Exhibit F

IN THE UNITED STATES DISTRICT COURT FOR THE
EASTERN DISTRICT OF WASHINGTON

ROGELIO MONTES and MATEO ARTEAGA,   PLAINTIFFS

   v.   CIVIL ACTION NO. 12-cv-3108-TOR

CITY OF YAKIMA, WASHINGTON, *et al.*   DEFENDANTS

SUPPLEMENTAL DECLARATION OF WILLIAM S. COOPER

WILLIAM S. COOPER, acting in accordance with 28 U.S.C. §1746, the
Federal Rules of Civil Procedure 26(a)(2)(B), and Rules 702 and 703 of the
Federal Rules of Evidence, does hereby declare and say:

1.   My name is Williams S. Cooper. I serve as a demographic and
redistricting expert for the Plaintiffs. I filed a declaration in this case on February 1,
2013. I submit this supplemental declaration in response to the March 22, 2013
report of Dr. Peter Morrison (the "Morrison Report") and to his supplemental April
6, 2013 report (the "Morrison Supplemental Report").

2.   In this supplemental declaration, I address Dr. Morrison's claim that
the Latino citizen voting age (LCVAP) majority districts in *Illustrative Plans 1* and
2 do not satisfy the *Gingles 1* precondition that the minority population must be
"sufficiently large and geographically compact to constitute a majority in a single-
member district." I also address Dr. Morrison's opinion that the creation of a

district with an LCVAP majority would result in an "unavoidable electoral imbalance [that is] decidedly non-neutral along racial and ethnic lines".[1] Finally, I examine several methodological issues discussed in Dr. Morrison's report.

3.   I conclude and reiterate that both *Illustrative Plans 1* and *2* as presented in my February 1, 2013 declaration satisfy *Gingles 1*. If for some reason those two illustrative plans are deemed unsatisfactory, then *Hypothetical Plans A, B,* and *C* submitted with this supplemental declaration would in my opinion meet the *Gingles 1* test. I also conclude that contrary to Dr. Morrison's claim, there is no electoral imbalance or dilution of minority voting strength in *Illustrative Plans 1* and *2.*

A.   Dr. Morrison's CVAP Disaggregation and Allocation Method is Conceptually Flawed

4.   At the outset, I must challenge Dr. Morrison's assertion that the methodology I use to allocate citizen voting age population (CVAP) is "fatally flawed". In this section, I demonstrate that my method (Method 1) is analytically sound and that Dr. Morrison's CVAP methodology (Method 2) is conceptually flawed. By way of example, I will explain how Dr. Morrison's methodology can lead to nonsensical CVAP calculations in election districts where a significant percentage of block groups are split between two or more districts – as is the case in District 1 under *Illustrative Plans 1* and *2.*

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[1] Morrison Report, p. 25.

5.   There are several reasons why CVAP must be disaggregated from the

block group level to census blocks for redistricting in a relatively small city such as

Yakima, which encompasses just 67 block groups.[2] This includes such objectives as –

following precinct boundaries, taking into account municipal boundaries, complying

with one-person, one-vote and, of course, avoiding the dilution of minority voting

strength. In fact, without block group splits, many small cities and rural counties in the

nation with significant Latino populations would be barred from creating Latino

districts even though there is adequate LCVAP to do so.

6.   The table in **Figure 1** below lists the 11 block groups that are wholly or

partially contained in District 1 of *Illustrative Plan* 1.[3] (The shading identifies the

eight block groups that are split between districts.) The first three numerical columns

show the official CVAP by block group according to the 2007-2011 American

Community Survey (ACS). The fourth column shows the Method 1 calculated CVAP,

which adds the non-Hispanic CVAP (official ACS estimate) plus the Latino CVAP

(official ACS estimate). The last two columns show the difference and percent

difference between the ACS total (official ACS estimate) in numerical column 1 and

the calculated Method 1 CVAP (column 4).

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[2] The hybrid at-large, 4-residency district *2011 Plan* adopted by City Council splits populated areas of six block groups – excluding several jurisdictional splits (see ¶ 69 *infra*). Three of these splits involve District 3 on the east side of Yakima.

[3] Morrison Supplemental Report, ¶ 6.

Figure 1   **Block Groups in District 1 of Illustrative Plan 1**

(Shading Indicates a Split)

Block Group	Total CVAP (ACS Total)	Latino CVAP (ACS Total)	Non-Hispanic CVAP (ACS Total)	Method 1 CVAP (Calculated Total)	Difference (ACS Total-Method 1 CVAP	% Difference
530770001001	560	125	435	560	0	0.0%
530770001002	990	330	660	990	0	0.0%
530770002001	1160	430	730	1160	0	0.0%
530770002002	395	165	230	395	0	0.0%
530770002003	630	310	325	635	5	0.8%
530770003001	1715	280	1435	1715	0	0.0%
530770006001	320	170	150	320	0	0.0%
530770006002	1005	450	550	1000	-5	-0.5%
530770006003	1150	610	545	1155	5	0.4%
530770007001	725	100	630	730	5	0.7%
530770015014	550	265	285	550	0	0.0%
Total	**9200**	**3235**	**5975**	**9210**	10	0.1%

7.   **Figure 1** shows that there is virtually no difference between the official

ACS total and the Method 1 calculated total. Three block groups have a calculated

Method 1 CVAP that exceeds the ACS total by 5 persons and one block group has a

Method 1 calculated CVAP that is 5 persons less than the ACS total. The net total

difference is 10 persons, which represents about one-tenth of a percentage point of the

combined ACS total CVAP for all 11 block groups – 9,200. As explained in the

Census Bureau's documentation, a minor discrepancy of this magnitude is expected.[4]

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[4] See p.6 of *CVAP Documentation* prepared by the Census Bureau. Available
for download at:
http://www.census.gov/rdo/pdf/CVAP_07to11_Documentation.pdf.

8.   Thus, for all intents and purposes, Dr. Morrison and I agree on (and are consistent with) the official ACS CVAP totals by block group. Where we differ is in the method used to allocate the two component parts of CVAP – Latino CVAP and non-Hispanic CVAP. When disaggregating from the block group to the census block level, I allocate both components, while Dr. Morrison leaves non-Hispanic CVAP unaccounted for at the block level. Instead, he opts to impute the non-Hispanic CVAP estimate at the block level – i.e., CVAP minus LCVAP = non-Hispanic CVAP (imputed). Dr. Morrison completely ignores the fact that the ACS data already provides non-Hispanic CVAP as a single direct estimate. There is no reason to impute this value at the block level.

9.   To reiterate, Dr. Morrison's disaggregation method (Method 2) allocates just one of the two component parts of CVAP to the block level – Latino CVAP. The all-important non-Hispanic CVAP is an unreliable imputed value in the Method 2 equation at the block level. My disaggregation method (Method 1) correctly allocates both CVAP components to the block level – Latino CVAP and non-Hispanic CVAP.

10.   Method 1 and Method 2 generate virtually identical results where an election district is composed of entire census block groups or where (as in most state legislative and congressional districts) split block groups comprise a tiny percentage of the overall number of block groups in a given district.

5

11.   However, where a high percentage of block groups are split to create an

election district, as is the case with District 1 under *Illustrative Plan 1*, there is the

potential for significant distortion if Method 2 is employed to disaggregate the block

group data to the census block level. As shown in **Figure 1**, District 1 splits 8 of 11

block groups. All told, 58.4% of the VAP (4,446 of 7,604 persons over 18) in

Illustrative Plan 1 District 1 resides in a block group that is divided between two or

more districts. Therefore, Dr. Morrison's Method 2 should not be used for election

plan analysis in Yakima.

The Conceptual Flaw in Method 2 – A Hypothetical Example

12.   Consider the following extreme example. A block group has 1,000

persons of voting age, of whom 800 are Latino and 200 are non-Hispanic. All 200

non-Hispanics are citizens, but just 400 of the 800 voting age Latinos are citizens. So

60% of the VAP in the block group are citizens (400 plus 200, or 600 of 1,000).

13.   Assume this block group is split between two election districts with the

entire Latino VAP in Ward A (800) and the entire non-Hispanic VAP in Ward B

(200). **Figure 2** on page 8 below summarizes the calculations that follow.

14.   Method 2 correctly allocates the entire 400 LCVAP to Ward A. But

Method 2 incorrectly allocates a total of 480 CVAP to Ward A (80% of 600

citizens) – corresponding to the 80% of VAP residing in the Ward A portion of the

block group (800 of 1,000 VAP). So the LCVAP under Method 2 in the split area of

Ward A is 83.3% (400 divided by 480). Of course, this is a logical impossibility because the entire population in the split area of Ward A is Latino (both voting age and CVAP).

15.   Logically, the LCVAP should equal 100% in the Ward A split (400 of 400), but Method 2 in effect creates 80 phantom non-Hispanic citizens in Ward A (480-400). And, as a consequence, Method 2 incorrectly allocates a CVAP of 120 to the Ward B split (20% of 600 citizens) – in effect creating 80 phantom Latino non-citizens in the Ward B split.

16.   Method 1 also correctly allocates the entire 400 LCVAP to Ward A. Just as important, Method 1 correctly allocates the 200 non-Hispanic CVAP to Ward B – consistent with the 100% non-Hispanic VAP in the Ward B split. Put differently, the entire 200 non-Hispanic CVAP is assigned to Ward B because there are zero voting age non-Hispanics in the Ward A split and 200 non-Hispanics of voting age in the Ward B split.

17.   **Figure 2** summarizes the calculated results under Method 1 and Method 2. The illogical Method 2 calculations are displayed in red – creating phantom non-Hispanic citizens in Ward A and phantom Latino non-citizens in Ward B.

Figure 2　　　　　　**Hypothetical Block Group Split – Method 1 vs. Method 2**

	Block Group Ward A Split		Block Group Ward B Split	
	(Method 1)	(Method 2)	(Method 1)	(Method 2)
VAP	800	800	200	200
Latino VAP	800	800	0	0
Non-Hispanic VAP	0	0	200	200
Allocated Total CVAP	400	**480**	200	**120**
Allocated Latino CVAP	400	400	0	NA
% Latino CVAP	100.00%	**83.33%**	0.00%	NA
Allocated Non-Hispanic CVAP	0	NA	0	**120**
% Non-Hispanic CVAP	0.00%	NA	100.00%	**60.00%**

18.　　　　To recap, under Method 1, the Ward A split calculates to 100% LCVAP – 400 divided by 400. There are no phantom non-Hispanic citizens in Ward A. By contrast, under Method 2, the LCVAP in the Ward A split is understated by nearly 17 percentage points – 83.3% versus the logically correct 100% LCVAP (Method 1).

