



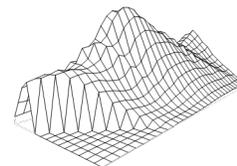
# Transition to Zone-Based Elections of Directors

## Public Hearing #2

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**ALAMEDA COUNTY WATER DISTRICT**

**OCTOBER 28, 2021**



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[www.demographers.com](http://www.demographers.com)

Oakland and Saratoga, California

# Agenda

- 1. Background**
- 2. Legal requirements (as demographers understand them)**
- 3. Identifying communities of interest**
- 4. For more information see ACWD website**

# Background

**The California Voting Rights Act (CVRA) has encouraged many jurisdictions to move from at-large to by-district (zone) elections.**

**ACWD received a CVRA letter – potential legal challenge**

**On August 12, ACWD Board passed a resolution to transition to by-district elections**

**Tonight's Hearing – second of two initial hearings (first hearing was October 14)**

- **Take input from public on factors to consider when drawing draft maps**

**Draft maps will be presented at subsequent public hearings**

# Summary of Public Comments Received at First Public Hearing

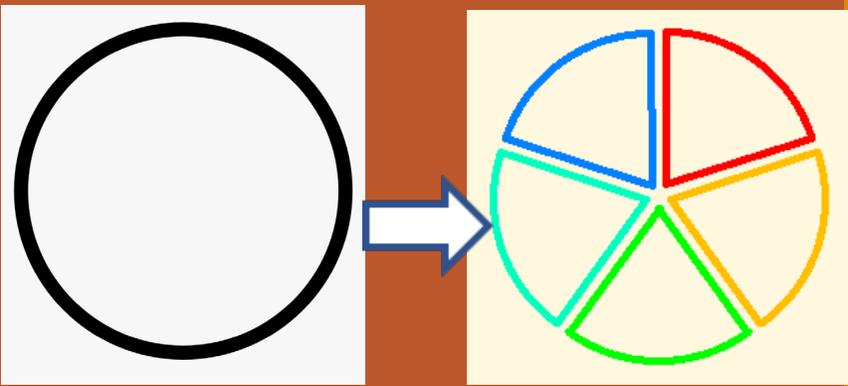
## Public Testimony on Communities of Interest (COI)

- Because of potential rate increases, households with lower incomes may be a COI\*
- Areas receiving water from different sources may be a COI
- Areas in different seismic settings may be a COI

## Directors' discussion and/or questions

- Distribution of Asian subgroups\*
- School district boundaries within ACWD\*
- Voter eligibility\*
- Union Sanitary District election district boundaries

*\*Additional information presented at this second public hearing*



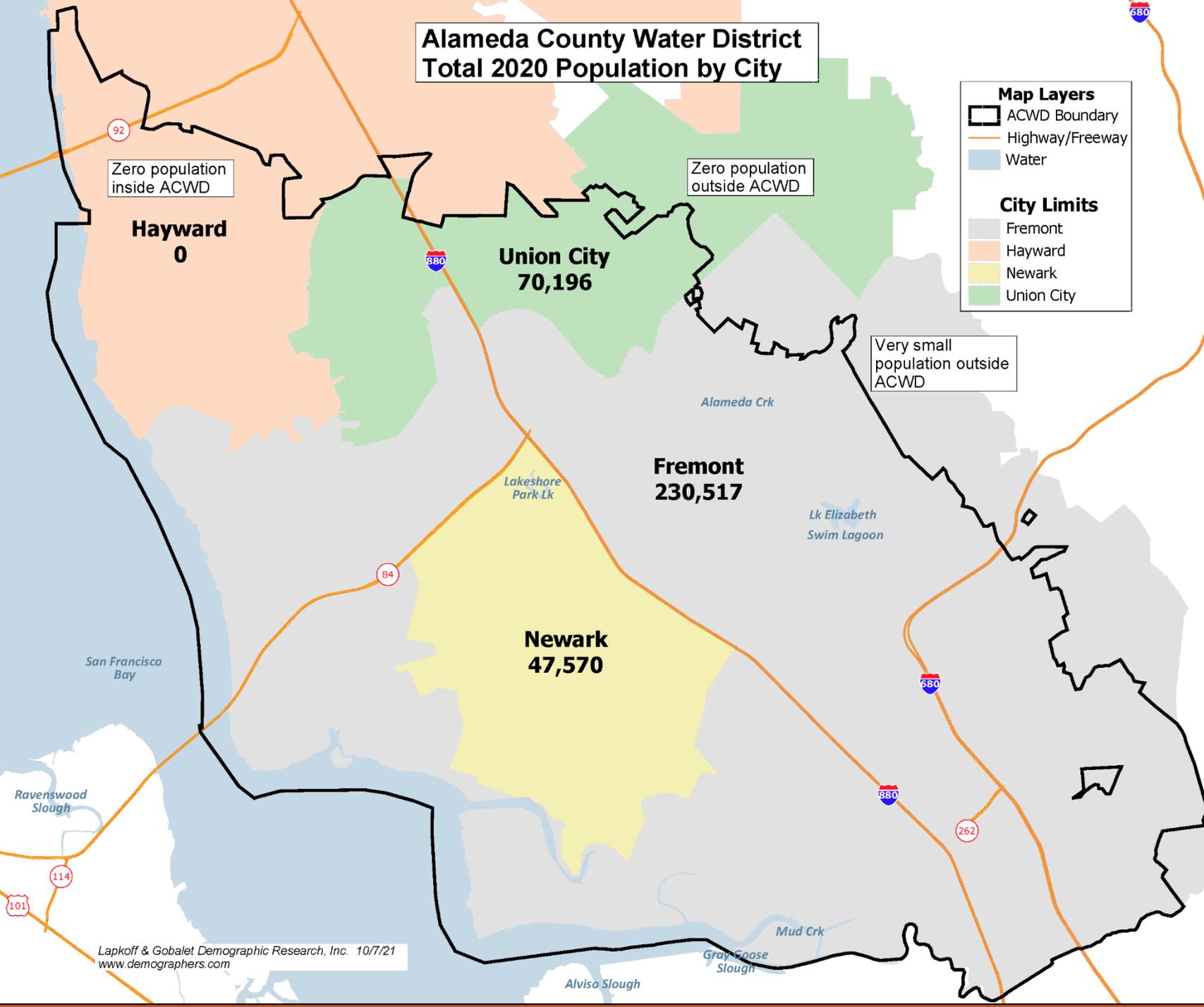
## Changing from at-large to by- district election of Directors

**All ACWD voters currently elect *all* Board members (*at-large*).**

**In *by-district* elections, a Director is elected by voters living in the election District or Zone. Directors must live in the district they represent.**

- **When demographers draft districting plans, federal and state laws apply (described later).**
- **Current Directors complete their terms of office even if they do not live in the new Zone they would represent.**
- **The newly-created Zones will be used until after the 2030 Census, when ACWD will need to redistrict if populations change has been uneven (no longer equal).**

# Alameda County Water District Total 2020 Population by City



# ACWD boundary with 2020 city populations

# Portions of cities inside the District

Note: The customers served by ACWD in Hayward are business/commercial addresses; none are residential addresses.

# ACWD Demographics from 2020 Census\* and Registrar of Voters

\* Counts are from California's official redistricting data: the Statewide Database adjusted Census counts to reflect previous home addresses for prison inmates.

<b>Total Population</b>	<b>348,283</b>
<b>18+ Population</b>	<b>271,123</b>
<b>Citizens of Voting Age (CVAP)</b>	<b>221,684</b>
<b>Registered Voters</b>	<b>182,400</b>
<b>Actual Voters</b>	<b>147,730</b>

# ACWD Demographics from 2020 Census\* and Registrar of Voters

\* Counts are from California's official redistricting data: the Statewide Database adjusted Census counts to reflect previous home addresses for prison inmates.

