



CITY COUNCIL

AGENDA

MONDAY, FEBRUARY 14, 2022

VIRTUAL REGULAR MEETING – 7:00 PM

TELECONFERENCE:

MEETING PARTICIPATION INFORMATION CAN BE FOUND AT THE END OF THE
AGENDA

CITY OF LIVERMORE YOUTUBE CHANNEL:

<https://www.youtube.com/c/CityofLivermoreCalifornia>

ZOOM WEBINAR:

<https://us02web.zoom.us/j/85240378357>

Zoom dial in phone number:

1 669 900 6833

Meeting ID: 852 4037 8357

Bob Woerner, Mayor
Regina Bonanno, Vice Mayor
Robert W Carling, Council Member
Brittni Kiick, Council Member
Trish Munro, Council Member

1. CLOSED SESSION - NONE

2. CALL TO ORDER

ROLL CALL

Council Member Robert W. Carling

Council Member Brittni Kiick

Council Member Trish Munro

Vice Mayor Regina Bonanno

Mayor Bob Woerner

PLEDGE OF ALLEGIANCE

3. PROCLAMATIONS AND PRESENTATIONS

- 3.1 Confirmation of Advisory Body Appointments to the Beautification Committee, Human Services Commission, and Livermore Area Youth Advisory Commission.

Recommendation:

The City Council Subcommittee on Advisory Bodies recommends the City Council confirm the advisory body appointments for the Beautification Committee, Human Services Commission, and the Livermore Area Youth Advisory Commission. The City Clerk is directed to schedule individual meetings with all new members to administer the oath of office.

Staff Report

4. CITIZENS FORUM

- In conformance with the Brown Act, no City Council action can occur on items presented during Citizens Forum.
- Please log into Zoom to provide verbal public comment during the City Council Meeting.
- Comments are limited to a maximum of 3 minutes per person, per item. The Mayor may reduce the amount of time based on the number of persons wishing to speak.
- Citizens Forum will conclude after 30 minutes; however, if there are additional speakers, Citizens Forum will reconvene before the meeting adjourns.

5. CONSENT CALENDAR

Consent Calendar items are considered routine and are acted upon by the City Council with a single action. Members of the audience wishing to provide public input must use the raise hand feature.

- 5.1 Approval of draft minutes - January 18, 2022 Closed Session Special Meeting, January 20, 2022 City Council-Planning Commission Joint Meeting, January 24, 2022 Regular Meeting, February 7, 2022 Closed Session Special Meeting.

Recommendation:

Staff recommends the City Council approve the draft minutes.

Staff Report

Attachments:

1. [Draft 2022-01-18 - Special Meeting Minutes](#)
2. [Draft 2022-01-20 - Joint CC-PC Workshop Meeting Minutes](#)
3. [Draft 2022-01-24 - Regular Meeting Minutes](#)
4. [Draft 2022-02-07 - Special Meeting Minutes](#)

- 5.2 Resolution authorizing execution of an agreement with Jacobs Engineering Group Inc., for the Water Resources Division's Supervisory Control and Data Acquisition (SCADA) Server Replacement Project in an amount not-to-exceed \$267,012 and authorizing the City Manager to approve equipment procurement in an amount not-to-exceed \$330,000

Recommendation:

Staff recommends the City Council adopt a resolution:

1. Authorizing the execution of an agreement with Jacobs Engineering Group Inc. (Jacobs), in an amount not-to-exceed \$267,012 for Professional Services for the Water Resources Division's Supervisory Control and Data Acquisition (SCADA) Server Replacement Project, and
2. Authorizing the City Manager to approve all the equipment procurement for this project in an amount of not-to-exceed \$330,000.

Staff Report

Attachments:

1. [Resolution](#)
2. [Exhibit A - Agreement](#)

- 5.3 Resolution authorizing execution of an agreement with Kier & Wright to provide design, environment, and construction support in an amount not-to-exceed \$392,289, for the Collier Canyon Creek Silt Basin, Project No. 201727, DR 4344-0132-040.

Recommendation:

Staff recommends the City Council adopt a resolution authorizing the City Manager to execute an agreement with Kier & Wright in the not-to-exceed amount of \$392,289 to provide design, environmental, and construction support services for the Collier Canyon Creek Silt Basin, Project No. 201727, DR 4344-0132-040.

Staff Report

Attachments:

1. [Resolution](#)
2. [Exhibit A - Agreement](#)

- 5.4 Resolution of a continued local emergency and reauthorizing remote teleconference meetings for City of Livermore's legislative bodies in accordance with Assembly Bill 361

Recommendation:

Staff recommends City Council adopt a resolution of a continued local emergency and reauthorizing remote teleconference meetings for City of Livermore's legislative bodies in

accordance with Assembly Bill 361.

Staff Report

Attachments:

[1. Resolution](#)

6. PUBLIC HEARINGS

- 6.1 7:05 P.M. - Third Public Hearing to receive an update on redistricting efforts to date, receive public input on the composition of City Council voting district draft maps prepared by the City's demographer, and provide direction to the City's demographer for revisions of the draft maps to be considered at the fourth public hearing

Recommendation:

Staff recommends that the City Council:

1. Receive an update regarding the redistricting efforts to date;
2. Conduct the third public hearing to receive input on the composition of voting district draft maps; and
3. Provide direction to the City's demographer for revisions of the draft maps to be considered at the fourth public hearing.

Staff Report

Attachments:

- [1. Presentation](#)
- [2. Communities of Interest DistrictR Submissions](#)
- [3. Communities of Interest Tool Submissions](#)
- [4. Draft Plans](#)
- [5. Demographics](#)
- [6. Draft Plan Review](#)
- [7. Survey Responses](#)

- 6.2 Hearing to **introduce an ordinance** amending and restating Chapters 13.26 and 13.27 of the Livermore Municipal Code pertaining to water conservation measures.

Recommendation:

Staff recommends that the City Council introduce an ordinance amending and restating Chapters 13.26 and 13.27 of the Livermore Municipal Code pertaining to water conservation.

Staff Report

Attachments:

- [1. Staff Report for WSCP Adoption on June 14, 2021](#)
- [2. 2021 Adopted Water Shortage Contingency Plan](#)
- [3. Ordinance](#)
- [4. Exhibit A - Amended and Restated Chapters 13.26 Water Conservation and 13.27 Mandatory Drought Conservation Measures](#)

7. MATTERS FOR CONSIDERATION

- 7.1 Oral report from the Director of Emergency Services regarding the COVID-19 emergency, its impacts, and the governmental operations in response to that emergency, as well as discussion and direction regarding the City's emergency operations in response to that emergency.

Recommendation:

An oral report will be given at the meeting.

Staff Report

- 7.2 Final report on the Livermore Police Department traffic stop and arrest data project as part of the Equity and Inclusion Subcommittee

Recommendation:

Staff recommends the City Council receive the attached report from Rob Tillyer, Ph.D. and Michael R. Smith, J.D., Ph.D, both researchers and professors at the University of Texas at San Antonio – Department of Criminology & Criminal Justice regarding their research into patterns of racial and/or ethnic disparity during traffic stops and arrests conducted by the Livermore Police Department between January 1, 2019 and April 30, 2021.

Staff Report

Attachments:

[1. LPD Stop and Arrest Report FINAL](#)

8. COUNCIL COMMITTEE REPORTS AND MATTERS INITIATED BY CITY MANAGER, CITY ATTORNEY, STAFF, AND COUNCIL MEMBERS

9. ADJOURNMENT

To a Regular City Council meeting on February 28, 2022, at 7:00 p.m., held virtually using Zoom.

10. SUPPLEMENTAL MATERIALS

- 10.1 Supplemental materials received prior to the meeting.

Staff Report

Attachments:

[1. Supplemental Materials](#)

HOW TO PARTICIPATE IN YOUR CITY COUNCIL MEETING

You can participate in the meeting in a number of ways:

Citizens Forum is an opportunity for the public to speak regarding items not listed on the agenda.

Speakers are limited to a maximum of 3 minutes per person. To submit a comment using Zoom, you may use the 'raise hand' feature. You should be aware that the City Council is prohibited by State law from taking action on any items that are not listed on the agenda. However, if your item requires action, the City Council may place it on a future agenda or direct staff to work with you and/or report to the City Council on the issue.

Public Hearings - The topic of the hearing is typically summarized by staff, followed by questions from the City Council and a presentation by the applicant. The Mayor will then open the hearing to the public and offer an opportunity for public comments. You may use the 'raise hand' feature in Zoom and take 3 minutes to make your comments.

Other Agenda Items are also open for public input including Consent Calendar or Matters for Consideration items. These comments are also subject to the 3 minute limit.

Special Meetings, Workshops - The public will have the opportunity to address the City Council regarding the item that is the subject of the special meeting or workshop. Public comments are limited to a maximum of 3 minutes per person.

Platforms to Participate in Virtual Meetings:

Submission of Comments Prior to the Meeting:

Email Comments may be submitted by the public to the City Clerk's Office (cityclerk@cityoflivermore.net). Items received no later than 12:00 pm on the day of the meeting will be provided to the City Council and available on the City website prior to the meeting. These items will NOT be read into the record.

eComments may be submitted by the public using the eComment link [here](#). Comments may be up to 1000 characters in length and will be accepted up until 4PM the day of the meeting. These items will NOT be read into the record and are viewable by the the City Council and the public upon submittal.

Submission of Comments During the Meeting:

Speakers are limited to a maximum of 3 minutes per person. To submit a comment using Zoom, you may use the 'raise hand' feature. You should be aware that the City Council is prohibited by State law from taking action on any items that are not listed on the agenda. However, if your item requires action, the City Council may place it on a future agenda or direct staff to work with you and/or report to the City Council on the issue.

The City will be using YouTube and TV29 as two tools to provide the public access to view City Council meetings. No public comment will be accepted via YouTube.

TV29: tv29live.org

YouTube: <http://youtube.com/c/CityofLivermoreCalifornia>

Zoom Webinar: <https://us02web.zoom.us/j/85240378357>

Zoom dial in phone number:

1 669 900 6833

Meeting ID: 852 4037 8357

If you would like to deliver written materials to the City Council as part of their electronic comments

during a meeting, the speaker must identify that intent in his or her comment submitted and immediately email the materials to the City Clerk at cityclerk@cityoflivermore.net.

The **City Council Agenda and Agenda Reports** are prepared by City staff and are available for public review on Tuesday evening, six days prior to the City Council meeting in the Civic Center Library, 1188 South Livermore Avenue, Livermore, and at the City Clerk's Office, 1052 South Livermore Avenue, Livermore. The Agenda is also available on the City's website, <http://cityoflivermore.net/agenda>.

Under Government Code §54957.5, any **supplemental material** distributed to the members of the City Council after the posting of this agenda will be available for public review in the City Clerk's Office, 1052 South Livermore Avenue, Livermore, and included in the agenda packet available on the City's web site at <http://cityoflivermore.net/agenda>.

PURSUANT TO TITLE II OF THE AMERICANS WITH DISABILITIES ACT (CODIFIED AT 42 UNITED STATES CODE SECTION 12101 AND 28 CODE OF FEDERAL REGULATIONS PART 35), AND SECTION 504 OF THE REHABILITATION ACT OF 1973, THE CITY OF LIVERMORE DOES NOT DISCRIMINATE ON THE BASIS OF RACE, COLOR, RELIGION, NATIONAL ORIGIN, ANCESTRY, SEX, DISABILITY, AGE OR SEXUAL ORIENTATION IN THE PROVISION OF ANY SERVICES, PROGRAMS, OR ACTIVITIES. TO ARRANGE AN ACCOMMODATION IN ORDER TO PARTICIPATE IN THIS PUBLIC MEETING, PLEASE CONTACT THE ADA COORDINATOR AT ADACOORDINATOR@CITYOFLIVERMORE.NET OR CALL (925) 960-4170 (VOICE) OR (925) 960-4104 (TDD) AT LEAST THREE (3) BUSINESS DAYS IN ADVANCE OF THE MEETING.

Interpretation Instructions

Attachments:

1. [Interpretation Instructions](#)



CITY COUNCIL STAFF REPORT

ITEM NO. 3.1

DATE: February 14, 2022

TO: Honorable Mayor and City Council

FROM: Donald Hester, Acting Administrative Services Director

SUBJECT: Confirmation of Advisory Body Appointments to the Beautification Committee, Human Services Commission, and Livermore Area Youth Advisory Commission.

RECOMMENDED ACTION

The City Council Subcommittee on Advisory Bodies recommends the City Council confirm the advisory body appointments for the Beautification Committee, Human Services Commission, and the Livermore Area Youth Advisory Commission. The City Clerk is directed to schedule individual meetings with all new members to administer the oath of office.

SUMMARY

On February 2, 2022, the City Council Subcommittee on Advisory Bodies interviewed applicants for vacancies on the Beautification Committee, Human Services Commission, and the Livermore Area Youth Advisory Commission and have submitted their recommendation for City Council consideration and appointment.

DISCUSSION

On February 2, 2022 the City Council Subcommittee on Advisory Bodies interviewed applicants for vacancies on the Beautification Committee, Historic Preservation Commission, Human Services Commission, and the Livermore Area Youth Advisory Commission and recommends confirmation of the following appointments:

Beautification Committee - 1 Vacancy

Unexpired term ending June 1, 2023

- Sucharitha Rallapalli

Human Services Commission - 2 Vacancies

1 Unexpired term ending November 1, 2022 and one additional regular term ending November 1, 2026

- Kathleen La Point-Collup

1 Unexpired term ending November 1, 2023

- Ajay Arora

Livermore Area Youth Advisory Commission (LAYAC) - 1 Adult Vacancy

Unexpired term ending September 1, 2023

- Neha Sabharwal

Upon the City Council's confirmation of the appointments by motion, the City Clerk will arrange to administer the oath of office to new appointees prior to participating in their first advisory body meeting.

FISCAL AND ADMINISTRATIVE IMPACTS

No material fiscal or administrative impacts result from confirmation of these appointments.

ATTACHMENTS

Prepared by: Debbie Elam
Deputy City Clerk

Approved by:



Marc Roberts
City Manager

Fiscal Review by:



Bhavna Chaudhary
City Treasurer/Finance Manager



CITY COUNCIL STAFF REPORT

ITEM NO. 5.1

DATE: February 14, 2022

TO: Honorable Mayor and City Council

FROM: Marie Weber, Acting Administrative Services Director

SUBJECT: Approval of draft minutes - January 18, 2022 Closed Session Special Meeting, January 20, 2022 City Council-Planning Commission Joint Meeting, January 24, 2022 Regular Meeting, February 7, 2022 Closed Session Special Meeting.

RECOMMENDED ACTION

Staff recommends the City Council approve the draft minutes.

SUMMARY

DISCUSSION

ATTACHMENTS

1. [Draft 2022-01-18 - Special Meeting Minutes](#)
2. [Draft 2022-01-20 - Joint CC-PC Workshop Meeting Minutes](#)
3. [Draft 2022-01-24 - Regular Meeting Minutes](#)
4. [Draft 2022-02-07 - Special Meeting Minutes](#)

Prepared by: Marie Weber
City Clerk

Approved by:



Marc Roberts
City Manager

Fiscal Review by:



Bhavna Chaudhary
City Treasurer/Finance Manager

DRAFT MINUTES



CITY COUNCIL
JANUARY 18, 2022

SPECIAL MEETING

1. **CALL TO ORDER** – The Closed Session of the City Council was called to order by Mayor Bob Woerner at 5:00pm, held via teleconference using Zoom and YouTube.

2. **ROLL CALL** – Present: Mayor Bob Woerner, Vice Mayor Regina Bonanno, and Council Members, Robert W. Carling, Brittini Kiick and Trish Munro.

3. **ADJOURN TO CLOSED SESSION**

**OPPORTUNITY FOR THE PUBLIC TO ADDRESS THE CITY COUNCIL
REGARDING CLOSED SESSION ITEMS.**

Mayor Woerner opened the public comment period.

There were no speakers and the public comment period was closed.

3.1 **PUBLIC EMPLOYEE EMPLOYMENT:** Public employee recruitment pursuant to Government Code section 54957(b). Title of position to be filled: City Manager.

3.2 **PUBLIC EMPLOYEE PERFORMANCE EVALUATION:** Public Employee Performance Evaluation to set goals for annual review pursuant to Government Code section 54957(b). Title of position: City Attorney.

City Attorney Jason Alcala said there was no reportable action.

8. **ADJOURNMENT** – at 6:45pm to a Joint Special Meeting Workshop of the City Council and Planning Commission on January 20, 2022 at 5:00 pm held virtually via Zoom.

APPROVED:

BOB WOERNER, MAYOR

ATTEST:

MARIE WEBER, CITY CLERK

DRAFT MINUTES



CITY COUNCIL
JANUARY 20, 2022

CITY COUNCIL-PLANNING COMMISSION JOINT WORKSHOP MEETING

1. **CALL TO ORDER** – The joint workshop meeting of the City Council-Planning Commission was called to order by Mayor Bob Woerner at 5:00pm, held via teleconference using Zoom and YouTube.

2. **ROLL CALL** – Present: Mayor Bob Woerner, Vice Mayor Regina Bonanno, and Council Members, Robert W. Carling, Brittini Kiick and Trish Munro. Chair Steven Dunbar, Vice Chair Daniel Leary, and Commissioners Jacob Anderson, Evan Branning, and John Stein.

3. **SPECIAL MEETING WORKSHOP ITEM**

3.1 **Presentation on the Livermore Housing Element Update.**

Recommendation: Staff recommended the Planning Commission and City Council receive a presentation regarding the Livermore Housing Element Update and provide feedback.

Associate Planner Tricia Pontau presented the staff report.

Mayor Woerner invited public comment.

Donna Cabanne provided a comment.

Alan Burnham provided a comment.

There were no more comments and Mayor Woerner closed the public comment.

CITY COUNCIL AND PLANNING COMMISSIONERS RECEIVED THE PRESENTATION AND PROVIDED THE FOLLOWING DIRECTION:

1. COMBINE THE HOUSING ELEMENT SCHEDULE AND GENERAL PLAN TIMELINE ON THE WEBSITE
2. CONSIDER THE APPLICABILITY OF SB10 LEGISLATION
3. DO NOT GO OUTSIDE THE URBAN GROWTH BOUNDARY

8. **ADJOURNMENT** – at 6:09pm to a Regular City Council meeting on January 24, 2022 at 7:00 p.m. and a Planning Commission meeting on February 1, 2022 at 7:00 p.m. both held virtually using Zoom.

APPROVED:

BOB WOERNER, MAYOR

ATTEST:

MARIE WEBER, CITY CLERK

DRAFT MINUTES



CITY COUNCIL
JANUARY 24, 2022

REGULAR MEETING

1. CLOSED SESSION - NONE

2. **CALL TO ORDER** – The meeting of the City Council was called to order by Mayor Bob Woerner at 7:00 pm, held via teleconference using Zoom and YouTube.

ROLL CALL – Present: Mayor Bob Woerner, Vice Mayor Regina Bonanno and Council Members Robert W. Carling, Brittni Kiick and Trish Munro

PLEDGE OF ALLEGIANCE

Mayor Woerner reordered the agenda to hear Item 6.1 first.

6.1 7:05 P.M. - Second Public Hearing to receive an update on redistricting efforts, receive public input on the composition of City Council voting districts and communities of interest before maps are drafted, and provide initial direction to the City's demographer on the draft maps to be considered at the third public hearing

Recommendation: Staff recommended that the City Council:

1. Receive a report from staff, the City's consultant Tripepi, Smith & Associates, Inc., and Wagaman Strategies demographer on the redistricting process;
2. Conduct the second of two public hearings to receive input on the composition of voting districts before maps are drafted; and
3. Provide initial direction to the City's demographer on the composition of draft maps.

City Clerk Marie Weber presented the staff report.

Mayor Woerner opened the public hearing.

Karl Wente provided a comment.

There were no more speakers and the hearing was closed.

THE CITY COUNCIL DIRECTED STAFF TO FOCUS FUTURE PUBLIC OUTREACH ON COMMUNITY OF INTEREST SUBMISSIONS. THE COUNCIL

ALSO PROVIDED INITIAL DIRECTION TO THE CITY'S DEMOGRAPHER ON THE COMPOSITION OF DRAFT MAPS WHICH INCLUDED THE FOLLOWING ITEMS:

1. NOT USING RACE AS A PREDOMINATE FACTOR
2. KEEP IDENTIFIED COMMUNITIES TOGETHER, SUCH AS AVOIDING MOVING DISTRICT 2 EAST INTO DISTRICT 1
3. EXPLORE PLANS THAT LOWER THE CURRENT DEVIATION
4. TRACK AND CONSIDER RESIDENTS WHO MAY BE SUBJECT TO DEFERRAL

3. PROCLAMATIONS AND PRESENTATIONS

3.1 Proclamation proclaiming January 24 - 28, 2022 as Data Privacy Week presented to City of Livermore Cybersecurity Manager Donald Hester.

Recommendation: Staff recommended City Council proclaim January 24 - 28, 2022 as Data Privacy Week.

4. CITIZENS FORUM

Mayor Woerner opened the public comment period.

Lori Souza provided a comment

Alan Marling provided a comment.

There were no more speakers and the public comment period was closed.

5. CONSENT CALENDAR

Mayor Woerner opened the public comment period.

There were no speakers and the public comment period was closed.

ON THE MOTION OF CM CARLING, SECONDED BY CM MUNRO, AND CARRIED ON A 5-0 VOTE, THE CITY COUNCIL APPROVED THE CONSENT CALENDAR.

5.1 Approval of draft minutes - December 16, 2021 Closed Session Special Meeting and January 10, 2022 Regular Meeting.

Recommendation: Staff recommended the City Council approve the draft minutes.