The Conceptual Flaw in Method 2 – Illustrative Plans 1 and 2

19.　　　　As the preceding example reveals, Method 2 is systematically biased toward understating the LCVAP in areas with split block groups where the population is segregated along ethnic lines. This built-in bias explains why Method 2 yields an LCVAP for District 1 under *Illustrative Plan 1* that is nearly 2 percentage points lower than the Method 1 calculation. And there is no way to correct this split block group issue except to adopt Method 1 as the disaggregation tool.

20.	In fact, Method 2 is so analytically flawed that it yields two opposite conclusions with regard to whether or not voting age citizen Latinos constitute a majority in District 1 under *Illustrative Plans 1* and *2*.

21.	**Figure 3** shows the Method 2 calculations for the non-Hispanic CVAP in District 1 under *Illustrative Plans 1* and *2*. Non-Hispanic citizens of voting age are a minority under both illustrative plans, according to Method 2.

**Figure 3	Percent non-Hispanic CVAP by Method 2 – Illustrative Plans 1 & 2**

	Illustrative Plan 1 **District 1 (Method 2)**	**Illustrative Plan 2** **District 1 (Method 2)**
Total CVAP	4590.69	4753.88
Non-Hispanic CVAP	2196.17	2267.27
% Non-Hispanic CVAP	47.84%	47.7%

22.	**Figure 4** shows the Method 2 calculations for the Latino CVAP in District 1 under *Illustrative Plans 1* and *2*.[5] Latino citizens of voting age are also a minority under both illustrative plans, according to Method 2.

**Figure 4	Percent Latino CVAP by Method 2 – Illustrative Plans 1 & 2**

	Illustrative Plan 1 **District 1 (Method 2)**	**Illustrative Plan 2** **District 1 (Method 2)**
Total CVAP	4590.69	4753.88
Latino CVAP	2217.91	2279.36
% Latino CVAP	48.31%	47.95%

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[5] See Morrison Supplemental Report ¶ 3. These calculations match Dr. Morrison's figures.

23.   Thus, according to Method 2, both voting age non-Hispanic citizens and voting age Latino citizens are a minority in District 1 under *Illustrative Plans 1* and *2* – a logical and real-world impossibility.

24.   Clearly, Method 2 is unreliable and conceptually flawed when applied to small population districts with split block groups. In contrast, Method 1 is logical and consistent. Method 1 does not misallocate citizens and non-citizens. Latino CVAP plus non-Hispanic CVAP for each district always adds to a rounded 100%. Logical inconsistencies do not occur.

A Block Group (with one split) LCVAP-Majority District Example

25.   As expected, when split block groups are minimized in Yakima, Method 1 and Method 2 yield similar results. For instance, as shown in the table in **Figure 5** and map in **Figure 6**, a majority LCVAP and majority registered Latino voter district can be drawn in Yakima with just one block group split – removing a single 719-person census block in Block Group 0001002. Method 2 comes within a tenth of a percentage point of generating the correct answer – 50.58%, calculated under Method 1.

Figure 5   Majority-LCVAP District with One Split Block Group Summary

District	Population	% Deviation	% Latino CVAP (Method 1)	% Latino CVAP (Method 2)	% Latino Registered (of all registered)
1	12819	-1.62%	50.58%	**50.48%**	52.85%

26.   The map in **Figure 6** below zooms in to display east Yakima. The

example District 1 is delineated with thick orange lines. Thin black lines show

block group boundaries. Split Block Group 0001002 is the elongated block group

in the center of the example district.

Figure 6   Majority-LCVAP District with One Split Block Group
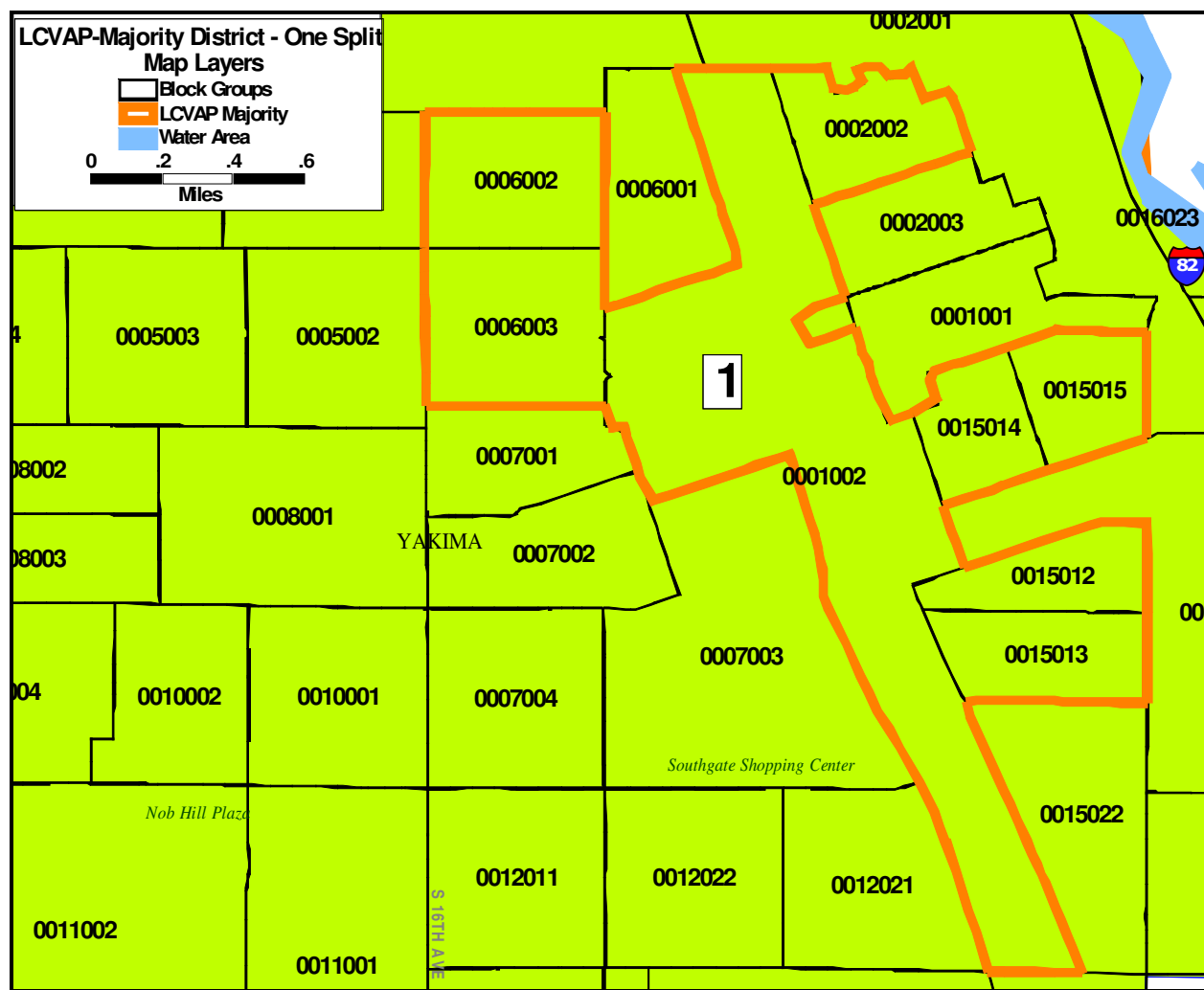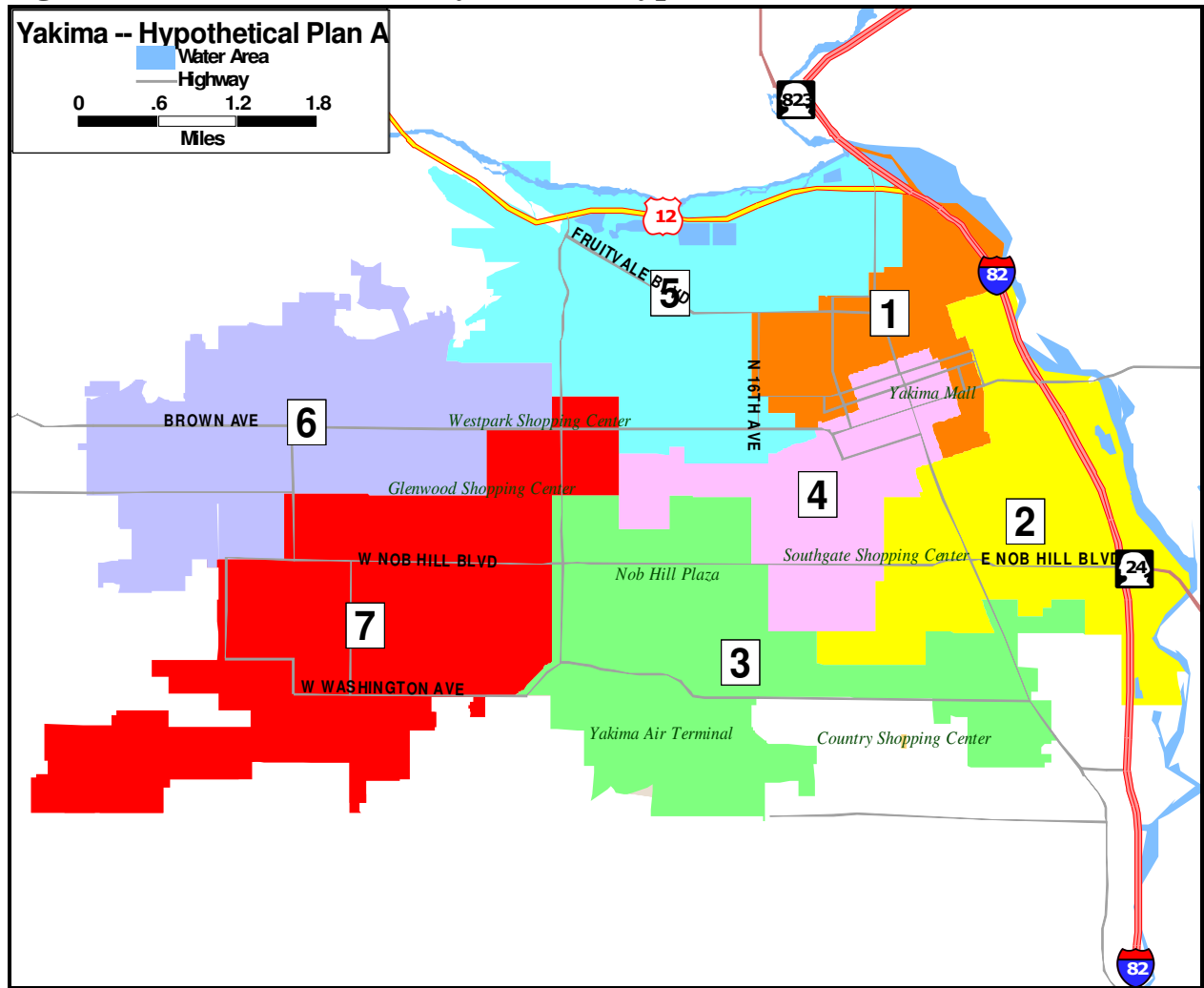
Hypothetical Plan A

27.   I have no confidence in the analytic validity of Method 2 for redistricting

Yakima – assuming districts are drawn with split block groups. However, for the

record, I have developed a third illustrative plan – *Hypothetical Plan A* – that creates

one LCVAP-majority district and two registered Latino voter-majority districts

according to **both** Method 1and Method 2. The table in **Figure 7** provides summary

population statistics by district for *Hypothetical Plan A*, with a map depicting the

plan in **Figure 8.**

28.   The Method 2 LCVAP calculations in **Figure 7** are in red because, in

my opinion, they understate the LCVAP in Districts 1 and 2. A detailed demographic

summary and map for *Hypothetical Plan A* are attached as **Exhibit A**.

