



**ACTION ITEM**  
February 15, 2012

**TO:** Board of Directors  
**FROM:** Kevin Hunt, General Manager  
Staff Contact: Lee Jacobi

**SUBJECT:** New Director Division Boundaries

**STAFF RECOMMENDATION**

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Staff recommends the Board of Directors approve the proposed new Director Division boundaries per Alternative 2.

**COMMITTEE RECOMMENDATION**

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The A&F Committee requested Staff to develop an Alternative 3B.

**SUMMARY**

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The relative populations in the existing MWDOC Director Divisions currently appear to be out of balance based on 2010 Census population data. In an effort to achieve balance consistent with statutory requirements, Staff and our consultant CDR analyzed population statistics and four re-districting alternatives:

- Alt. 1 "East Orange"
- Alt. 2 "City Portion of Tustin Water"
- Alt. 3A (prev. designated Alt. 3) "All of Tustin Water / Lake Forest"
- Alt. 3B "All of Tustin Water / Lake Forest 241"

The Executive Committee at its 1/19/2012 meeting favored Alt. 2. The A&F Committee at its 2/08/2012 directed staff to create an Alt. 3B using the 241 Tollway as the Division 5 & 6 boundary in Lake Forest.

**DETAILED REPORT**

Budgeted (Y/N): <b>Y</b>	Budgeted amount: <b>\$20,000</b> 99999.91588\7245482.1	Core <input checked="" type="checkbox"/>	Choice <input type="checkbox"/>
Action item amount: <b>\$19,211</b>		Line item: <b>21-7010</b>	
Fiscal Impact (explain if unbudgeted):			

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MWDOC's seven Directors each represent Divisions that are supposed to be nearly equal in population under Section 22000 of the California Elections Code. But, population is not static; some areas have grown faster than others. Divisions that were in balance when their boundary lines were last drawn in 2006 may not be in balance now. When the 2010 Census data became available in 2011, Section 22000 required MWDOC to review its Division boundaries, using the census data as a basis, and adjust the boundaries so that the Divisions are as equal in population as practicable. Staff reviewed the existing Division boundaries accordingly to determine if they are still in balance in light of the 2010 Census data, and based on this review Staff has worked with an outside consultant to prepare several alternatives for adjusting Division boundaries to achieve greater balance. New boundaries need to be approved by the Board in Spring 2012 for the next Director elections in November 2012.

The MWDOC service area includes about 2.2 million people, based on 2010 Census data. Each Division should encompass about  $1/7^{\text{th}}$  of that, or roughly 316,000 people. Whichever way the Division lines are drawn, the Divisions will not be perfectly equal in population. There will be some variation from the mean size (exactly  $1/7^{\text{th}}$  of the total MWDOC population). Some Divisions' size will be above the mean and some will be below the mean. The spread, or variance, for MWDOC is the measure of the difference in population between the most populous Division and the least populous Division. For example, if the smallest Division size is 4% below the mean and the largest is 5% above the mean, that is a 9% spread, and is acceptable. In addition to equality of size, Division boundaries, and adjustments to boundaries, must conform to the federal Voting Rights Act, which prohibits racial discrimination in redistricting.

MWDOC hired the Center for Demographic Research at CSU Fullerton (CDR) to analyze the existing MWDOC Directors Divisions' size and also conformance to the Elections Code and the Voting Rights Act. CDR is the most knowledgeable entity on Orange County demographics, and has performed similar analyses for other governmental bodies, such as its recent re-districting study of the County of Orange Board of Supervisors' districts.

CDR found that currently the smallest Division is Div. 6 at 7.5% below the mean, and the largest is Div. 3 at 5.4% above mean. The "spread" from smallest to largest is thus 12.9%.

Although there is no mathematical "safe harbor" for the spread between divisions of a local agency, California state courts generally have deferred to local agencies on the issue of whether they have achieved the lowest spread "practicable" if the spread is less than 10 percent. For MWDOC, the current spread of 12.9% is outside this range. Staff proposes, with the concurrence of the Executive Committee, that the MWDOC Division boundaries be changed, to achieve less than 10% "spread." One way to accomplish this, as shown below, is to increase Div. 6 and decrease Divs. 2 and 3.

Staff and CDR analyzed four alternatives for re-districting:

Alt. 1. "East Orange" : Residents of the EOCWD Retail Zone and the GSWC East Orange service area residents would be in Div. 6. Some more Garden Grove residents would be in Div. 2. "Spread" = 8.6%.

Alt. 2. "City Portion of Tustin Water" : Residents of the incorporated City of Tustin would all be in Div. 6, while residents of the unincorporated area north of the city served by the Tustin Water Department ("Tustin Water") would remain in Div. 2. All residents of the City of Orange would be in Div. 2. Some more residents of Irvine would be in Div. 5. More Garden Grove residents would be in Div. 2. "Spread" = 7.3%.