5.2 Resolution 2022-009 authorizing execution of an agreement with Kier & Wright Civil Engineers and Surveyors, Inc. to provide surveying, mapping, design, and construction engineering support for various City Projects in an amount not-to-exceed \$331,525

Recommendation: Staff recommended the City Council adopt a resolution authorizing the City Manager to execute an agreement with Kier & Wright Civil Engineers and Surveyors, Inc. to provide surveying, mapping, design, and construction engineering support for various City Projects in an amount not-to-exceed \$331,525.

5.3 Resolution 2022-010 authorizing execution of a purchase order with Pape Machinery for one replacement backhoe loader tractor in the not-to-exceed amount of \$179,813

Recommendation: Staff recommended the City Council adopt a resolution authorizing execution of a Purchase Order with Pape Machinery for one replacement backhoe loader tractor in the not-to-exceed amount of \$179,813.

5.4 Resolution 2022-011 ratifying the execution of the Federal Aviation Administration American Rescue Plan Act Grant Agreement to fund the Airport Enterprise Fund due to the COVID-19 Pandemic, in the amount of \$59,000

Recommendation: Staff recommended City Council adopt a resolution ratifying the Director of Emergency Services execution of the Federal Aviation Administration (FAA) American Rescue Plan Act Grant (ARPA) Agreement No. 3-06-0123-034-2022, to fund the Airport Enterprise Fund due to the COVID-19 Pandemic in the amount of \$59,000.

5.5 Resolution 2022-012 authorizing staff to submit an application to apply for and receive funds from the California Department of Resources Recycling and Recovery (CalRecycle) to assist with the implementation of SB 1383, which targets a reduction in the disposal of organic waste and designating the City Manager as the Signature Authority.

Recommendation: Staff recommended the City Council adopt a resolution authorizing staff to submit an application to apply for and receive funds from the California Department of Resources Recycling and Recovery (CalRecycle) and designating the City Manager as the Signature Authority.

5.6 Resolution 2022-013 in support of the San Francisco Bay Conservation and Development Commission's Bay Adapt: Regional Strategy for a Rising Bay.

Recommendation: Mayor Woerner recommended the City Council adopt a Resolution in support of the San Francisco Bay Conservation and Development Commission's Bay Adapt: Regional Strategy for a Rising Bay.

6. PUBLIC HEARINGS

ITEM 6.1 WAS MOVED TO THE BEGINNING OF THE AGENDA.

7. MATTERS FOR CONSIDERATION

7.1 Oral report from the Director of Emergency Services regarding the COVID-19 emergency, its impacts, and the governmental operations in response to that emergency, as well as discussion and direction regarding the City's emergency operations in response to that emergency.

Recommendation: An oral report was given at the meeting.

Director of Emergency Services Marc Roberts presented the staff report.

Mayor Woerner opened the public comment period.

There were no speakers and the public comment period was closed.

THE CITY COUNCIL RECEIVED THE REPORT AND DIRECTED STAFF TO RETURN WITH INFORMATION REGARDING HOW UNHOUSED RESIDENTS COULD GET FREE COVID-19 TESTS.

8. COUNCIL COMMITTEE REPORTS AND MATTERS INITIATED BY CITY MANAGER, CITY ATTORNEY, STAFF AND COUNCIL MEMBERS

THE MAYOR AND CITY COUNCIL MEMBERS PROVIDED A SUMMARY OF RECENTLY ATTENDED EVENTS AND MEETINGS IN ADDITION TO THE INFORMATION PROVIDED IN THE SUPPLEMENTAL PACKET.

8. ADJOURNMENT – at 8:37 pm to a Regular City Council meeting on February 14, 2022 at 7:00 p.m., held virtually using Zoom.

APPROVED:

BOB WOERNER, MAYOR

ATTEST:

MARIE WEBER, CITY CLERK

DRAFT MINUTES



CITY COUNCIL
FEBRUARY 7, 2022

CLOSED SESSION

1. **CALL TO ORDER** – The Closed Session of the City Council was called to order by Mayor Bob Woerner at 5:02pm, held via teleconference using Zoom and YouTube.

2. **ROLL CALL** – Present: Mayor Bob Woerner, Vice Mayor Regina Bonanno, and Council Members, Robert W. Carling, Brittini Kiick and Trish Munro.

**OPPORTUNITY FOR THE PUBLIC TO ADDRESS THE CITY COUNCIL
REGARDING CLOSED SESSION ITEMS.**

Mayor Woerner opened the public comment period.

There were no speakers and the hearing was closed.

1. ADJOURN TO CLOSED SESSION

3.1 **PUBLIC EMPLOYEE EMPLOYMENT:** Public employee recruitment pursuant to Government Code section 54957(b).
Title of position to be filled: City Manager.

3.2 **PUBLIC EMPLOYEE PERFORMANCE EVALUATION:** Public Employee Performance Evaluation to set goals for annual review pursuant to Government Code section 54957(b). Title of position: City Attorney.

REPORT OF ACTION TAKEN IN CLOSED SESSION

City Attorney Jason Alcala said there was no reportable action.

8. **ADJOURNMENT** – at 6:19pm to a Regular City Council Meeting on February 14, 2022, at 7:00 p.m. held virtually using Zoom.

APPROVED:

BOB WOERNER, MAYOR

ATTEST:

MARIE WEBER, CITY CLERK



CITY COUNCIL STAFF REPORT

ITEM NO. 5.2

DATE: February 14, 2022

TO: Honorable Mayor and City Council

FROM: Scott Lanphier, Public Works Director

SUBJECT: Resolution authorizing execution of an agreement with Jacobs Engineering Group Inc., for the Water Resources Division's Supervisory Control and Data Acquisition (SCADA) Server Replacement Project in an amount not-to-exceed \$267,012 and authorizing the City Manager to approve equipment procurement in an amount not-to-exceed \$330,000

RECOMMENDED ACTION

Staff recommends the City Council adopt a resolution:

1. Authorizing the execution of an agreement with Jacobs Engineering Group Inc. (Jacobs), in an amount not-to-exceed \$267,012 for Professional Services for the Water Resources Division's Supervisory Control and Data Acquisition (SCADA) Server Replacement Project, and
2. Authorizing the City Manager to approve all the equipment procurement for this project in an amount of not-to-exceed \$330,000.

SUMMARY

The Water Resources Division (WRD) retained Jacobs Engineering Group Inc. (Jacobs) to develop a Supervisory Control and Data Acquisition (SCADA) Master Plan. The Master Plan identified seven system improvement projects over four years. The first project is to replace the SCADA servers, also referred to as Operations Technology (OT). This project will replace obsolete server hardware and software to establish a reliable platform for all SCADA applications and all subsequent SCADA Master Plan projects. This project will also upgrade the existing Human-Machine Interface (HMI), also known as operator-equipment interface, application to the current version while implementing foundational aspects of the SCADA Master Plan.

DISCUSSION

In August 2020, the City retained Jacobs to develop a SCADA Master Plan that consists of a system improvement plan and two sets of improvement standards. The selection of the consultant was based on the WRD staff review of the summary of qualifications submitted in 2019. Jacobs delivered the improvement plan in April 2021. During project development, the team took into consideration industry

trends with the greatest potential to achieve the stakeholder goals. In addition, the project team established prioritization and schedule criteria. Major component replacements are prioritized based on life-cycle obsolescence and criticality to the SCADA system, as follows: servers, networks, Water Reclamation Plant Programmable Logic Controls (PLC), and remote site (e.g., pump stations) PLC.

The implementation plan identified seven projects over four years with the first project replacing the SCADA servers. This project replaces obsolete server hardware and software to establish a reliable platform for all SCADA applications and all subsequent SCADA Master Plan projects. This project upgrades the existing HMI application to the current version while implementing foundational aspects of the SCADA Master Plan.

Jacobs's service covers the system design, configuration, installation, testing, and commissioning. Jacobs provides this full-package service to many other agencies. This service is different from what the City often does for a multidisciplinary capital improvement project, which is usually divided between a designer and a contractor. In this case, the project is mainly instrumentation and control. Through the Master Plan project, Jacobs has come to well understand the City's system and staff are impressed by their knowledge, vision, and management skills. As a result, Jacobs will handle the project more efficiently, with less required lead time, than a new consultant would require.

Staff will work on equipment procurement identified by Jacobs during the design phase. The estimated equipment cost is \$330,000.

The proposed approach to replacing the SCADA servers and upgrading the HMI application includes four tasks:

Task 1: SCADA Server Design

The SCADA server hardware design includes:

- A cost/benefit analysis of server alternatives to host all virtual machines (VM) required by SCADA.
- Core ethernet switches to connect between the VM servers, storage, and the existing network.
- A firewall to provide secure communication with remote sites and enable alarm notifications to mobile devices.
- A backup and recovery system, using a secondary server.
- A list of HMI to be in the control room and throughout the plant, as needed.

Task 2: SCADA Server Replacement

The SCADA Server replacement will start with a replacement plan that includes server configuration of VM, cyber security hardening, factory testing, hardware deployment, communication cutover, testing, training, and documentation. This task then executes server configuration, factory testing, hardware installation, cutover, field testing, training, and documentation as planned in conjunction with WRD OT and Operations staff.

Task 3: Transition Plan

The project team will develop a transition plan for migrating all WRD PLCs to the new SCADA server platform. Transition planning will be based on the SCADA Master Plan projects following the completion of the SCADA Server Replacement and consider Livermore CIP project schedules. Typical planning topics include sequencing and phasing.

Task 4: Project Management

Jacobs's management team provides the technical resources necessary to complete the job, prepares the project schedule and work plan, monitors the project budget and schedule, conducts project meetings and over-the-shoulder reviews, implements the QA/QC process, and communicates regularly with the City project team.

FISCAL AND ADMINISTRATIVE IMPACTS

This project has been budgeted under Capital Improvement Project No. 202129 (WRP SCADA Server and Network Update). The funding sources and timeline are shown below. By the end of June 2022, the estimated expenditures in FY 2021-22 for this contract are \$206,000. The remainder of the contract amount will all be spent during the next fiscal year.

	FY 2021-22	FY 2022-23	Total Budget	Jacobs Agreement	Equipment Procurement
239 (Water Resources Replacement)	\$153,000	\$300,000	\$453,000	\$197,000	\$ 246,000
241 (Sewer Connection Fees)	\$ 53,000	\$110,000	\$163,000	\$ 70,000	\$ 84,000
Total	\$206,000	\$410,000	\$616,000	\$267,000	\$ 330,000

ATTACHMENTS

1. [Resolution](#)
2. [Exhibit A - Agreement](#)

Prepared by: Yanming Zhang
Water Resources Technical Programs
Manager

Approved by:



Marc Roberts
City Manager

Fiscal Review by:



Bhavna Chaudhary
City Treasurer/Finance Manager

IN THE CITY COUNCIL OF THE CITY OF LIVERMORE, CALIFORNIA

**A RESOLUTION AUTHORIZING EXECUTION OF A PROFESSIONAL
SERVICES AGREEMENT WITH JACOBS ENGINEERING GROUP INC.
IN AN AMOUNT NOT TO EXCEED \$267,012**

Water Resources Division (WRD) staff identified Jacobs Engineering Group Inc. as the most qualified consultant for the Water Resources Division's Supervisory Control and Data Acquisition (SCADA) Server Replacement Project. The selection process was based on the previous work quality, and scope and fee negotiation. The WRD will work with the IT Division on equipment procurement.

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of Livermore:

1. Adopt a resolution authorizing the execution of an agreement with Jacobs Engineering Group Inc., attached hereto as Exhibit A, in the amount of \$267,012 for professional services for the Water Resources Division's Supervisory Control and Data Acquisition (SCADA) Server Replacement Project.
2. The City Manager is hereby authorized to approve equipment procurement for this project in an amount not to exceed \$330,000.
3. The City Manager is hereby authorized to take whatever actions are necessary and appropriate to carry out the purpose and intent of this Resolution.

On motion of Council Member _____, seconded by Council Member _____, the foregoing resolution was passed and adopted on February 14, 2022, by the following vote:

AYES: COUNCIL MEMBERS:
NOES: COUNCIL MEMBERS:
ABSENT: COUNCIL MEMBERS:
ABSTAIN: COUNCIL MEMBERS

ATTEST:

APPROVED AS TO FORM:

Marie Weber
City Clerk

/s/ Tara M. Mazzanti
Tara M. Mazzanti
Assistant City Attorney

Exhibit A – Agreement with Jacobs Engineering Group Inc.

PROFESSIONAL SERVICES AGREEMENT

THIS AGREEMENT is made and entered into this ____ day of _____, 2022, by and between the City of Livermore ("City"), a municipal corporation, and Jacobs Engineering Group Inc. ("Consultant"), a Delaware corporation licensed and registered to do business in California.

RECITALS

City requires professional services to replace the Water Resources Division's obsolete supervisory control and data acquisition (SCADA) server hardware and software, establish a reliable platform for all SCADA applications, and upgrades the existing human-machine interface application to the current version.

Consultant warrants it possesses the distinct professional skills, qualifications, experience, and resources necessary to timely perform the services described in this Agreement. Consultant acknowledges City has relied upon these warranties to retain Consultant.

AGREEMENT

NOW, THEREFORE, City and Consultant hereby agree that the aforementioned recitals are true and correct and further agree as follows:

1. **Retention as Consultant.** City hereby retains Consultant, and Consultant hereby accepts such engagement, to perform the services described in Section 3 below subject to the terms and conditions in this Agreement.
2. **Relationship of Parties – Independent Contractors.** The relationship of the parties shall be that of independent contractors. Consultant and its employees are not City officers or employees. Consultant is responsible for the supervision and management of its employees, including any workers compensation insurance, withholding taxes, unemployment insurance, and any other employer obligations associated with the delivery of the services contemplated by this Agreement.
3. **Description of Services.** Consultant shall provide the following professional services as more particularly set forth in Exhibit "A" (collectively "the Services"):

Replace the Water Resources Division's obsolete supervisory control and data acquisition (SCADA) server hardware and software, establish a reliable platform for all SCADA applications, and upgrades the existing human-machine interface application to the current version

4. **Consultant's Responsibilities.** Consultant shall:

(a) Diligently perform the Services in a manner commensurate with industry, professional, and community standards;

- (b) Provide the resources necessary to complete the Services in a timely manner;
- (c) Obtain a business license from the City of Livermore, and keep it in effect for the term of this Agreement;
- (d) Obtain and keep in effect all necessary licenses, permits, qualifications, insurance, and approvals legally and professionally required for Consultant to practice its profession and to provide the Services;
- (e) Comply with all laws in effect that are related to Consultant and the Services;
- (f) Coordinate the Services with Yanming Zhang, Water Resources Technical Programs Manager ("Project Manager"), or such other person designated as the Project Manager by City;
- (g) Be available to the Project Manager, and other parties referred to Consultant by the Project Manager, to answer questions or inquiries related to the Services;
- (h) Only invoice City for the Services rendered. Consultant's invoice shall be in writing and describe the Services performed for the payment requested. Consultant shall not submit an invoice to City more frequently than once a calendar month;
- (i) Keep and maintain invoices and records related to the Services in an organized manner. At a minimum, the records must be kept for at least 3 years from the date of final payment to Consultant and must include time sheets, work progress reports, and other documentation to adequately explain all the Services invoiced for payment. Consultant shall make the invoices and records immediately available to City upon delivery of a written request to examine, audit, or copy them at City's place of business during normal business hours. Consultant shall give City 30 calendar-days' written notice prior to destroying the invoices and records and allow City an opportunity to take possession. If City wants them, Consultant and City shall coordinate their delivery to City in the most efficient manner possible;
- (j) Prepare and submit a written report to the Project Manager, within 3 business-days of the Project Manager's written request, that identifies the Services completed and in progress, the charges incurred to date, and the anticipated cost to complete the remaining Services;
- (k) Consultant shall correct, at its own expense, all errors in the Services. Should Consultant fail to make such correction in a timely manner, City may make the correction and charge the cost thereof to Consultant;
- (l) If applicable, Consultant shall ensure that all work for compensation is provided in compliance with the requirements of the California Labor Code including but not limited to hours of labor, nondiscrimination, payroll records, apprentices, worker's compensation and prevailing wages. If applicable, Consultant shall comply with all

prevailing wage laws, such as sections 1773, 1773.8, 1775, 1776, 1777.5, 1777.6, and 1813 of the California Labor Code and any other applicable wage and hour law. If any violation of prevailing wage law associated with this Agreement is deemed to have occurred by any court or administrative authority, Consultant shall forfeit to the City, as a penalty, the sum of fifty dollars (\$50.00) for each calendar day, or portion thereof, for each laborer, worker, or mechanic employed, paid less than the applicable prevailing rates for any work done to accomplish the purposes of this Agreement; and,

(m) Consultant's services provided pursuant to this Agreement shall comply with the Americans with Disabilities Act (ADA) of 1990, and all amendments thereto, as well as all applicable regulations and guidelines issued pursuant to the ADA.

5. Compensation and Payment.

(a) The total compensation payable by City to Consultant for the Services **SHALL NOT EXCEED** the sum of \$267,012 ("not-to-exceed amount"). City shall compensate Consultant for the Services rendered at the hourly rates, task amounts or travel expenses set forth in Exhibit "A" up to the not-to-exceed amount. Except as provided in the body of this Agreement, the hourly rates, task amounts or travel expenses are intended to be Consultant's only compensation for the Services and is inclusive of all costs of labor, licensing, permitting, overhead and administrative costs, and any-and-all other costs, expenses, and charges incurred by Consultant, its agents, and employees to provide the Services.

(b) City shall pay Consultant no later than 30 days after City receives a written invoice from Consultant and verifies the Services were performed for the payment requested.

6. Term. The term of this Agreement commences on January 25, 2022, and terminates upon the completion of the Services or December 31, 2023, whichever occurs first.

7. Termination by City. City may terminate any portion or all of the Services by giving Consultant at least 30 calendar-days written notice. Upon receipt of a termination notice, Consultant shall immediately stop all work in progress on the Services except where necessary to preserve the benefit of the work, and then assemble the work on the Services for delivery to City on the termination date. All compensation for Services performed prior to the termination date shall be payable to Consultant in accordance with Section 5.

8. Ownership of Documents. All drawings, designs, data, photographs, reports and other items prepared or obtained by Consultant in the performance of the Services are City's property and Consultant shall deliver them to City upon demand.

9. Copyright and Right of Use. All items created by Consultant for City under this Agreement are works made for hire, and Consultant shall give City the copyright and all intellectual property rights to all items developed, prepared, and delivered as part of the Services. Consultant agrees that all aspects of the Services and items created thereby will be original works of creation and will not use, in whole or in part, any work created by

any other party, except when expressly disclosed by Consultant to City and Consultant obtains a license to such items for the benefit of City. All licenses must be perpetual, world-wide, non-exclusive, and royalty free sufficient in scope to permit City's full use and enjoyment of its ownership rights in the items created by the Services.

10. Confidentiality. Consultant shall not disclose any confidential or proprietary information received from City to anyone except Consultant's employees who require access to the information to perform the Services. This obligation shall survive termination and remain in full force and effect until the information, and any copies thereof, are destroyed or returned to City.

11. Defense, Indemnity, and Hold Harmless. To the fullest extent permitted by law, Consultant shall hold harmless, indemnify, and defend with counsel selected by the City or otherwise acceptable to the City, the City and its elected and appointed officials, officers, directors, employees, agents and designated volunteers from and against any and all liability, loss, damage, claims, expenses, and costs (including without limitation, attorney's fees and costs and fees of litigation) (collectively, "Liability") of every nature arising out of or in connection with Consultant's performance of the services contemplated by this Agreement, or in connection with Consultant's failure to comply with any of its obligations contained in this Agreement, except for such Liability caused by the sole active negligence or willful misconduct of City. Consultant's obligations to hold harmless, indemnify, and defend shall not be excused because of Consultant's inability to evaluate Liability or because Consultant evaluates Liability and determines that Consultant is not liable to the claimant. These obligations are independent of, and shall not in any way be limited by, the minimum insurance obligations contained in this Agreement. These obligations shall survive the completion or termination of this Agreement. Consultant must respond within 30 days to the tender of any claim for defense and indemnity by the City.

- (a) Modification for Construction Contracts. To the extent this Agreement is a "construction contract" covered by California Civil Code section 2782, then Consultant's duty to indemnify shall not apply in a manner prohibited by California Civil Code section 2782.
- (b) Modification for Design Professional Services. To the extent this Agreement is for "design professional services" defined in California Civil Code section 2782.8, then Consultant's duties to defend and indemnify shall only apply to the extent provided for in California Civil Code section 2782.8(a), unless section 2782.8(a) is not applicable for one of the reasons set forth in 2782.8(e).

12. Insurance. Consultant shall procure and maintain insurance during the term of this Agreement in the amounts and under the terms set forth in Exhibit "B" against claims that may arise from or in connection with this Agreement and performance of the Services. Upon reasonable written notice, Consultant shall comply with any changes in the amounts and terms of insurance as may be required from time-to-time by City's Risk Manager.

13. Acceptance of Final Payment. Consultant's acceptance of final payment will release City from any and all claims and liabilities for compensation under this Agreement.

14. Acceptance of Work. City's acceptance of, or payment to Consultant for, the Services does not release Consultant from its responsibility for the accuracy, completeness, or competency of the Services, nor do the actions constitute an assumption of Consultant's responsibility or liability by City for any defect or error in the Services.

15. Conflict of Interest. Consultant represents that no City employee or official has a financial interest in Consultant. Consultant shall not offer, encourage, or accept any financial interest in any part of Consultant's business by or from a City employee or official during the term of this Agreement or as a result of being awarded this Agreement. If any of the Services are paid by reimbursement from an agreement between City and a private party, Consultant represents that it has not performed any work for that private party during the 12-month period prior to the execution of this Agreement, and that it shall not negotiate, offer or accept any contract for services from that party during the term of this Agreement.