Figure 7   Yakima City Council Hypothetical Plan A Summary

District	Population	Deviation	% Deviation	18+_Pop	18+Hisp.	% 18+ Hisp.	% Latino CVAP (Method 1)	% Latino Registered (of all registered)	% Latino CVAP (Method 2)
1	12819	-211	-1.62%	7862	5680	72.25%	52.17%	54.56%	50.18%
2	12421	-609	-4.67%	7873	5062	64.30%	43.07%	50.10%	41.81%
3	13026	-4	-0.03%	9487	2651	27.94%	23.68%	16.99%	24.16%
4	12676	-354	-2.72%	9431	3301	35.00%	25.42%	22.07%	25.78%
5	13666	636	4.88%	10390	2519	24.24%	13.48%	14.10%	13.54%
6	13176	146	1.12%	10175	1083	10.64%	7.13%	6.62%	7.14%
7	13283	253	1.94%	10069	1541	15.30%	14.14%	10.37%	14.16%

Figure 8   **Yakima City Council Hypothetical Plan A**

29.   Under *Hypothetical Plan A*, Districts 1 and 2 are majority-Latino voting

age – 72.25% and 64.30%, respectively. District 1 is majority-Latino citizen voting

age (52.17 % LCVAP under Method 1 and 50.18% LCVAP under Method 2). District

1 has a Latino registered voter majority, based on the geocoded January 2013 Yakima

City registered voter list (54.56%). District 2 is also majority-Latino registered voter

(50.10%).

30.　　　Under *Hypothetical Plan A*, District 1 encompasses a land area of 1.93 square miles and District 2 covers 3.87 square miles. District 4 has a land area of 2.29 square miles. The remaining districts range in geographic size from 4.19 square miles (District 6) to 5.71 square miles (District 7).

31.　　　*Hypothetical Plan A* meets one-person, one-vote requirements. The ideal district size for a 7-district plan is 13,030 (91,208 /7). *Hypothetical Plan A* has an overall deviation from the ideal district size of 9.55%.

32.　　　*Hypothetical Plan A* complies with key traditional redistricting criteria, including one-person one-vote, compactness, contiguity, respect for communities of interest, and the non-dilution of minority voting strength.

B.　　Dr. Morrison Has Not Demonstrated That an LCVAP District Cannot Be Drawn in Yakima

33.　　　Dr. Morrison never states in his declarations that an LCVAP district cannot be created in a 7-single member district plan for the city council. Rather he points to two alleged flaws in my illustrative plans. His quixotic efforts to discount the potential for an LCVAP district rely on speculative imputations of census data or arguably illegal apportionment schemes. He fails to consider trending demographics and current voter registration data – all of which provide ample justification for a threshold 50% LCVAP district and two majority-Latino registered voter districts. He fails to examine whether an LCVAP district could be created using citizens or voting age citizens as the apportionment base.

34.   In Sections III and IV below, I present four additional hypothetical 7-district plans that I believe demonstrate conclusively that the first prong of *Gingles* can be met with ease. Dr. Morrison's purported concern about the dilution of minority voting strength is all for naught. First, I present two out of many possible plans that can be created with much higher LCVAP districts than under *Illustrative Plans 1* and *2* and *Hypothetical Plan A*. Second, I present two hypothetical plans that show LCVAP-majority districts can be drawn using either citizens or voting age citizens as the apportionment base.

35.   For the remainder of the text in this declaration, all LCVAP calculations are based on Method 1. The flaws inherent to Method 2 would only add unnecessary confusion if reported.

C.   Voting Age Latino Citizen Majority Districts Can Be Drawn in a Variety of Ways in Yakima

36.   It is my understanding that in order to meet the *Gingles 1* test in a Section 2 Voting Rights Act lawsuit there must be at least one district where the minority community at issue has a citizen voting age majority. However, demonstrative plans developed for a Section 2 lawsuit should take into account more than just the first prong of *Gingles*. A viable demonstrative plan must avoid packing the minority community into a single district in a manner that would dilute overall minority voting strength in the jurisdiction.

37.   According to the 2010 Census, Latinos in Yakima comprise 41.27%

of the overall population. According to the *2009-2011 American Community*

Survey 3-Year Estimates, Latinos represent 34.13% of the citizen population in

Yakima. In my opinion and consistent with the interests of the plaintiffs, election

plans for Yakima should balance the Latino population so that Latino registered

voters would constitute a majority in two out of seven districts (28.57%).

Illustrative Plans 1 and 2 and LCVAP

38.   In each illustrative plan, I drew a single LCVAP-majority district just

above 50% LCVAP with a corresponding Latino registered voter majority.

Consistent with demographic trends and current voter registration data, I then

created a second Latino registered voter majority district in each plan. I drew the

threshold 50% LCVAP district in order to avoid packing Latino registered voters

into one district at the expense of creating a second district where Latino registered

voters would constitute a majority and have a reasonable opportunity to elect their

candidate of choice.

39.   In drafting *Illustrative Plans 1* and *2*, I relied upon the block group-

level *Citizen Voting Age Population (CVAP) Special Tabulation From the 2007-*

2011 5-Year American Community Survey prepared by the U.S. Census Bureau for

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the U.S. Department of Justice.[6] The citizen population estimates reported in the special tabulation are the only historical block group citizenship estimates available for the City of Yakima.

40.   The 5-year ACS citizenship special tabulation is used by courts and states throughout the nation to classify districts as Latino-majority. The ACS is the gold standard for reporting historical citizenship rates by legislative district and is routinely employed by government entities, the U.S. Department of Justice, and federal courts for redistricting.

41.   In drafting *Illustrative Plans 1* and *2*, I also relied on the January 2013 registered voter list for the City of Yakima prepared by the Yakima County Elections Division. I geocoded the registered voter list to the census block level using *Maptitude 2012* software.[7]

42.   The block-level geocoded registered voter list is more geographically precise than the ACS LCVAP estimates. This is because the ACS citizenship data is available only at the block group level and must be mathematically allocated to

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[6] The five additional hypothetical plans submitted with this declaration also use this dataset. Available for download at:
http://www.census.gov/rdo/data/voting_age_population_by_citizenship_and_race_cvap.html

[7] See February 1, 2013, Declaration of William S. Cooper, ¶ 36. The resultant Spanish surname registered voter list does not include a number of voters with non-Spanish surnames that the Yakima County Elections Division has classified as Latino (See ¶ 42).

the census block level based on voting age population (VAP) reported in the 2010

Census.

43.   The geocoded City of Yakima registered voter list is a more accurate

measure than the ACS LCVAP estimates to evaluate present-day Latino voting

strength by election district. This is because the registered voter list is based on

current data and is not an historical sample survey. By contrast, the ACS LCVAP

estimates are derived from a 5-year survey for the 2007 to 2011 period. The

midpoint of the 2007-2011ACS period is July 1, 2009 (pre-dating the 2010

Census). Thus, the 5-year ACS is, on average, about three and one-half years

behind the real-time registered voter list.[8]

44.   The geocoded registered voter database suggests that the LCVAP is

on the increase in Districts 1 and 2 of the illustrative plans. The January 2013

Latino registered voter percentage exceeds the 2007-2011 historical LCVAP in

both districts under both plans.

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[8] The 5-year LCVAP estimates reflecting July 2013 as a midpoint will not be available until late January 2017 when the 2011-2015 ACS special tabulation is released.

45.　　　　A gradual uptick from year to year in Yakima's LCVAP seems likely given that approximately 95% of all Latinos under the age of 18 are citizens according to the 2007-2011 ACS.[9]

46.　　　　In my February 1, 2013 Declaration, I did not report the Latino citizen population percentages for all ages by district in the illustrative plans. For the record, the table in **Figure 9** below compares the Latino citizen percentages for all ages and voting age for Districts 1 and 2 under the two illustrative plans.

Figure 9   Comparison of Latino Citizen Population Percentages

District	Illustrative Plan 1				Illustrative Plan 2		
	% Latino Citizens (All Ages)	% Latino CVAP	Differential (All Ages minus CVAP)		% Latino Citizens (All Ages)	% Latino CVAP	Differential (All Ages minus CVAP)
1	69.69%	50.25%	19.44%		70.03%	50.13%	19.90%
2	61.79%	43.15%	18.64%		60.78%	42.61%	18.17%

47.　　　　As can be seen from **Figure 9**, there is a huge differential between the Latino citizen population percentage and the LCVAP in both districts under both plans. The Latino citizen population percentage is more than 19 points higher in District 1 and more than 18 percentage points higher in District 2. This suggests that the current (April 2013) LCVAP is higher than the 2007-2011 historical (July 2009 midpoint) estimate for both districts under both plans.

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[9] February 1, 2013, Declaration of William S. Cooper, ¶ 25.

48.   An analysis of voters who registered after the April 1, 2010 Census

provides corroborating evidence that the LCVAP is increasing in the area

encompassed by Districts 1 and 2 under *Illustrative Plans* 1 and *2*. **Figure 10**

below shows that a total of 1,728 persons in the area have registered to vote since

April 2, 2010. Of those, 1,033 (59.78%) are Latino. Three-fourths of the 472 new

registrants who turned 18 after the 2010 Census are Latino. About one-third of all

new registrants (34.5%) in the District 1 and 2 areas of *Illustrative Plans 1* and *2*

were under 18 at the time of the 2010 Census.[10]

Figure 10   District 1 and 2 Voter Registration After April 1, 2010

	District 1 and 2 of Illustrative Plans 1 and 2				District 1 of Illustrative Plan 1		
	Total	**Latino**	**% Latino**		**Total**	**Latino**	**% Latino**
New Registrants – Registered After April 1, 2010	1728	1033	59.78%		784	465	59.31%
New Registrants – Under 18 on April 1, 2010	472	356	75.42%		209	155	74.16%
Total Registered (Jan. 2013)	5740	2914	50.77%		2433	1257	51.66%
% Under 18 on April 1, 2010 of New Registrants	27.3%	34.5%			26.7%	33.3%	
% Registered After April 1, 2010	30.1%	35.4%			32.2%	37.0%	

[10] Data source: Geocoded using *Maptitude 2012* from the Yakima City
registered voter list for January 2013 prepared by the Yakima County Division of
Elections. (See February 1, 2013, Declaration of William S. Cooper, ¶36 and ¶42.)
Three voters with reported dates of birth after April 1, 1992, but who registered
prior to April 1, 2010, are not included in the **Figure 10** new registrant tabulation.