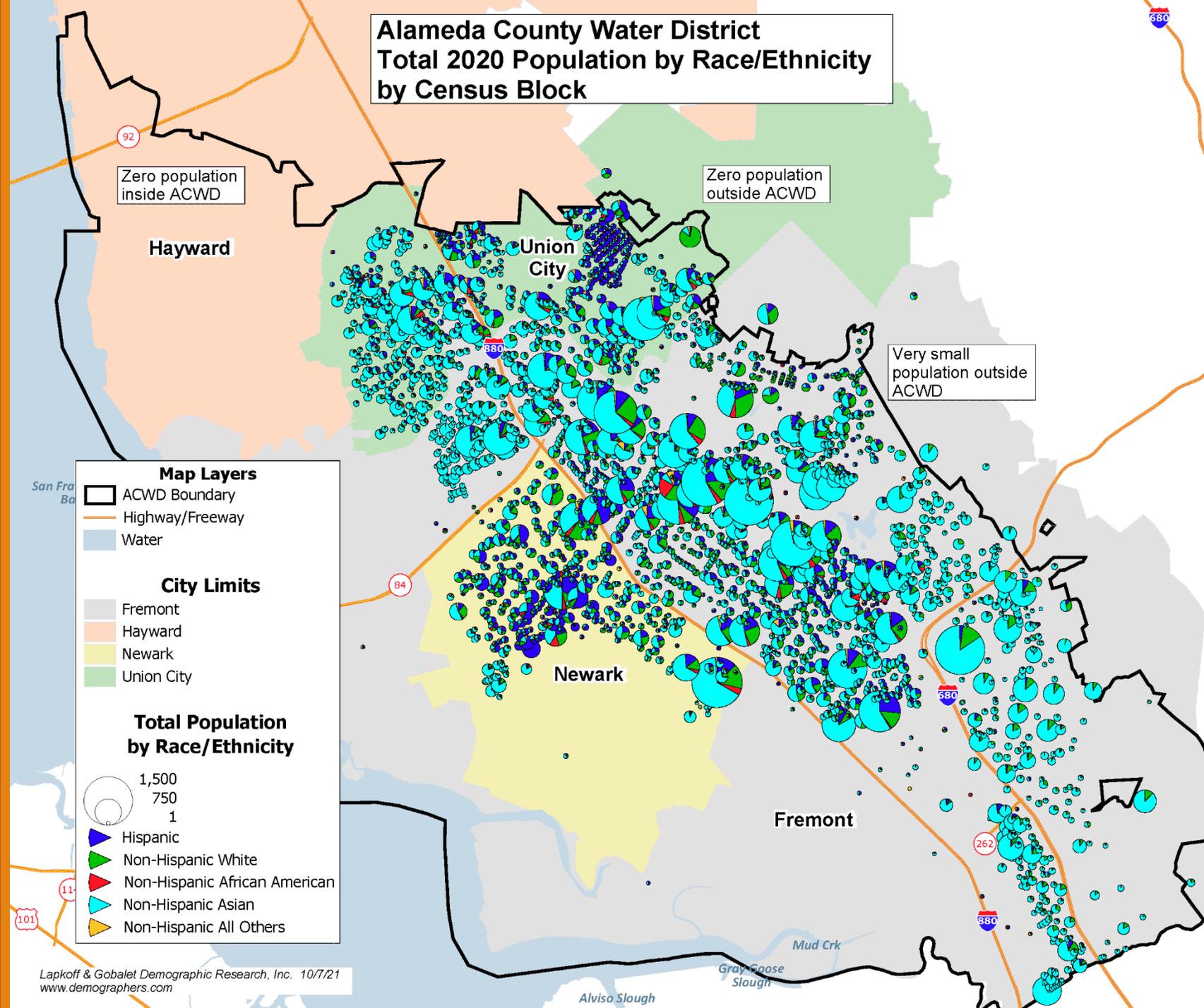
## ACWD District Summary Statistics

	Total Population		18+ Population		Citizens of Voting Age (CVAP)	
Asian	213,614	61%	162,969	60%	105,721	48%
Latino/Hispanic	58,533	17%	43,331	16%	36,668	17%
White	54,783	16%	48,411	18%	57,432	26%
Black	10,565	3%	8,437	3%	10,287	5%
Other	10,788	3%	7,975	3%	11,576	5%
<b>Total</b>	<b>348,283</b>	<b>100%</b>	<b>271,123</b>	<b>100%</b>	<b>221,684</b>	<b>100%</b>

	Registered Voters		Actual Voters	
Asian Surname	66,021	36%	54,066	37%
Spanish Surname	31,307	17%	24,648	17%
All Others	85,072	47%	69,016	47%
<b>Total</b>	<b>182,400</b>	<b>100%</b>	<b>147,730</b>	<b>100%</b>

# ACWD Demographics from 2020 Census\*

\* Pies are based on California's official redistricting data: the Statewide Database adjusted Census counts to reflect previous home addresses for prison inmates.



# ACWD Demographics from 2020 Census\*

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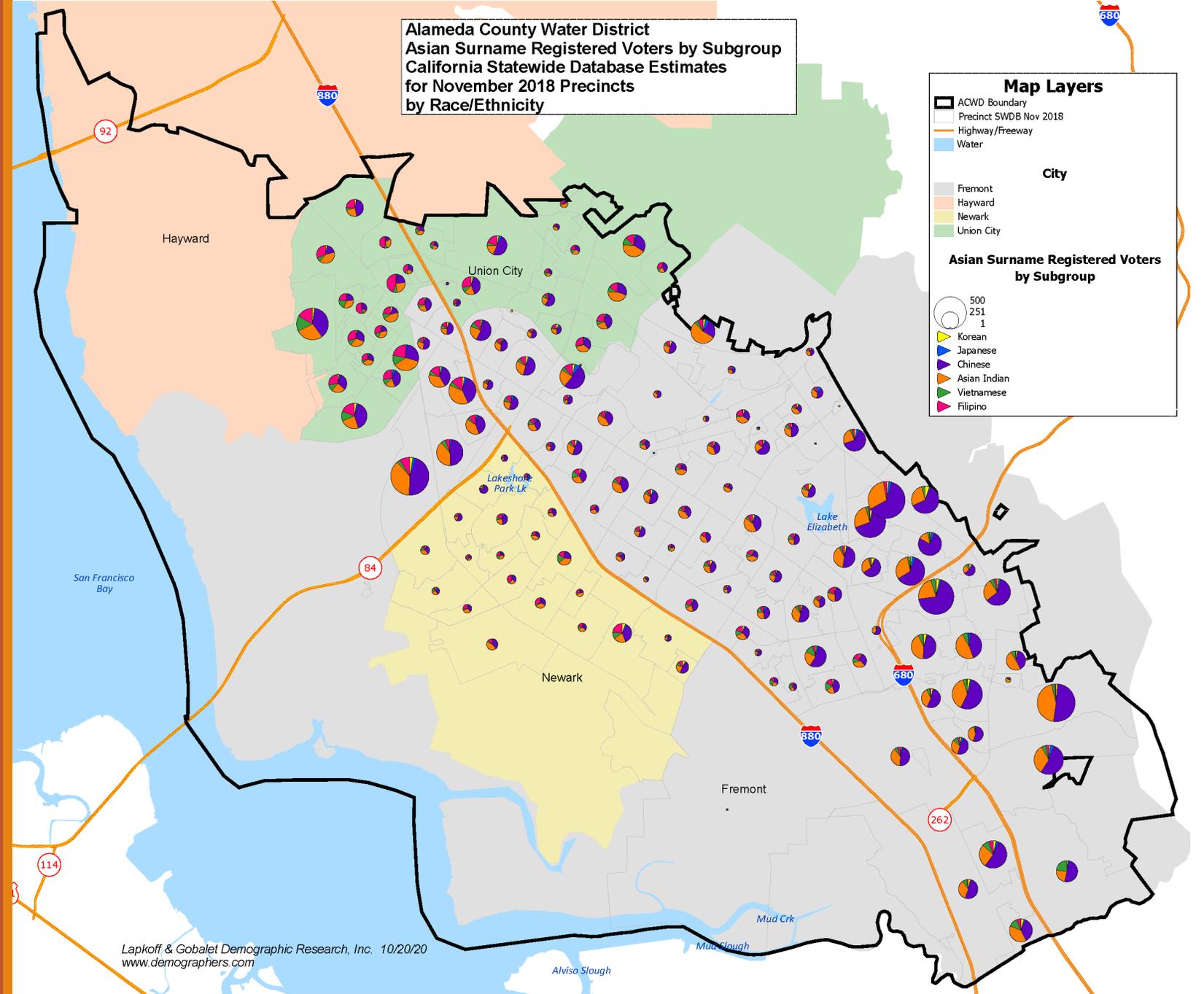
## Asian Subgroups in ACWD

	<u>Registered Voters</u>		<u>Actual Voters</u>	
Chinese	27,603	42%	22,543	42%
Indian	20,489	31%	17,166	32%
Filipino	8,372	13%	6,708	12%
Vietnamese	5,868	9%	4,657	9%
Korean	2,353	4%	1,789	3%
Japanese	1,336	2%	1,203	2%
Total	66,021	100%	54,066	100%

Data based on voting records and surname analysis

# ACWD Demographics based on Voting Data\*

\* Pies are based on voter data, in which voters' last names are used to assign race/ethnicity



# Legal guidelines that demographers follow:

- ✓ **Federal law:**
  - Population equality
  - Voting Rights Act
  - No racial gerrymandering
- ✓ **State Elections Code**



# Demonstration of the Population Equality Requirement

*Courts have allowed some deviation from exact population equality for jurisdictions like ACWD: the spread between the most- and least-populous election districts should not exceed 10% of the “ideal district population” which is 1/5 of ACWD’s total population.*

## Population Balance

**ACWD Total Population      348,283**

**Number of Zones                      5**

**Each Zone’s ideal  
population                              69,657**

**10% Deviation                        6,966**

***Difference between most- and least populous Zone  
cannot be more than 6,966 persons***

# Federal Voting Rights Act

## **Section 2 of the Federal Voting Rights Act:**

**Single-member election districts should be drawn so that members of protected groups have the ability to elect representatives of their choice if:**

- **The protected group is sufficiently large & geographically compact to form a majority in a single-member district**
- **The protected group is politically cohesive**