16. Economic Disclosure. Consultant shall comply with City's local conflict of interest code and the Political Reform Act, and prepare and file an economic disclosure statement if the Services involve making, or participation in making, decisions which may have a material effect on the Consultants' financial interest. While it is Consultant's sole responsibility to evaluate its conflicts of interest, the Consultant nevertheless agrees to prepare and file an economic disclosure statement if requested by City.

17. Non-Exclusive Agreement. This is a non-exclusive agreement. City reserves the right to provide, and to retain other consultants to provide, services that are the same or similar to the Services described in this Agreement.

18. No Assignment. Consultant shall not assign or subcontract any of the Services without City's prior written consent. For the purposes of this section, a change of fifty-percent or more in the ownership or control of Consultant constitutes an assignment.

19. Remedies. All remedies permitted or available under this Agreement, or at law or in equity, are cumulative and alternative, and the invocation of a right or remedy will not be construed to waive or elect a remedy with respect to any other available right or remedy. As a condition precedent to commencing legal action involving a claim or dispute against City arising from this Agreement, the Consultant must present a written claim to City in accordance with Chapter 3.42 of the Livermore Municipal Code.

20. Construction of Language. The terms and conditions in this Agreement have been arrived at through negotiation and each party had a full and fair opportunity to review and revise this Agreement with legal counsel. Any ambiguity in this Agreement will not be resolved against either party as the drafting party. In the event of an inconsistency or conflict between the language in the body of the Agreement and an attachment hereto, the language in the body of the Agreement controls.

21. Entire Agreement; Modification. This Agreement supersedes all other agreements, whether oral or written, between the parties with respect to the Services. Any modification to this Agreement must be in writing and signed by both parties. In the

event the original of this Agreement is lost or destroyed, an archival copy maintained by City can be used in place of the original for all purposes with the same effect as if it was the original.

22. Notice. Notices under this Agreement must be delivered to the addresses below by deposit in the United States mail or by overnight delivery service, with postage prepaid and delivery confirmation:

TO CITY: Attention: Water Resources Division Manager
 City of Livermore
 101 W. Jack London Blvd.
 Livermore, California 94551

TO CONSULTANT: Attention: Mia Lindsey
 Jacobs Engineering Group
 4 Embarcadero Center, Suites 3800
 San Francisco, CA 94111

23. Waiver. Failure to insist upon the strict performance of any term or conditions in this Agreement, no matter how long the failure continues, is not a waiver of the term or condition and does not bar the right to subsequently demand strict performance. To be effective, a waiver must be in writing and signed by the non-breaching party.

24. Severability. If a court of competent jurisdiction determines a provision in this Agreement is invalid, void, or unenforceable, the remaining provisions will nevertheless continue in full force and effect without being impaired in any way.

25. Survival. The terms, conditions, and obligations in Sections 8, 9, 10, and 11 shall survive the completion or termination of this Agreement.

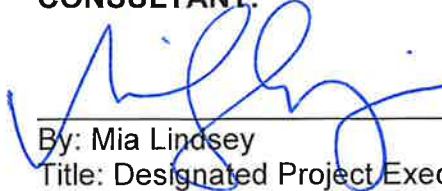
26. Electronic Signatures. By signing this document, you are agreeing that you have reviewed this disclosure information and consent to transact business using electronic communications, to receive notices and disclosures electronically, and to utilize electronic signatures in lieu of using paper documents. You are not required to receive notices and disclosures or sign documents electronically. If you prefer not to do so, you may request to receive paper copies and withdraw your consent at any time.

27. Counterparts. This Agreement may be executed and delivered in one or more counterparts, each of which will be deemed to be an original copy of this Agreement, and all of which, when taken together, will be deemed to constitute one and the same agreement. The facsimile, email, or other electronically delivered signatures of the Parties shall be deemed to constitute original signatures, and facsimile or electronic copies hereof shall be deemed to constitute duplicate originals and shall be valid and effective for all purposes.

Signatures and Attachment List on the Next Page

In concurrence and witness whereof, and in recognition of the mutual consideration provided therefore, the parties have executed this Agreement, effective on the date first written above.

CONSULTANT:


By: Mia Lindsey
Title: Designated Project Executive

Dated:

16 Dec 2021

CITY OF LIVERMORE:

Dated:

Marc Roberts
City Manager

APPROVED AS TO FORM:

Assistant/City Attorney

APPROVED AS TO INSURANCE:

Risk Manager/Analyst

Attachments:

- Exhibit A – Scope of Work
- Exhibit B – Insurance Requirements

SCADA Server Replacement Project Proposal

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1. Project Understanding

The City of Livermore Public Works Department Water Resources Division (Livermore, WRD) receives treated water from Zone 7 Water Agency, and is responsible for water distribution, wastewater collection, wastewater treatment, and stormwater management. WRD uses a supervisory control and data acquisition (SCADA) system to monitor and control the WRD Water Reclamation Plant, four wastewater lift stations, three stormwater lift stations, and the water distribution system (including five pump stations and three reservoir sites). The SCADA system and the data it collects are critical to supporting operations and regulatory reporting functions.

In August 2020, WRD contracted with Jacobs to develop a SCADA Master Plan that included an implementation plan. Jacobs delivered the final implementation plan on April 30, 2021. The implementation plan identified seven projects over four years to upgrade and replace the WRD SCADA system. The first project is to replace the SCADA servers, also referred to as Operations Technology (OT). This project replaces obsolete server hardware and software to establish a reliable platform for all SCADA applications and all subsequent SCADA Master Plan projects. This project upgrades the existing HMI application to the current version while implementing foundational aspects of the SCADA Master Plan.

2. Description of Services

2.1 Approach

The proposed approach to replacing the SCADA servers and upgrading the HMI application (FactoryTalk®) includes four tasks:

- (1) Task 1 focuses on the SCADA Server Architecture Design.
- (2) Task 2 focuses on the SCADA Replacement planning, design, procurement, development, factory testing, installation, and commissioning.
- (3) Task 3 focuses on the Transition Plan to migrate all PLCs to the new SCADA platform.
- (4) Task 4 focuses on successfully delivering the project.

Task 1: SCADA Server Design

The SCADA server hardware design includes:

- a cost/benefit analysis of server alternatives to host all virtual machines (VM) required by SCADA.
- core ethernet switches (10GB minimum) to connect between the VM servers, storage, and the existing network.
- a firewall to provide secure communication with remote sites and enable alarm notifications to mobile devices.
- a backup and recovery system, using a secondary server.
- a list of thick/thin clients to be in the control room and throughout the plant as needed.

The SCADA server design will provide capacity to host all virtual machines needed for the SCADA system, using Microsoft Server 2019 or latest Rockwell Automation approved operating system. Jacobs will collaborate with WRD OT staff to set up and maintain SCADA VMs. VMs to be included in the design are listed below:

Management VMs

DC01:	Domain Controller 1
DC02:	Domain Controller 2
RDS01:	Remote Desktop Server (5 clients)
RDS02:	Remote Desktop Server (5 clients)
RDS03:	Remote Desktop Server (5 clients)
BUP01:	Backup Server

SCADA VMs

HMI01:	Primary HMI Server and Alarm Server
HMI02:	Secondary HMI Server and Alarm Server
DATA01:	Data Server (Polls PLCs) Historian Live Data Collector
DATA02:	Data Server (Polls PLCs) Historian Live Data Collector
FTD01:	FactoryTalk Directory (PhoneBook of Rockwell Computers)
ENG01:	Asset Center Server with Full MS SQL License
ENG02:	FactoryTalk View Studio and Studio5000 (RSLogix)
HIST01:	Tier 1 Historian (collects all Historical data for use by the SCADA system)
HIST02:	Tier 2 Historian (in a format accepted by the connector such as MYSQL to generate Lab and Operations report, temporarily located in the SCADA server)

SCADA Server Replacement Project Proposal

Task 2: SCADA Server Replacement

The SCADA Server replacement will start with a replacement plan that includes server configuration (up to 15 VMs), cyber security hardening, and factory testing. Server configuration and factory testing will take place at Jacobs' control lab in Redding, CA.

The SCADA Server replacement will conclude with hardware deployment (up to 15 thin clients), communication cutover, testing, training, and documentation. This task executes hardware installation at the WRP, cutover, field testing, training, and documentation in conjunction with OT and Operations staff.

Task 3: Transition Plan

The Transition Plan will build on the projects described in the Master Plan, including the network upgrade and upgrading or replacing up to 16 PLCs at the WRP and up to 15 PLCs at the remote sites. The transition plan will describe a sequence of upgrades and replacements over a transition period of up to 3 years.

Task 4: Project Management

As project manager, Jason Hise will work closely with you while managing our team. He will provide the technical resources necessary to complete the job, prepare the project schedule and work plan, monitor the project budget and schedule, conduct project meetings and over-the-shoulder reviews, implement the QA/QC process, and communicate regularly with the Livermore team. For the workshops he leads and facilitates, Jason will provide timely detailed meeting notes with action items, corrective actions to be followed, and work-around plans to maintain schedule and budget. He will provide schedule updates at monthly project management team meetings and works with Jacobs's project controls team to set up the project accounting and invoice structures required for billing purposes.

2.2 Task Descriptions

2.2.1 Task 1 - SCADA Server Design

Kickoff Meeting and Site Investigation

Jacobs will request a detailed inventory of computer and network equipment including interconnectivity of all components to develop a detailed server network diagram. Jacobs will review these documents and develop a draft server network diagram prior to the kickoff meeting. A kickoff (1 hour) meeting will be held to review the objectives of the project with all Livermore stakeholders, followed by a site investigation that includes access to computers, computer performance monitoring, current available storage, and network switch configurations accompanied by appropriate WRD staff.

Server/Client Architecture Development:

Jacobs will facilitate **Workshop #1** with WRD OT staff to develop a new server/client architecture for the SCADA system. Topics will include hyperconvergence, hypervisor options, data center network switches, bridge PLC (interface for remote sites), backup and recovery, cybersecurity (firewalls and endpoint protection), thin client applications, and cost-benefits of all major components (hardware and software). The design assumes physical redundancy (2 server locations) so that the new backup and recovery system shall allow for an entire building or server node to go down with no loss of data and minimal interruption to operator functionality. Jacobs will document the workshop results in a draft technical memorandum (TM) (90% design) that describes WRD's SCADA server/client architecture and includes a draft cost-benefit analysis of architecture options.

SCADA Server Design:

Jacobs will facilitate **Workshop #2** with WRD OT staff to design the new SCADA servers based on the results of Workshop #1. The design will apply to both the primary and secondary SCADA servers, and identify long-term maintenance costs and resources. The design will include UPS power requirements and sizing for all new data center equipment. Jacobs will document the workshop results in a final TM (Final Design) summarizing the cost-benefit analysis and recommendations, and a final Bill of Materials (BOM) that includes procurement information, including purchase orders, for all equipment and software. WRD will initiate procurement procedures upon approval of the final TM (100% design). The analysis will identify all sole source equipment or software.

2.2.2 Task 2 - SCADA Server Replacement

Subtask 2.1 – SCADA Server Development:

Jacobs will facilitate **Workshop #3** with WRD OT staff to develop a detailed plan for configuration, factory testing, installation, cutover, and training. Configuration topics will include the domain controller, backup server, endpoint protection, networks, and Rockwell software. Security policies and procedures will be reviewed and followed. Jacobs will document the workshop results in a draft TM that includes factory testing procedures, hardware installation sequences, a detailed cutover schedule, resource responsibilities, validation and fallback procedures, integration with existing network, training and documentation requirements, and decommissioning. Jacobs will incorporate feedback for a final TM.

Based on receipt of all equipment and software at the Jacobs control system lab (located in Redding, CA), Jacobs will perform the following tasks:

- 1) Configure the SCADA server equipment and software in accordance with the Configuration Plans determined in the SCADA Server Replacement Plan.
- 2) Perform and document all factory testing procedures in conjunction with WRD OT staff.

SCADA Server Replacement Project Proposal

- 3) Document the completion of the server equipment and software configuration in a Factory Testing Acceptance Report.

Subtask 2.2 – SCADA Server Commissioning:

Jacobs will facilitate **Workshop #4** with WRD OT staff as a kickoff to executing the cutover schedule. Based on the replacement plan in the final TM, workshop participants will identify last-minute considerations that may impact the cutover. Jacobs will coordinate with WRD OT and Operations staff to initiate the cutover schedule. Jacobs will document the results of Workshop #4 in a cutover schedule that identifies daily activities and responsibilities to complete the SCADA server replacement. Jacobs will execute the cutover schedule in conjunction with WRD OT and Operations staff, including installation, cutover, field testing, commissioning, and decommissioning. The following existing SCADA/Reporting functionalities will be preserved and upgraded:

- Data collection and access
- Trending
- Backup and restore
- Domain and network configuration
- Reporting
- Alarm notification

Jacobs will document the successful cutover of the server equipment and software in a System Acceptance Report.

Following successful cutover of the SCADA servers, Jacobs will prepare a draft O&M manual and presentation materials for a training session with WRD OT staff. Jacobs will train WRD OT staff on a holistic overview of the new SCADA servers, consisting of its configuration, running applications, and cyber security protection measures. Training will include incident response procedures for WRD OT staff to respond appropriately to security events that threaten stable operation of the SCADA system.

Based on feedback on the training session, Jacobs will submit a final O&M manual. For final acceptance, Jacobs will provide as-built documentation of the SCADA servers, consisting of the server network diagrams, SCADA server design drawings, and final configurations.

2.2.3 Task 3 – Transition Plan

Jacobs will facilitate **Workshop #5** with WRD Operations and OT team members to develop the transition plan for migrating all WRD PLCs to the new SCADA server platform. Transition planning will be based on the SCADA Master Plan projects following the completion of the SCADA Server Replacement and consider WRD CIP project schedules. Typical planning topics include sequencing and phasing. Upon completion of the workshop, Jacobs will document the workshop results in a draft TM that describes the transition plan. Jacobs will incorporate WRD feedback to produce a final transition plan.

2.2.4 Task 4 - Project Management

Project Management

Jacobs will furnish project management services necessary to properly manage, lead, and control the project work. Jacobs will furnish project management services for the project, as follows:

- Progress Monitoring—Monitor budget, work progress, and schedule for each task. Manage scope changes and act to resolve impacts on budgets as soon as scope changes have been identified.
- Administration—Maintain project records, manage and process project communications, and coordinate Project administrative matters.
- Staff Management—Supervise activities of staff assigned to the project. Coordinate and schedule appropriate staffing to meet project requirements.
- Health and Safety—Jacobs will provide project specific field safety instructions for use by team members when performing field investigations at WRD sites.

Monthly Reporting

Jacobs will prepare monthly progress reports. The reports will include at a minimum, the following:

- Progress within the last month, by task and subtask
- Problems encountered or anticipated
- Items scheduled for work in the next month
- Monthly project billings showing labor hours by staff member and by task

Quality Assurance

Quality assurance (QA) is the administrative and procedural activities implemented in our quality system to guarantee high level of quality in the development, production, and delivery of our engineering projects and services at each phase of the project. Quality control (QC) is the observation of techniques and activities used to make sure the requirements of our quality procedures and program are met. It is our system for verifying and maintaining the desired level of quality through careful planning, continued review and "inspection," and implementation of corrective action, as required. QC makes sure the results of what we've done are what you expected.

Jason Hise will work closely with Quality Manager Michael Johnson to implement our rigorous internal QC and QA process for the Master Plan. Michael will develop a tailored Quality Plan for this project and provide training on the quality process. The Quality Plan outlines the responsibility of the originator and the reviewer for plans, specifications, reports, calculations, quantities, and cost estimates. When all deliverables conform to the procedural guidelines, formats, and content expectations, review delays are minimized. Michael reviews the documentation prepared for each step of the process and ensures that reviews are conducted thoroughly.

2.3 Deliverables

Task 1 – SCADA Server Design

- Kickoff Meeting Presentation & Meeting Notes
- Detailed Existing Server Network Diagram
- Listing of OT Equipment with IP Addresses and Settings
- Architecture **Workshop #1** Presentation & Meeting Notes
- Draft Server/Client Architecture Drawings
- Draft Bill of Materials (A series of P.O. and shipping instructions)
- Draft Cost Benefit Analysis with Recommendations
- 90% Design TM, Class 3 Cost Estimate and Schedule
- Server Design **Workshop #2** Presentation & Meeting Notes
- Draft Server Design Drawings

SCADA Server Replacement Project Proposal

- Final BOM
- Final Cost Benefit Analysis with Recommendations
- 100% Design TM, Class 2 Cost Estimate and Schedule

Task 2 – SCADA Server Replacement

- Replacement Planning **Workshop #3** Presentation & Meeting Notes
- Draft and Final SCADA Server Replacement Plan including:
 - Configuration Plans
 - Factory Testing Performance Standard including each VM
 - Factory Testing Procedures
 - Draft Cutover Schedule
 - Field Testing and Commissioning Performance Standard including each VM
 - Field Testing and Commissioning Procedures
 - Training and Documentation Requirements
 - Decommissioning Plans
- Configured Server Equipment (SCADA servers, thin clients)
- Configured Server Software (Historian, Alarm software, domain control, backup and recovery packages)
- Factory Testing Acceptance Report
- Cutover Scheduling **Workshop #4** Presentation & Meeting Notes
- Final Cutover Schedule
- System Acceptance Report
- Training Documentation including:
 - Draft O&M Manual
 - Training Presentation
 - Hands-on Training Procedures
 - Final O&M Manual
- As-built Documentation including:
 - Server Network Diagram
 - Server Design Drawings
 - Final Configurations

Task 3 – Transition Plan

- Transition Planning **Workshop #5** Presentation & Meeting Notes
- Draft and Final SCADA System Transition Plan

Task 4 – Project Management

- Monthly Invoices and Progress Reports
- Project Schedule
- Field Safety Instructions

2.4 Roles and Responsibilities

The following are roles and responsibilities specific to the cutover sequence.

- Jacobs's role and responsibilities: Jacobs will be responsible for cutting over monitoring and control of each PLC, validating the cutover, communicating with the lead operation personnel, and maintaining a fallback position throughout the cutover. Before any cutover activity is initiated Jacobs will request the cutover permission from the lead operations and receive confirmation that operation is ready for the action before acting. Jacobs will follow any instructions from the WRD's lead operations staff including failing back to the old SCADA system. Jacobs will provide project deliverables in MSWord, Excel, PDF, or Visio formats.
- WRD's role and responsibility: The WRD will be responsible for maintaining monitoring and control of the wastewater treatment plant. The lead operator will be informed of all requested cutover activities

SCADA Server Replacement Project Proposal

before they happen and grant permission for all cutover activity step by step. The lead operator will instruct Jacobs to perform control actions if needed during the cutover. The operator at anytime may request operations on the old system provided the cutover cannot be validated after testing.

The services described below are assumed to be provided by WRD:

- Actively participate in team conference calls and face-to-face/virtual meetings
- Schedule appropriate WRD personnel to participate in workshops
- Provide one set of adjudicated comments to draft documents and drawings in a timely manner (typically 2 weeks)

2.5 General Assumptions

- The SCADA Server replacement will use a thin-client architecture with servers running in a virtual environment. All virtual machines will be based on Microsoft Server 2019 or latest Rockwell Automation approved operating system and replace current obsolete operating systems, such as MS Windows XP, MS Windows 7, and older versions of MS Server.
- The SCADA Server replacement project includes installation and configuration of core switches in the SCADA server appliances and security configuration of the domain controllers. Network design services and security measures outside the data center are not included in this scope. Network design services may be performed under a separate task order that includes design, configuration, installation and testing of the DMZ server, network switches, cabling, and network security measures.
- HMI Programming will be limited to minor changes to accommodate the application migration to the new server/client architecture. Reprogramming PLCs and HMI applications, including legacy alarm management, to the new software standards identified in the SCADA Master Plan is not included in this scope.
- Due to global chip shortages, chip-based hardware products are experiencing price increases and extended delivery schedules. Although some contingency for material cost increases is included in this proposal, Jacobs cannot guarantee hardware and software pricing at the time of procurement.
- WRD will procure all SCADA server hardware and Rockwell software for delivery to Jacobs' control system lab in Redding, CA and ship the Factory Tested hardware and software to the WRP in Livermore, CA.
- Jacobs will evaluate the existing electrical service for a new UPS. No design or construction costs for electrical service upgrades are included in this proposal.
- All meetings are assumed to be in-person unless otherwise directed by WRD staff.
- All deliverable documents will be provided in native electronic format (Word, Excel, Visio, etc.).
- All training and training documentation are limited to the equipment procured in this project.
- Labor and material fees are developed from the labor and material detailed cost estimates in the SCADA Master Plan.

2.6 Project Schedule

The scope of engineering services and activities associated with this SCADA Server Replacement will be completed in accordance with the following approximate Project target dates:

Activity	Target Start	Target Finish
Task 1 – SCADA Server Design	January 1, 2022	April 30, 2022
Task 2.1 – SCADA Server Development	May 1, 2022	August 31, 2022
Task 2.2 – SCADA Server Commissioning	September 1, 2022	December 31, 2022
Task 3 – Transition Plan	November 15, 2022	December 31, 2022
Task 4 – Project Management	January 1, 2022	December 31, 2022

3. SCADA Server Replacement Jacobs Team

The proposed Jacobs team members are either a continuation of team members from the SCADA System Master Plan or selected from Jacobs Operational Technology group. The classification rate schedule provided in the SOQ submitted in January 2019 shows a 3% annual escalation for hourly billing rates from 2019 through 2021.