49.   A separate breakout in **Figure 10** for LCVAP-majority District 1 in

Illustrative Plan 1 shows a nearly identical trend. Latinos comprise 59.31% of all

new registrants since the 2010 Census and 74.16% of all new registrants who have

turned 18 since the 2010 Census are Latino. About one-third of all new registrants

(33.3%) in *Illustrative Plan 1* District 1 were under 18 at the time of the 2010

Census.

Use of LCVAP in State Redistricting Plans

50.   The block group ACS citizenship calculations are estimates from a

rolling sample survey over a five-year period. There is a margin of error. However,

districts that are considered Latino-majority with LCVAP majorities near 50% as

drawn in the illustrative plans are not uncommon. For example, there are two

districts in the court-drawn 2013-2014 Texas House Plan with LCVAP percentages

close to 50% – District 90 (50.9 %) and District 104 (51.3%).[11] The calculated

margin of error (MOE) in both districts is + or - 1.9% (meaning the negative MOE

range falls below 50%). There are six districts in the adopted 2011 California

Assembly Plan with LCVAP percentages ranging between 50.002% (District 59)

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[11] Source: Texas Legislative Council. Available for download at:
ftp://ftpgis1.tlc.state.tx.us/PlanH309/Reports/PDF/PlanH309_RED116_ACS_Special_Tabulation_2007-2011.pdf.

and 50.81% (District 31).[12] The California Assembly Plan was precleared by the

U.S. Department of Justice in 2011 and has withstood legal challenges in federal

courts.

Hypothetical Plan B

51.   For demonstration purposes, districts with significantly higher

LCVAP-majorities than District 1 in *Illustrative Plans 1* and *2* can be drawn. The

table in **Figure 11** below provides summary population statistics by district for

Hypothetical Plan B with an accompanying map in **Figure 12.** A detailed

demographic summary and map for *Hypothetical Plan B* are attached as **Exhibit B**.

Figure 11   Yakima City Council Hypothetical Plan B Summary

District	Population	Deviation	% Deviation	18+_Pop	18+ Hisp.	% 18+ Hisp.	% Latino CVAP	% Latino Registered (of all registered)
1	12995	-35	-0.27%	7917	5913	74.69%	56.12%	58.92%
2	12706	-324	-2.49%	8584	4351	50.69%	31.91%	35.65%
3	12632	-398	-3.05%	9096	2748	30.21%	25.51%	19.12%
4	12866	-164	-1.26%	9213	3818	41.44%	30.08%	24.06%
5	13323	293	2.25%	10249	2296	22.40%	11.48%	12.69%
6	13413	383	2.94%	10294	1105	10.73%	7.37%	6.59%
7	13132	102	0.78%	9934	1606	16.17%	14.81%	11.16%

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[12] Source: *California Citizens Redistricting Commission Final Report, Appendix B*, pp.7-8. Available for download at:
http://wedrawthelines.ca.gov/downloads/meeting_handouts_082011/crc_20110815_5appendix_3.pdf.

Figure 12   Yakima City Council Hypothetical Plan B
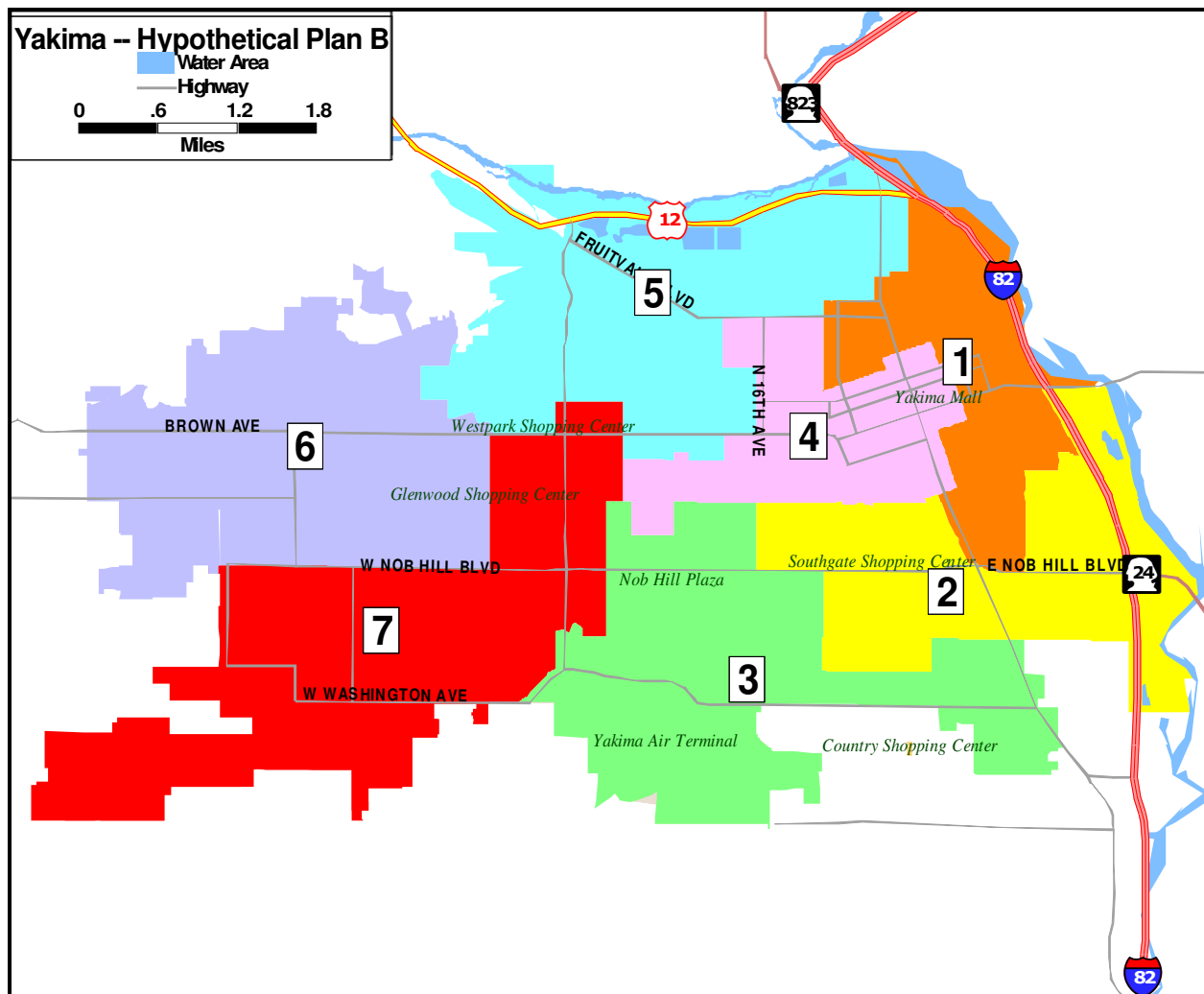
52.   *Under Hypothetical Plan B*, District 1 has an LCVAP of 56.12% and

a Latino registered voter percentage of 58.92%. The plan has an overall deviation

of 5.99%. After allocating the block group-level CVAP to the corresponding 2010

census blocks under *Hypothetical Plan B*, there are 2,312 Latino citizens of voting

age and 1,808 non-Hispanic citizens of voting age in District 1. This represents a

voting age Latino citizen advantage of more than 500 persons – a margin that I

believe would undoubtedly satisfy *Gingles1*, even under the inappropriately strict standards articulated by Dr. Morrison.

53.   The Latino registered voter advantage in District 1 under *Hypothetical Plan B* is also overwhelming. Of the 2,631 registered voters geocoded to District 1, 1,553 are Latino, resulting in a 475-person margin over the 1,078 non-Hispanic registered voters in the district.

54.   The 56.12% LCVAP District 1 in *Hypothetical Plan B* has a higher LCVAP percentage than three of the four LCVAP districts presented by the plaintiffs to the court in *Fabela v. City of Farmers Branch*.[13] In the opinion in that case, the court ruled that the plaintiffs had met *Gingles 1*.

55.   According to the expert for the defendants in the *Farmers Branch* case, the four demonstrative districts had LCVAP percentages of 53.1%, 52.9%, 54.9%, and 53.7% – all lower than District 1 in *Hypothetical Plan B*. According to the plaintiffs' expert in the *Farmers Branch* case, only one of the four demonstration districts had a higher LCVAP at 57.29%.[14]

56.   Not a single demonstration district in the *Farmers Branch* litigation had a Latino registered voter percentage higher than District 1 in *Hypothetical*

---

[13] *Fabela, et al. v. City of Farmers Branch, et al*., Civil Action No. 3:10-CV-1425-D (N.D. Tex.), August 12, 2012.

[14] *Ibid.,* p.10. The two experts in the case calculated different LCVAPs by district. The text of the opinion includes a summary table.

Plan B (or, for that matter, under the two illustrative plans presented in my

February 1, 2013 declaration). According to the expert for the plaintiffs, only one

of the demonstrative districts in the *Farmers Branch* case exceeded 50% registered

Latino voters.[15]

Hypothetical Plan C

57.   The 56.12% LCVAP District 1 depicted in *Hypothetical Plan B* is not

the maximum possible LCVAP district that can be drawn in Yakima. For example,

as shown in the statistical summary in **Figure 13** and map in **Figure 14** below, I

have developed *Hypothetical Plan C* with a District 1 that is 57.74% LCVAP and

59.74% Latino registered voters. A detailed demographic summary and map for

Hypothetical Plan C are attached as **Exhibit C**.