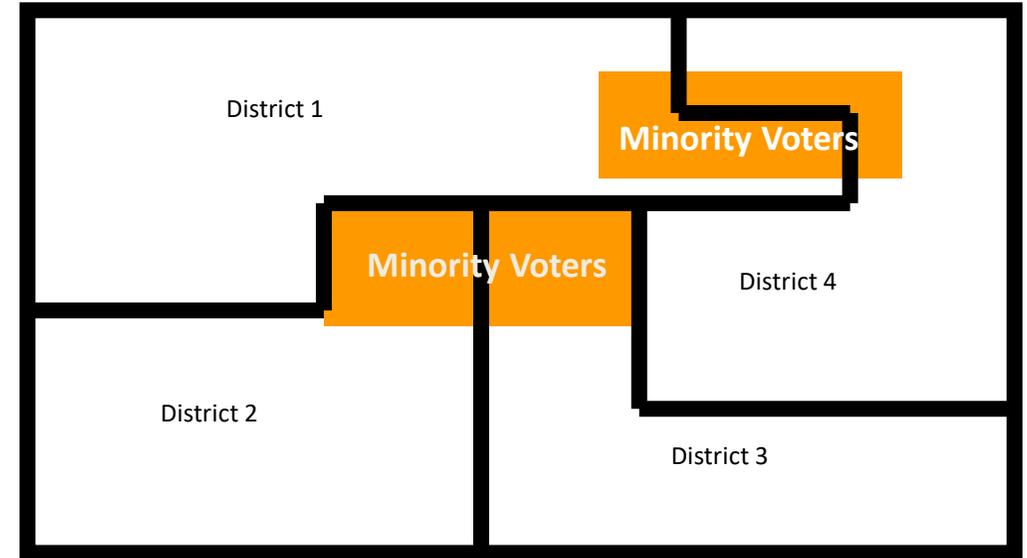
# The Federal Voting Rights ACT

No “Cracking” or “Packing”  
orange blocks show split  
minority communities

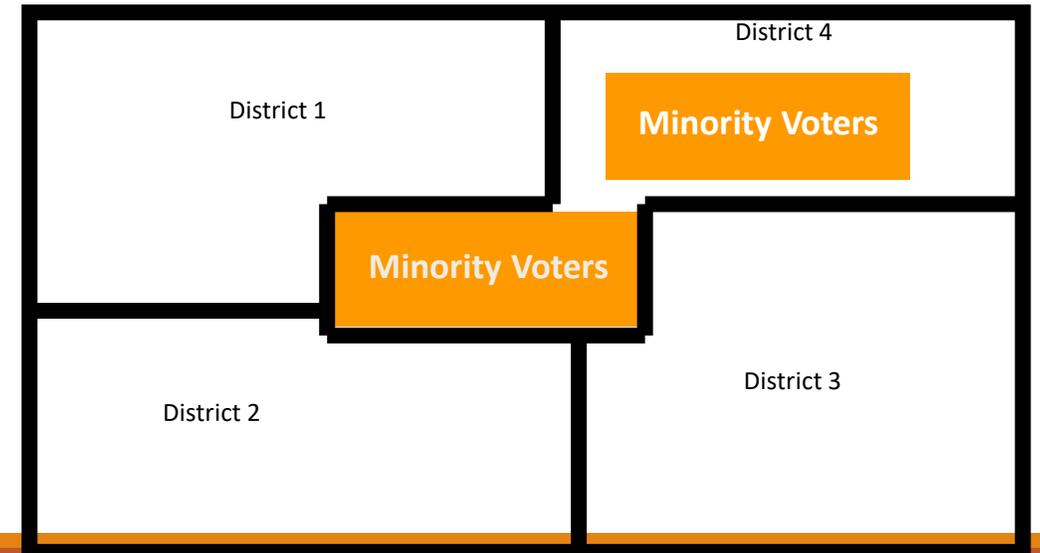
“‘Packing’ refers to the practice of filling a district with a supermajority of a given group or political party. ‘Cracking’ involves the splitting of a group or party among several districts to deny that group or party a majority in any of those districts.”

-*Vieth v. Jubelirer*,  
541 U.S. 267, 286 n.7 (2004)

## Cracking



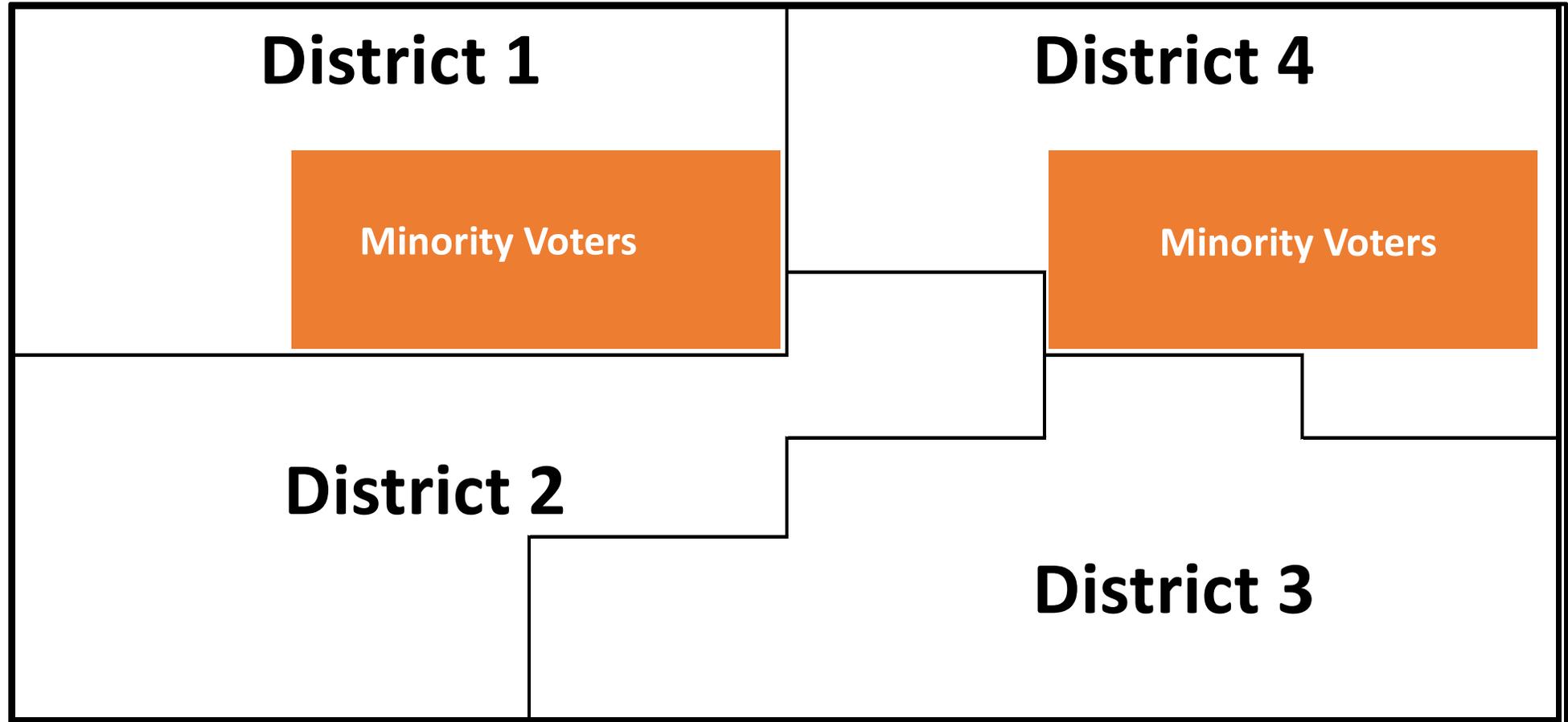
## Packing



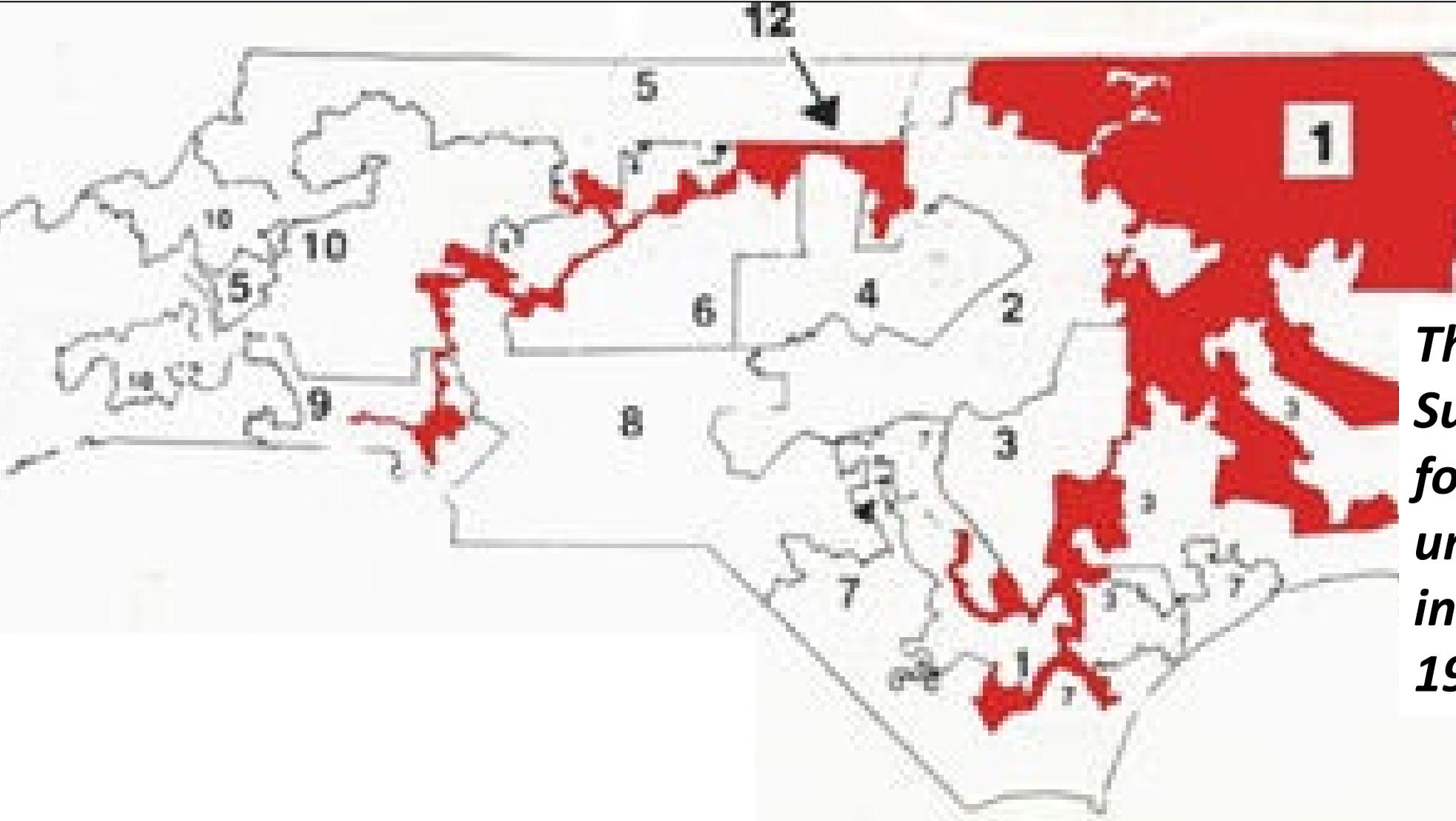
## Best Practice:

Each orange block representing minority voters is intact and in a separate election district.