Jacobs Key Team Members

<u>Staff Member</u>	<u>Classification</u>	<u>Project Role</u>
Michael Johnson	Principal Technologist	Quality Manager
Jason Hise	Senior Technologist	Project Manager
Iouri Ossokine	Project Engineer	Lead Project Engineer

Jacobs Engineering Group Classification Rate Schedule for City of Livermore Hourly Billing Rates

<u>Classification</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>
Principal Technologist*/Principal Project Manager	\$268	\$277	\$286
Senior Technologist*/Senior Project Manager	\$250	\$258	\$266
Engineer Specialist*/Project Manager	\$235	\$243	\$251
Project Engineer*	\$209	\$216	\$223
Associate Engineer*	\$190	\$196	\$202
Staff Engineer 2*	\$166	\$171	\$177
Staff Engineer 1*	\$141	\$146	\$151
Engineering/CAD Tech 3	\$126	\$130	\$134
Engineering/CAD Tech 2	\$104	\$108	\$112
Engineering/CAD Tech 1	\$95	\$98	\$101
Office/Administrative/Clerical	\$91	\$94	\$97

*Includes engineering, software development, consulting, planner, and scientist disciplines

Notes:

1. A 10% mark-up will be applied to all direct costs and expenses (materials, transportation, meals and lodging, mail, subcontracts, outside services, etc.)
2. A 3% escalation rate is applied annually to all hourly billing rates.
3. Rates are effective from January 1 through December 31 each calendar year.

4. Fee Proposal

The fee proposal shown below is based on contract terms and conditions in the standard City of Livermore Professional Services Agreement.

TASK NAME	TOTAL HOURS	LABOR FEE
TASK 1 – SCADA SERVER DESIGN	262	\$ 52,060
TASK 2 – SCADA SERVER REPLACEMENT	720	\$ 145,496
TASK 3 – TRANSITION PLAN	86	\$ 18,630
TASK 4 - PROJECT MANAGEMENT	276	\$ 50,826
FEE PROPOSAL TOTAL	1,344	\$ 267,012

EXHIBIT B

INSURANCE REQUIREMENTS

Minimum Scope and Limits of Insurance

Consultant/Contractor shall maintain limits no less than:

1. Commercial General Liability, including operations, products, and completed operations, as applicable:
\$2,000,000 per occurrence/**\$4,000,000** aggregate for bodily injury, personal injury, and property damage. If Commercial General Liability or other form of insurance with a general aggregate limit is used, either the general aggregate limit shall apply separately to this project/location or the general aggregate limit shall be twice the required occurrence limit.
2. Automobile Liability:
\$1,000,000 per accident for bodily injury and property damage.
3. Workers' Compensation and Employer's Liability:
 Statutory limits as required by the State of California including **\$1,000,000** Employers' Liability per accident, per employee for bodily injury or disease. A waiver of subrogation is required for Workers' Compensation insurance. If Consultant/Contractor is a sole proprietor, then they must sign "Contractor Release of Liability."
4. Professional Liability/Errors and Omissions:
\$2,000,000 per claim. Consultant/Contractor warrants that any retroactive date under this policy shall precede the effective date of this contract and, either continuous coverage will be maintained, or an extended discovery period will be exercised for a period of two years beginning at the time work under this contract is completed.

Deductibles and Self-Insured Retention

All self-insured retentions (SIR) must be disclosed to Risk Management for approval and shall not reduce the limits of liability. Policies containing any self-insured retention (SIR) provision shall provide, or be endorsed to provide, that the SIR may be satisfied by either the named insured or the City of Livermore.

Acceptability of Insurers

Insurance is to be placed with insurers with a current A.M. Best rating of no less than A: VII and accepted to do business in the State of California, unless otherwise acceptable to the City of Livermore.

Other Insurance Provisions

The general liability and automobile liability policies are to contain, or be endorsed to contain, the following provisions:

1. The City of Livermore, its officers, officials, employees, and designated volunteers are to be covered as additional insureds as respects: liability arising out of activities performed by or on behalf of the

Consultant/Contractor; or automobiles owned, leased, hired or borrowed by the Consultant/Contractor. The coverage shall contain no special limitations on the scope of protection afforded to the City of Livermore, its officers, officials, employees, or volunteers.

2. The limits of insurance required in this agreement may be satisfied by a combination of primary and umbrella or excess insurance. The additional insured coverage under the Consultant's/Contractor's policy shall be primary and non-contributory and will not seek contribution from the City's insurance or self-insurance and shall be at least as broad as ISO Form CG 20 10 04 13. Any umbrella or excess insurance shall contain or be endorsed to contain a provision that such coverage shall also apply on a primary and non-contributory basis for the benefit of the City of Livermore before the City's own insurance or self-insurance shall be called upon to protect it as a named insured.
3. Any failure to comply with reporting or other provisions of the policy, including breaches of warranties, shall not affect coverage provided to the City of Livermore, its officers, officials, employees, or volunteers.
4. The Consultant's/Contractor's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.
5. Each insurance policy required by this clause shall be endorsed to state that coverage shall not be canceled by either party before expiration of the policy unless notice is delivered in accordance with policy provisions.
6. Certificate Holder section of the insurance certificate should read: City of Livermore, 1052 S. Livermore Avenue, Livermore, CA 94550

Verification of Coverage

Consultant/Contractor shall furnish certificates of insurance and endorsement(s) effecting coverage to the City of Livermore for approval. The endorsements shall be on forms acceptable to the City of Livermore. All certificates and endorsements are to be received and approved by the City of Livermore before work commences.



CITY COUNCIL STAFF REPORT

ITEM NO. 5.3

DATE: February 14, 2022

TO: Honorable Mayor and City Council

FROM: Paul Spence, Community Development Director

SUBJECT: Resolution authorizing execution of an agreement with Kier & Wright to provide design, environment, and construction support in an amount not-to-exceed \$392,289, for the Collier Canyon Creek Silt Basin, Project No. 201727, DR 4344-0132-040.

RECOMMENDED ACTION

Staff recommends the City Council adopt a resolution authorizing the City Manager to execute an agreement with Kier & Wright in the not-to-exceed amount of \$392,289 to provide design, environmental, and construction support services for the Collier Canyon Creek Silt Basin, Project No. 201727, DR 4344-0132-040.

SUMMARY

The project is located on Collier Canyon Road near Las Positas Community College. The February 2017 storm event, which included high volume fast-moving stormwater containing debris and silt clogged culverts and filled a mitigation basin, causing water and sediment to overflow and flood Collier Canyon Road, damaging private properties and the City's riparian mitigation area downstream of the culvert. The purpose of the project is to reduce future flood hazards by improving the conveyance capacity of the culvert pipes under Collier Canyon Road.

Kier & Wright was selected to provide engineering services for the project through a request for proposal process. They have performed similar services for the City in the past and proved both responsive and satisfactory.

DISCUSSION

In June 2018, the City submitted a Section 404-Hazard Mitigation Grant (HMG) application to Federal Emergency Management Agency (FEMA) for the Canyon Creek Silt Basin, Project No. 201727. The HMG application was approved in 2019, and the authorization to move forward with the project was received on November 12, 2021.

The project is located on Collier Canyon Road near Las Positas Community College. The site is opposite

a residential development to the west and open space and rolling hills to the east. Collier Canyon Creek collects drainage from the hills and conveys the water to the City's culvert on Collier Canyon Road. Downstream of the culvert is the City's mitigation basin.

In February 2017, heavy rainfall created a high volume of fast-moving stormwater in Collier Creek containing debris and silt, which clogged the downstream culverts and filled a City mitigation basin, causing water and sediment to overflow onto Collier Canyon Road. The flooding resulted in damage to private property and to the City's riparian mitigation area. The site is identified as a high priority project in the Tri-Valley Hazard Mitigation Plan (TVHMP) for mitigation of future flood damage.

The Collier Canyon Creek sediment capture project includes the installation of a weir structure at the existing culvert headwall, floodwalls along the shoulder of Collier Canyon Road, and an emergency overflow storm drain line above the existing culvert pipes and ancillary improvements, which will improve conveyance capacity of the culvert pipes by minimizing sediment and debris from entering the culverts pipes.

Kier & Wright was selected to provide professional services for the project through a request for proposal process. They have performed similar services to the City in the past and proved both responsive and satisfactory.

CEQA

The proposed action is not a project as defined by 14 California Code of Regulations 15378 (State California Environmental Quality Act (CEQA) Guidelines) and therefore CEQA is not applicable.

CEQA review and determination will be completed for the project in the design phase. The project is federally funded and FEMA, as the lead agency, will complete the National Environmental Policy Act (NEPA) review and determination.

FISCAL AND ADMINISTRATIVE IMPACTS

The Collier Canyon Creek Silt Basin, Project No. 201727, is included in the FY 2021-23 Capital Improvement Plan with a total budget allocation of \$500,000. In FY 2021-22, \$140,000 of FEMA Storm Reimbursement (Fund 222), and \$150,000 of Special Gas Tax (Fund 651) is budgeted. In FY 2022-23, \$60,000 of FEMA Storm Reimbursement (Fund 222), and \$150,000 of Special Gas Tax (Fund 651) is budgeted. FEMA requires a 25% local match, which can be satisfied by the allocation in Special Gas Tax (Fund 651).

The agreement for Kier & Wright is for an amount not-to-exceed \$392,289, and the expenditures would be distributed as \$220,000 in FY 2021-22 and \$172,289 in FY 2022-23.

Total estimated expenditures in FY 2021-22 to initiate the design and environmental phase are approximately \$285,000 (consultant and staff time). There is approximately \$289,000 available budget in FY 2021-22. The estimated expenditures in FY 2022-23 to complete design and environmental phase are approximately \$210,000 (consultant and staff time). There is \$210,000 in available budget in FY 2022-23. Therefore, no additional appropriations are required at this time.

The budget to advance the project into construction phase will be requested at the time of construction contract award in 2024.

ATTACHMENTS

1. Resolution
2. Exhibit A - Agreement

Prepared by: Mallika Ramachandran
Assistant City Engineer

Approved by:



Marc Roberts
City Manager

Fiscal Review by:



Bhavna Chaudhary
City Treasurer/Finance Manager

THE CITY COUNCIL OF THE CITY OF LIVERMORE, CALIFORNIA

A RESOLUTION AUTHORIZING EXECUTION OF AN ENGINEERING SERVICES AGREEMENT WITH KIER & WRIGHT FOR THE COLLIER CANYON CREEK SILT BASIN, PROJECT NO. 201727, DR 4344-0132-040 IN THE NOT-TO-EXCEED AMOUNT OF \$392,289

The Engineering Division requires a consultant to provide design, environmental, and construction support services for the Collier Canyon Creek Silt Basin, Project No. 201727, DR 4344-0132-040. The Collier Canyon Creek sediment capture project will reduce future flood hazards by improving the conveyance capacity of the culvert pipes under Collier Canyon Road. Contract services include civil engineering design and preparing plans, specifications and estimates, surveying, hydraulics and hydrology studies, geotechnical engineering, structural design, utilities engineering, traffic engineering, environmental studies and regulatory permitting, construction bid, construction support services, and other auxiliary services required for the project.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Livermore authorizes the City Manager to sign, on the behalf of City of Livermore, an engineering services agreement with Kier & Wright in the not-to-exceed amount of \$392,289 for the Collier Canyon Creek Silt Basin, Project No. 201727, DR 4344-0132-040.

On motion of Council Member _____, seconded by Council Member _____, the foregoing resolution was passed and adopted on February 14, 2022, by the following vote:

AYES: COUNCIL MEMBERS:
NOES: COUNCIL MEMBERS:
ABSENT: COUNCIL MEMBERS:
ABSTAIN: COUNCIL MEMBERS:

ATTEST:

APPROVED AS TO FORM:

Marie Weber
City Clerk

/s/ Tara M. Mazzanti
Tara M. Mazzanti
Assistant City Attorney

Exhibit A – Agreement with Kier & Wright

ENGINEERING SERVICES AGREEMENT

THIS AGREEMENT is made and entered into this ____ day of _____, 2022, ("Effective Date") by and between the City of Livermore, a municipal corporation ("City"), and Kier+Wright, a California Corporation licensed to do business in California. ("Consultant").

RECITALS

City requires engineering services to complete the design, environmental, regulatory permitting and construction support for the Collier Canyon Creek Silt Basin, Project No. 201727, DR 4344-0132-040.

Consultant warrants it possesses the distinct professional skills, qualifications, experience, and resources necessary to timely perform the services described in this Agreement. Consultant acknowledges City has relied upon these warranties to retain Consultant.

AGREEMENT

NOW, THEREFORE, City and Consultant hereby agree that the aforementioned recitals are true and correct and further agree as follows:

1. **Retention as Consultant.** City hereby retains Consultant, and Consultant hereby accepts such engagement, to perform the services described in Section 3 below subject to the terms and conditions in this Agreement.
2. **Relationship of Parties – Independent Contractors.** The relationship of the parties shall be that of independent contractors. Consultant and its employees are not City officers or employees. Consultant is responsible for the supervision and management of its employees, including any workers compensation insurance, withholding taxes, unemployment insurance, and any other employer obligations associated with the delivery of the services contemplated by this Agreement.
3. **Description of Services.** Consultant shall provide engineering services and complete field investigations and field surveys, and prepare technical studies, and develop plans, specifications and estimates and complete environmental review and permitting and provide bid and construction support services in conjunction with Collier Canyon Creek Silt Basin, Project No. 201727, DR 4344-0132-040. ("Project"), as more particularly set forth in Exhibit "A" (collectively "the Services").
4. **Consultant Responsibilities.** Consultant shall:
 - (a) Consultant shall investigate and verify all existing site conditions for the Project and take them into account when preparing the Project's design even when "As Built" or "Record Drawings" are used by Consultant.

(b) Consultant shall review and respond to construction submittals and shop drawings within seven (7) calendar days following their receipt by Consultant; requests for information with comments noted thereon shall be reviewed and responded to within five (5) working days following their receipt by the Consultant.

(c) Diligently perform the Services in a manner commensurate with industry, professional, and community standards;

(d) Provide the resources necessary to complete the Services in a timely manner;

(e) Obtain a business license from the City of Livermore, and keep it in effect for the term of this Agreement;

(f) Obtain and keep in effect all necessary licenses, permits, qualifications, insurance, and approvals legally and professionally required for Consultant to practice its profession and to provide the Services;

(g) Comply with all laws in effect that are related to Consultant and the Services;

(h) Coordinate the Services with Mallika Ramachandran ("Project Manager"), or such other person designated as the Project Manager by City;

(i) Be available to the Project Manager, and other parties referred to Consultant by the Project Manager, to answer questions or inquiries related to the Services;

(j) Only invoice City for the Services rendered. Consultant's invoice shall be in writing and describe the Services performed for the payment requested. Consultant shall not submit an invoice to City more frequently than once a month;

(k) Keep and maintain invoices and records related to the Services in an organized manner. At a minimum, the records must be kept for at least 3 years from the date of final payment to Consultant and must include time sheets, work progress reports, and other documentation to adequately explain all the Services invoiced for payment. Consultant shall make the invoices and records immediately available to City upon delivery of a written request to examine, audit, or copy them at City's place of business during normal business hours. Consultant shall give City 30 calendar-days' written notice prior to destroying the invoices and records, and allow City an opportunity to take possession. If City wants them, Consultant and City shall coordinate their delivery to City in the most efficient manner possible;

(l) Prepare and submit a written report to the Project Manager, with each invoice and when requested in writing by the Project Manager, that identifies the Services completed and in progress, the charges incurred to date, and the anticipated cost to complete the remaining Services; and,

(m) Consultant shall correct, at its own expense, all errors in the Services. Should Consultant fail to make such correction in a timely manner, City may make the correction and charge the cost thereof to Consultant.

(n) Consultant's services provided pursuant to this Agreement shall comply with the Americans with Disabilities Act (ADA) of 1990, and all amendments thereto, as well as all applicable regulations and guidelines issued pursuant to the ADA.

5. **Probable Construction Cost Estimate.** The design developed, prepared, and delivered by Consultant in accordance with this Agreement is for the development and construction of the Project, the construction of which shall be awarded through competitive bidding. City shall be entitled to rely upon Contractor's work prepared, and delivered in accordance with this Agreement in order to solicit such bids. Consultant, therefore, shall prepare an engineer's opinion of probable construction cost estimate. If the lowest of three or more bids received by City for the Project varies from the engineer's opinion of probable construction cost estimate by more than 15% and is due to Consultant's failure to comply with this Agreement, including Exhibit "A", or its negligent failure to perform pursuant to industry standards for the design work involved, Consultant, if directed by City, shall redesign the project at no additional cost to City to meet the original engineer's cost estimate.

6. **Compensation and Payment.**

(a) The total compensation payable by City to Consultant for the Services **SHALL NOT EXCEED** the sum of \$392,289 ("not-to-exceed amount"). City shall compensate Consultant for the Services rendered at the task amounts set forth in Exhibit "A" up to the not-to-exceed amount. Except as provided in the body of this Agreement, the task amounts are intended to be Consultant's only compensation for the Services and is inclusive of all costs of labor, licensing, permitting, travel expenses, overhead and administrative costs, and any-and-all other costs, expenses, and charges incurred by Consultant, its agents, and employees to provide the Services. The not to exceed amount shall not be construed as a guaranteed sum and compensation shall be based on services actually rendered and reimbursable expenses actually incurred

(b) City shall pay Consultant no later than 30 days after City receives a written invoice from Consultant and verifies the Services were performed for the payment requested.

7. **Term.** The term of this Agreement commences on the Effective Date and terminates upon the depletion of funds or June 30, 2027, whichever occurs first.

8. **Delay Damages.** Time is of the essence for this Agreement. Upon receipt of a written notice to proceed from City, Consultant shall immediately commence work to perform the Services in accordance with the schedule in Exhibit A.

(a) For each day that schematic design, design development, and/or construction documents, collectively, the "Design Phase Services," is not completed by

the deadline set forth in Exhibit A or the termination date of this Agreement, whichever is earlier, damage will be sustained by City.

(b) For each day the Design Phase Services are delayed due to circumstances within Consultant's reasonable control, City may reduce Consultant fees owed pursuant to this Agreement in an amount equal to 1% of the not-to-exceed amount set at Section 6 ("Delay Damages").

(c) City may reduce any and all payments due Consultant under this Agreement by an amount equal to the Delay Damages and Consultant shall be required to reimburse City for any assessed Delay Damages not recovered by withholdings against payments due Consultant.

(d) The City Engineer is authorized to assess Delay Damages pursuant to this Agreement on behalf of the City.

(e) Notwithstanding the foregoing, Consultant shall not be responsible for delays due to causes beyond its reasonable control so long as it advises City at the earliest opportunity to allow City an opportunity to respond to the delay.

9. Termination by City. City may terminate any portion or all of the Services by giving Consultant at least 30 calendar-days written notice. Upon receipt of a termination notice, Consultant shall immediately stop all work in progress on the Services except where necessary to preserve the benefit of the work, and assemble the work on the Services for delivery to City on the termination date. All compensation for Services performed prior to the termination date shall be payable to Consultant in accordance with Section 6.

10. Ownership of Documents. All drawings, designs, data, photographs, reports and any and every other types of items prepared or obtained by Consultant in the performance of the Services under this Agreement shall be the property of the City and Consultant shall deliver them to City upon demand. The Consultant shall assume no responsibility for the unintended use by others of any such documents, information, or materials on project(s) which are not related to the scope of the Services described under this Agreement.

11. Copyright and Right of Use. All items created by Consultant for City under this Agreement are works made for hire, and Consultant shall give City the copyright and all intellectual property rights to all items developed, prepared, and delivered as part of the Services. Consultant agrees that all aspects of the Services and items created thereby will be original works of creation and will not use, in whole or in part, any work created by any other party, except when expressly disclosed by Consultant to City and Consultant obtains a license to such items for the benefit of City. All licenses must be perpetual, world-wide, non-exclusive, and royalty free sufficient in scope to permit City's full use and enjoyment of its ownership rights in the items created by the Services.

12. Confidentiality. Consultant shall not disclose any confidential or proprietary information received from City to anyone except Consultant's employees who require

access to the information to perform the Services. This obligation shall survive termination and remain in full force and effect until the information, and any copies thereof, are destroyed or returned to City.

13. Indemnity and Defense.

(a) **Definitions.** When used in this "Indemnity and Defense" section, these terms have the following meaning:

(1) "City," means the City, its elected officials, officers, directors, employees, agents, or designated volunteers.

(2) "Design Professional," means licensed architects, licensed landscape architects, registered professional engineers, professional land surveyors and the business entities which offer such services in accordance with the provisions of the California Business and Professions Code listed at California Civil Code, section 2782.8, upon which Consultant relies to meet the obligations of, or perform work pursuant to, this Agreement.

(3) "Non-Design Professional," means any person or entity upon which Consultant relies to meet the obligations of, or perform work pursuant to, this Agreement who or which is not a Design Professional.

(4) "Loss," or "Losses," mean all claim for or actual loss, liability, damage, cost, and expense including but not limited to reasonable attorney, consultant and expert fees, and court costs arising out of or in connection with Consultant's obligation or work to perform this Agreement including the City's active or passive negligence, except for such Loss arising from the sole negligence or willful misconduct of the City.

(b) **Non-Design Professional Services.** Consultant shall defend, indemnify, and hold harmless the City from and against any alleged Loss arising out of, pertaining to, or relating to, the services of any Non-Design Professional.

(c) **Design Professional Services.** For an alleged Loss that solely arises out of, pertains to, or relates to, the services of a Design Professional, Consultant shall defend and indemnify the City solely for such Losses due to the negligence, recklessness, or willful misconduct of the Design Professional(s) as allowed by application of California law, including California Civil Code, section 2782.8, as written on the effective date of this Agreement and according to applicable judicial interpretations.

(d) **Mixed Services.** If an alleged Loss arises out of, pertains to, or relates to both the services of a Design Professional and a Non-Design Professional, Consultant shall defend City against the claimed Loss and shall indemnify and hold harmless City from all Losses alleged against the Non-Design Professional combined with any Losses allegedly due to the negligence, recklessness, or willful misconduct of any Design Professional.