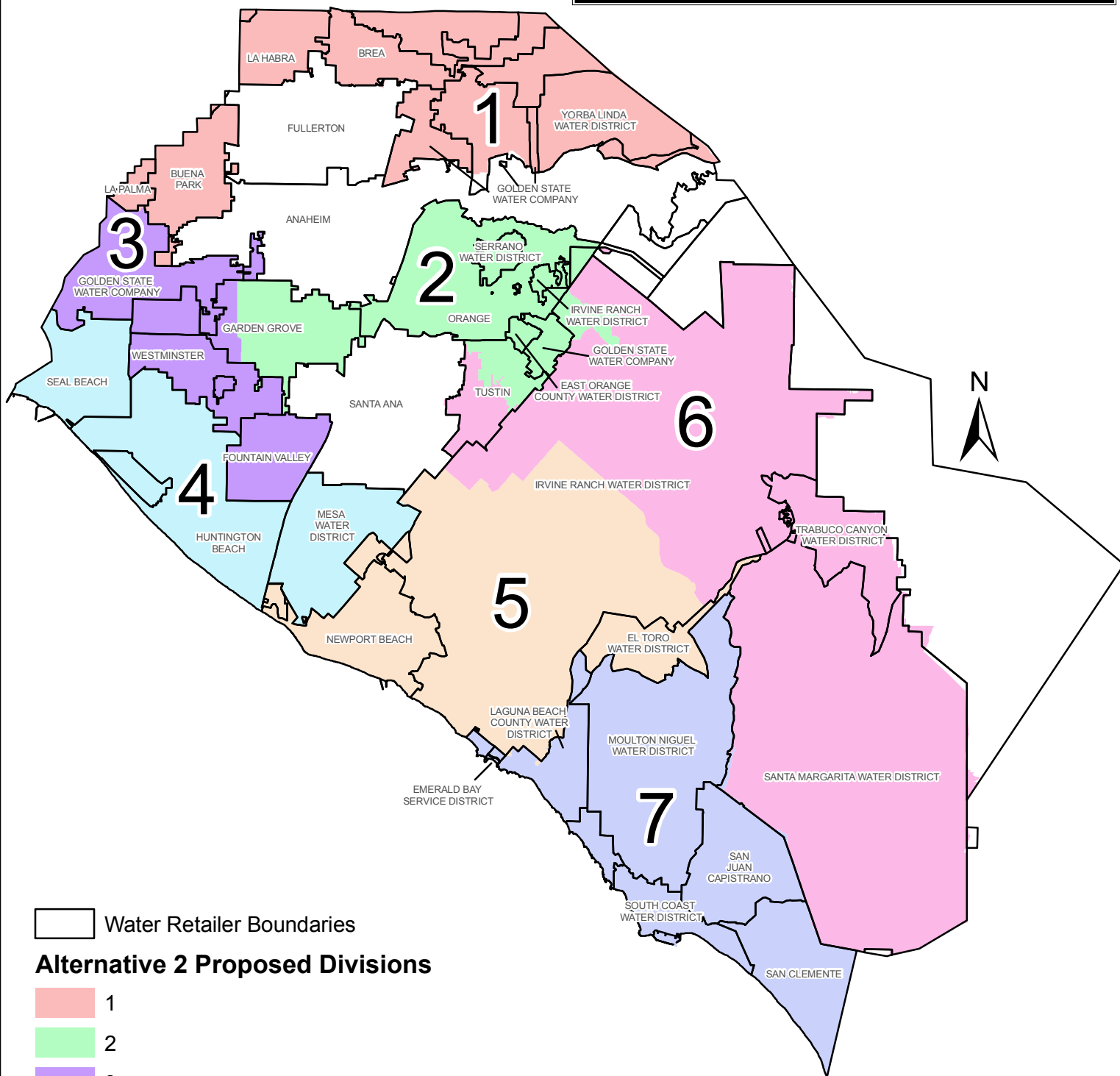
Alt. 3A. (prev. designated Alt 3) "All of Tustin Water / Lake Forest" : All residents served by Tustin Water would be in Div. 6. All residents of the City of Orange would be in Div. 2. Most of the City of Lake Forest would be in Div. 5. More Garden Grove residents would be in Div. 2. "Spread" = 10.4%.

Alt. 3B. "All of Tustin Water / Lake Forest 241" : All residents served by Tustin Water would be in Div. 6. All residents of the City of Orange would be in Div. 2. Most of the City of Lake Forest up to the 241 Tollway would be in Div. 5. Some residents of Irvine would switch between Divs. 5 and 6. More Garden Grove residents would be in Div. 2. "Spread" = 9.98%.