# The Federal Voting Rights Act



# Racial Gerrymandering is not Permitted: North Carolina's proposed Congressional Districts after Census 1990



*The U.S. Supreme Court found District 12 unconstitutional in Shaw v. Reno, 1993*

# California Elections Code

**“...give consideration to the following factors:**

**(1) Topography**

**(2) Geography**

**(3) Cohesiveness, contiguity, integrity, and compactness of territory**

**(4) Communities of interests**

# Communities of Interest (COIs)

**COIs are contiguous areas in which people share social and economic interests and should be in a single election district, because their Community of Interest may be affected by the Policies of ACWD Board of Directors.**



## Questions we ask residents:

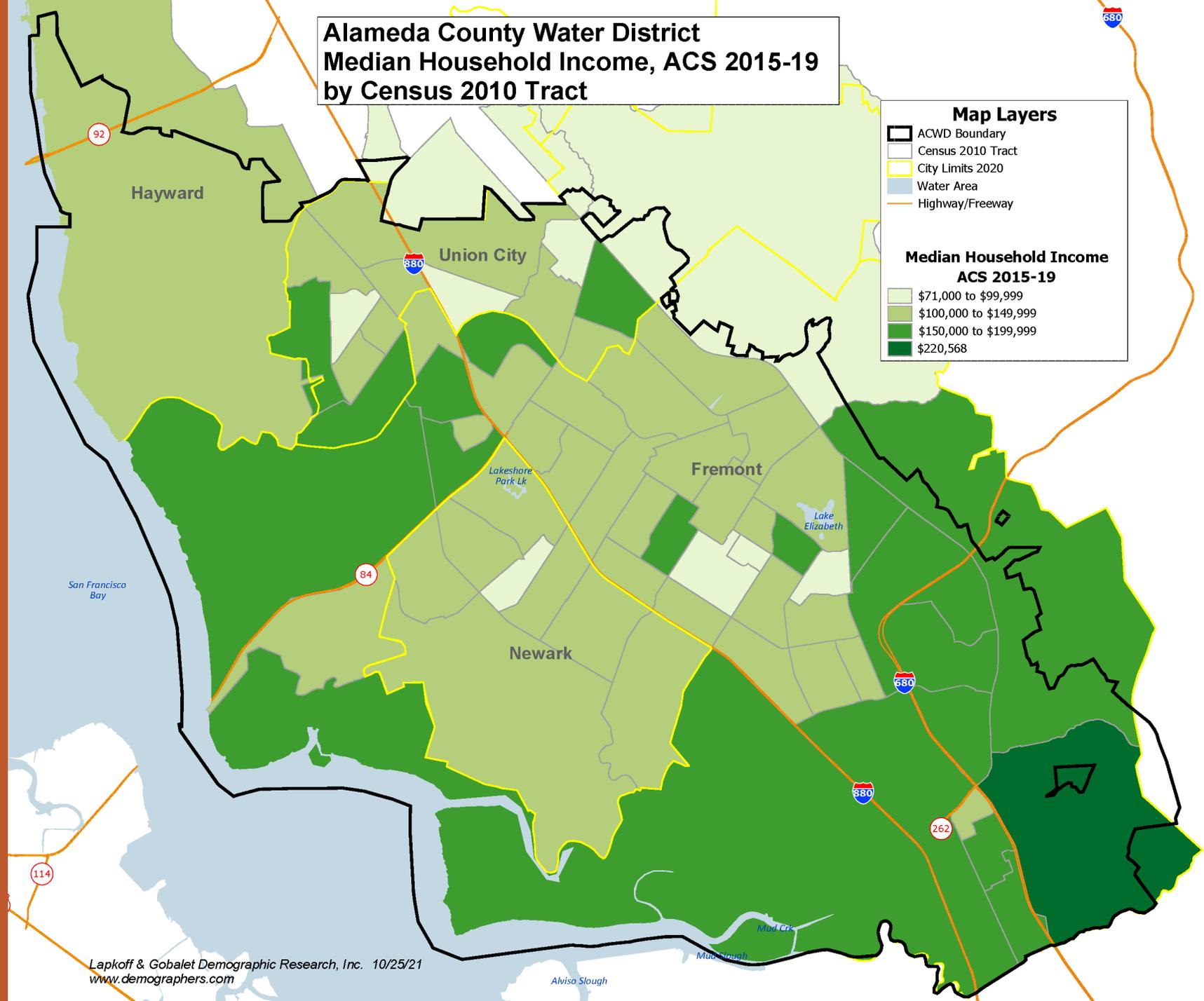
**1<sup>st</sup> Question:** What is your Community of Interest?

**2<sup>nd</sup> Question:** Do members of your Community of Interest want to be united in one election district, or to be divided and have a voice in elections of multiple representatives?

# Communities of Interest (COIs) - Examples

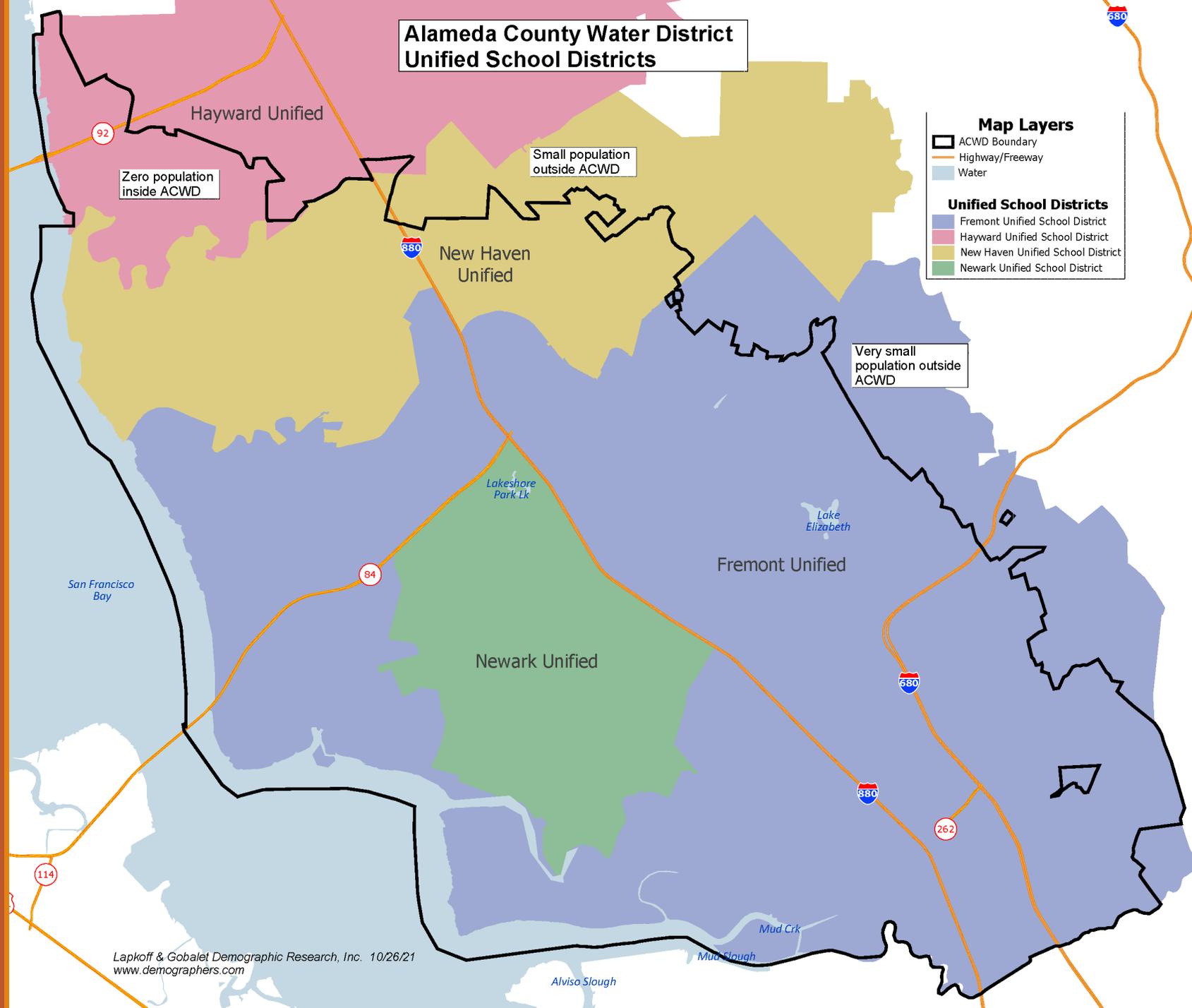
- ❑ **Recognized neighborhoods**
- ❑ **Cities and unincorporated communities**
- ❑ **Areas with similar demographic characteristics**
- ❑ **Areas with similar issues**
- ❑ **School attendance areas**

*Areas with lower household income may be considered a Community of Interest*



*School districts are another possible community of interest. Note that the districts are closely aligned to city boundaries.*

*Ohlone College is in the process of moving from two at-large districts to by-district election of trustees*



# **We must comply with the laws, and there are tradeoffs:**



**Criteria for drawing districts can rarely be optimized simultaneously.**

**When we compare districting scenarios, we recognize tradeoffs.**

# For More Information

**SEE ACWD WEBSITE FOR MORE INFORMATION:**

**[HTTPS://WWW.ACWD.ORG/756/ZONE-BASED-ELECTION-SYSTEM](https://www.acwd.org/756/zone-based-election-system)**

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**TO SUBMIT QUESTIONS & COMMENTS:**

**JENNIFER.SOLITO@ACWD.COM**

# Alameda County Water District

## Financial Workshop

### Presenters

Jonathan Wunderlich, Director of Finance  
Sydney Oam, Financial Analysis Supervisor

# Workshop Overview

## Presentation Purpose

Receive Board feedback and direction regarding fixed/variable revenue recovery and application of a 3% rate increase