14. **Insurance.** Consultant shall procure and maintain insurance during the term of this Agreement in the amounts and under the terms set forth in Exhibit "B" against claims that may arise from or in connection with this Agreement and performance of the Services. Upon reasonable written notice, Consultant shall comply with any changes in the amounts and terms of insurance as may be required from time-to-time by City's Risk Manager.

15. **Acceptance of Final Payment.** Consultant's acceptance of final payment will release City from any-and-all claims and liabilities for compensation under this Agreement.

16. **Acceptance of Work.** City's acceptance of, or payment to Consultant for, the Services does not release Consultant from its responsibility for the accuracy, completeness, or competency of the Services, nor do the actions constitute an assumption of Consultant's responsibility or liability by City for any defect or error in the Services.

17. **Conflict of Interest.** Consultant represents that no City employee or official has a financial interest in Consultant. Consultant shall not offer, encourage, or accept any financial interest in any part of Consultant's business by or from a City employee or official during the term of this Agreement or as a result of being awarded this Agreement. If any of the Services are paid by reimbursement from an agreement between City and a private party, Consultant represents that it has not performed any work for that private party during the 12 month period prior to the execution of this Agreement, and that it shall not negotiate, offer or accept any contract for services from that party during the term of this Agreement.

18. **Economic Disclosure.** Consultant shall comply with City's local conflict of interest code and the Political Reform Act, and prepare and file an economic disclosure statement if the Services involve making, or participation in making, decisions which may have a material effect on the Consultants' financial interest. While it is Consultant's sole responsibility to evaluate its conflicts of interest, the Consultant nevertheless agrees to prepare and file an economic disclosure statement if requested by City.

19. **Non-Exclusive Agreement.** This is a non-exclusive agreement. City reserves the right to provide, and to retain other consultants to provide, services that are the same or similar to the Services described in this Agreement.

20. **No Assignment.** Consultant shall not assign or subcontract any of the Services without City's prior written consent. For the purposes of this section, a change of fifty-percent or more in the ownership or control of Consultant constitutes an assignment.

21. **FEMA Compliance.** Consultant shall comply with any and all federal provisions set forth, and/or incorporated by reference, in Exhibit C

22. **Entire Agreement; Modification.** This Agreement supersedes all other agreements, whether oral or written, between the parties with respect to the Services. Any modification to this Agreement must be in writing and signed by both parties. In the event the original of this Agreement is lost or destroyed, an archival copy maintained by

City can be used in place of the original for all purposes with the same effect as if it was the original.

23. Remedies. All remedies permitted or available under this Agreement, or at law or in equity, are cumulative and alternative, and the invocation of a right or remedy will not be construed to waive or elect a remedy with respect to any other available right or remedy. As a condition precedent to commencing legal action involving a claim or dispute against City arising from this Agreement, the Consultant must present a written claim to City in accordance with Chapter 3.42 of the Livermore Municipal Code.

24. Construction of Language. The terms and conditions in this Agreement have been arrived at through negotiation and each party had a full and fair opportunity to review and revise this Agreement with legal counsel. Any ambiguity in this Agreement will not be resolved against either party as the drafting party. In the event of an inconsistency or conflict between the language in the body of the Agreement and an attachment hereto, the language in the body of the Agreement controls.

25. Notice. Notices under this Agreement must be delivered to the addresses below by deposit in the United States mail or by overnight delivery service, with postage prepaid and delivery confirmation:

TO CITY: Attention: City Engineer
 CC: Project Manager
 City Administration Building
 City of Livermore
 1052 S. Livermore Avenue
 Livermore, California 94550

TO CONSULTANT: Attention: Chuck McCallum P.E.
 Principal In Charge
 Kier+Wright
 2850 Collier Canyon Road, Livermore, CA 94551

26. Waiver. Failure to insist upon the strict performance of any term or conditions in this Agreement, no matter how long the failure continues, is not a waiver of the term or condition and does not bar the right to subsequently demand strict performance. To be effective, a waiver must be in writing and signed by the non-breaching party.

27. Severability. If a court of competent jurisdiction determines a provision in this Agreement is invalid, void, or unenforceable, the remaining provisions will nevertheless continue in full force and effect without being impaired in any way.

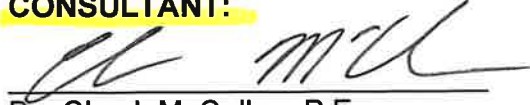
28. Counterparts. This Agreement may be executed in counterpart by delivering a facsimile or secure electronic copy of the signed agreement to the other party, followed by delivery of the original documents bearing the original signatures. However, failure to deliver the original documents does not affect the enforceability of this Agreement.

29. **Governing Law.** This Agreement is governed by California law. Consultant consents to the exclusive jurisdiction and venue of the state and federal courts of Alameda County, California.

Signatures and Attachment List on the Next Page

In concurrence and witness whereof, and in recognition of the mutual consideration provided therefore, the parties have executed this Agreement, effective on the date first written above.

CONSULTANT:



By: Chuck McCallum P.E.
Title: Principal In Charge

Dated:

1/24/2022

CITY OF LIVERMORE:

Dated:

Marc Roberts
City Manager

APPROVED AS TO FORM:

Assistant/City Attorney

APPROVED AS TO INSURANCE:

Risk Manager/Analyst

Attachments:

- Exhibit A – Scope of Work
- Exhibit B – Insurance Requirements
- Exhibit C- Federal Provisions- FEMA

**EXHIBIT A
SCOPE OF WORK
FOR**

COLLIER CANYON CREEK SILT BASIN, PROJECT NO. 201727, DR 4344-0132-040

Project Understanding

Kier & Wright submitted an updated proposal on January 10, 2022 to provide engineering design, environmental and construction support services for Collier Canyon Creek Silt Basin, Project No. 201727, DR 4344-0132-040.

The scope of services shall include and not be limited to: Civil Engineering, Surveying, Hydraulics/Hydrology, Geotechnical Engineering, Structural Design, Utilities Engineering, Traffic Engineering, Right-of-way Engineering, Environmental Services, Regulatory Permitting, Landscape Architect, Construction Bid and Construction Support Services and other auxiliary services required for the project.

The Kier & Wright's Team for the project herein referred to as the "K+W Team," includes the following consultants:

- Kier & Wright (K+W), prime consultant: Civil Engineering, Land Surveying
- Schaaf & Wheeler (S&W): Hydrology and Hydraulics
- WRA: Environmental Services
- A3GEO: Geotechnical Engineering (DBE, VSLBE)
- Dun-Rite Excavating
- Finn Design Group: Structural Engineer
- Merrill Morris Partners: Landscape Architecture (DBE)
- Associated ROW: Right-of-Way Engineering
- Kathy Kneals: Public Outreach

Project Preferred Alternative - The preferred alternative for the Collier Canyon Creek sediment capture project based on the 30% design completed by City includes the installation of a weir structures at the existing culvert headwall, floodwalls along the shoulder of Collier Canyon Road, and an emergency overflow storm drain line above the existing culvert pipes and ancillary improvements, which will improve conveyance capacity of the culvert pipes by minimizing sediment and debris from entering the culverts pipes.

The K+W Team will further evaluate and refine the design elements to meet the project goals (improve conveyance capacity of the culvert pipes by minimizing sediment and debris from entering the culverts pipes), budget and schedule. Final design will include and not be limited to the following key parameters:

1. Maximize system reliability and flexibility while reducing project costs and impacts.
2. Design storm drain facilities to avoid or minimize utility impacts.
3. Design trash/debris racks that meet ASCE guidance with mechanisms to improve sediment control.
4. Design of floodwall to minimize environmental impact and avoid any right of way (ROW) impacts.

Project Funding - The project has Federal Emergency Management Agency (FEMA)'s 404 Hazard Mitigation Grant funding, and all federal clauses and DBE goals applies. See Exhibit C - Federal Provisions – FEMA Requirement.

Scope of Work - The scope of work shall include and not be limited to all services to deliver construction documents, environmental clearance, regulatory permits, construction support services, etc. The scope of work is phased (Phase 1 and Phase 2 services) as described below.

PHASE 1 – Project Management, Preliminary and Construction Plan Engineering, Review and Incorporate 30% design, Survey, Geotechnical, Utility Pothole and Coordination, Hydrology/Hydraulic Modeling, etc.), Plans, Specification and Estimates (60%, 90%, 100%), Environmental Review and Documents, Regulatory Permits, etc.

TASK 1 PROJECT MANAGEMENT

Project management shall include kickoff meeting and progress meetings with the City stakeholders to discuss and review the project during its critical milestones. coordination and review of work prepared by project staff and subconsultants; coordination with client and stakeholders; preparation of baseline line and progress schedules and monitoring of the schedule; monitoring of project budget; preparation of monthly project reports and invoices; project compliance review with current codes and standards and local and regional programs, etc.

K+W key project management team includes Chuck McCallum (Principal-in-Charge), Adam Mahoney (Associate, QA/QC), and Carter Reiff (Project Manager). Key subconsultants such as Schaff and Wheeler (S&W), Finn Associates and WRA will also participate in key design review project meetings.

K+W key project management team will be responsible for the overall project management and oversight for project team members. Chuck McCallum will act as the supervising principal engineer regularly meeting with project leads and meeting with the City of Livermore and other stakeholders at the beginning of the project and when needed to determine main design goals and project plan requirements.

Carter Reiff will oversee day to day management of the project and team subconsultants under the supervision of Adam Mahoney and Chuck McCallum. He will develop the Microsoft Project design schedule with a clear critical path and weekly scheduled coordination with each consultant to assure an efficient and timely flow of scheduled tasks. He will meet with our subconsultant team weekly to evaluate schedule and budget for the project. This will all be documented in our monthly progress reports. We will have a monthly budget meeting with consultants and regularly scheduled design meetings to confirm there are no scope changes. Adam Mahoney and Carter Reiff will regularly meet with our technical team and subconsultant team to make sure they are following through with their commitments to the schedule, work plan and budget.

K+W will work with the City to arrange and organize an initial project kick-off meeting to determine that particular project's scoping. The meeting will focus on developing a schedule and approach that meets the goals of the City of Livermore. Key design constraints, cost, schedule, site analysis requirements and any critical constraints will be discussed. The City will provide any critical data, existing improvement plans, and existing engineering studies to develop work plan and schedule for the proposed project.

Project management process will:

- Define project scope, design elements, budget and schedule
- Develop a work plan and schedule that meets the City's goals and priorities
- Set milestones with team and reviews on regular basis
- Establish communication and resolution on critical design elements, cost and schedule impacts
- Facilitate coordination with the City of Livermore, Zone 7, Alameda County, regulatory agencies, utility companies, Federal Emergency Management Agency (FEMA)/California Office of Emergency Services (CalOES), and other internal and external stakeholders to identify project needs, goals, and constraints.

Deliverables:

- Meeting agenda (issued 2 days prior to meeting), meeting minutes (1 week after meeting) and Critical Path Method Schedule (with agenda and meeting minutes and as requested)
- Monthly progress invoices with budget summary, progress report and progress schedule
- Project factsheets for mailing and posting on city website
- Quality assurance and quality control reviews prior to milestone deliverables, etc.

TASK 2 PRELIMINARY ENGINEERING**Task 2.1 Utility Research, Investigation, Coordination and Utility Pothole**

K+W's utility research specialist will investigate the availability of utility and improvement plan records from the City of Livermore, Zone 7, DSRSD, AT&T, PG&E, Comcast and any other specialized local utility companies that may have facilities in this area. This will include sending utility request letters to all applicable utility companies and requesting current as-builts and schematic maps in the area. Once the research and surveys are complete the information will be compiled into the AutoCAD file and produced to serve as the base maps for the entire team. As part of utility research, potholing will be performed based upon an agreed pothole and utility location plan with City of Livermore. An exhibit will have to be prepared for pothole locations with coordinates for FEMA/Cal OES's approval.

Deliverables:

- Site Meeting Notes and Photo log
- Utility Letters
- Pothole Exhibit

Task 2.2 Base Topographic Mapping, Boundary and Utility Survey

The Base Maps will begin with the preparation of a boundary mosaic which will be assembled using any available existing survey maps, deeds, field book information, and preliminary title reports. Then a detailed survey will be performed that will provide the required topographic data required for design by providing existing cross section information, utilities and conforms to existing conditions as required and completed boundary survey based upon research and surveys. The survey will document and locate existing trees and note numbers of trees based upon arborist report provided to us. This survey will also address concerns and issues raised by the design team and provide all information required to complete the design.

Perform field topographic surveys to obtain existing elevations for all features within the project site (roadway, culverts, creek, etc.) and conform limits. Obtain locations of all above ground and underground utilities. Obtain invert elevations at storm drain manholes and catch basins, and sanitary sewer manholes and cleanouts, and locate existing fire and domestic water and recycled water, meter boxes, valves, hydrants, etc. Coordinate with pothole subconsultant to collect depth of utilities during pothole operation.

Deliverables:

- CAD/Hardcopy/PDF File of Topographic, Utility and Boundary Survey (1"=20' Scale, 17 Sheets)

Task 2.3 Geotechnical Investigation

A3GEO will review relevant materials pertaining to geologic, seismic, and geotechnical conditions and conducting a reconnaissance of the site and vicinity to observe surface conditions and check for areas of obvious geotechnical concern.

Site Reconnaissance: Exploring subsurface conditions at the site by drilling four exploratory test borings. The borings will be advanced to about 10 to 15 feet below the ground surface (or practical refusal,

whichever is first encountered). Per the City, FEMA/CalOES has approved two specific boring locations. An exhibit will have to be prepared for additional or alternate boring locations with coordinates for FEMA/Cal OES's approval.

Borings: Borings will be drilled with truck-mounted, hollow-stem auger drilling equipment. Prior to drilling, the proposed boring locations will be marked in the field and Underground Service Alert (USA) will be notified of our intent to drill. For the purposes of this proposal, we have assumed that a private utility locator will not be required. If this assumption is incorrect, please let us know. A private utility locator would be an additional fee. A drilling permit will be obtained from Zone 7 Water Agency. The borings will be backfilled with a neat cement-bentonite grout in accordance with permitting requirements.

It is assumed that the boring locations will be accessible with truck-mounted equipment and that we will have unimpeded access to the drill locations on the scheduled day of drilling. Drilling cuttings will be removed from the site.

Laboratory Testing: Performing geotechnical laboratory tests to evaluate the physical properties of the on-site soils. The types of laboratory tests to be performed will depend upon the subsurface materials encountered, but most likely will consist of grain size distribution, plasticity, moisture content, density, and strength.

Analysis: Characterizing subsurface conditions and conducting geotechnical engineering analyses based on the collected data.

Soil and groundwater will be analyzed for the presence of toxic material.

Geotechnical Investigation Report: Preparing a geotechnical investigation report for the project that will include:

1. A site plan with the boring locations
2. Boring logs with laboratory test results
3. A summary of subsurface conditions
4. Discussions pertaining to geotechnical feasibility and design considerations
5. Evaluations and conclusions for the proposed project
6. Geotechnical design and construction recommendations for the improvements, including:
 - California Building Code seismic design parameters.
 - Foundation support for floodwall (shallow foundation bearing capacity).
 - Foundation lateral resistance (passive resistance and base friction).
 - Earthwork (including subgrade preparation and fill and compaction requirements)
 - Utility trench excavations and backfill

Plan Review: During the design development phases, we will review the 60% and 90% project plans and specifications as they are being developed to check conformance with the intent of our geotechnical recommendations and to provide timely input if revisions are needed. Our deliverable will be a formal plan review letter following the review of the 90% project plans and specifications.

ASSUMPTIONS -The base scope/fee outlined in this proposal is based on the following assumptions:

- A3GEO will have unimpeded access to the boring locations on the scheduled day of our investigation.
- Field activities will be conducted during normal business hours.

- Prevailing wage rates will be required.

Deliverables:

- Geotechnical Report (Draft)
- Geotechnical Report (Final) – signed and stamped
- Boring Location Exhibit

Construction Phase Optional Scope (Not included in the fee proposal): If requested A3GEO will provide Geotechnical Engineer of Record services during construction to verify geotechnical conditions are as anticipated, provide supplemental recommendations where necessary, and document that the geotechnical aspects of the work substantially conform to the approved Contract Documents and the intent of our geotechnical recommendations. Our deliverables will be field daily reports during construction and preparation of a final summary report of geotechnical conformance. Based on considerable uncertainties involving the specific level of effort that will be required as part of the construction phases, assumptions were necessarily made in regard to our scope and cost. Developing an accurate estimate of the amount of time required for field staff to perform geotechnical construction observation and testing is very difficult without a final design and contractor schedule. It should be noted that the level of effort required for observation and testing services will depend upon the contractors' schedules, weather conditions, and other factors. The fee for this scope will be developed in the construction support service phase.

Task 2.4 Hydrology and Hydraulic Modeling and Design Parameters

Schaaf & Wheeler will utilize existing hydraulic models (HEC-RAS and ICM) develop by Zone 7, BKF, and Schaaf & Wheeler to determine potential modification to the proposed design to maximize system reliability and flexibility while reducing project costs. The models will be update with any readily available survey data. Schaaf & Wheeler will model up to three (3) alternatives.

The 30% design did not include trash/debris racks that meet ASCE guidance. We will work with Kier & Wright to provide design alternatives that will increase the system reliability and reduce the possibility of flood damages due to debris blockages. We also believe there are mechanisms to add flexibility to the system design which will allow adjustments to help improve sediment control.

Schaaf & Wheeler will assist Kier & Wright with developing 60% - 100% plans by confirming the plans match the hydraulic characteristics in the models. We will also provide guidance of debris rack sizing, weir configurations and better control structures. Schaaf & Wheeler will assist WRA with permitting as necessary.

Schaaf & Wheeler will make design modifications to the hydraulic and debris control structures to help improve the system reliability. Basic geomorphic characteristics will be studied and utilized to improve the proposed design. Hydraulic models will be submitted for review by other agencies including Zone 7 and FEMA. Hydrostatic and dynamic forces on the system will also analyzed to make sure the system components can handle the new flow patterns.

Deliverables:

- Preliminary Hydrology and Hydraulics Report
- Final Hydrology and Hydraulic Report
- Geometric Details Required for Weir Structure

Task 2.5 Structural Technical Report

Finn Associates will prepare structural evaluation and calculation report for:

- Floodwall-1', a 307-foot-long concrete wall that extends up to 5 feet below grade and 4 feet

- above grade;
- Floodwall-2', a 213-foot-long earthen berm (or optionally concrete wall) that extends up to 4 feet above grade and that occurs at the top of a 3:1 slope.
- Weir-1", a 25 foot by 10 foot structure that connects a 36" overflow pipe to an existing basin headwall structure;
- Catch Basin-1', a concrete structure that serves as a junction for the 36" overflow pipe to connect to twin 72" storm drainpipes.
- Trash Racks
- Other structural components for the project

Deliverables:

- Structural Technical Report

Task 2.6 Right of Way (ROW) Concurrence Review (Optional)

This task will only be used if requested by the City. K+W Surveying will review engineering design and determine any ROW Impacts for the project. If requested as extra work, K+W will prepare plats and legal descriptions to obtain temporary construction easements for the project. This work will typically start during 60% design. If necessary ARWS will assist with appraisals and offer package.

Task 2.7 Review and Refine 30% Design and Estimates

Review and Utilize 30% Design and Update Estimates. The K+W team shall review 30% plans and incorporate the CAD design (provided by the City) and the new topographic survey to set up the base sheets. The consultant team will review the existing 30% as a baseline to proceed for 60% design.

The K+W team will meet with City and other stakeholders to discuss any concerns or conflicts after reviewing the 30% plans. The consultant team shall document conflicts and resolutions in the meeting minutes. The meeting minutes shall be distributed to all parties.

Deliverables:

- Updated 30% Plan Engineer's Estimate
- Base Sheets for 60% Design
- Meeting Minutes on Review of 30% Plans

TASK 3 Environmental Documents and Technical Studies

WRA will provide environmental studies and documentation required to support design improvements to the Collier Canyon Creek Silt Basin in Livermore, California. The scope includes work to process California Environmental Quality Act documentation at an anticipated level of a Categorical Exemption, anticipated permitting with the California Department of Fish and Wildlife, with optional services for U.S. Army Corps of Engineers (USACE) and Regional Water Quality Control Board (RWCQB) permitting, pending determination of need for those permits based on final project design. The scope of services accounts for documentation already processed by FEMA as part of the NEPA process as of January 5, 2022.

The work products and services will include:

- Biological resources constraints memorandum
- Project description for CEQA and NEPA
- Categorical Exemption for CEQA

- Permit application for California Department of Fish and Wildlife (CDFW)
- Meetings and project management in support of these work products and services

The following are included as optional tasks in the fee proposal:

- Tree inventory field survey and arborist report
- Permit application for the U.S. Army USACE of Engineers (USACE) and Regional Water Quality Control Board (RWQCB) and coordination
- Endangered Species Consultation with the U.S. Fish and Wildlife Service (USFWS) at the level of a “Not Likely to Adversely Affect” determination
- Initial Study and Mitigated Negative Declaration

Task 3.1 Tree Survey and Arborist Report (Optional)

An ISA-Certified Arborist will conduct a tree survey to identify all trees within or directly adjacent to limit of ground disturbance, i.e., trenching, within the Study Area. Data describing species, size (diameter at breast height or DBH), and condition will be collected for each surveyed tree. During the survey, all protected trees will be given a numbered tree tag. The location of each protected tree will be captured using a handheld GPS unit with sub-meter accuracy. Following the survey, the arborist will prepare a brief written memorandum describing the methods of the survey and including a table showing the pertinent information for all surveyed trees at the site, as well as a map showing the location of all surveyed trees. Tree that meets the criteria for protection under the City of Livermore tree ordinance will be identified according to their tree tag number and species.

