<u>Exhibit J</u>

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

SECOND 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 William S. Cooper. I serve as a demographic and
redistricting expert for the Plaintiffs. I filed a Declaration in this case on February 1,
2013 and a Supplemental Declaration on April 19, 2013.

2.   Subsequent to my provision of declarations in this matter, the U.S.
Census Bureau published new *American Community Survey (ACS)* data[1] and the
Yakima County Elections Division updated its voter registration data after the
election in November 2013. At the request of the Plaintiffs' attorneys in this matter,

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[1] The Census Bureau released the *2010-2012 American Community Survey 3-Year
Estimates* dataset in November 2013 and the *2008-2012 American Community Survey 5-Year
Estimates* dataset in December 2013. The 2008-2012 special tabulation block group citizenship
estimates by race and ethnicity were released in January 2014.

I have updated the citizenship and voter registration statistics reported in my previous declarations to provide the Court with the most current information available from the ACS and the Yakima County Elections Division. I have also prepared and included as **Exhibit C** a 64-page document of charts and tables based on the *2010-2012 ACS*, which updates the *2008-2010 ACS* document I attached as Exhibit H to my April 19, 2013 Supplemental Declaration.

   3.   This declaration also provides information regarding compactness and incumbency with respect to the illustrative and hypothetical plans included in my previous declarations.

I.   Updated Latino Citizenship and Registered Voter Statistics – Yakima

   4.   As anticipated in my February 1, 2013 Declaration (¶ 24), the Latino non-citizen rate in Yakima continues to drop.

   5.   According to the 3-year *2010-2012 ACS*, 27.67% of the overall Latino population is non-citizen and 43.17% of the voting age population is non-citizen. This represents more than a 2 percentage point decline for both non-citizen categories compared to the 3-year *2009-2011 ACS*, which were 29.39% and 45.95%, respectively.[2]

   6.   The 5-year *2008-2012 ACS* shows slightly higher non-citizen rates for Yakima's Latinos – 29.30% of all Latinos and 45.47% of the Latino voting age

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   [2] Cooper Declaration, February 1, 2013, ¶ 22.

population. This represents about a 1 percentage point decline for both categories

compared to the 5-year *2007-2011 ACS* – 30.08% and 46.78%, respectively.[3]

7.   The Latino non-citizen rate in Yakima will likely continue to drop. Of

the 15,946 Latinos in Yakima under the age of 18 in the *2010-2012 ACS*, just

4.36% are non-citizens. Of the 15,500 Latinos in Yakima under 18 in the *2008-*

2012 ACS, just 5.29% are non-citizens.

8.   According to the *2010-2012 ACS*, Latinos represent 35.67% of the

citizen population in Yakima and 24.17% of the citizen voting age population.

According to the *2008-2012 ACS*, Latinos comprise 34.34% of the citizen

population in Yakima and 22.66% of the citizen voting age population. Thus, as

shown in **Figure 1**, Latino citizenship as a percentage of all citizens and adult

citizens increased year-over-year in the two ACS survey datasets.

Figure 1 – Percent Latino Citizenship by 3-Year and 5-year ACS Dataset

	2007-11 ACS	2008-12 ACS	Point Change	2009-11 ACS	2010-12 ACS	Point Change
% Latino citizens all ages	32.96	34.34	+1.38	34.13	35.67	+1.54
% Latino CVAP	21.34	22.66	+1.32	22.21	24.17	+1.96

9.   According to March 2014 data reported by the Yakima County Elections

Division, there are 7,454 Latino registered voters in Yakima, or 19.03% of the total

number of 39,166 registered voters. After including persons with compound or

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[3] Ibid.

hyphenated Spanish surnames, the surname matched registered voter count is 7,661 or

19.56%. Thus, Latino registered voters as a percentage of overall registered voters

climbed by over a percentage point from 18.42% in January 2013 to 19.56% in March

2014. [4]

II.   Updated Latino Citizenship and Registered Voter Statistics by Plan

10.   **Exhibit A** contains updated summary demographic tables for *Illustrative*

Plans 1 and *2*, *Hypothetical Plans A*, *B*, and *C*, and the current *2011 Plan* – taking

into account the new *2008-2012 ACS* block group citizenship estimates[5] and the

March 2014 voter registration data.[6] The updated statistics in the exhibit are in the

three lower rightmost columns – percent Latino CVAP, percent Latino registered

voters, and percent Latino citizens (all ages). For ease of reference, summary tables

highlighting District 1 are included in **Figures 2** and **3** below.