# Workshop Overview

## Presentation Agenda

- Recap guidance provided at the August and September workshops
- Review data and policy considerations related to fixed/variable revenue recovery
- Next Steps

# Alameda County Water District

## Review Prior Workshops

# Review of August Workshop

At the August 26 workshop, the Board provided the following direction for this rates process:

- Maintain a uniform rate structure
- Reinstate water shortage emergency stage rates
- Adopt an updated cost-of-service study
- Implement 3% annual rate increases for the next two years consistent with the adopted budget, inclusive of the following financial plan adjustments:
  - Update for actual FY 2020/21 results
  - Update billed demand projections based on currently observed conservation
  - Update water purchase costs based on expected availability from the District's various sources of supply

# Review of September Workshop

At the September 23 workshop, the Board requested that today's topic return for evaluation. The Board also provided the following direction for this rates process:

- To maintain maximum flexibility to work directly with our customers, reinstate established District-managed collections processes once State arrearages funding is received
- Continue to bill the service charge as part of the regular, bimonthly water bill
- Utilize a per unit of water stage rate and add two scenarios based on potential State mandates or other conservation needs of 15% or 25%
- Add estimated funding for PFAS treatment to the financial plan

The Board also requested to reevaluate use of third-party collections for unpaid final bills – will be presented at a future meeting

# Alameda County Water District

## Fixed/Variable Revenue Recovery

# Rate-Setting Policy Objectives

- Common Policy Objectives
  - This was reviewed by the Board previously at the July 26, 2018 Financial Workshop

Conservation	Funding Mechanism	Affordability / Customer Control	Equity and Allocation Methodologies	Administration
<ul style="list-style-type: none"> <li>• Reducing total annual demand</li> <li>• Reducing water waste</li> <li>• Reducing peak demand</li> <li>• Reducing outdoor water usage</li> </ul>	<ul style="list-style-type: none"> <li>• Enhancing revenue stability</li> <li>• Ensuring financial sufficiency</li> <li>• Providing funding mechanisms for alternative water supply, conservation program</li> </ul>	<ul style="list-style-type: none"> <li>• Minimizing customer impacts</li> <li>• Maintaining low average customer bills</li> <li>• Crafting rates that provide affordable water for essential uses</li> </ul>	<ul style="list-style-type: none"> <li>• Allocating water supply equitably</li> <li>• Providing a drought management tool</li> <li>• Allocating capital costs equitably</li> <li>• Complying with government regulations and guidelines</li> </ul>	<ul style="list-style-type: none"> <li>• Allowing cost effective administration</li> <li>• Allowing easy implementation</li> <li>• Enhancing customer understanding</li> </ul>

From *Water and Wastewater Finance and Pricing: The Changing Landscape, 4th Edition*

# Board Ranked Policy Objectives

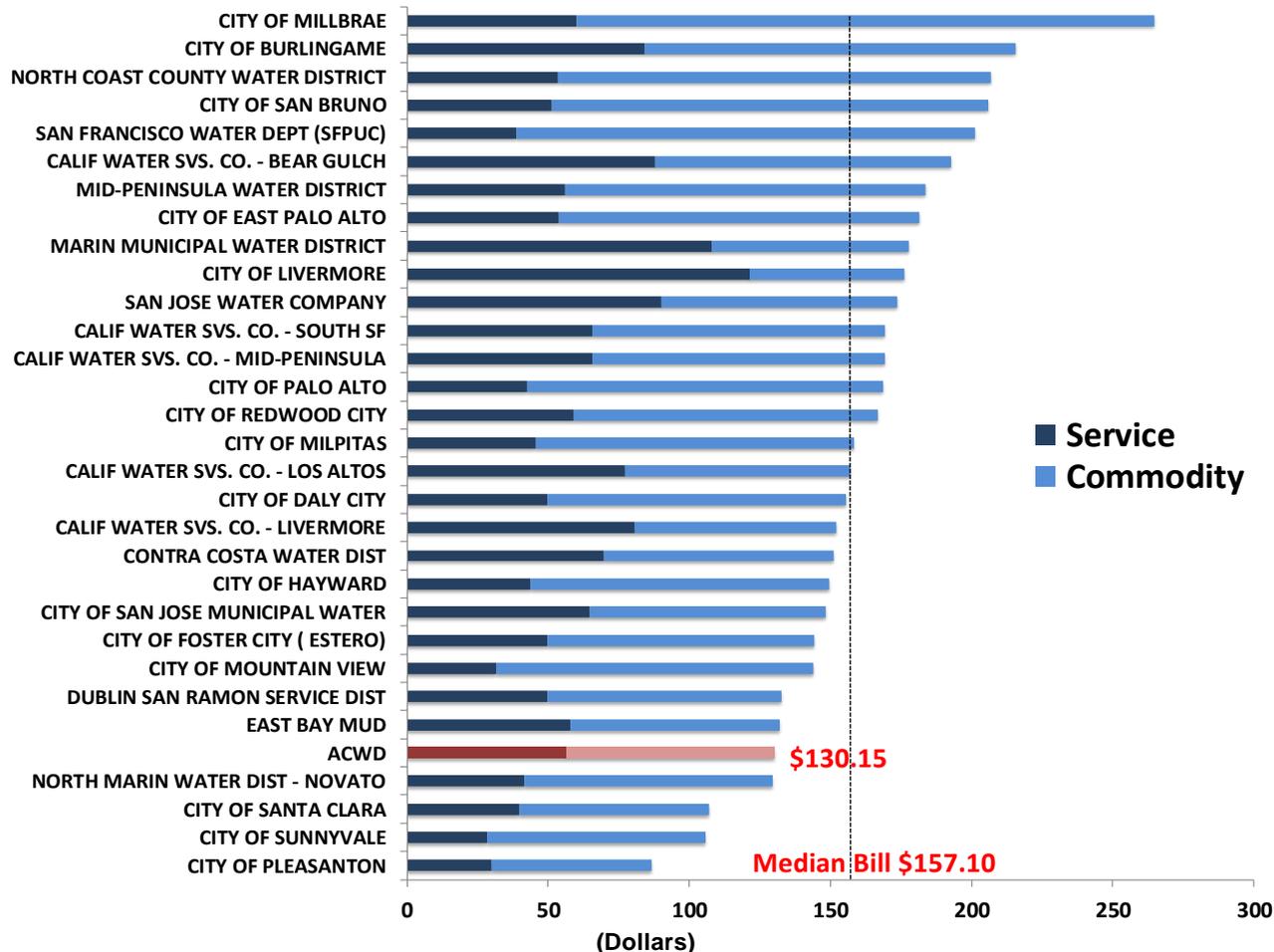
- What are our policy objectives?
  - Rate-setting policy objectives as reviewed by the Board previously at the July 26, 2018 Financial Workshop
  - This was the Board’s prior input and direction to staff
  - How does this relate to how the District might approach applying a revenue increase this time

Policy Objectives	Akbari	Gunther	Huang	Sethy	Weed	Total
Equity and Allocation Methodologies	5	4	4	4	4	<b>21</b>
Funding Mechanism	3	3	3	5	5	<b>19</b>
Affordability / Customer Control	4	5	5	1	3	<b>18</b>
Conservation	2	2	2	3	1	<b>10</b>
Administration	1	1	1	2	2	<b>7</b>

# Median Bill Comparison

## 2021 MEDIAN WATER BILL COMPARISON\*

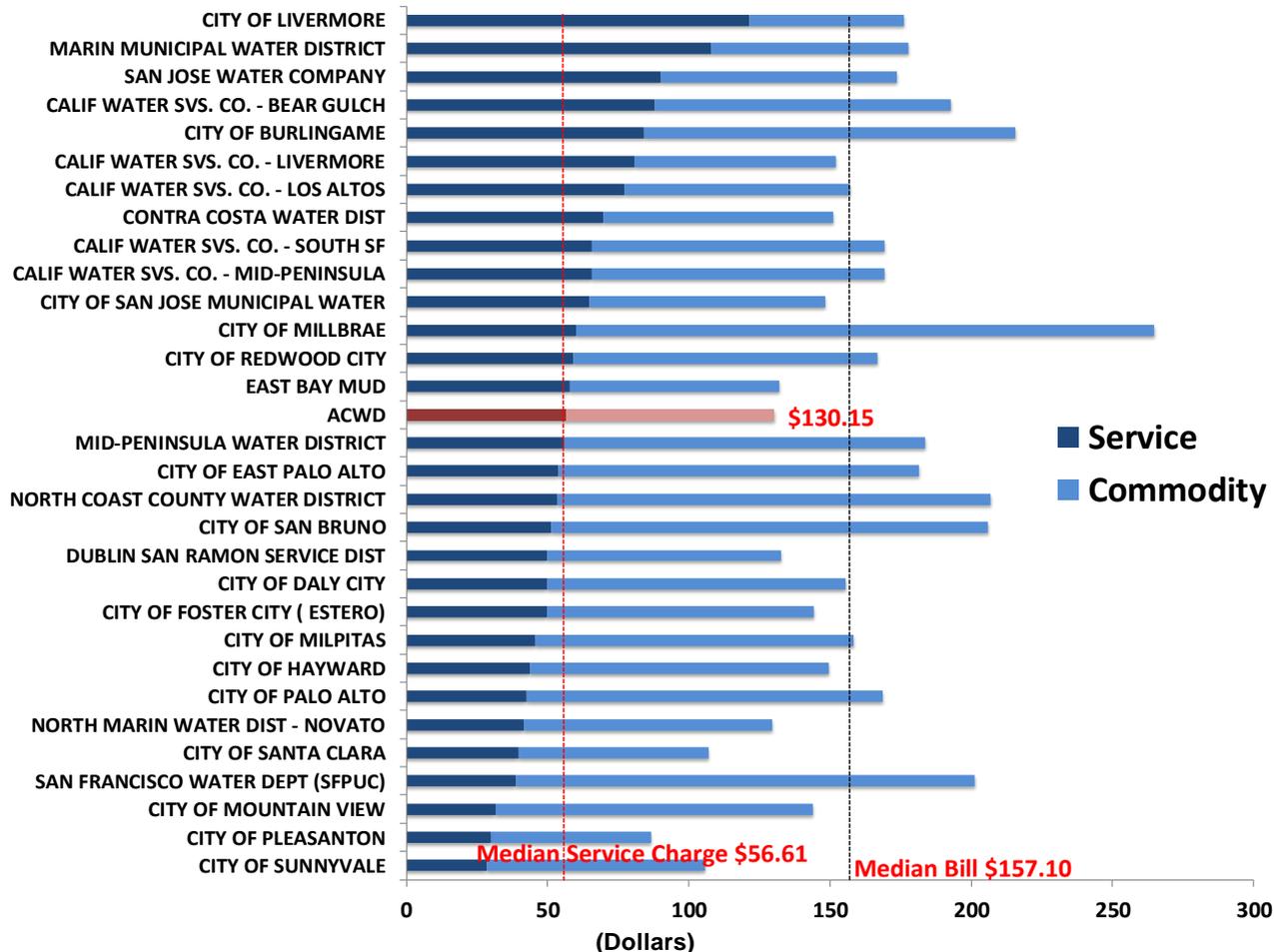
Based on 16 HCF (200 gallons per day) Consumption Bimonthly and a 5/8 or 3/4 inch meter