Task 3.2 Biological Resources Survey Memorandum

WRA will complete a site visit to map the extent of sensitive biological communities present in the Project Area. The site visit will include a review of the Project Area for indicators of wetlands and unvegetated waters (including Collier Creek) using methods for a routine wetland delineation prescribed by the U.S. Army USACE of Engineers, as well as a review of the Project Area for the potential to support special status species. Based on the results of the site visit, WRA will prepare a memorandum describing the methods and results, including a map showing the limits of sensitive biological communities potentially regulated by the U.S. Army USACE of Engineers, California Department of Fish and Wildlife, and Regional Water Quality Control Board. The memorandum will include a determination as to the potential for the project to affect sensitive biological communities and special status species as supporting documentation for CEQA and NEPA. This task is scoped with the assumption that the final project design will be similar to the preliminary project design in that the project will avoid potential sensitive biological communities.

Task 3.3 Endangered Species Consultation (Optional)

Because of the presence of California red-legged frog and California tiger salamander in the vicinity of the project, securing of FEMA funding and potential permit approval from the USACE of Engineers is anticipated to require ESA consultation with USFWS. Based on the project location and the nature of the project, it is anticipated that this consultation can be completed at the level of a “not likely to adversely affect” determination, requiring informal consultation. WRA will prepare a letter report to support the agencies’ consultation with USFWS and would correspond and address questions posed by USFWS. For the purpose of this scope of work, it is assumed that the footprint of disturbance will remain primarily within paved and graveled areas not containing established ground squirrel burrows and be completed during the dry season to keep potential effects to these species to a level where they are not likely to adversely affect these species. If these avoidance and minimization measures are not possible, and the project is determined to have potential to affect these species, additional scope and budget will be required to prepare a formal Biological Assessment.

Task 3.4 Project Description for CEQA and NEPA

Because the Project Description (CEQA Guidelines Section 15124) is the basis for analyzing the environmental impacts of the proposed project, it is important to prepare this section as early in the process as possible. WRA will review all relevant design materials and will prepare a draft version of the Project Description to be used in the MND. To prepare a CEQA Project Description that includes the “whole of the action,” WRA will obtain the following information from the City and project design team:

- Total area of construction activity
- Locations of staging areas and routes for construction traffic
- Locations of any cofferdams or other water diversion structures if required
- Construction equipment list and schedule (for estimating air quality, greenhouse gas, and noise impacts)
- Number of truck trips

To the degree feasible, WRA proposes to “front-load” the Project Description with design features that will “self-mitigate” potentially significant project impacts, such as work window limitations for sensitive species.

Task 3.5 CEQA Categorical Exemption

WRA will prepare the Categorical Exemption (CE) following CEQA Guidelines Section 15300.2. WRA assumes the project will qualify as a Class 2 (CEQA Guidelines Section 15302-Replacement or Reconstruction) or a Class 3 (CEQA Guidelines Section 15303-New Construction or Conversion of Small Structures) exemption. Following the City’s review and comment, WRA will prepare the final version of the CE and file a Notice of Exemption with Alameda County Clerk.

Task 3.6 Initial Study/Mitigated Negative Declaration (Optional)

WRA will prepare an Administrative Draft Initial Study/Mitigated Negative Declaration (IS/MND) for the proposed Project utilizing the Appendix G Thresholds of Significance from the current version of the State CEQA Guidelines, as well as any City-required Thresholds of Significance. The IS/MND will include the content specific in Section 15071 of the CEQA Guidelines. The IS/MND will evaluate potential impacts of the proposed Project and will consider information contained in readily available existing documents for this project or similar projects. WRA will submit the administrative draft MND electronically to the City of Livermore in MS Word format.

Subtask: Prepare Draft IS/MND per the City’s Comments

WRA will address all team comments on the Administrative Draft IS/MND. It is assumed that the comments will be consolidated into one set, which will aid WRA in completing the document in the most timely and efficient manner. WRA will submit an electronic pdf format versions of the Screen check Draft MND that City staff can review to confirm that all comments have been adequately addressed.

Subtask: Publication of the Draft IS/MND

Upon approval of the Screen check Draft IS/MND, WRA will reproduce 5 hard copies for distribution during the 20-day public review period. WRA will submit the appropriate notices and IS/MND’s electronically via the State Clearinghouse (SCH) online portal. Additionally, WRA will coordinate with the City in providing web-ready documents for publication on their website if needed. This proposal also assumes that WRA will produce and circulate the Notice of Intent (NOI), as well as any other CEQA noticing requirements, including the Notice of Completion (NOC), Notice of Availability and the Notice of Determination (NOD) to the SCH, following adoption of the MND by City Council. WRA also assumes that the City will assist with compiling the mailing list for the NOI, but that WRA staff will be responsible for mailing or posting these notices.

Subtask: Prepare Final IS/MND and Response to Comments

Following completion of the 20-day public review period, WRA will respond to any agency and public comments submitted on the Draft IS/MND and will then prepare the Final IS/MND. The extent of work necessary to complete the Final IS/MND is contingent upon the number and nature of public comments received after the Draft IS/MND are circulated. For the purposes of this proposal, WRA has assumed a total of 16 hours for responses to comments on each Draft IS/MND. The Final IS/MND will include any revisions that may be required by the responses to comments as well as the Mitigation Monitoring and Reporting Program (MMRP).

WRA will also be responsible for the preparation and filing the NOD with the Alameda County Clerk within five days of project approval. An allowance in the fee proposal is included for the filing fees required by California Department of Fish and Wildlife (CDFW) (\$2,354.75) and the Alameda County Clerk (\$50) and other permits fees.

Deliverables:

- Biological resources constraints
- Project description for CEQA and NEPA
- Categorical Exemption for CEQA
- Permit application for California Department of Fish and Wildlife (CDFW)
- Meetings and project management in support of these work products and services

Deliverables (Optional Tasks):

- Tree inventory field survey and arborist report
- Permit application for the U.S. Army USACE of Engineers (USACE) and Regional Water Quality Control Board (RWQCB) and coordination
- Endangered Species Consultation with the U.S. Fish and Wildlife Service (USFWS) at the level of a "Not Likely to Adversely Affect" determination
- Initial Study and Mitigated Negative Declaration

TASK 4 Regulatory Permits

WRA will coordinate with K+W Team and the city and prepare regulatory permits for the project.

Task 4.1 California Department of Fish and Wildlife (CDFW) Permitting

The CDFW requires any person who may affect the bed or bank of a perennial, intermittent, or ephemeral river, stream, or lake to submit a notification of Lake or Streambed Alteration. Based on a review of the conceptual project design and subsequent conference call on December 20, 2021, the project is anticipated to entail a small amount of work below the top of bank in Collier Canyon Creek.

The Streambed Alteration Agreement notification process is done via a CDFW on-line portal and requires supplemental information including but not limited to a project environmental questionnaire and supplemental data regarding issues covered in the questionnaire. Additional analysis of state-listed special-status species will be required as part of the CDFW notification. WRA will work with the design team to compile a list of construction equipment and methods anticipated to be used during construction for inclusion in the notification. The complete notification will be submitted to the CDFW after K&W and city's review.

WRA will respond to questions from CDFW concerning the application and the project. Response to one "Incomplete Application Letter" is assumed as part of this scope of work. Response to at least one Incomplete Application Letter is typical for the majority of projects submitted to CDFW. From time to time, CDFW may raise additional issues outside of the scope of a typical Incomplete Application Letter which may require additional studies and analysis. If response to the Incomplete Application Letter requires

details that extend beyond clarifications to the project description and submitted supplemental information, additional budget may be required. This task does not include the cost of the CDFW permit application fee, which is based on the estimated project cost, to be determined based on the project design.

Task 4.2 United States Army USACE of Engineers (USACE) and Regional Water Quality Control Board (RWQCB) Permitting (Optional)

Some uncertainty remains as to whether permits will be required from the USACE and RWQCB which cannot be resolved without further design work. This task covers the preparation of USACE and RWQCB applications if permits from these agencies are required. Both agencies regulate the placement of fill within jurisdictional wetlands and below the ordinary high water (OHW) mark of streams. Based on our knowledge of the project, if fill below Ordinary High Water (OHW) is required, it is anticipated to be minor and qualify under the Nationwide Permit program. A Pre-Construction Notification (PCN) must be submitted to the USACE for consideration under this program and the RWQCB must certify the use of the NWP via a 401 Water Quality Certification.

WRA will prepare a permit application package with the required information to be appended to the application:

- Basic notification requirements as to site location; project description; and type and amount of fill
- Table of compliance to conditions required by the Nationwide Permit program
- Determination if the project site has endangered species or critical habitat
- Wetland delineation map with request for verification by the USACE
- Appropriate plan and cross sectional view figures that show proposed impacts to jurisdictional areas
- Brief statement concerning alternatives that avoid or minimize impacts to wetlands
- Anticipated schedule for project construction
- Descriptive plan addressing how areas of disturbance will be revegetated after construction as mitigation for temporary project impacts
- Certified Environmental Quality Act documentation (Mitigated Negative Declaration/EIR/Categorical Exclusion)
- Proceedings and Endangered Species Act consultation letter of concurrence (if available) from FEMA

WRA will act as the agent for the submittal and will conduct up to one site visits with the USACE and/or RWQCB. WRA will respond to questions by the USACE concerning the PCN and the project. WRA will work with the project team to assure that all information is made available for the application. This task includes up to 40 hours following application submittal for WRA to coordinate with regulatory agencies and the project team regarding requests made by the agencies. Should additional work be needed to obtain the permit, WRA will prepare a supplemental scope and budget for that work. Based on the nature and scale of the project activities, it is assumed that a design can be developed that avoids loss of creek area, function and values, and agency mitigation requirements can be avoided. This task does not include the cost of the RWQCB permit application fee, which is based on the total area of fill below ordinary high water mark, to be determined based on the project design.

Deliverables:

- Streambed Alteration Agreement Application and Notification

Deliverables (Optional Tasks):

- Preparation of USACE and RWQCB applications
- Pre-Construction Notification (PCN) to the USACE
- RWQCB certification on the use of the NWP via a 401 Water Quality Certification.

Assumptions Task 3 and Task 4:

The following assumptions have been made in the preparation of this Scope of Work:

- FEMA will be completing all environmental documentation related to NEPA.
- Project design data will be provided to WRA in digital format referenced to an established geographic coordinate system.
- Project impacts will remain outside of sensitive environmental areas, facilitating processing as a CEQA Categorical Exemption.
- WRA will be granted access to the site.
- The project will not result in potentially significant impacts to cultural resources or biological resources.
- Cultural resources documentation prepared by FEMA for NEPA purposes will be acceptable to the USACE.
- Project activities will not result in a loss or degradation of stream area or function and so no mitigation will be required.
- Project design can avoid and minimize potential impacts to California red-legged frog and California tiger salamander to a level where they will be not likely to adversely affect these species.

TASK 5 – Plans, Specification and Estimates (60%, 90%, 100%)

K+W Team will prepare detailed design for the project and produce the construction drawings, special provisions, and construction cost estimate required to bid and construct the project and finalize funding required for project. Documents will clearly indicate project phasing, if necessary, to allow construction to proceed in an orderly and safe fashion.

Task 5.1 Design and Prepare 60% Improvement Plans, Specifications and Estimates

The 60% PS&E (Plans, Specifications and Estimates) will be prepared in accordance with the City of Livermore. policies, procedures, manuals, and standards. Plans will include all details necessary to have detailed project budget. We will coordinate preparing special provisions, including general and technical specifications.

Design will include storm water quality BMP's, street and sidewalk improvements, utility design and construction details. Flood Wall, Weir and Trash Rack plans will clearly indicate what is required for an accurate budget. K+W will incorporate comments from the City on 30% plans and response from design team. K+W will prepare final 60% cost estimate. K+W will incorporate responses from other design team members and provide the City with responses to 30% plan check comments. K+W will work alongside design team to submit complete 60% drawings to other stakeholders and will be prepared to provide a detailed public presentation.

The K+W will distribute original 60% review comments for plans, specification and cost estimates to the project design team. The K+W Team will review comments and determine conflicts. A meeting will be organized with the City and other agencies to discuss conflicting comments and obtain clarifications for the 60% review comments. Resolutions will be documented in meeting minutes and distributed to all parties.

We also will be prepared to work with team to prepare supporting documents for additional federal funding.

Deliverables:

- 60% Design Development Plans, Specifications & Cost Estimate
- Hydraulics and Hydrology Report
- Structural Calculations
- Preliminary SWPPP
- Quality Assurance Review

- Plan Check Response to the 60% PS&E
- City Comment/Review Meeting and Meeting Minutes

Task 5.2 Final Hydrology and Hydraulics Report and Design Review

Final Hydrology and Hydraulics Report - Schaaf & Wheeler will develop a final hydraulics report to accompany the final design. This document will detail the hydraulic characteristics of the improved system. The model runs will accompany this report for review by agencies including FEMA and Zone 7. The debris and sediment capture components will be summarized along with guidance on operations.

Design Review - The Schaaf & Wheeler will review the 60%, 90% and 100% PS&E to confirm that the plans match the hydraulic characteristics in the HEC-RAS models. Models will be updated as the project is modified. Hydraulic models will be submitted for review by other agencies including Zone 7 and FEMA. Debris and sediment capture estimates will be updated.

Deliverables:

- Hydraulics and Hydrology Report
- Design review comments
- Cost Estimates

Task 5.3 Design and Prepare Improvement 90% Plans, Estimate and Specifications (PS&E)

K+W Team will incorporate 60% plan review comments and coordinate any remaining items and perform a Quality Assurance (QA) review for the 90% PS&E and ensure that the set is coordinated between all consultants. The QA review will be performed by the K+W's QA manager and the Principal to ensure that all project elements are coordinated and incorporated, and the PS&E is complete and field changes are minimized. The 90% submittal will include an update to cost estimate.

The K+W will distribute original 90% review comments for plans, specification and cost estimates to the project design team. The K+W Team will review comments and determine conflicts. A meeting will be organized with the City and other agencies to discuss conflicting comments and obtain clarifications for the 90% review comments. Resolutions will be documented in meeting minutes and distributed to all parties.

Deliverables:

- 90% Design Development Plans, Specifications, and Cost Estimate
- City Comment/Review Meeting and Meeting Minutes
- Plan Check Response to the 90% PS&E
- Hydraulics and Hydrology Report – signed and stamped
- Structural Calculations – signed and stamped
- SWPPP – signed and stamped

Task 5.4 Design and Prepare 100% Plans, Estimates and Specifications

K+W Team will finalize all outstanding comments and coordinate any remaining items amongst team members. Plans will be submitted for approval and bid.

Deliverables + Meetings

- 100% Construction Documents (PS&E) – stamped and signed
- City Comment/Review Meeting and Meeting Minutes
- Plan Check Response to the 100% PS&E
- Hydraulics and Hydrology Report – signed and stamped

- Structural Calculations – signed and stamped
- SWPPP – signed and stamped

PHASE 2 – Bid Phase and Construction Phase Support Services

K+W Team shall provide bid phase and construction phase support services as requested by the City.

TASK 1 Construction Bid Support Services

K+W Team shall provide City of Livermore with support services during project bidding phase.

Task 1.1 Prepare Bid Documents - K+W Team will prepare final bid documents for advertisement. Bid package shall be stamped and signed.

Task 1.2 Prebid Meetings - K+W Team shall attend pre-bid meetings.

Task 1.3 Respond to RFI's and Questions - K+W Team shall be available as necessary to answer questions and shall provide written correspondence to request for information. Review bids received and provided comments.

Task 1.4 Make Revisions to Plans - K+W Team shall make revisions and clarifications to plans as necessary and issue the "Issued For Construction" Documents.

Deliverables:

- Pre-Bid Meeting, Site Walk and Meeting Minutes
- Responses questions and addendums and bids
- "Issued For Construction" Documents.

TASK 2 Construction Support Services

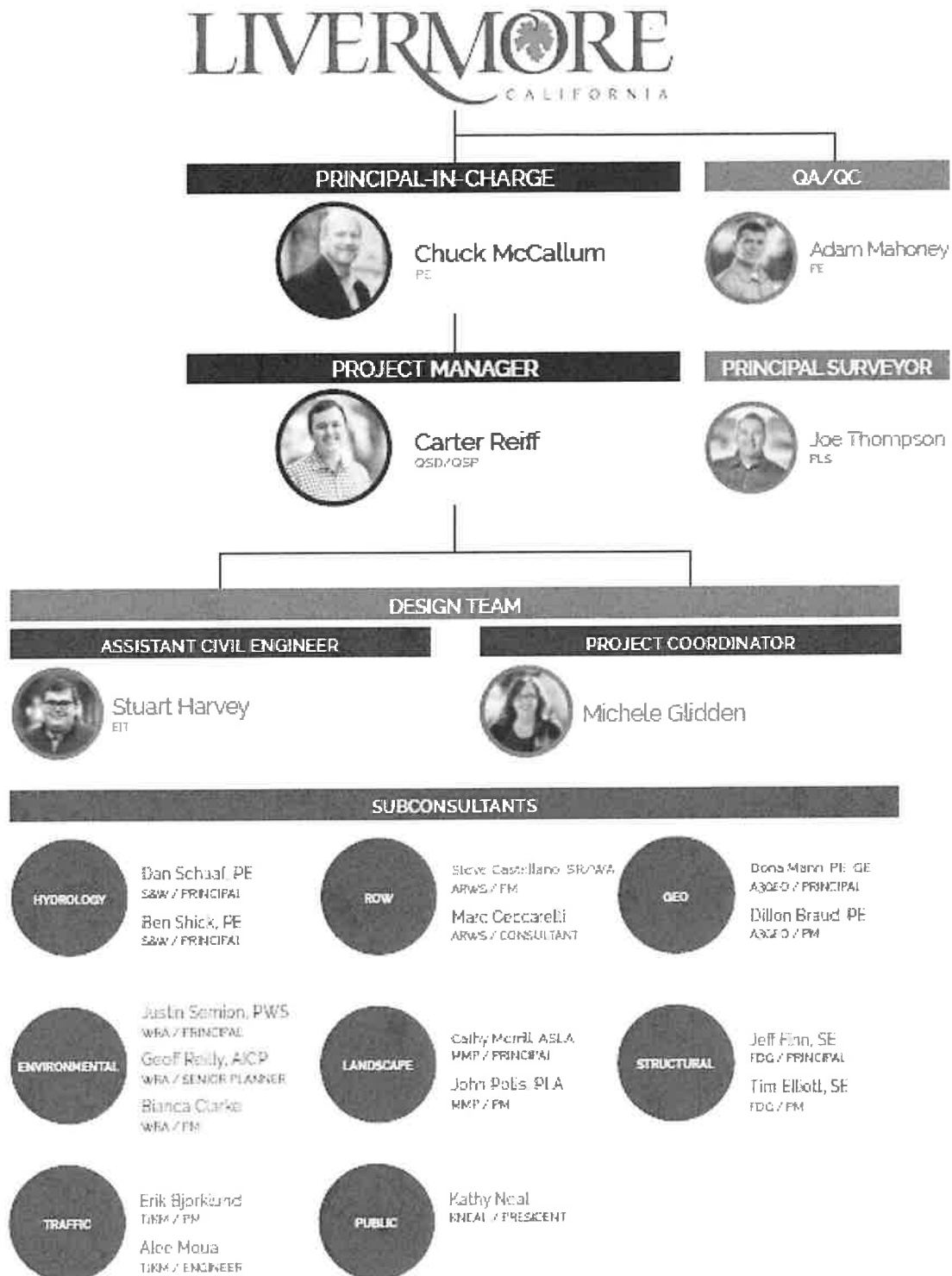
K+W team shall attend the pre-construction meeting and review and respond to contractor submittals, RFI's, and prepare necessary revisions or addendums to the construction documents. Shall perform field visits during construction, and participate in the punch list walk and prepare the close-out punch list and record drawings.

Deliverables:

- Pre-Construction Meeting and Meeting Minutes
- Responses to RFI's and Submittal Approvals
- Construction documents revisions and addendums
- Bi-Monthly Construction Meetings and Meeting Minutes
- Sites visits and reports (3)
- Prepare Final Record Drawings

ORGANIZATION CHART

K+W Team shall not change project managers and technical staff without prior authorization form the City's project manager.