Figure 13   Yakima City Council Hypothetical Plan C Summary

District	Population	Deviation	% Deviation	18+_Pop	18+ Hisp.	% 18+ Hisp.	% Latino CVAP	% Latino Registered (of all registered)
1	12384	-646	-4.96%	7570	5742	75.85%	57.74%	59.74%
2	13243	213	1.63%	8881	4498	50.65%	31.84%	35.78%
3	12632	-398	-3.05%	9096	2748	30.21%	25.51%	19.12%
4	12940	-90	-0.69%	9263	3842	41.48%	30.11%	24.09%
5	13323	293	2.25%	10249	2296	22.40%	11.48%	12.69%
6	13413	383	2.94%	10294	1105	10.73%	7.37%	6.59%
7	13132	102	0.78%	9934	1606	16.17%	14.81%	11.16%

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[15] *Ibid.*

Figure 14 Yakima City Council Hypothetical Plan C
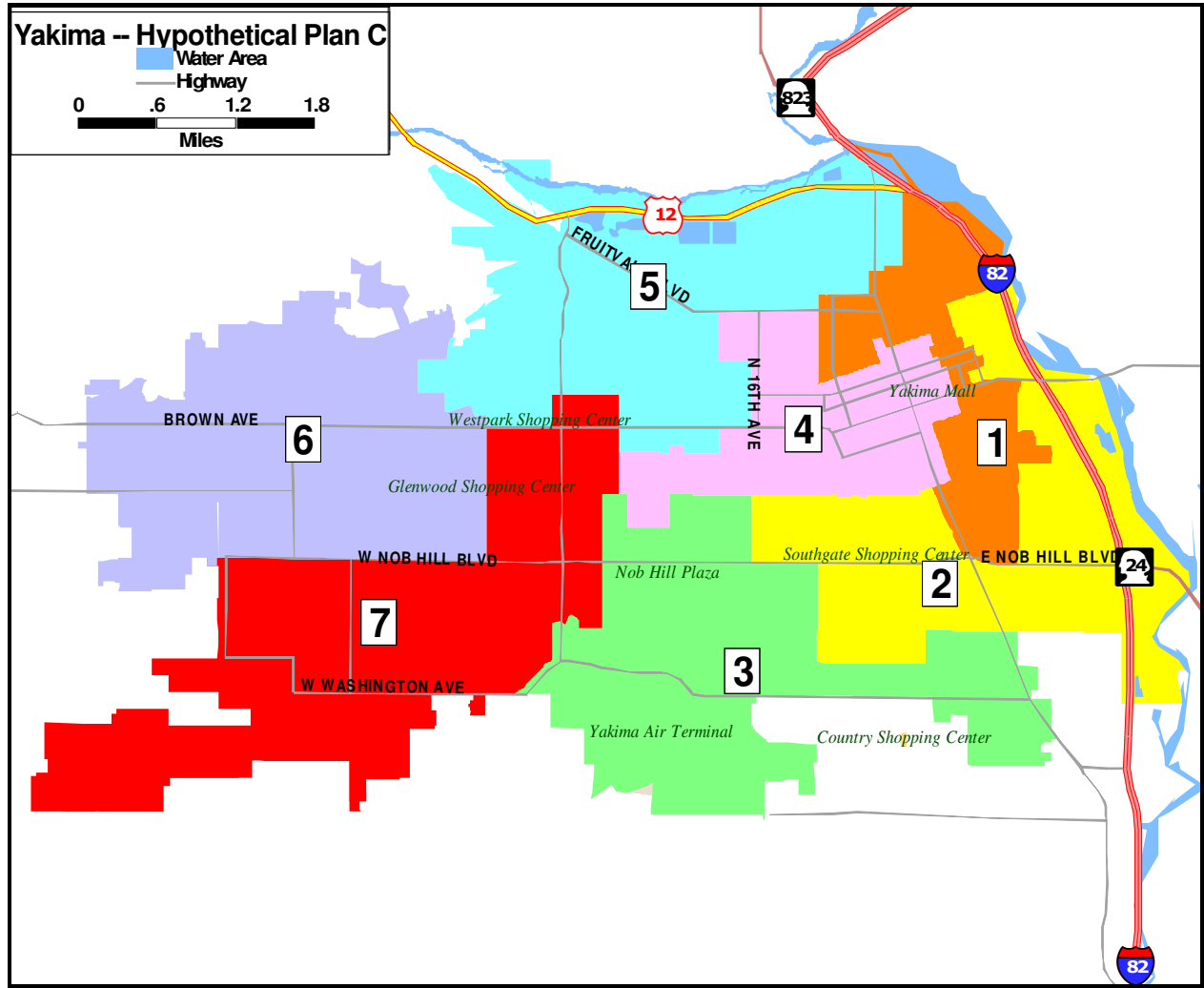
58.   A hypothetical district with a higher LCVAP than that achieved in

Hypothetical Plan C is possible. But within the context of this particular Section 2

lawsuit, I believe that such a district, as well as the LCVAP-majority districts under

Hypothetical Plans B and *C,* would unnecessarily pack Latinos into a single district.

Both hypothetical plans would dramatically cut the Latino registered voter percentage

in District 2 from about 51% under the illustrative plans to 36%.

D.   Voting Age Latino Citizen Majority Districts in Yakima Can Be Drawn Using Citizens or 18+ Citizens as the Apportionment Base

59.   Dr. Morrison suggests that total population is not the appropriate

apportionment base to use in Yakima. He apparently advocates the use of CVAP to

correct an "electoral imbalance".[16] I have drafted thousands of redistricting plans

covering hundreds of jurisdictions across the country over the past 25 years. I am

unaware of any jurisdiction (including the City of Yakima) that uses citizen

population or CVAP as the apportionment base.[17]
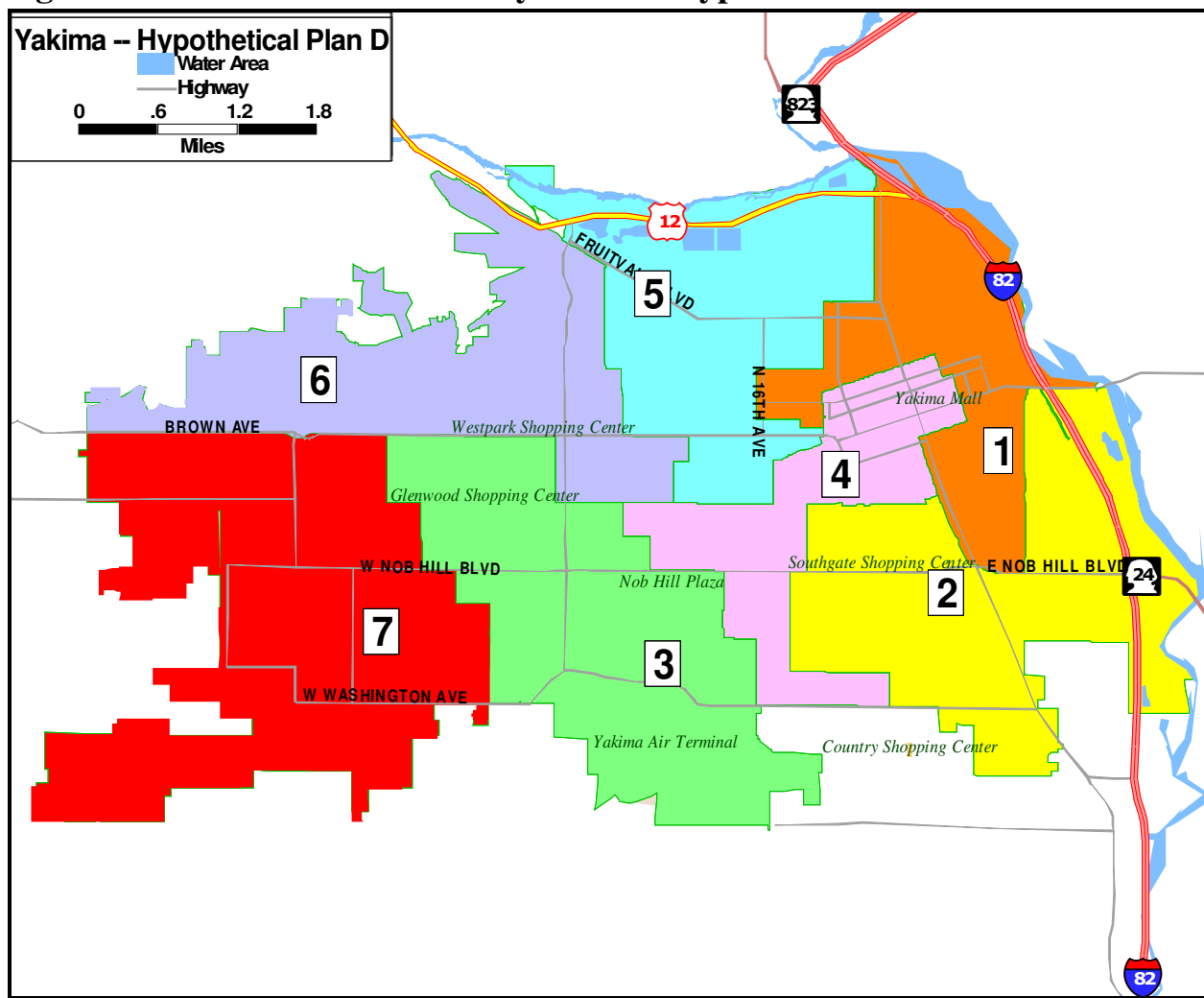
Hypothetical Plan D

60.   Nevertheless, in response to Dr. Morrison's concerns, I demonstrate in

Figures 15 and **16** below that an LCVAP-majority district can be drawn with

citizen population (all ages) as the apportionment base. A detailed demographic

summary and map for *Hypothetical Plan D* are attached as **Exhibit D.**

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[16] Morrison Report, ¶¶ 37-43.

[17] Some jurisdictions exclude non-resident prison inmates from the apportionment base, but use total population after the exclusion.

Figure 15   Yakima City Council Hypothetical Plan D Summary

District	Population	Citizens	Deviation	% Deviation	18+_Pop	18+ Hisp.	% 18+ Hisp.	% Latino CVAP	% Latino Registered (of all registered)
1	16622	10866	-303	-2.71%	10262	7435	72.45%	55.25%	55.65%
2	14403	11155	-14	-0.13%	9837	4778	48.57%	30.13%	32.54%
3	11601	11142	-27	-0.24%	8947	1652	18.46%	14.45%	12.49%
4	11783	10779	-390	-3.49%	8676	2866	33.03%	28.38%	21.38%
5	12372	11087	-82	-0.73%	8811	3005	34.11%	20.35%	20.31%
6	11821	11412	243	2.17%	9568	937	9.79%	5.89%	6.91%
7	12465	11580	411	3.68%	9186	1164	12.67%	12.13%	7.94%

Figure 16   Yakima City Council Hypothetical Plan D

61.   *Hypothetical Plan D* creates a Latino-majority district with a 55.25%

LCVAP using the 2007-2011 ACS 5-year estimate of 78,181 citizens in Yakima as

the apportionment base. *Hypothetical Plan D* has an overall deviation of 7.17%,

based on an ideal district size of 11,169 (78,181/7). Latino-majority District 1 has a

deviation of -2.17%. District 1 is overpopulated by about 3,500 persons using total

population as the apportionment base. Over one-third (34.8%) of the City's Latino

population would reside in District 1.

Hypothetical Plan E

62.   *Hypothetical Plan E* creates a Latino-majority district with a 51.16%

LCVAP using the 2007-2011 ACS 5-year estimate of voting age citizens in

Yakima as the apportionment base.[18] Summary statistics and a map are shown in

Figures 17 and **Figure 18** below. A detailed demographic summary and map for

Hypothetical Plan E are attached as **Exhibit E**.