At its meeting on January 19, 2012, the Executive Committee endorsed Alt. 2, as recommended by Staff, and directed Staff to prepare detailed maps to illustrate the proposed adjustment. At its meeting on February 8, 2012, the A&F Committee requested that a variant of Alt. 3 be made with the 241 Tollway as the Divs. 5 & 6 boundary in Lake Forest, and the Divs. 5 & 6 boundary in Irvine set such that "spread" was under 10%. Working with CDR, Staff was able to formulate Divs. 2 & 3 and 5 & 6 boundaries to just meet the 10% criterion.

Directors have indicated in the Committee meetings that Alt. 1 is not preferred, and Alt 3 would be not be selected unless its "spread" could be brought below 10%. Therefore, at this time the choice is apparently between Alt. 2 and Alt. 3B. Maps and populations sheets for these Alternatives are attached.

# Alternative 2 Proposed 2012 Director Divisions Municipal Water District of Orange County



Water Retailer Boundaries

### Alternative 2 Proposed Divisions

- 1
- 2
- 3
- 4
- 5
- 6
- 7

Alternative 2: "City Portion of Tustin Water"

**Table 1: Proposed 2012 MWDOC Director Divisions Population and Percentage Difference from Mean**

Difference from Mean:				Percentage Spread (Largest - Smallest)
Division	Population	Number	Percentage	
1	314,583	-1,728	-0.55%	7.27%
2	305,370	-10,941	-3.46%	
3	315,979	-332	-0.10%	
4	323,164	6,853	2.17%	
5	328,350	12,039	3.81%	
6	321,210	4,899	1.55%	
7	305,518	-10,793	-3.41%	
<b>Total</b>	<b>2,214,174</b>			

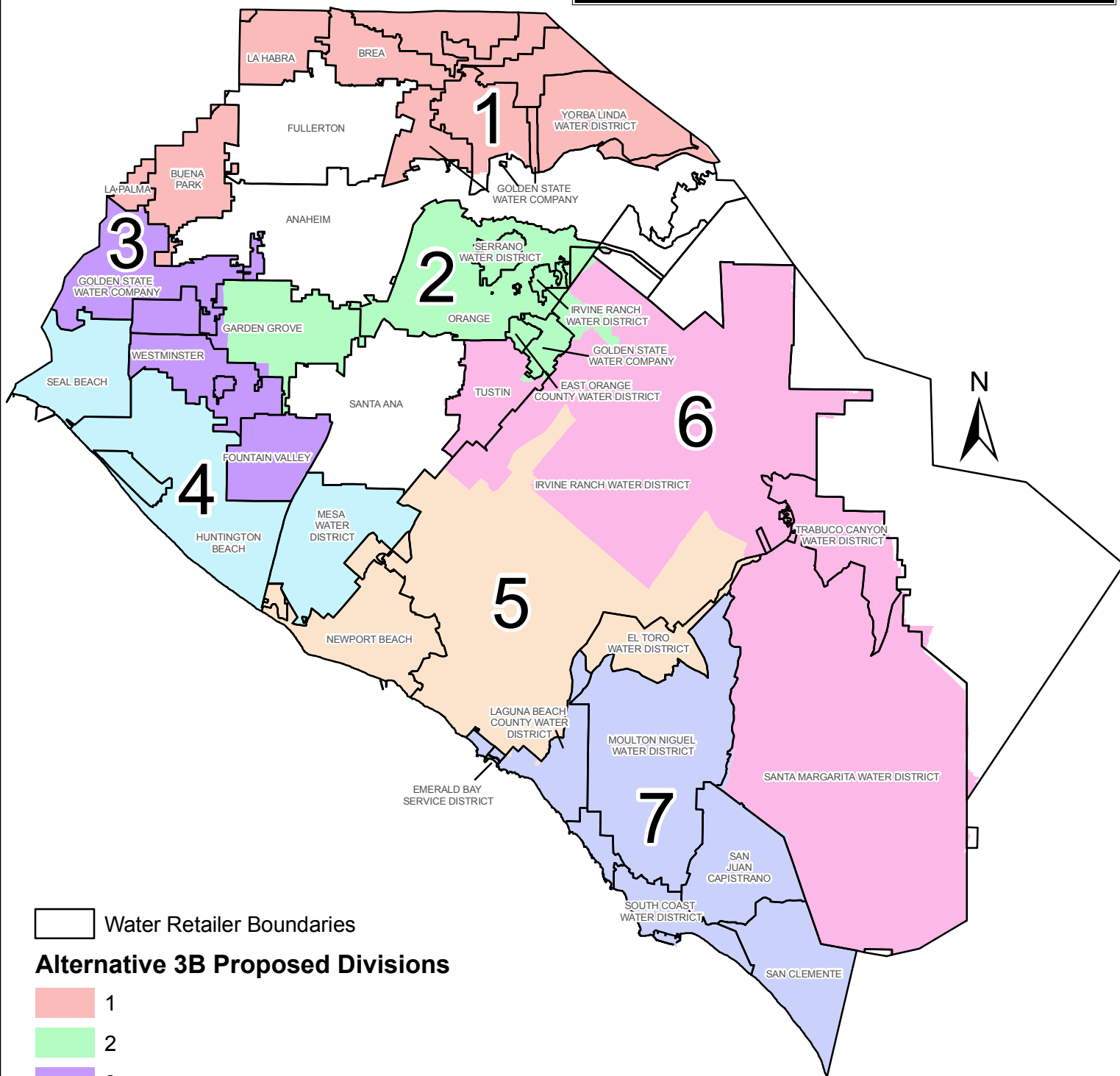
Target Population per Division (Mean): **316,311**