# Median Bill Comparison

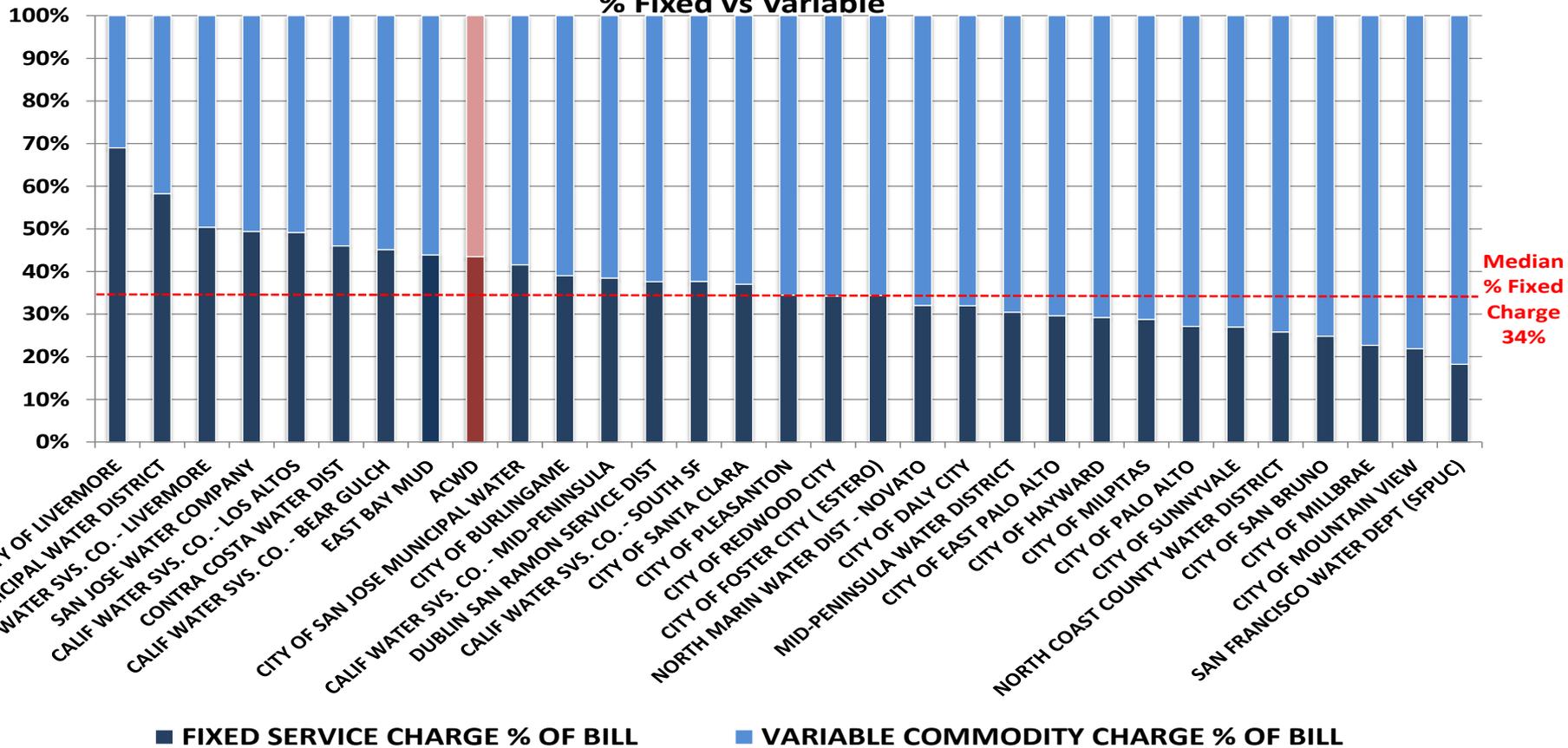
## 2021 MEDIAN WATER BILL COMPARISON\*

Based on 16 HCF (200 gallons per day) Consumption Bimonthly and a 5/8 or 3/4 inch meter



# Bill Comparison

## Bi-monthly Water Bill 3/4" Meter at 16 HCF % Fixed vs Variable



Median % Fixed Charge 34%

■ FIXED SERVICE CHARGE % OF BILL

■ VARIABLE COMMODITY CHARGE % OF BILL

Comparison based on July 7, 2021 data.



# Ultrasonic Meters Registration

- Meter replacements occurring as part of the AMI project may 1) Improve low flow accuracy by using Ultrasonic Meters (replacing positive displacement meters), and 2) Improve accuracy by replacing old meters
- Static Meter Research Project by Johnson Controls shows ultrasonic meters register flows ranging from -1.41% less to 3.09% additional consumption
  - Depends on each customer's consumption patterns
  - Further study required to evaluate differences among manufacturers, influence of leaks, decline in accuracy over time, etc.
- Coastside County Water District reported 5% to 8% additional registration from ultrasonic meters
  - Ultrasonic in-line with Positive Displacement, installed at 5 to 6 meter locations, short duration, informal approach, and no report available
- Financial planning model assumes 3% increase in metered consumption systemwide, but individual customer experience will vary
- Staff can present a higher increase in metered consumption but would strongly caution against assuming a higher increase in financial planning
- Only 4% of customers already have an ultrasonic meter; will have much better data once meters are replaced (end of 2023)

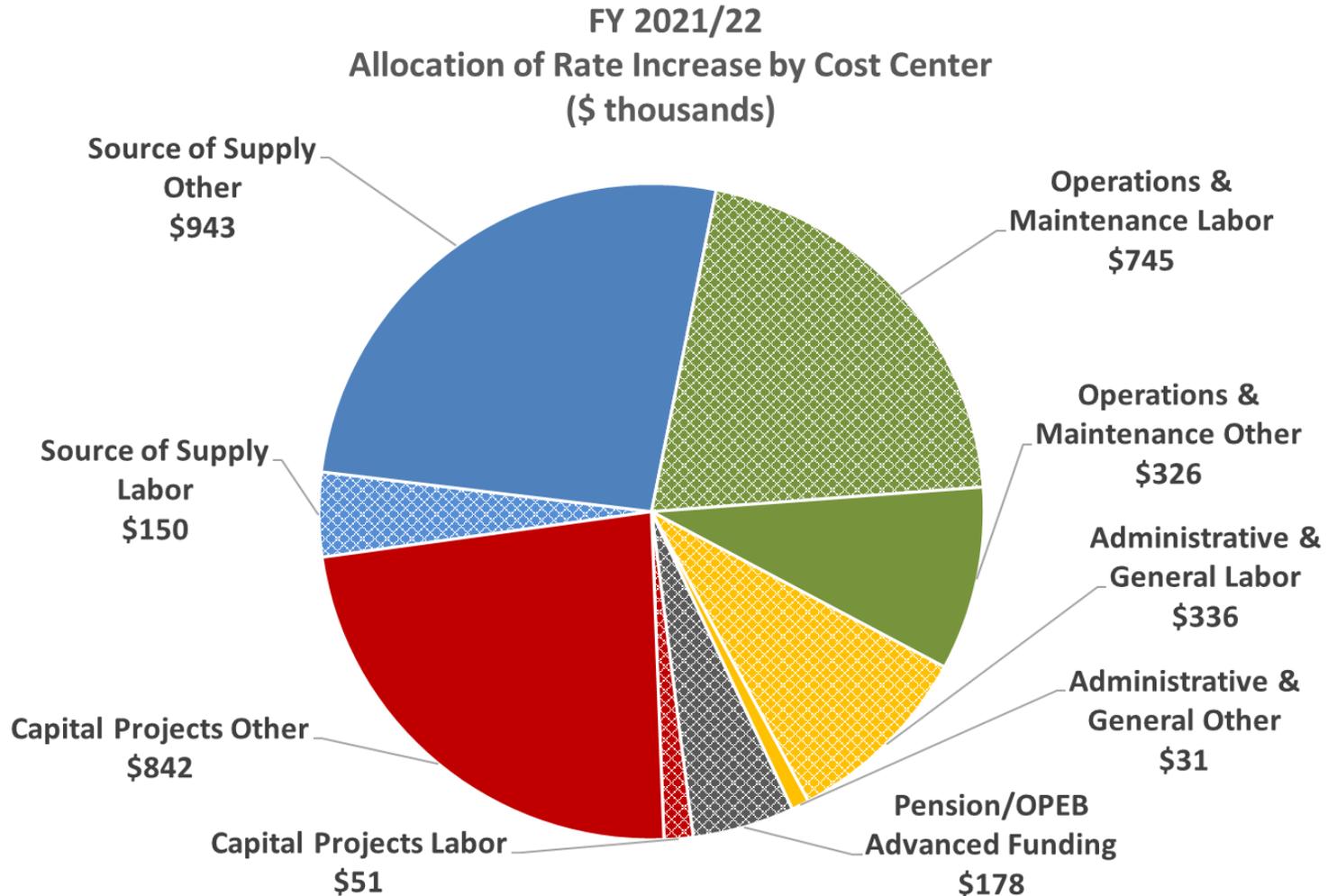
# Cost and Revenue Structure

## Allocation of Cost Increases

- The District reviews its budget by cost center and by cost element. Allocating the 3% (correlates to \$3.6 million) rate increase by cost element is as follows:
  - Employee Compensation: \$1.4 million
  - Capital Projects: \$0.9 million
  - Water Purchases: \$0.8 million
  - Operations & maintenance: \$0.5 million
  - Total: \$3.6 million
- Debt service and developer-reimbursed projects are excluded.