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[18] Dr. Morrison chooses to use the CVAP in Yakima according to the 2009-
2011 ACS for the apportionment base. (See Morrison Report, Table 2, p.16). For
consistency with the block group dataset, I believe it is preferable to use the
citywide citizen voting age estimate from the 2007-2011 ACS.

Figure 17   Yakima City Council Hypothetical Plan E Summary

District	Population	CVAP	Deviation	% Deviation	18+_Pop	18+ Hisp.	% 18+ Hisp.	% Latino CVAP	% Latino Registered (of all registered)
1	21265	7577	-204	-2.62%	13082	9193	70.27%	51.16%	53.91%
2	14972	7574	-207	-2.66%	10304	4902	47.57%	30.81%	32.01%
3	10671	7897	116	1.49%	8218	1481	18.02%	15.97%	12.34%
4	11812	7951	170	2.19%	8792	2687	30.56%	24.53%	20.01%
5	10718	7665	-116	-1.50%	8236	1685	20.46%	14.54%	13.00%
6	10751	7935	154	1.98%	8659	865	9.99%	2.59%	6.34%
7	10878	7635	-146	-1.88%	7996	1024	12.81%	13.26%	7.80%

Figure 18   Yakima City Council Hypothetical Plan E
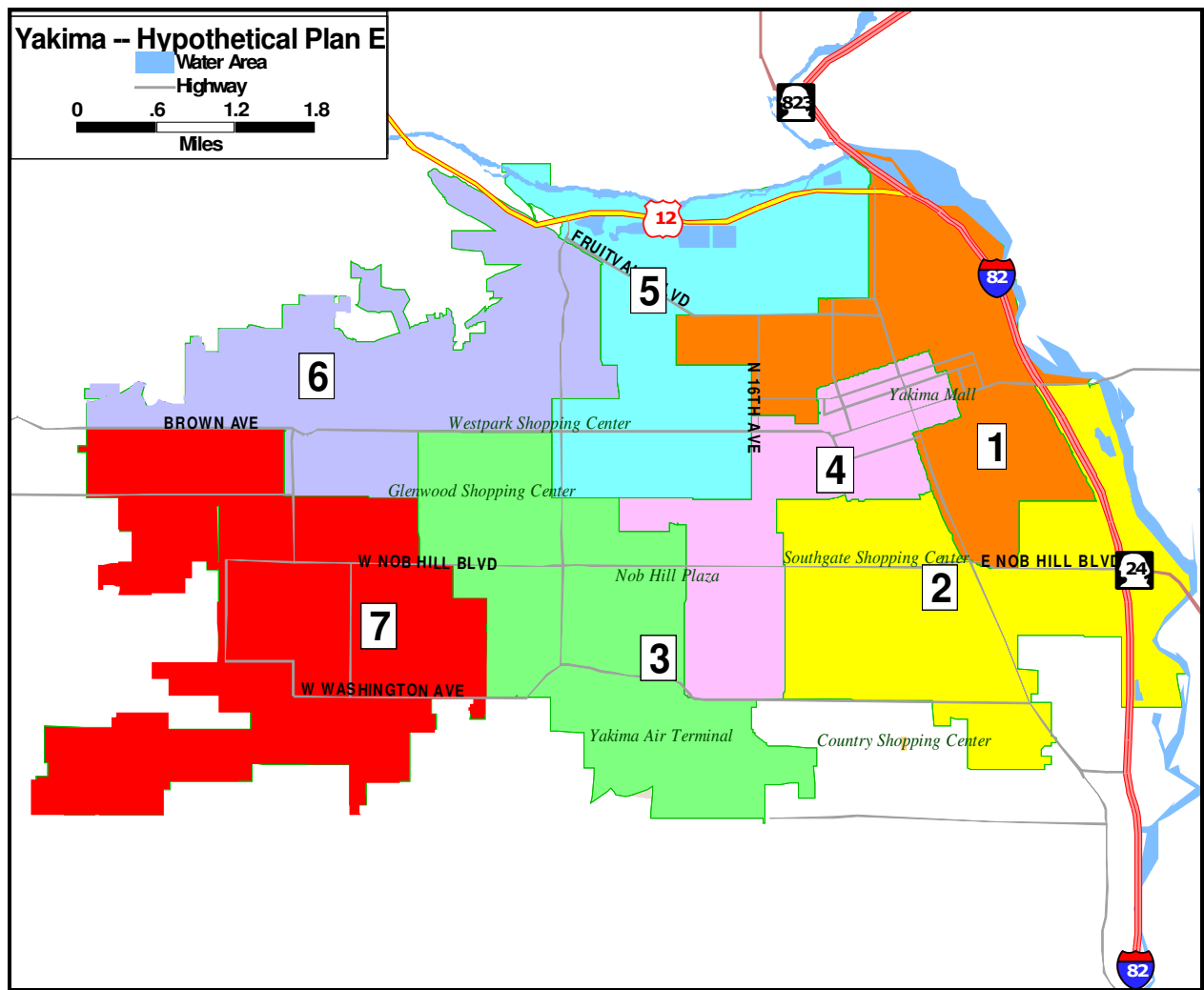
63.   *Hypothetical Plan E* has an overall deviation of 4.85%, based on an

ideal district size of 7,781 (54,464/7). District 1 is overpopulated by about 8,000

persons using total population as the apportionment base – 43.5% of the Latino

population in Yakima would reside in District 1.

Deviation Analysis of Adopted 2011 Plan – Alternative Apportionment Bases

64.   The hybrid at-large, 4-residency district plan adopted by the City in 2011

is grossly malapportioned using either citizens or CVAP as the apportionment base.

The overall deviation for the *2011 Plan* with a citizen apportionment base is 24.37%.

Using CVAP as the apportionment base, the overall deviation for the *2011 Plan* is

43.33%. With total population as the apportionment base, the *2011 Plan* has an

overall deviation of 11.06%.[19] It appears that total population is the apportionment

base for the *2011 Plan*, because that is the only population statistic reported on the

map posted on the City's website. [20]

65.   To reiterate, while it is certainly possible to draw an LCVAP-majority

district using citizens or voting age citizens as the apportionment base, I believe

that a valid and constitutional redistricting plan must use total population for the

---

[19] February 1, 2013, Declaration of William S. Cooper, ¶ 45.

[20] See map and table available for download at:
http://www.yakimawa.gov/council/city-council-districts/.

apportionment base. For this reason, I do not believe that *Hypothetical Plans D* or

E should be relied upon for the first prong of *Gingles* or as appropriate remedies in

this case.[21]

E.   Additional Methodological Issues Raised by Dr. Morrison

ACS CVAP versus 2010 Census VAP

66.   Dr. Morrison identifies 15 block groups in Yakima where the

estimated CVAP according to the 2007-2011 ACS exceeds the corresponding 2010

Census VAP. He found 9 block groups where the estimated CVAP exceeds the

2010 Census VAP and an additional 6 block groups where the estimated LCVAP

exceeds the 2010 Census Latino VAP.[22]

67.   As shown in the map in **Figure 19** below, all 15 of the block groups

flagged by Dr. Morrison (shaded pink) lie outside the boundaries of majority-

Latino registered voter Districts 1 and 2 under both illustrative plans (delineated

with blue and green lines). Therefore, this inconsistency between the 2010 Census

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[21] *See Garza v. County of Los Angeles,* 918 F.2d 763, 775–76 (9th Cir.1990).

[22] Morrison Report, ¶¶ 7-8. In the text and accompanying table, Dr. Morrison implies that the block group level citizen counts are estimates that I have calculated. This is not the case. I rely on the official 2007-2011 ACS Special Tabulation block group point estimates published by the Census Bureau. (See my discussion in ¶¶ 6-8 *supra*.)

VAP counts and the 2007-2011 ACS CVAP estimates has no effect on the Latino-

majority districts in the two illustrative plans.

Figure 19   **Block Groups with 2007-2011 ACS CVAP**
                       Greater than the 2010 Census VAP
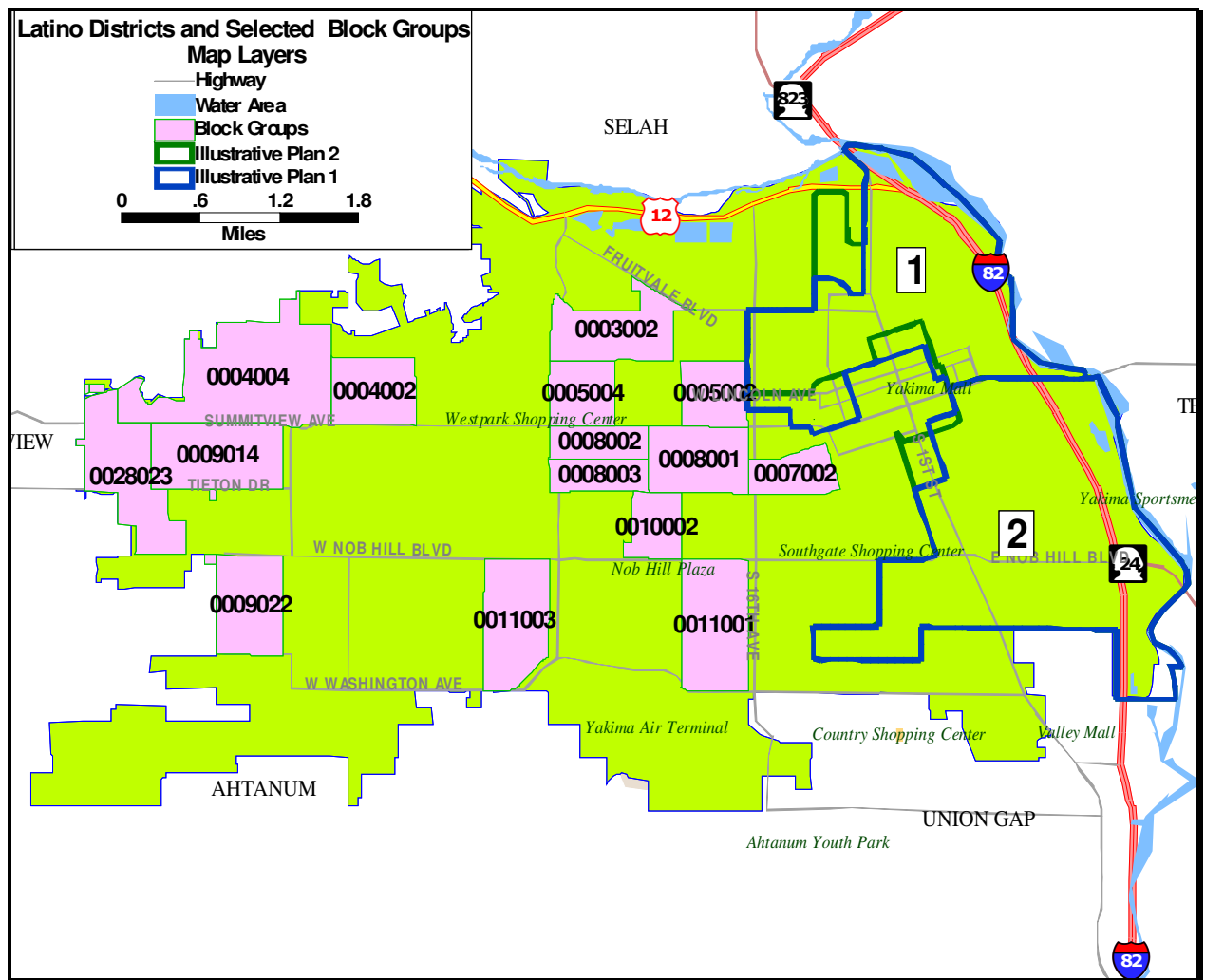
68.   There is nothing unusual about block groups with 2007-2011 ACS