Alternative 2: "City Portion of Tustin Water"

**Table 2: 2010 Census Total Population by Race/Ethnicity of Proposed 2012 MWDOC Director Divisions**








Director Division	Total Population	Non-Hispanic White	Hispanic or Latino of Any Race	Non-Hispanic Asian	Non-Hispanic Black or African-American	All Other Non-Hispanic Races/Ethnicities
1	314,583	133,408	6,518	58,545	107,107	9,005
	100.0%	42.4%	2.1%	18.6%	34.0%	2.9%
2	305,370	113,397	3,437	68,203	112,481	7,852
	100.0%	37.1%	1.1%	22.3%	36.8%	2.6%
3	315,979	113,921	4,399	107,032	80,438	10,189
	100.0%	36.1%	1.4%	33.9%	25.5%	3.2%
4	323,164	202,362	3,248	31,550	74,085	11,919
	100.0%	62.6%	1.0%	9.8%	22.9%	3.7%
5	328,350	194,992	4,259	76,748	39,168	13,183
	100.0%	59.4%	1.3%	23.4%	11.9%	4.0%
6	321,210	182,470	4,902	55,729	65,255	12,854
	100.0%	56.8%	1.5%	17.3%	20.3%	4.0%
7	305,518	213,892	3,059	21,355	56,532	10,680
	100.0%	70.0%	1.0%	7.0%	18.5%	3.5%
<b>TOTAL</b>	2,214,174	1,154,442	29,822	419,162	535,066	75,682
	100.0%	52.1%	1.3%	18.9%	24.2%	3.4%

# Alternative 3B Proposed 2012 Director Divisions Municipal Water District of Orange County



 Water Retailer Boundaries

### Alternative 3B Proposed Divisions

-  1
-  2
-  3
-  4
-  5
-  6
-  7

Alternative 3B: "Lake Forest 241"

**Table 1: Proposed 2012 MWDOC Director Divisions Population and Percentage Difference from Mean**

Difference from Mean:				Percentage Spread (Largest - Smallest)
Division	Population	Number	Percentage	
1	314,583	-1,728	-0.55%	9.98%
2	301,975	-14,336	-4.53%	
3	301,989	-14,322	-4.53%	
4	323,164	6,853	2.17%	
5	333,555	17,244	5.45%	
6	333,390	17,079	5.40%	
7	305,518	-10,793	-3.41%	
<b>Total</b>	<b>2,214,174</b>			

Target Population per Division (Mean): **316,311**

Alternative 3B: "Lake Forest 241"

**Table 2: 2010 Census Total Population by Race/Ethnicity of Proposed 2012 MWDOC Director Divisions**

Director Division	Total Population	Non-Hispanic White	Hispanic or Latino of Any Race	Non-Hispanic Asian	Non-Hispanic Black or African-American	All Other Non-Hispanic Races/Ethnicities
1	314,583	133,408	107,107	58,545	6,518	9,005
	100.0%	42.4%	34.0%	18.6%	2.1%	2.9%
2	301,975	103,253	114,370	73,209	3,511	7,632
	100.0%	34.2%	37.9%	24.2%	1.2%	2.5%
3	301,989	111,297	75,755	100,820	4,232	9,885
	100.0%	36.9%	25.1%	33.4%	1.4%	3.3%
4	323,164	202,362	74,085	31,550	3,248	11,919
	100.0%	62.6%	22.9%	9.8%	1.0%	3.7%
5	333,555	199,469	41,893	74,551	4,378	13,264
	100.0%	59.8%	12.6%	22.4%	1.3%	4.0%
6	333,390	190,761	65,324	59,132	4,876	13,297
	100.0%	57.2%	19.6%	17.7%	1.5%	4.0%
7	305,518	213,892	56,532	21,355	3,059	10,680
	100.0%	70.0%	18.5%	7.0%	1.0%	3.5%
<b>TOTAL</b>	2,214,174	1,154,442	535,066	419,162	29,822	75,682
	100.0%	52.1%	24.2%	18.9%	1.3%	3.4%