COMPENSATION

PHASE 1 – Project Management, Preliminary and Construction Plan Engineering, Review and Incorporate 30% design, Survey, Geotechnical, Utility Pothole and Coordination, Hydrology/Hydraulic Modeling, etc.), Plans, Specification and Estimates (60%, 90%, 100%), Environmental Review and Documents, Regulatory Permits, etc.	
PHASE 1 TASKS	NTE FEE
Task 1 - Project Management	\$33,787.00
Task 1.1 Project Kickoff Meeting	\$2,795.00
Task 1.2 Progress Meetings with City	\$17,722.00
Task 1.3 Meeting Agendas, Minutes and Progress Schedules	\$3,020.00
Task 1.4 Monthly Progress Invoices w/ Budget Summaries	\$2,426.00
Task 1.5 Project Factsheets	\$594.00
Task 1.6 Quality Assurance / Quality Control Reviews	\$7,230.00
Task 2 - Preliminary Engineering	\$86,146.00
Task 2.1 Utility Research, Investigation, Coordination and Utility Pothole	\$20,107.00
Task 2.2 Base Topographic Mapping, Boundary and Utility Survey	\$10,107.00
Task 2.3 Geotechnical Investigation	\$23,300.00
Task 2.4 Hydrology and Hydraulic Modeling and Design Parameters	\$16,060.00
Task 2.5 Structural Technical Report	\$3,360.00
Task 2.6 Right of Way (ROW) Concurrence Review (See Optional Below)	
Task 2.7 Review and Refine 30% Design and Estimates	\$13,212.00
Task 3 - Environmental Documents & Technical Studies	\$12,889.00
Task 3.1 Tree Survey and Arborist Report (See Optional Below)	
Task 3.2 Biological Resources Survey Memorandum	\$5,217.00
Task 3.3 Endangered Species Consultation (See Optional Below)	
Task 3.4 Project Description for CEQA and NEPA	\$4,160.00
Task 3.5 CEQA Categorical Exemption	\$3,512.00
Task 3.6 Initial Study/Mitigated Negative Declaration (See Optional Below)	
Task 4 - Regulatory Permits	\$11,360.00
Task 4.1 California Department of Fish and Wildlife (CDFW) Permitting	\$11,360.00
Task 4.2 United States Army USACE of Engineers (USACE) and Regional Water Quality Control Board (RWQCB) Permitting (See Optional Below)	
Task 5 - Plans, Specification and Estimates (60%, 90%, 100%)	\$107,099.00
Task 5.1 Design and Prepare 60% Improvement Plans, Specifications and Estimates	\$38,469.00
Task 5.2 Final Hydrology and Hydraulics Report and Design Review	\$8,500.00
Task 5.3 Design and Prepare Improvement 90% Plans, Estimate and Specifications (PS&E)	\$37,101.00
Task 5.4 Design and Prepare 100% Plans, Estimates and Specifications	\$23,029.00
PHASE 1 TOTAL	\$251,281.00

EXHIBIT A

PHASE 1 – OPTIONAL TASKS	NTE FEE
Task 2.6 Right of Way (ROW) Concurrence Review	\$9,252.00
Task 3.1 - Tree Survey and Arborist Report	\$4,645.00
Task 3.3 - Endangered Species Consultation	\$8,528.00
Task 3.6 - Initial Study/Mitigated Negative Declaration	\$22,528.00
Task 4.2 - United States Army USACE of Engineers (USACE) and Regional Water Quality Control Board (RWQCB) Permitting	\$21,944.00
PHASE 1 OPTIONAL TASKS TOTAL	\$66,897.00

PHASE 1 OTHER DIRECT COST (ODC) ALLOWANCE	NTE
PHASE 1 OTHER DIRECT COST (ALLOWANCE) - PRINTING, COPIES, POSTAGE	\$ 5,000.00
PHASE 1 PERMIT FEE (ALLOWANCE)	\$ 5,000.00

PHASE 2 – Bid Phase and Construction Phase Support Services

PHASE 2 TASKS	NTE FEE
TASK 1 – Construction Bid Support Services	\$31,387.00
Task 1.1 Prepare Bid Documents	\$8,300.00
Task 1.2 Prebid Meetings	\$3,455.00
Task 1.3 Respond to RFI's and Questions	\$9,780.00
Task 1.4 Make Revisions to Plans	\$9,852.00
TASK 2 – Construction Support Services	\$30,724.00
Task 2.1 Pre-Construction Meeting and Meeting Minutes	\$1,000.00
Task 2.2 Responses to RFI's and Submittal Approvals	\$9,000.00
Task 2.3 Construction documents revisions and addendums	\$9,000.00
Task 2.4 Bi-Monthly Construction Meetings and Meeting Minutes	\$5,000.00
Task 2.5 Sites visits and reports (3)	\$4,224.00
Task 2.6 Prepare Final Record Drawings	\$2,500.00
PHASE 2 TASKS TOTAL	\$62,111.00

PHASE 2 OTHER DIRECT COST ALLOWANCE (ODC)	
PHASE 2 OTHER DIRECT COST (ALLOWANCE) - PRINTING, COPIES, POSTAGE	\$ 2,000.00

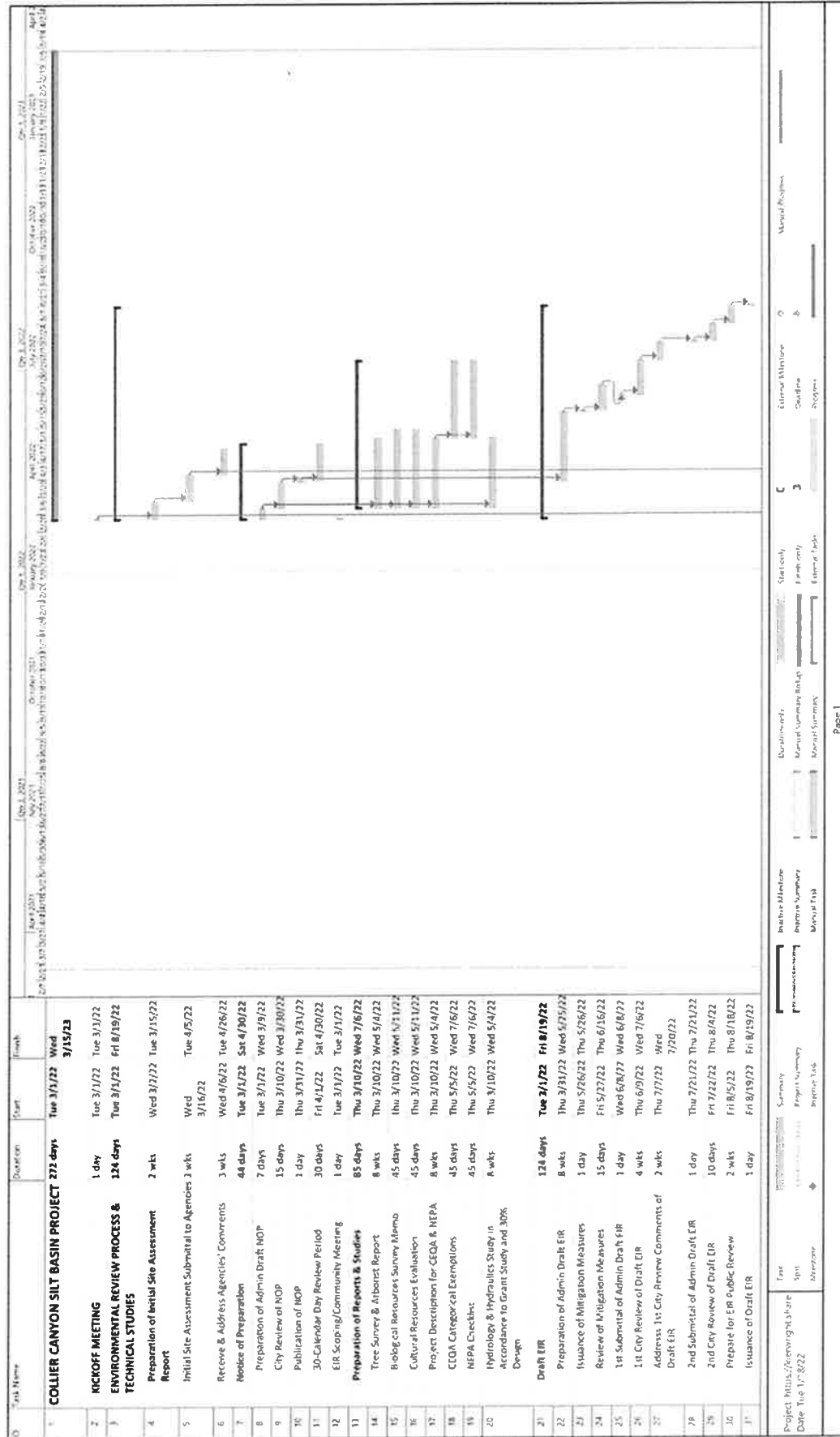
TOTAL NOT TO EXCEED FEE PHASE 1, PHASE 2 AND ODC **\$ \$392,289.00**

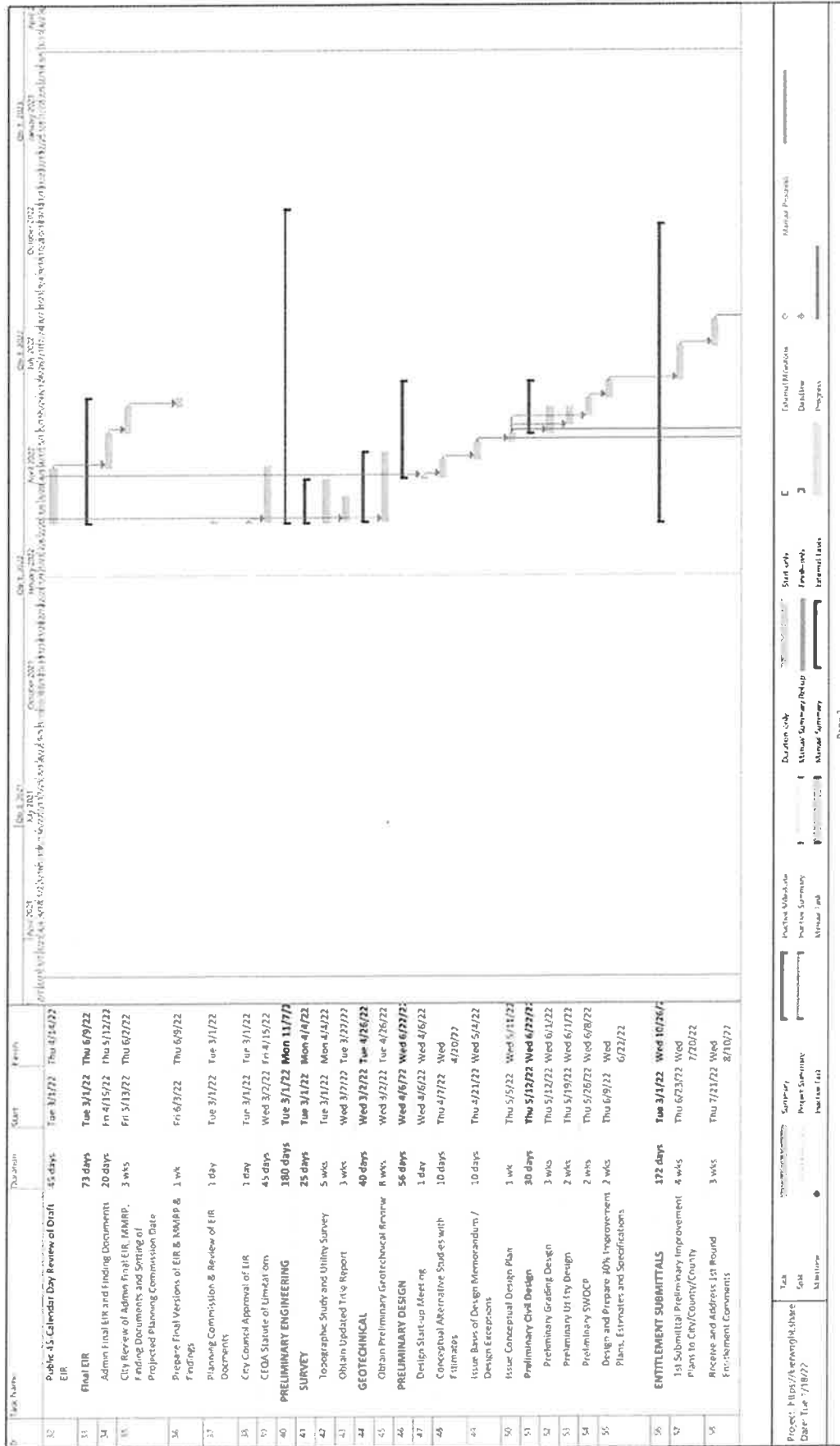
Consultant shall submit detailed fee breakdown by staff and billing rate to reflect the NTE amount in the table above prior to kickoff meeting.

Consultant will only invoice for services actually rendered and reimbursable expenses actually incurred for each task. Consultant will submit an itemized billing invoice in a form acceptable to the City which indicates, at a minimum, Consultant's information, project name and contract number, the itemization of the hours worked, a description of the tasks completed during the billing period, the person(s) actually performing the services and the position(s) held by such person(s), and the approved hourly rate. Requests for reimbursement will also describe the nature and cost of the expense and the date incurred. In no event shall the total invoiced amount exceed the not to exceed amount set forth in the agreement.

SCHEDULE

1. The Schedule Below Includes City's And Stakeholders Review Periods (Approximately 2 Weeks For Each Major Submittal).
2. Consultant shall start work within 5 working days from Notice To Proceed





Page 3

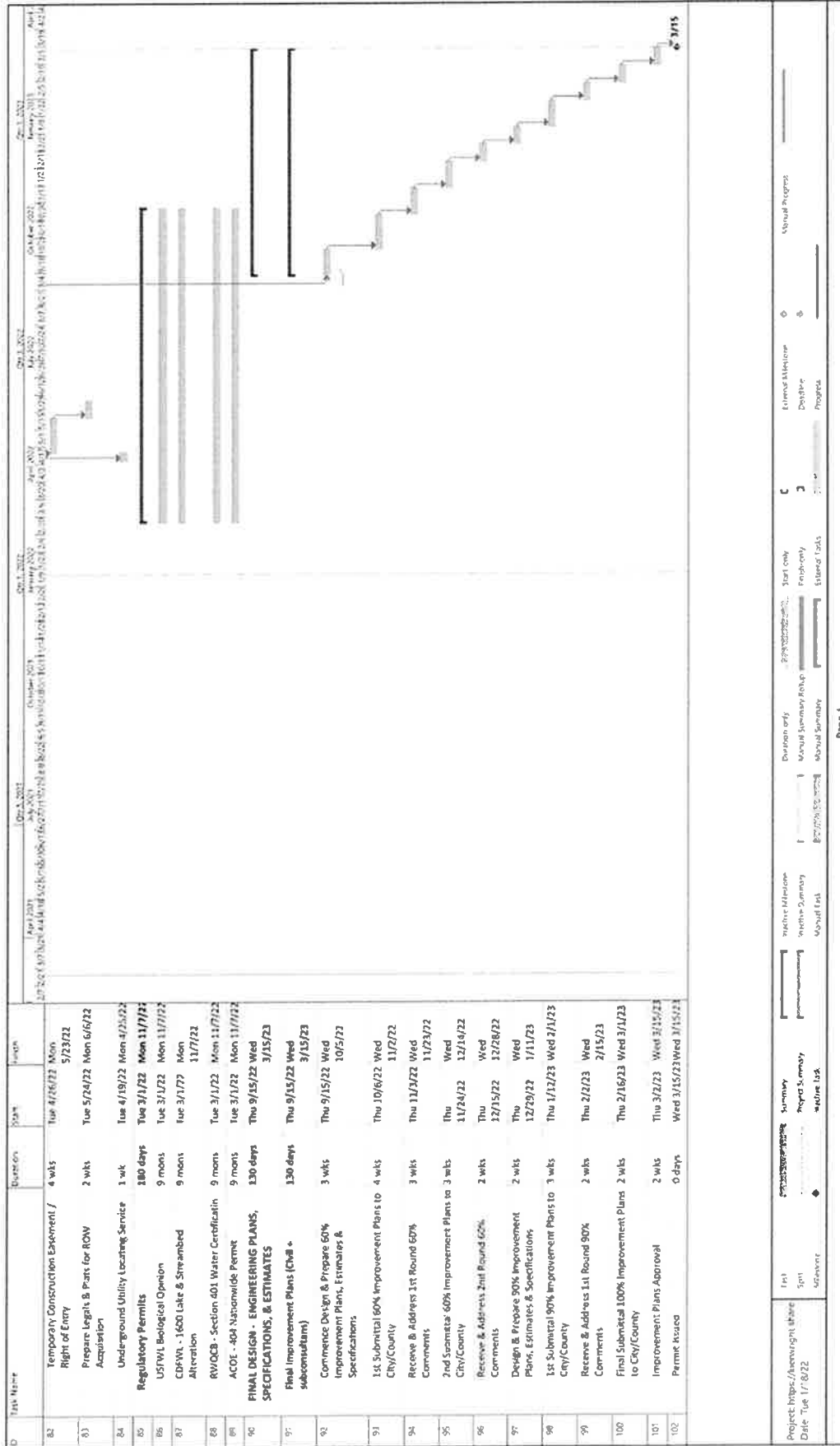


EXHIBIT B

INSURANCE REQUIREMENTS

Minimum Scope and Limits of Insurance

Consultant/Contractor shall maintain limits no less than:

1. Commercial General Liability, including operations, products, and completed operations, as applicable:
\$5,000,000 per occurrence/**\$10,000,000** aggregate for bodily injury, personal injury, and property damage. If Commercial General Liability or other form of insurance with a general aggregate limit is used, either the general aggregate limit shall apply separately to this project/location or the general aggregate limit shall be twice the required occurrence limit.
2. Automobile Liability:
\$2,000,000 per accident for bodily injury and property damage.
3. Workers' Compensation and Employer's Liability:
 Statutory limits as required by the State of California including **\$1,000,000** Employers' Liability per accident, per employee for bodily injury or disease. A waiver of subrogation is required for Workers' Compensation insurance. If Consultant/Contractor is a sole proprietor, then they must sign "Contractor Release of Liability".
4. Professional Liability/Errors and Omissions:
\$2,000,000 per claim. Consultant/Contractor warrants that any retroactive date under this policy shall precede the effective date of this contract and, either continuous coverage will be maintained, or an extended discovery period will be exercised for a period of two years beginning at the time work under this contract is completed.

Deductibles and Self-Insured Retention

All self-insured retentions (SIR) must be disclosed to Risk Management for approval and shall not reduce the limits of liability. Policies containing any self-insured retention (SIR) provision shall provide, or be endorsed to provide, that the SIR may be satisfied by either the named insured or the City of Livermore. The City of Livermore reserves the right to obtain a full certified copy of any insurance policy and endorsements. Failure to exercise this right shall not constitute a waiver of right to exercise later.

Acceptability of Insurers

Insurance is to be placed with insurers with a current A.M. Best rating of no less than A: VII and accepted to do business in the State of California, unless otherwise acceptable to the City of Livermore.

Other Insurance Provisions

The general liability and automobile liability policies are to contain, or be endorsed to contain, the following provisions:

1. The City of Livermore, its officers, officials, employees, and designated

volunteers are to be covered as additional insureds as respects: liability arising out of activities performed by or on behalf of the Consultant/Contractor; or automobiles owned, leased, hired or borrowed by the Consultant/Contractor. The coverage shall contain no special limitations on the scope of protection afforded to the City of Livermore, its officers, officials, employees, or volunteers.

2. The limits of insurance required in this agreement may be satisfied by a combination of primary and umbrella or excess insurance. The additional insured coverage under the Consultant's/Contractor's policy shall be primary and non-contributory and will not seek contribution from the City's insurance or self-insurance and shall be at least as broad as ISO Form CG 20 10 04 13. Any umbrella or excess insurance shall contain or be endorsed to contain a provision that such coverage shall also apply on a primary and non-contributory basis for the benefit of the City of Livermore before the City's own insurance or self-insurance shall be called upon to protect it as a named insured.
3. Any failure to comply with reporting or other provisions of the policy, including breaches of warranties, shall not affect coverage provided to the City of Livermore, its officers, officials, employees, or volunteers.
4. The Consultant's/Contractor's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.
5. Each insurance policy required by this clause shall be endorsed to state that coverage shall not be canceled by either party before expiration of the policy unless notice is delivered in accordance with policy provisions.
6. It shall be a requirement under this agreement that any available insurance proceeds broader than, or in excess of, the specified minimum insurance coverage requirements and/or limits shall be available to the additional insured. Furthermore, the requirements for coverage and limits shall be (1) the minimum coverage and limits specified in this agreement; or (2) the broader coverage and maximum limits of coverage of any insurance policy or proceeds available to the named Insured; whichever is greater.
7. Certificate Holder section of the insurance certificate should read: City of Livermore, 1052 S. Livermore Avenue, Livermore, CA 94550

Verification of Coverage

Consultant/Contractor shall furnish certificates of insurance and endorsement(s) effecting coverage to the City of Livermore for approval. The endorsements shall be on forms acceptable to the City of Livermore. All certificates and endorsements are to be received and approved by the City of Livermore before work commences. The City of Livermore reserves the right to require complete and certified copies of all insurance policies required by this Agreement.

EXHIBIT C

FEDERAL PROVISIONS - FEMA

I. DEFINITIONS

- A. **Government** means the United States of America and any executive department or agency thereof.
- B. **FEMA** means the Federal Emergency Management Agency.
- C. **Third Party Subcontract** means a subcontract at any tier entered into by Contractor or subcontractor, financed in whole or in part with Federal assistance originally derived from the Federal Emergency Management Agency.

II. FEDERAL CHANGES

- A. Contractor shall at all times comply with all applicable regulations, policies, procedures, and FEMA Directives as they may be amended or promulgated from time to time during the term of this Agreement, including but not limited to those requirements of 2 CFR 200.317 through 200.326 and more fully set forth in Appendix II to Part 200—Contract Provisions for non-Federal Entity Contracts Under Federal Awards, which is included herein by reference. Contractor's failure to so comply shall constitute a material breach of this contract.
- B. The Contractor agrees to include the above clause in each third party subcontract financed in whole or in part with Federal assistance provided by FEMA. It is further agreed that the clause shall not be modified, except to identify the subcontractor who will be subject to its provisions.

III. ACCESS TO RECORDS

- A. The Contractor agrees to provide the City, FEMA, the Comptroller General of the United States or any their authorized representatives access to any books, documents, papers, and records of the Contractor which are directly pertinent to this Agreement for the purposes of making audits, examinations, excerpts, and transcriptions.
- B. The Contractor agrees to permit any of the foregoing parties to reproduce by any means whatsoever or to copy excerpts and transcriptions as reasonably needed.
- C. The Contractor agrees to maintain all books, records, accounts, and reports required under this Agreement for a period of not less than three years after the later of: (a) the date of termination or expiration of this Agreement or (b) the date City makes final payment under this Agreement, except in the event of litigation or settlement of claims arising from the performance of this Agreement, in which case, Contractor agrees to maintain same until the City, FEMA, the Comptroller General, or any of their duly authorized representatives, have disposed of all such litigation, appeals, claims, or exceptions related thereto.
- D. The requirements set for in paragraphs A, B, and C above are all in addition to, and should not be considered to be in lieu of, those requirements set forth in the City's Agreement.