CVAP estimates that exceed the 2010 Census VAP. Of the 217,217 block groups

nationwide, 70,523 (32.47%) have 2007-2011 ACS voting age citizen estimates

that exceed the VAP in the 2010 Census count.[23] By comparison, in Yakima, just 13.4% of all block groups (9 of 67) have 2007-2011 ACS citizen voting age populations that exceed the 2010 Census VAP count. Yakima is below the national average by a wide margin.[24]

69.   One anomaly that Dr. Morrison did not mention is his report is that there are 9 block groups in Yakima that extend into areas beyond the city limits. This explains why there is a minor discrepancy between the citywide citizen (*Hypothetical Plan D*) and CVAP (*Hypothetical Plan E*) totals I used to calculate the ideal district size and the sum of the corresponding citizen and CVAP totals by district. Most of the jurisdictional splits are located in the western part of Yakima in areas that have been annexed since 1990. There are no jurisdictional block group splits involving District 1 as drawn in *Hypothetical Plans A* through *E* or in *Illustrative Plans 1* and *2,* so this discrepancy has no impact on *Gingles 1* in this case.

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[23] I conducted this analysis with *Maptitude 2012* using a nationwide block group dataset purchased from Caliper Corporation.

[24] Because the nationwide 32.4% total for block groups with CVAP minus VAP excesses is much greater than the 13.4% total for Yakima block groups with excess CVAP **or** LCVAP, there is no point in proceeding to the next step. This step would involve identifying additional block groups nationwide where LCVAP exceeds 2010 Latino VAP.

Geographical Mobility of the Latino Population is not a Significant Factor

70.   Dr. Morrison implies that because some of Yakima's Latinos work in agriculture or food processing, many are not year-round residents.[25] He offers no supporting data regarding Latino household mobility or the occupational structure of the Latino workforce in Yakima – or, for that matter, of the corresponding non-Hispanic population. He presents no block group or neighborhood analysis to support this assertion.

71.   There is, however, evidence from the American Community Survey that shows Latino households in Yakima are stable comparatively speaking – and that the District 1 and 2 areas under the illustrative plans are within the norm in terms of geographical mobility for the city as a whole.

72.   As shown in **Figure 20** below, the *2008-2010 3-Year ACS* indicates that Latinos in Yakima are not a transient population compared to non-Hispanic Whites.[26]

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[25] See Morrison Report, ¶¶ 28-30.

[26] The ACS numerical estimates underlying **Figure 20** are shown on p. 13 of **Exhibit H**. **Figure 20** is replicated in the chart on p.14 of **Exhibit H**. For ACS estimates and a summary chart showing the occupational structure of the Latino and non-Hispanic White workforces in Yakima see pp. 55-56 of **Exhibit H**.

Figure 20 Geographical Mobility in the Past Year (Population 1 and Over) Latino and Non-Hispanic White Comparison
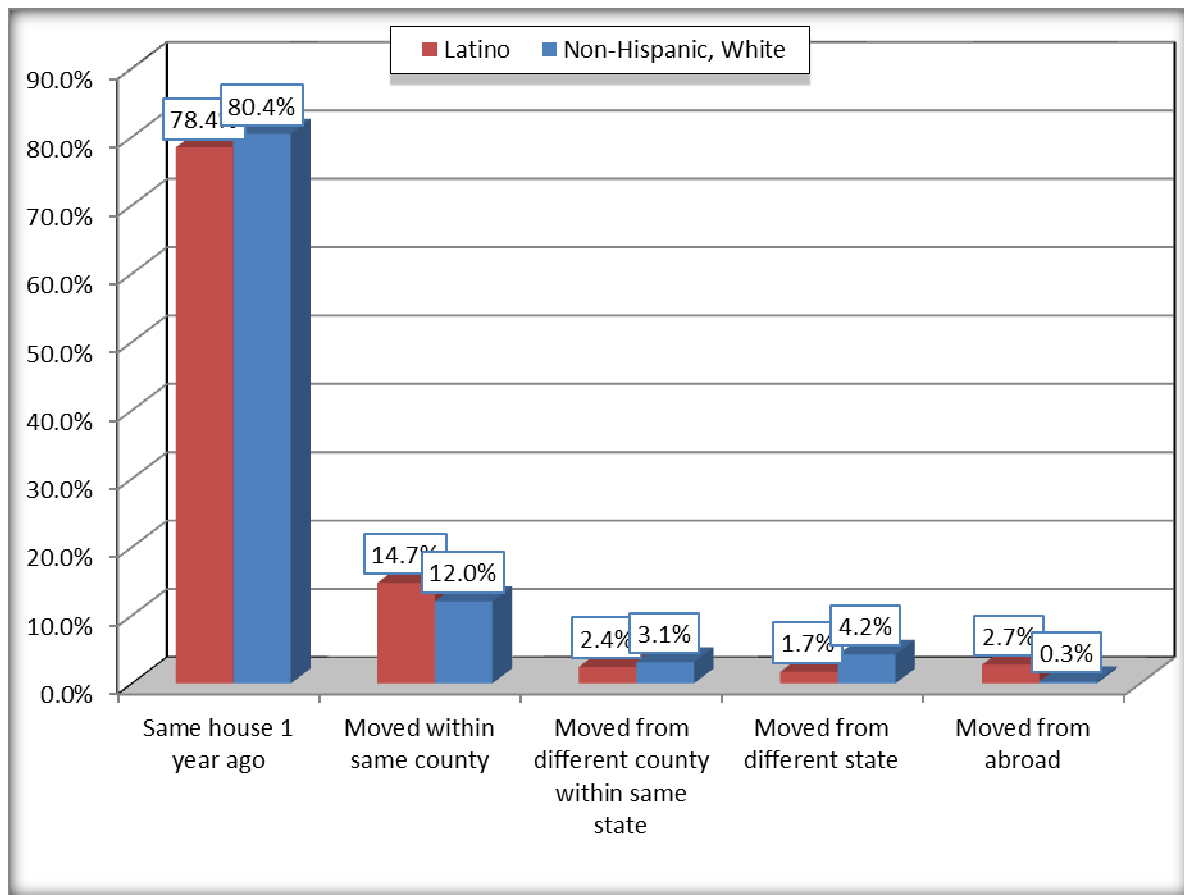
73.   Nearly four out of five Latinos (78.4%) live in the same house as one year ago – comparable to the 80.4% rate of non-Hispanic Whites.[27] Another 14.7%

[27] Source: B07004. GEOGRAPHICAL MOBILITY IN THE PAST YEAR BY RACE FOR CURRENT RESIDENCE IN THE UNITED STATES - Universe: POPULATION 1 YEAR AND OVER Data Set: 2008-2010 American Community Survey 3-Year Estimates.

of Latinos moved during the year from somewhere else in Yakima County, compared to a 12.0% intra-county rate experienced by non-Hispanic Whites.[28]

74.   During the survey year, 6.8% of Latinos moved from out-of-county, compared to 7.6% of non-Hispanic Whites. This means that over the course of the year, slightly more non-Hispanic Whites compared to their Latino counterparts moved to Yakima from out-of-county or out-of-state areas.

75.   An alternative way to consider the geographical mobility issue is to examine block group-level data for households that moved into their current residence at some point between 2005 and 2010. The map in **Figure 20** below shows that block groups with the highest rate of change of residence over the period are located, for the most part, just west of the Latino-majority districts under the illustrative plans.

76.   Between 60% and 70.6% of the households in the deep pink block groups moved into their current residence at some point between 2005 and 2010.[29] Of the 11,239 Latinos of voting age (according to the 2010 Census) who reside within the majority-Latino districts under *Illustrative Plans 1* and *2*, 17.5% live in block

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[28] The ACS does not provide a more detailed breakout for intra-city residence changes. Some of the intra-county moves would have been intra-city or intra-neighborhood.

[29] Source: 2012 US Census Planning Database (2006-2010 ACS). Available for download from: http://www.census.gov/research/2012_planning_database/.

groups where 60% to 70.6% of the households moved in the five-year-period. Of the

5,457 non-Hispanics of voting age who reside inside the boundaries of illustrative

Latino-majority districts, 18.5% live in block groups where 60% to 70.6% of the

households moved in the five year-period.