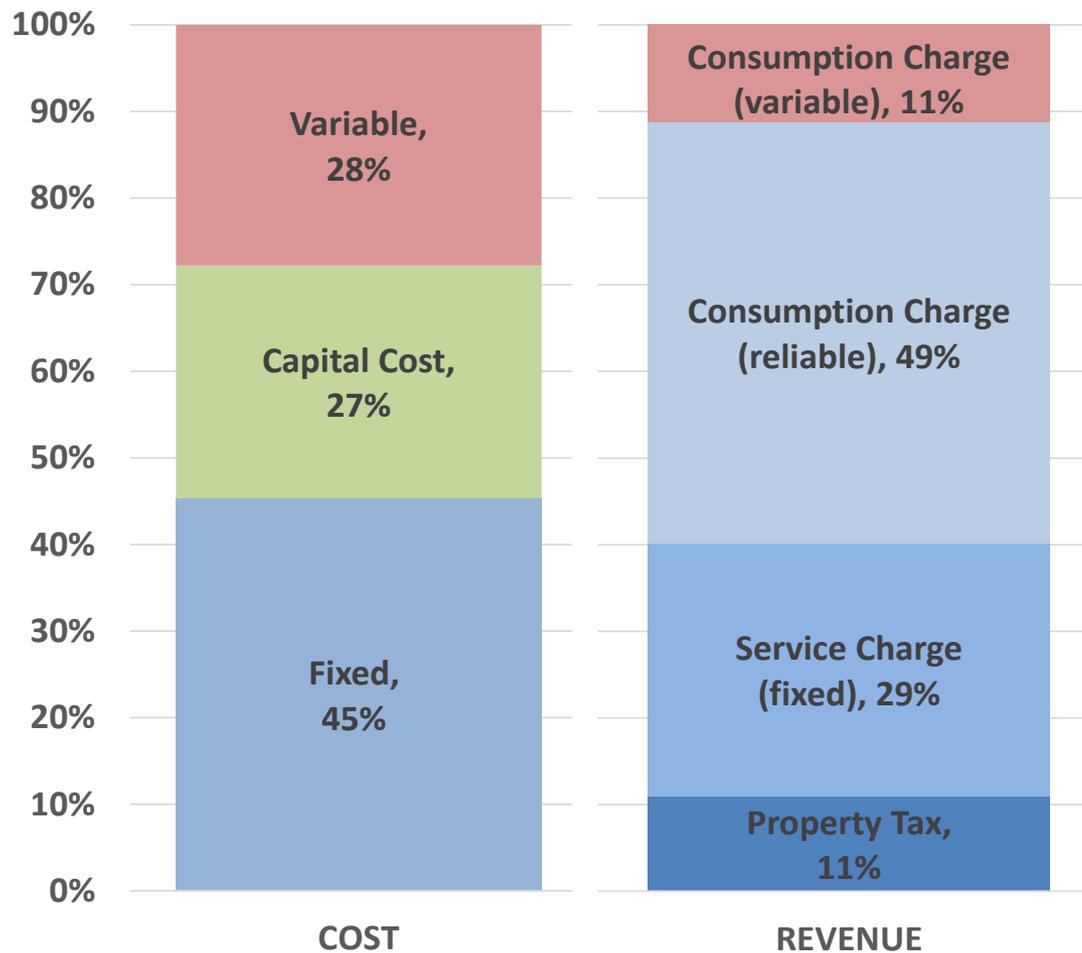
Chart on next slide shows allocation by cost center

