Remedial Plan 1 based on the 2023 Plan.

- The Grofman 2023 Plan is very similar to Remedial Plan 2, with only minor differences in the splits of Jefferson and Mobile Counties.
- The ADC Plan, Hillyer Plan, McCrary Plans, Moriarty Plans, and Singleton Plan each made significant changes across the state, modifying six or seven districts and having core retentions of less than 80% statewide compared to the 2023 Plan. The Special Master considered these changes to be more than minimally required to remedy the Section Two violation and therefore inappropriate.
- The Pringle Plan also followed the 2021 Plan, but nonetheless had a high overall core retention compared to the 2023 Plan. The Pringle Plan, however, did not remedy the likely Section Two violation.

Accordingly, the Special Master recommends that the Court adopt one of the three proposed remedial plans: Remedial Plan 1, Remedial Plan 2, or Remedial Plan 3.

**SUBMITTED** this 25th day of September, 2023.

**/s/ Richard F. Allen**  
**RICHARD F. ALLEN**  
**SPECIAL MASTER**