Figure 21   Percent Change in Household Residence 2005-2010
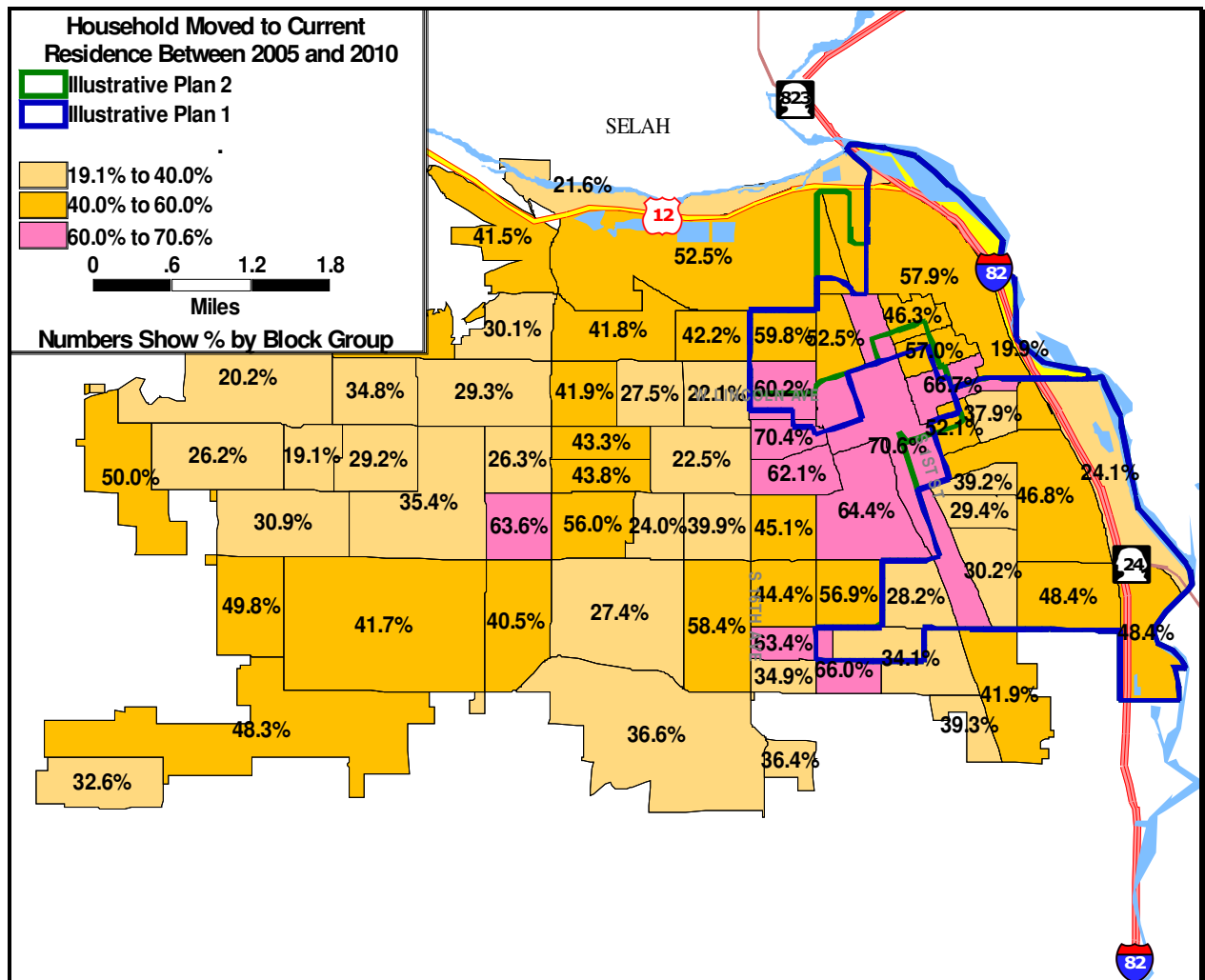
77.   Citywide, at the block group level, the median percentage of

households that moved to their current residence between 2005 and 2010 is 41.5%.

This is within the 40% to 60% range of the orange-colored block groups in the map

in **Figure 21**. Most of the population in Districts 1 and 2 lives in these orange-

colored block groups. (The percentage labels that overlay each block group in the

Figure 21 map show the percentage of households that moved between 2005 and

2010.)

Latino-Majority Districts Will Not Dilute the Votes of Other Minorities

78.   Dr. Morrison poses this question toward the close of his report, but does

not provide data or legal analysis in response:

Would this electoral imbalance causes (sic) *unlawful dilution of votes cast by one or more protected groups (e.g., American Indians or Asians) whose numbers are disproportionately concentrated outside demonstration District 1?*[30]

In short, no – for the reasons I discuss below.

79.   First, *Illustrative Plans 1* and *2* create two effective Latino-majority

districts – not one. Under both illustrative plans, nearly half of Yakima's minority

population would reside in Districts 1 and 2 – 47.6% under *Illustrative Plan 1* and

47.4% under *Illustrative Plan 2*.

80.   Second, under *Illustrative Plans 1* and *2*, District 4 is majority-

minority – 51.32% and 51.56% of total population, respectively. Under *Illustrative*

Plan 1, District 4 is 26.46% LCVAP with 22.89% Latino registered voters. Under

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[30] Morrison Report, p. 26.

Illustrative Plan 2, District 4 is 26.77% LCVAP with 23.03% Latino registered

voters. Minorities comprise 44.27% of the voting age population in District 4 under

Illustrative Plan 1 and 44.59% under *Illustrative Plan 2*. In both plans, on all of these

metrics – minority percentage, LCVAP, Latino registered voters, and minority voting

age percentage – District 4 scores higher than the corresponding citywide figures.[31]

81.   Under both illustrative plans, nearly two-thirds of Yakima's minority

population would reside in Districts 1, 2, and 4 – 63.14% under *Illustrative Plan 1* and

63.3% under *Illustrative Plan 2*.

82.   In sum, under *Illustrative Plans 1* and *2*, more than 60% of the minority

population would reside in three single-member districts where a minority candidate

for city council could be expected to fare better than under an at-large citywide

election system. Minority voters would reside in two out of seven districts with a

majority of registered voters who are minority (predominantly Latino) versus zero out

of seven under the existing at-large system. This would not represent a dilution of

votes for minority voters vis-à-vis the current electoral scheme.

83.   According to the 2010 Census, the national origin of the Latino

population in Yakima is overwhelmingly Mexican – 92.3% of all Latinos in Yakima

are Mexican-American. (See **Figure 22** below).

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[31] See Exhibits C-1 and D-1 in my February 1, 2013 declaration.

Figure 22   **Yakima – Latinos by National Origin (2010 Census)**

National Origin	2010 Population	% of Total
Mexican	34,697	92.3%
Puerto Rican	232	0.6%
Cuban	48	0.1%
Dominican	23	0.1%
Central American (excluding Mexican)	338	0.9%
South American	149	0.4%
Other Hispanic or Latino	2,100	5.6%
Total Hispanic or Latino	**37,587**	**100.0%**

84.   About 90% of persons of Mexican origin have some North American

Indian heritage.[32] In 2010, approximately 14.9% of Mexican nationals (ages 3 and

over) were Indian compared to 0.9% of Americans who identified as single-race

Indian.[33]

85.   Of the 1,968 persons in Yakima who specified a tribal affiliation in the

complete count 2010 Census, 657 (33.38%) were members of the Yakima tribe. The

Mexican American Indian category was checked for 118 persons (6.0%). Other

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[32] *CIA World Factbook.* Available for download at:
www.cia.gov/library/publications/the-world-factbook/geos/mx.html.

[33] Sources: U.S. Census Bureau, 2010 Census.
INEGI. *Censo de Población y Vivienda 2010: Tabulados del Cuestionario Ampliado.* Available for download at:
http://www3.inegi.org.mx/sistemas/TabuladosBasicos/LeerArchivo.aspx?ct=27495 &c=27303&s=est&f=1.

categories which represent Latin American Indian categories amounted to just over

one percent (e.g., Spanish American Indians, South American Indians, and Yaquis).[34]

(See **Exhibit F**). A tribal breakout by voting age and Latino/non-Hispanic is not

available in the 2010 Census.

86.   Latinos may be of any race. **Figure 23** below shows the distribution of

Yakima's Latino population by race, according to the 2010 Census. In the 2010

Census, over half of the Latino population checked "Other race" – 21,091 persons

(56.11%) and 12,655 persons of voting age (57.95%).

Figure 23   Yakima – Latinos by Race (2010 Census)

Race	2010 Population	% of Total	2010 18 + Pop.	% of 18 + Pop
White Alone	13,542	36.03%	7,791	35.68%
Black Alone	245	0.65%	128	0.59%
American Indian and Eskimo Alone	527	1.40%	263	1.20%
Asian Alone	61	0.16%	40	0.18%
Hawaiian or Pacific Islander Alone	37	0.10%	25	0.11%
Other Alone	21,091	56.11%	12,655	57.95%
Two or More Races	2,084	5.54%	935	4.28%
Total Hispanics	37,587	100.0%	21,837	100.00%

87.   The socio-economic status of Yakima's American Indian community is

more closely aligned with Latinos than non-Hispanic Whites. The tables and charts in

Exhibit G compare Indians and non-Hispanic Whites as reported in the *2006 to 2010*

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[34] Source: 2010 Census Summary File 1: *QT-P7-Geography-Yakima city, Washington: Race Reporting for the American Indian and Alaska Native Population by Selected Tribes: 2010.*

American Community Survey 5-Year Estimates file. This document shows that

Indians, like Latinos, lag behind non-Hispanic Whites across key socio-economic

measures such as poverty and median income. For general comparison, I have

attached as **Exhibit H** a similar set of charts contrasting Latinos and non-Hispanic

Whites from the *2008-2010 American Community Survey 3 year Estimates* dataset.

F.   Conclusion

88.   This declaration makes the following key points:

- *Gingles 1* can be met in a variety of ways in Yakima, including a single-member district with an LCVAP at least as high as 57.74% in a 7-member plan. (See *Hypothetical Plan C*).

- *Gingles 1* can be met in Yakima even assuming an apportionment base comprised of citizens or just citizens of voting age. (See *Hypothetical Plans D and E)*.

- LCVAP estimates derived from the American Community Survey are routinely used by government entities, the U.S. Department of Justice, and federal courts for redistricting.

- The LCVAP calculations I employ are in no way "tainted" or "suspect."

- For Yakima, the proper method to disaggregate ACS CVAP estimates to the census block level is to allocate both Latino and non-Hispanic CVAP in proportion to the underlying block-level Latino and non-Hispanic VAP from the decennial census.

- Even if the CVAP allocation method advocated by Dr. Morrison is employed, it is possible to create an LCVAP-majority district under a 7-disrict plan and, at the same time, create a second majority-Latino registered voter district. (See *Hypothetical Plan A)*.
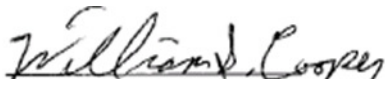
- Geocoding current registered voter lists is more geographically precise and temporally accurate for gauging current and potential Latino voting strength than the historical ACS block group special tabulation.

- LCVAP estimates derived from the 5-year ACS are historical indicators of Latino citizenship by district – on average, three and one-half years old the moment they are released. The January 2013 geocoded Spanish surname registered voter list is a current indicator of Latino voting age citizenship by district. ACS Latino citizenship estimates for the under 18 population are forward-looking indicators of current and future LCVAP by district – particularly in Yakima where 95% of under 18 Latinos are citizens.

- There is a nearly 20-percentage point positive differential between Latino citizens of all ages and LCVAP in Districts 1 and 2 under the illustrative plans.

- Minorities other than Latinos will not see their votes diluted under a 7-single district plan in Yakima – assuming two majority-Latino registered voter districts and a third majority-minority district with a minority VAP percentage that is higher than the citywide percentage.

- The Latino population in Yakima is over 90% Mexican-American and shares cultural and socio-economic characteristics with the non-Hispanic American Indian community – the second largest minority population in Yakima.

89.   In summary and upon review of Dr. Morrison's report and supplemental report, I see no reason to alter the conclusions I made in my February 1, 2013 declaration:

- It is possible to create two out of seven City Council districts where Latinos of voting age would be a majority and where Latino registered voters would comprise a majority of registered voters.

- It is possible to create at least one Latino citizen voting age-majority district out of seven.

Pursuant to 28 U.S.C. 1746, I declare under penalty of perjury of the laws of the United States that the foregoing is true and correct to the best of my knowledge, information and belief.

April ___19___, 2013

William S. Cooper

WILLIAM S. COOPER