11.   **Figure 2** reports the LCVAP for District 1 by plan under the *2007-2011*

ACS and the updated estimates based on the *2008-2012 ACS*. The LCVAP is reported

for both Method 1 and Method 2. (See ¶¶ 4-28 in my April 19, 2013 Supplemental

Declaration for a discussion about the two methods.)

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[4] See Cooper Declaration, February 1, 2013, ¶ 36.

[5] The *2008-2012 ACS* block group special tabulation dataset prepared by the Census Bureau was released on January 28, 2014 and is available for download at: http://www.census.gov/rdo/data/voting_age_population_by_citizenship_and_race_cvap.html.

[6] I have not compiled additional and updated information for *Hypothetical Plans D* and *E* presented in my April 19, 2013 Supplemental Declaration because those two plans were drawn for rhetorical purposes in response to Dr. Peter Morrison's report.

Figure 2 – Percent LCVAP by Plan – 2007-11 ACS and 2008-12 ACS

District	Method 1 2007-11 ACS % Latino CVAP	Method 1 2008-12 ACS % Latino CVAP	Method 1 Change – 2007-11 to 2008-12 ACS	Method 2 2007-11 ACS % Latino CVAP	Method 2 2008-12 ACS % Latino CVAP	Method 2 Change – 2007-11 to 2008-12 ACS
Illustrative 1						
1	50.25%	52.52%	+ 2.27%	48.31%	52.52%	+ 4.21%
Illustrative 2						
1	50.13%	55.13%	+ 5.00%	47.95%	52.67%	+ 4.72%
Hypothetical A						
1	52.17%	55.96%	+ 3.79%	50.18%	53.27%	+ 3.09%
Hypothetical B						
1	56.12%	60.69%	+ 4.57%	53.01%	56.31%	+ 3.30%
Hypothetical C						
1	57.74%	62.42%	+ 4.68%	54.16%	57.48%	+ 3.32%

12.   As shown in **Figure 2**, with the latest 5-year ACS dataset, the LCVAP in

District 1 goes up significantly across all illustrative and hypothetical plans – gaining

2.27 to 5.00 percentage points under Method 1. Method 2 also yields across- the-

board LCVAP increases – gaining 3.09 to 4.72 percentage points compared to the

prior year. As a result, District 1 is now over 50% LCVAP in all five plans under both

Method 1 and Method 2.

13.   **Figure 3** displays Latino registered voters for District 1 by plan,

comparing statistics for January 2013 with March 2014. Based on the surname match

to the March 2014 Yakima County Elections Division data, the Latino registered

voter percentage is no less than 52% and as high as almost 61% for each of the

iterations of District 1 contained in *Illustrative Plans 1* and *2* and *Hypothetical Plans*

A, *B*, and *C*.

Figure 3 – Percent Latino Registered Voters by Plan – Jan. 2013 and Mar. 2014

District	Jan. 2013 %_Latino Registered (of all registered)	Mar. 2014 %_Latino Registered (of all registered)	Jan. 2013 to Mar. 2014 Change
Illustrative 1			
1	51.66%	52.78%	+ 1.12%
Illustrative 2			
1	51.86%	52.76%	+ 0.90%
Hypothetical A			
1	54.56%	55.51%	+ 0.95%
Hypothetical B			
1	58.92%	56.33%	-2.59%
Hypothetical C			
1	59.74%	60.77%	+ 1.03%