# Cost and Revenue Structure



# Cost and Revenue Structure

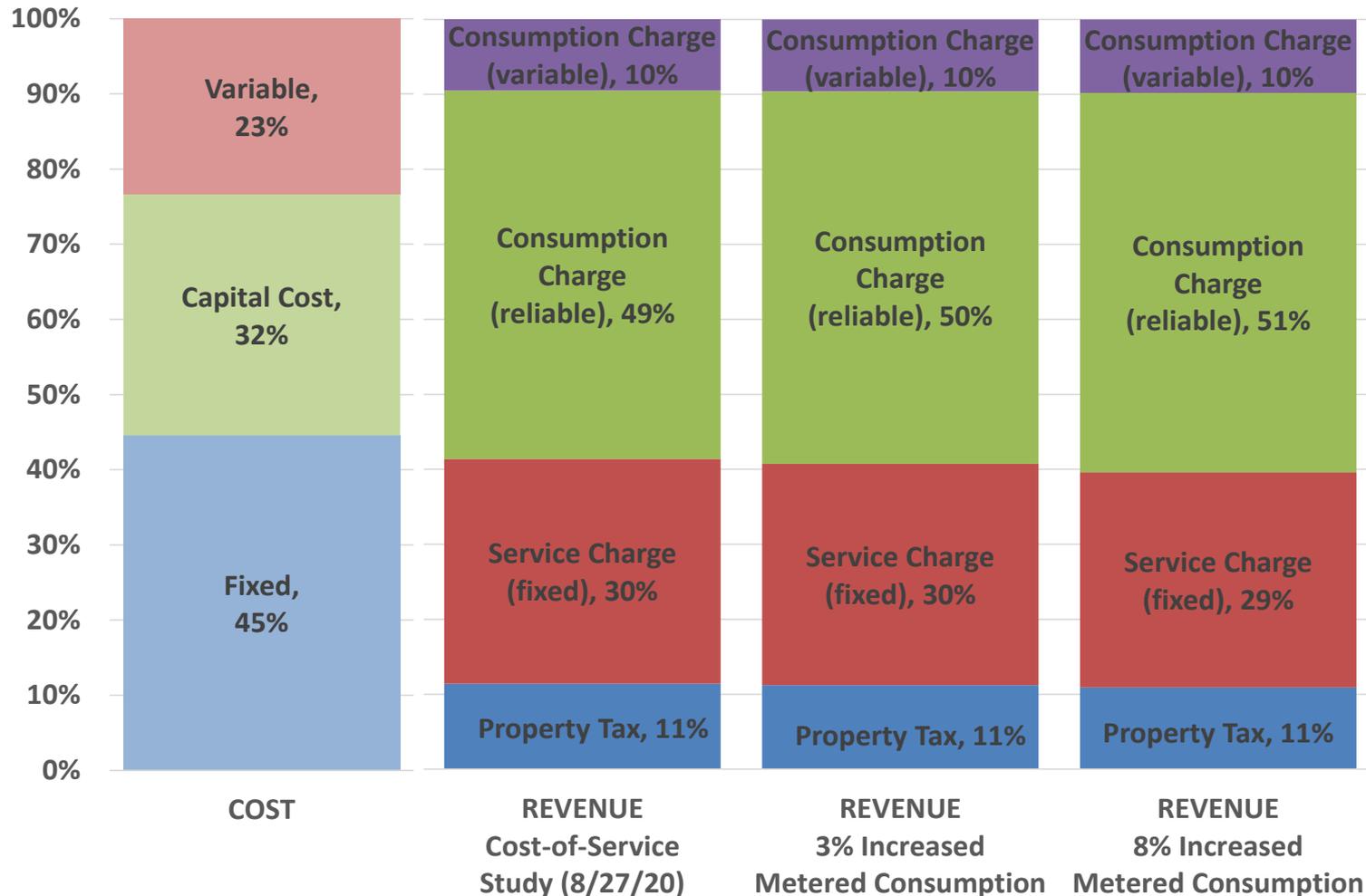
## FY 2021/22



# Cost and Revenue Structure

FY2023/24 Increased Metered Consumption

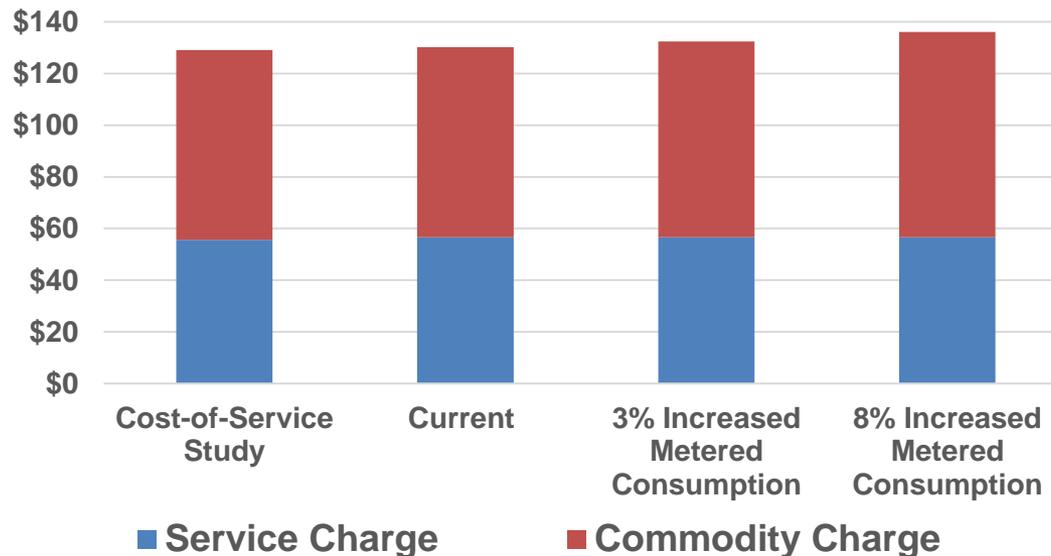
Cost-of-Service / 3% / 8%



# Bill Impact – Meter Replacements

Typical residential customer with 3/4" meter and 16 HCF per billing period

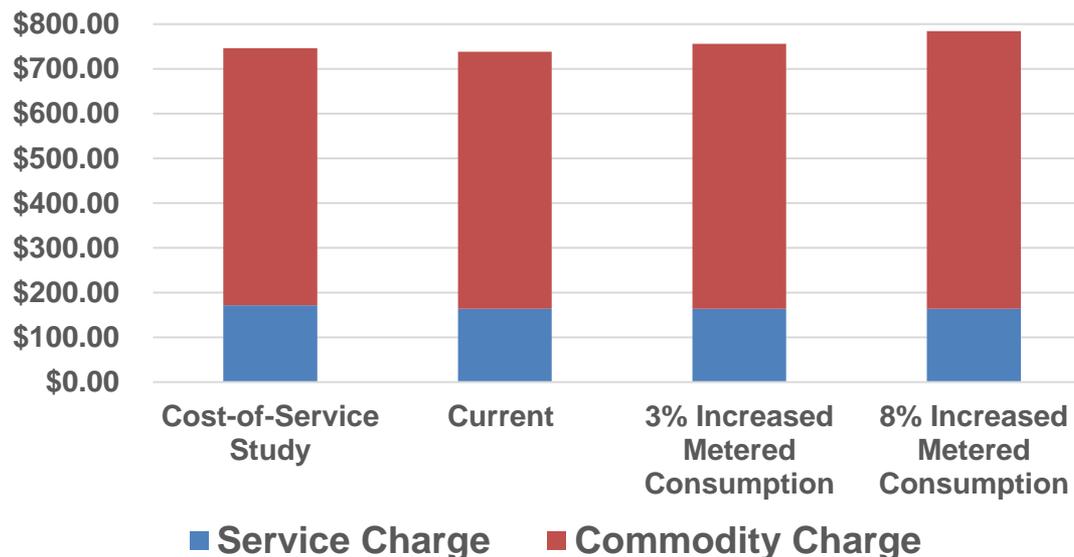
Bill Amount	Service Charge	Commodity Charge	Average Bill	Bill Impact Compared to Current	% of Bill as Service Charge	% of Bill as Commodity Charge
Cost-of-Service Study	\$55.57	\$73.54	\$129.11		43%	57%
Current	\$56.61	\$73.54	\$130.15		43%	57%
3% Increased Metered Consumption	\$56.61	\$75.74	\$132.35	+1.7%	43%	57%
8% Increased Metered Consumption	\$56.61	\$79.42	\$136.03	+4.5%	42%	58%



# Bill Impact – Meter Replacements

Commercial customer with 1-1/2-inch meter and 125 HCF per billing period

Bill Amount	Service Charge	Commodity Charge	Average Bill	Bill Impact Compared to Current	% of Bill as Service Charge	% of Bill as Commodity Charge
Cost-of-Service Study	\$171.56	\$574.50	\$746.06		23%	77%
Current	\$163.97	\$574.50	\$738.47		22%	78%
3% Increased Metered Consumption	\$163.97	\$591.74	\$755.71	+2.3%	22%	78%
8% Increased Metered Consumption	\$163.97	\$620.46	\$784.43	+6.2%	21%	79%



# Fixed/Variable Rate Scenarios

Bill impact for typical residential customer (3/4" meter and 16 HCF) and typical non-residential customer ( 1 1/2" meter and 125 HCF) evaluated based on the following fixed/variable revenue allocations:

1. 33.6% systemwide fixed charge revenue (baseline scenario)
2. 35.5% systemwide fixed charge revenue (outcome if 3% rate increase is focused on fixed service charges)
3. 32.6% system wide fixed charge revenue (outcome if 3% rate increase is focused on commodity charges)
4. 40% systemwide fixed charge revenue
5. 50% systemwide fixed charge revenue
6. 25% systemwide fixed charge revenue

Note: based on current rates (i.e. no revenue adjustment)

# Fixed/Variable Rate Scenarios

## Residential Bill Comparison (3/4" meter and 16 HCF)

Fixed Charge Percentage	Fixed Charge	Commodity Rate	Commodity Charges	Total Bill	Change from Baseline
33.6%	\$ 55.57	\$ 4.60	\$ 73.54	\$ 129.11	\$ -
35.5%	\$ 58.73	\$ 4.46	\$ 71.42	\$ 130.15	\$ 1.05
32.6%	\$ 53.96	\$ 4.66	\$ 74.62	\$ 128.58	\$ (0.52)
40.0%	\$ 66.14	\$ 4.15	\$ 66.43	\$ 132.57	\$ 3.47
50.0%	\$ 82.60	\$ 3.46	\$ 55.36	\$ 137.96	\$ 8.85
25.0%	\$ 41.44	\$ 5.19	\$ 83.04	\$ 124.48	\$ (4.63)

# Fixed/Variable Rate Scenarios

## Commercial Bill Comparison (1 1/2" meter and 125 HCF)

Fixed Charge Percentage	Fixed Charge	Commodity Rate	Commodity Charges	Total Bill	Change from Baseline
33.6%	\$ 171.56	\$ 4.60	\$ 574.50	\$ 746.06	\$ -
35.5%	\$ 182.08	\$ 4.46	\$ 558.00	\$ 740.08	\$ (5.98)
32.6%	\$ 166.18	\$ 4.66	\$ 583.00	\$ 749.18	\$ 3.12
40.0%	\$ 206.75	\$ 4.15	\$ 519.00	\$ 725.75	\$ (20.31)
50.0%	\$ 261.57	\$ 3.46	\$ 432.50	\$ 694.07	\$ (51.99)
25.0%	\$ 124.52	\$ 5.19	\$ 648.75	\$ 773.27	\$ 27.21

# Potential Rate Increase Approaches

- Financial plan projects needed 3% annual rate increases
- Increases could be applied uniformly or focused on either the service or commodity charges
- An approach that is not uniform would require revisions to the cost-of-service analysis completed by Raftelis
- Baseline Cost-of-Service makes some adjustments for the typical customer (3/4” meter and 16 HCF):

<b>Bill Amount</b>	<b>Service</b>	<b>Commodity</b>	<b>Total</b>
<b>Current</b>	<b>\$56.61</b>	<b>\$ 73.54</b>	<b>\$130.15</b>
<b>Cost of Service</b>	<b>\$55.57</b>	<b>\$ 73.54</b>	<b>\$129.11</b>

# Potential Rate Increase Approaches

Typical **residential customer** impact resulting from potential options to implement a 3% revenue increase:

	Bill Amount			Increase Percentage		
	Service	Commodity	Total	Service	Commodity	Total
Baseline <sup>1</sup>	\$ 55.57	\$ 73.54	\$129.11	N/A	N/A	N/A
<b><i>Potential Approaches for a 3% Revenue Adjustment<sup>2</sup></i></b>						
Uniform	\$ 57.24	\$ 75.74	\$132.98	3.0%	3.0%	3.0%
Service	\$ 60.47	\$ 73.54	\$134.00	8.8%	0.0%	3.8%
Commodity	\$ 55.57	\$ 76.83	\$132.40	0.0%	4.5%	2.6%

1. Based on Cost-of-Service Analysis performed by Raftelis

2. Typical residential customer with 3/4" meter and 16 HCF per billing period

# Potential Rate Increase Approaches

Typical **commercial customer** impact resulting from potential options to implement a 3% revenue increase:

	Bill Amount			Increase Percentage		
	Service	Commodity	Total	Service	Commodity	Total
Baseline <sup>1</sup>	\$171.56	\$ 574.50	\$746.06	N/A	N/A	N/A
<b><i>Potential Approaches for a 3% Revenue Adjustment<sup>2</sup></i></b>						
Uniform	\$176.71	\$ 591.74	\$768.44	3.0%	3.0%	3.0%
Service	\$187.87	\$ 574.50	\$762.37	9.5%	0.0%	2.2%
Commodity	\$171.56	\$ 600.24	\$771.80	0.0%	4.5%	3.5%

1. Based on Cost-of-Service Analysis performed by Raftelis

2. Typical commercial customer: 1 1/2" meter and 125 HCF per billing period

# Potential Rate Increase Approaches

- While system-wide revenue recovery is about 1/3 service charges, that percentage is higher for residential customers and lower for commercial customers. As a result:
  - A rate increase focused on service charges will disproportionately affect residential customers
  - A rate increase focused on commodity charges will disproportionately affect commercial customers
- Per the cost-of-service analysis presented in September by Raftelis, current rates appropriately reflect the cost of serving residential and commercial customer classes

# Alternatives vs. Policy Objectives

- Approach of distributing rate increase uniformly across service and commodity charges best meets Board's prior policy objectives.

Policy Objectives	Board Priority Score (2018)	Uniform	Service Charge	Commodity Charge
Equity and Allocation Methodologies	21	✓✓✓	✓✓	✓✓
Funding Mechanism	19	✓✓	✓✓✓	✓
Affordability / Customer Control	18	✓✓	✓	✓✓✓
Conservation	10	✓✓	✓	✓✓✓
Administration	7	✓✓✓	✓	✓

# Conclusions

- Recap Board guidance
  - Fixed/Variable revenue recovery and approach to a 3% revenue adjustment
- Next Steps
  - November 4, 2021: If necessary, a fourth rates-focused workshop
  - December 9, 2021: Consider authorizing staff to issue a Proposition 218 notice
  - February 10, 2022: Consider approval of publicly noticed rate increase

# Alameda County Water District

Questions?