III.   Compactness Scores

14.   As I mentioned during my deposition in this case, all of the districts

included in my illustrative and hypothetical plans are reasonably compact and

sufficiently regular in shape to pass muster, and there is no reason to rely upon

quantitative measures of compactness. That said, because the issue of quantitative

compactness scores arose during my deposition, I provide in **Figure 4** the

compactness scores of the districts included in my illustrative and hypothetical

plans, as well as the scores for the *2011 Plan* currently in effect. These compactness

scores are generated by the Reock test.[7]

Figure 4 – Reock Compactness Score Comparison by Plan

District	Illustrative 1	Illustrative 2	Hypothetical A	Hypothetical B	Hypothetical C	2011 Plan
1	0.38	0.42	0.39	0.28	0.23	0.47
2	0.44	0.43	0.37	0.36	0.37	0.44
3	0.33	0.34	0.33	0.35	0.35	0.37
4	0.41	0.39	0.38	0.39	0.39	0.51
5	0.44	0.44	0.44	0.40	0.40	
6	0.40	0.40	0.40	0.53	0.53	
7	0.25	0.25	0.25	0.24	0.24	
Mean	0.38	0.38	0.37	0.36	0.36	0.45

15.   Because the Reock measure is based on an ideal geometric form, there

is no bright-line rule on what constitutes a "passing grade" with respect to this

compactness measure for purposes of evaluating a local election plan. By way of

example, because the City of Yakima is not itself shaped like a circle, no

districting plan can be "perfect" under the Reock measure. In fact, as a single

district, the entire City of Yakima scores .45 under the Reock test.

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[7] "The Reock test is an area-based measure that compares each district to a circle, which is considered to be the most compact shape possible. For each district, the Reock test computes the ratio of the area of the district to the area of the minimum enclosing circle for the district. The measure is always between 0 and 1, with 1 being the most compact. The Reock test computes one number for each district and the minimum, maximum, mean and standard deviation for the plan." (Source: *Maptitude for Redistricting* documentation).

16.   District 1 under *Illustrative Plans 1* and *2* and *Hypothetical Plan A*

exceeds the .37 Reock score for the current *2011 Plan* District 3, which – like

illustrative District 1 – is anchored in east Yakima.

17.   For purposes of comparison, I have produced Reock compactness

scores for a few other statewide and municipal election district plans in

Washington.

18.   Based on my analysis, the Washington State Legislature plan has a

mean Reock score of .42. However, over one-fourth (26.5%) of the legislative

districts score below .37. Seven of the 49 legislative districts score below .30, with

a minimum score of .20. According to the Reock test, the Washington

Congressional plan is slightly less compact, with a mean score of .38. Three of the

10 Congressional districts score below .30.[8]

19.   I also examined compactness scores for three Washington cities with

district-based election plans – Pasco, Spokane, and Tacoma.[9] The mean Reock

score for the 5-district plan in Pasco is .35, with a minimum of .23. The mean

Reock score for the 3-district plan in Spokane is .35, with a minimum of .26. The

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[8] GIS shapefiles for the Washington State Legislature and Congressional plans are available via:
http://www.redistricting.wa.gov/maps.asp.

[9] GIS shapefiles for the election plans in the three cities are available via:
Pasco: http://gis.co.franklin.wa.us/download.asp.
Spokane: http://www.spokanecity.org/services/gis/data/.
Tacoma: http://wspdsmap.ci.tacoma.wa.us/samples/map2.asp?theOption=2.

mean Reock score for the 5-district plan in Tacoma is .51, with a minimum of .40.
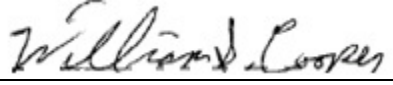
IV.   Incumbents by District Assignments

20.   I understand that the Councilmembers testified about their places of

residence in their depositions, and that there is a new councilmember (Thomas

Dittmar) on the Yakima City Council. The table in **Exhibit B** shows incumbent

assignments by district for the illustrative and hypothetical plans I have submitted in

this matter.

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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 according to the best of my

knowledge, information and belief.

Executed on: April 25, 2014

William Cooper
WILLIAM S. COOPER