IV. DEBARMENT AND SUSPENSION

- A. This contract is a covered transaction for purposes of 2 C.F.R. pt. 180 and 2 C.F.R. pt. 3000. As such the contractor is required to verify that none of the contractor, its principals (defined at 2

C.F.R. § 180.995), or its affiliates (defined at 2 C.F.R. § 180.905) are excluded (defined at 2 C.F.R. § 180.940) or disqualified (defined at 2 C.F.R. § 180.935).

- B.** Contractor represents and warrants that it is not debarred, suspended, or otherwise excluded from or ineligible for participation in Federal assistance programs under Executive Order 12549, "Debarment and Suspension" or on the USEPA's List of Violating Facilities. Contractor agrees that neither Contractor nor any of its third party subcontractors shall enter into any third party subcontracts for any of the work under this Agreement with a third party subcontractor who is debarred, suspended, or otherwise excluded from or ineligible for participation in Federal assistance programs under executive Order 12549 or on the USEPA's List of Violating Facilities. Gov. Code § 4477.
- C.** The contractor must comply with 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C and must include a requirement to comply with these regulations in any lower tier covered transaction it enters into. Contractor agrees to the provisions of the Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion—Lower Tier Covered Transactions, attached hereto and incorporated herein. For purposes of this Agreement, Contractor is the "prospective lower tier participant."
- D.** The Contractor agrees to include paragraphs A and B above in each third party subcontract financed in whole or in part with Federal assistance provided by FEMA. It is further agreed that the paragraphs shall not be modified, except to identify the subcontractor who will be subject to its provisions.
- E.** This certification is a material representation of fact relied upon by City. If it is later determined that the contractor did not comply with 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C, in addition to remedies available to the State of California, the City, and the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment.
- F.** The bidder or proposer agrees to comply with the requirements of 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C while this offer is valid and throughout the period of any contract that may arise from this offer. The bidder or proposer further agrees to include a provision requiring such compliance in its lower tier covered transactions."

V. NO FEDERAL GOVERNMENT OBLIGATIONS TO CONTRACTOR

- A.** The City and Contractor acknowledge and agree that, notwithstanding any concurrence by the Federal Government in or approval of the solicitation or award of the underlying contract, absent the express written consent by the Government, the Government is not a party to this contract and shall not be subject to any obligations or liabilities to the City, Contractor, or any other party (whether or not a party to that contract) pertaining to any matter resulting from the underlying contract.
- B.** The Contractor agrees to include the above clause in each third party subcontract financed in whole or in part with Federal assistance provided by FEMA. It is further agreed that the clause shall not be modified, except to identify the subcontractor who will be subject to its provisions.

VI. EQUAL EMPLOYMENT OPPORTUNITY COMPLIANCE (applicable to all construction contracts awarded meeting the definition of “federally assisted construction contract” under 41 CFR 61-1.3)

Contractor agrees to comply with Executive Order 11246 of September 24, 1965, entitled “Equal Employment Opportunity,” as amended by Executive Order 11375 of October 13, 1967, and as supplemented in Department of Labor regulations (41 CFR Part 60). 41 CFR 60.14 is hereby incorporated by reference.

- A.** Contractors and subcontractors shall not unlawfully discriminate, harass, or allow harassment against any employee or applicant for employment because of sex, race, color, ancestry, religious creed, national origin, sexual orientation, physical disability (including HIV and AIDS), mental disability, medical condition (cancer), age (over 40), marital status, and denial of family care leave.
- B.** Contractors, and subcontractors shall ensure that the evaluation and treatment of their employees and applicants for employment are free from such discrimination and harassment.
- C.** Contractors and subcontractors shall comply with the provisions of the Fair Employment and Housing Act (Gov. Code, § 12990 (a-f) et seq.) and the applicable regulations promulgated thereunder (California Code of Regulations, Title 2, Section 7285 et seq.). The applicable regulations of the Fair Employment and Housing Commission implementing Government Code Section 12990 (a-f), set forth in Chapter 5 of Division 4 of Title 2 of the California Code of Regulations, are incorporated into this Agreement by reference and made a part hereof as if set forth in full.
- D.** Contractors, and subcontractors shall give written notice of their obligations under this clause to labor organizations with which they have a collective bargaining or other Agreement.

VII. ANTI-KICKBACK ACT COMPLIANCE (applicable to all contracts and subgrants for construction or repair; 44 CFR §13.36(i)(4))
Contractor agrees to comply with the Copeland “Anti-Kickback” Act (18 U.S.C. 874) as supplemented in Department of Labor regulations (29 CFR Part 3).

VIII. DAVIS-BACON ACT COMPLIANCE (applicable to construction contracts in excess of \$2,000 awarded by grantees and subgrantees when required by Federal grant program legislation;)

To the extent required by any Federal grant programs applicable to expected funding or reimbursement of City’s expenses incurred in connection with the services provided under this Agreement, Contractor agrees to comply with the Davis-Bacon Act (40 U.S.C. 276a–7) as supplemented by Department of Labor regulations (29 CFR Part 5) as set forth below. These requirements are in addition to any requirements set forth in the Agreement.

- A.** The Contractor shall be bound to the provisions of the Davis-Bacon Act, and agrees to be bound by all the provisions of Labor Code section 1771 regarding prevailing wages. All labor on this project shall be paid neither less than the greater of the minimum wage rates established by the U.S. Secretary of Labor (Federal Wage Rates), or by the State of California Director of Department of Industrial Relations (State Wage Rates). Current DIR requirements may be found at <http://www.dir.ca.gov/lcp.asp>.
- B.** The general prevailing wage rates may be accessed at the Department of Labor Home Page at www.wdol.gov. Under the Davis Bacon heading, click on “Selecting DBA WDs.” In the drop down menu for State, select, “California.” In the drop down menu for City, select “City of

Livermore” In the drop down menu for Construction Type, make the appropriate selection. Then, click Search.

IX. CONTRACT WORK HOURS AND SAFETY STANDARDS (applicable to all contracts in excess of \$100,000 that involve the employment of mechanics or laborers, but not to purchases of supplies or materials or articles ordinarily available on the open market, or contracts for transportation or transmission of intelligence)

- A. Compliance:** Contractor agrees that it shall comply with Sections 103 and 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 327–330) as supplemented by Department of Labor regulations (29 CFR Part 5), which are incorporated herein.
- B. Overtime:** No contractor or subcontractor contracting for any part of the work under this Agreement which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.
- C. Violation; liability for unpaid wages; liquidated damages:** In the event of any violation of the provisions of Paragraph B, the Contractor and any subcontractor responsible therefore shall be liable to any affected employee for his unpaid wages. In additions, such Contractor and subcontractor shall be liable to the United States for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic employed in violation of the provisions of paragraph B in the sum of \$10 for each calendar day on which such employee was required or permitted to be employed on such work in excess of eight hours or in excess of his standard workweek of forty hours without payment of the overtime wages required by paragraph B.
- D. Withholding for unpaid wages and liquidated damages:** The City shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set for in paragraph C of this section.
- E. Subcontracts:** The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraphs A through D of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs A through D of this section.

X. NOTICE OF REPORTING REQUIREMENTS

- A.** Contractor acknowledges that it has read and understands the reporting requirements of FEMA in Part III of Chapter 11 of the United States Department of Justice’s Office of Justice Programs Financial Guide, and agrees to comply with any such applicable requirements.
- B.** The Contractor agrees to include the above clause in each third party subcontract financed in whole or in part with Federal assistance provided by FEMA. It is further agreed that the clause shall not be modified, except to identify the subcontractor who will be subject to its provisions.

XI. NOTICE OF REQUIREMENTS PERTAINING TO COPYRIGHTS

- A.** Contractor agrees that FEMA shall have a royalty-free, nonexclusive, and irrevocable license to reproduce, publish or otherwise use, and to authorize others to use, for government purposes:
- 1) The copyright in any work developed with the assistance of funds provided under this Agreement;
 - 2) Any rights of copyright to which Contractor purchases ownership with the assistance of funds provided under this Agreement.
- B.** The Contractor agrees to include paragraph A above in each third party subcontract financed in whole or in part with Federal assistance provided by FEMA. It is further agreed that the clause shall not be modified, except to identify the subcontractor who will be subject to its provisions.

XII. PATENT RIGHTS (applicable to contracts for experimental, research, or development projects financed by FEMA; 44 CFR §13.36(i)(8))

- A. General.** If any invention, improvement, or discovery is conceived or first actually reduced to practice in the course of or under this Agreement, and that invention, improvement, or discovery is patentable under the laws of the United States of America or any foreign country, the City and Contractor agree to take actions necessary to provide immediate notice and a detailed report to FEMA.
- B.** Unless the Government later makes a contrary determination in writing, irrespective of Contractor's status (a large business, small business, state government or state instrumentality, local government, nonprofit organization, institution of higher education, individual), the City and Contractor agree to take the necessary actions to provide, through FEMA, those rights in that invention due the Federal Government as described in U.S. Department of Commerce regulations, "Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements," 37 CFR, Part 401.
- C.** The Contractor agrees to include paragraphs A and B above in each third party subcontract for experimental, developmental, or research work financed in whole or in part with Federal assistance provided by FEMA.

XIII. ENERGY CONSERVATION REQUIREMENTS

- A.** The Contractor agrees to comply with mandatory standards and policies relating to energy efficiency which are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act (42 USC 6201).
- B.** The Contractor agrees to include paragraph A above in each third party subcontract financed in whole or in part with Federal assistance provided by FEMA. It is further agreed that the clause shall not be modified, except to identify the subcontractor who will be subject to its provisions.

XIV. CLEAN AIR AND WATER REQUIREMENTS (applicable to all contracts and subcontracts in excess \$100,000, including indefinite quantities where the amount is expected to exceed \$100,000 in any year)

- A. Contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act as amended (33 U.S.C. 1251-1387), and will report violations to FEMA and the Regional Office of the Environmental Protection Agency (EPA).
- B. Contractor agrees to report each violation of these requirements to the City and understands and agrees that the City will, in turn, report each violation as required to assure notification to FEMA and the appropriate EPA regional office.
- C. The Contractor agrees to include paragraph A and B above in each third party subcontract exceeding \$100,000 financed in whole or in part with Federal assistance provided by FEMA.

XV. TERMINATION FOR CONVENIENCE OF CITY (applicable to all contracts in excess of \$10,000)

See Paragraph 9 of the Agreement.

XVI. TERMINATION FOR DEFAULT (applicable to all contracts in excess of \$10,000)

Contractor's failure to perform or observe any term, covenant or condition of this Agreement shall constitute an event of default under this Agreement. See Paragraph 9 of the Agreement.

XVII. LOBBYING (Byrd Anti-Lobbying Amendment, 31 U.S.C. § 1352 (as amended).)

- A. Contractor shall not use or pay any funds received under this Agreement to influence or attempt to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- B. Contractor agrees to the provisions of Certification Regarding Lobbying, attached hereto and incorporated herein (applicable for contracts or subcontracts in excess of \$100,000).
- C. Contractor agrees to include paragraphs A and B above in each third party subcontract financed in whole or in part with Federal assistance provided by FEMA. It is further agreed that the clause shall not be modified, except to identify the subcontractor who will be subject to its provisions.

XVIII. MBE / WBE REQUIREMENTS

The City intends to seek reimbursement of its costs incurred in connection with this project from FEMA. Accordingly, the CONTRACTOR shall make every effort to procure Minority and Women's Business Enterprises ("DBEs") through the "Good Faith Effort" process as required in 2 CFR 200.321. Failure to perform the "Good Faith Effort" process and submit the forms listed below with the bid/proposal shall be cause for a bid/proposal to be rejected as non-responsive and/or be considered as a material breach of the contract.

PRIME CONTRACTOR RESPONSIBILITIES

All recipients of this grant funding, as well as their prime contractors and subcontractors, must take all affirmative steps to assure that minority firms, women's business enterprises, and labor surplus area firms are used when possible make every effort to solicit bids from eligible DBEs. This information must be documented and reported.

"GOOD FAITH" EFFORT PROCESS

Any public or private entity receiving federal funds must demonstrate that efforts were made to attract MBE/WBEs. The process to attract MBE/WBEs is referred to as the "Good Faith" effort. This effort requires the recipient, prime contractor and any subcontractors to take the steps listed below to assure that MBE/WBEs are used whenever possible as sources of supplies, construction, equipment, or services. If a CONTRACTOR fails to take the steps outlined below shall cause the bid/proposal to be rejected as non-responsive and/or be deemed a material breach of the contract.

- A. Place qualified small and minority businesses and women's business enterprises on solicitation lists;
- B. Assure that small and minority businesses, and women's business enterprises are solicited whenever they are potential sources;
- C. Divide total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority business, and women's business enterprises;
- D. Establish delivery schedules, where the requirement permits, which encourage participation by small and minority business, and women's business enterprises; and
- E. Use the services and assistance of the Small Business Administration, and the Minority Business Development Agency of the Department of Commerce.
- F. If subcontracts are to be let, Contractor shall take the affirmative steps listed in 2 CFR 200.321.

XIX. PROCUREMENT OF RECOVERED MATERIALS (2 CFR 200.322)

Contractor shall comply with Section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act. The requirements of Section 6002 include procuring only items designated in guidelines of the Environmental Protection Agency (EPA) at 40 CFR part 247 that contain the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of competition, where the purchase price of the item exceeds \$10,000 or the value of the quantity acquired during the preceding fiscal year exceeded \$10,000; procuring solid waste management services in a manner that maximizes energy and resource recovery; and establishing an affirmative procurement program for procurement of recovered materials identified in the EPA guidelines.

XX. INCORPORATION OF UNIFORM ADMINISTRATIVE REQUIREMENTS

The preceding provisions include, in part, certain standard terms and conditions required by FEMA, whether or not expressly set forth in the preceding contract provisions. All contractual provisions required by FEMA are hereby incorporated by reference. Anything to the contrary herein notwithstanding, all FEMA mandated terms shall be deemed to control in the event of a conflict with

other provisions contained in this Agreement. Contractor shall not perform any act, fail to perform any act, or refuse to comply with any City requests that would cause City to be in violation of the FEMA terms and conditions.

**CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND
VOLUNTARY EXCLUSION – LOWER TIER COVERED TRANSACTIONS**

(Lower Tier refers to the agency or contractor receiving Federal funds, as well as any subcontractors that the agency or contractor enters into contract with using those funds)

As required by Executive Order 12549, Debarment and Suspension, as defined at 44 CFR Part 17, City may not enter into contract with any entity that is debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded by the Federal Government from participating in transactions involving Federal funds. Contractor is required to sign the certification below which specifies that neither Contractor nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded by the Federal agency. It also certifies that Contractor will not use, directly or indirectly, any of these funds to employ, award contracts to, engage the services of, or fund any contractor that is debarred, suspended, or ineligible under 44 CFR Part 17.

Instruction for Certification

1. By signing and submitting this proposal, the prospective lower tier participant is providing the certification set out below.
2. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.
3. The prospective lower tier participant shall provide immediate written notice to the person to whom this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous when submitted or had become erroneous by reason of changed circumstances.
4. The terms covered transaction, debarred, suspended, ineligible, lower tier covered transaction, participant, person, primary covered transaction, principal, proposal, and voluntarily excluded, as used in this clause, have the meaning set out in the Definition and Coverage sections of rules implementing Executive Order 12549. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations.
5. The prospective lower tier participant agrees by submitting this agreement that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is proposed for debarment under 48 CFR Part 9, subpart 9.4, debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

6. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
7. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not proposed for debarment under 48 CFR part 9, subpart 9.4, debarred, suspended, ineligible, or voluntarily excluded from covered transactions, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the List of Parties Excluded from Federal Procurement and Nonprocurement Programs.
8. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
9. Except for transactions authorized under paragraph 5 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is proposed for debarment under 48 CFR part 9, subpart 9.4, suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction originated may pursue available remedies, including suspension and/or debarment.

Certification Regarding Debarment, Suspension, Ineligibility an Voluntary Exclusion – Lower Tier Covered Transactions

1. The prospective lower tier participant certifies, by submission of its proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

CERTIFICATION REGARDING LOBBYING

Certification for Contracts, Grants, Loans, and Cooperative Agreements

The undersigned certifies, to the best of his or her knowledge and belief, that:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the

undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

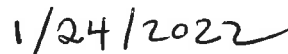
3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loan, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

I declare under penalty of perjury that I have read, understood, and agree to comply with all of the provisions set forth in Exhibit C.



Contractor Signature



Date

DBE Subcontractor Utilization Form

This form is intended to capture the prime contractor's actual and/or anticipated use of identified certified DBE¹ subcontractors² and the estimated dollar amount of each subcontract.

Prime Contractor Name Kier + Wright		Project Name Collier Canyon
Bid/Proposal No.	Assistance Agreement ID No. (If known)	Point of Contact
Address 2850 Collier Canyon Road Livermore, CA 94551		
Telephone No.		Email Address
Issuing/Funding Entity:		


I have identified potential DBE certified subcontractors	<input checked="" type="radio"/> YES	<input type="radio"/> NO	
Subcontractor Name/ Company Name	Company Address/Phone/Email	Est. Dollar Amt	Currently DBE Certified?
Merrill Morris		\$21,375	Yes
A3 GEO		\$25,210	Yes

¹ A DBE is a Disadvantaged, Minority, Small or Woman Business Enterprise that has been certified as described in 40 CFR 33.204-33.205.

² Subcontractor is defined as a company, firm, joint venture or individual who enters into an agreement with a contractor to provide services.

DBE Subcontractor Performance

I certify under penalty of perjury that the foregoing statements are true and correct. Signing this form does not signify a commitment to utilize the subcontractors above. In the event of a replacement of a subcontractor, I will adhere to the replacement requirements set forth in 40 CRF Part 33 Section 33.302(c).

Prime Contractor Signature	Print Name
	Charles McCallum
Title	Date
President	1/24/2022

DBE Subcontractor Performance

This form is intended to capture the DBE³ subcontractors'⁴ description of work to be performed and the price of the work submitted to the prime contractor. Prime contractor is required to have its DBE subcontractors complete this form and include all completed forms in the prime contractors bid or proposal package unless subcontractors will not be used.

Subcontractor Name Kier + Wright		Project Name Collier Canyon
Bid/Proposal No.	Assistance Agreement ID No. (If known)	Point of Contact
Address 2850 Collier Canyon Road Livermore, CA 94551		
Telephone No.		Email Address
Prime Contractor Name		Issuing/Funding Entity:

Contract Item Number	Description of Work Submitted to the Prime Contractor Involving construction, Services, Equipment or Supplies	Price of Work Submitted to the Prime Contractor

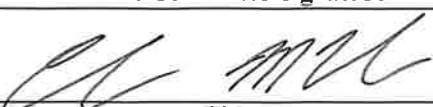
BDE Certified by <input type="radio"/> DOT <input type="radio"/> SBA <input type="radio"/> Other: _____	Meets/ exceeds FEMA certification standards: <input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> Unknown
--	--

³ A DBE is a Disadvantaged, Minority, Small or Woman Business Enterprise that has been certified as described in 40 CFR 33.204-33.205

⁴ Subcontractor is defined as a company, firm, joint venture or individual who enters into an agreement with a contractor to provide services pursuant to an EPA award of financial assistance.

DBE Subcontractor Performance

I certify under penalty of perjury that the foregoing statements are true and correct. Signing this form does not signify a commitment to utilize the subcontractors above. I am aware of that in the event of a replacement of a subcontractor, I will adhere to the replacement requirements set forth in 40 CRF Part 33 Section 33.302(c).

Prime Contractor Signature	Print Name
	Charles McGillem
Title	Date
President	1/24/2022

Subcontractor Signature	Print Name
Title	Date



CITY COUNCIL STAFF REPORT

ITEM NO. 5.4

DATE: February 14, 2022

TO: Honorable Mayor and City Council

FROM: Christine Martin, Assistant City Manager

SUBJECT: Resolution of a continued local emergency and reauthorizing remote teleconference meetings for City of Livermore's legislative bodies in accordance with Assembly Bill 361

RECOMMENDED ACTION

Staff recommends City Council adopt a resolution of a continued local emergency and reauthorizing remote teleconference meetings for City of Livermore's legislative bodies in accordance with Assembly Bill 361.

SUMMARY

On March 16, 2020, the City Council adopted a resolution ratifying the Proclamation of the Director of Emergency Services concerning the existence of a local emergency (Resolution No. 2020-033). On June 8, July 27, September 14, November 9, December 14, 2020, February 8, March 22, May 10, June 28, July 26, September 13, October 25, November 22, December 13, 2021, and January 10, 2022 the City Council adopted resolutions of Continued Local Emergency. California Government Code section 8630 directs the City Council to review the need for continuing the local emergency at least once every 60 days.

On September 16, 2021, the Governor signed Assembly Bill 361 ("AB 361") into law, allowing the City's legislative bodies to continue to meet via teleconference during proclaimed states of emergency under modified Brown Act requirements when a state of emergency is declared by the Governor pursuant to Government Code section 8625, proclaiming the existence of conditions of disaster or of extreme peril to the safety of persons and property within the state caused by conditions as described in Government Code section 8558. AB 361 further requires that state or local officials have imposed or recommended measures to promote social distancing, or, the legislative body meeting in person would present imminent risks to the health and safety of attendees. AB 361 requires reauthorization every 30 days.

DISCUSSION

An outbreak of coronavirus disease 2019 (COVID-19) caused by the 2019 novel coronavirus (SARS-CoV-2) began in Wuhan, Hubei Province, China in December 2019, and has now spread throughout the

world.

On March 1, 2020, the Health Officer of Alameda County declared a public health emergency throughout the County of Alameda.

On March 4, 2020, the Governor of California proclaimed a state of emergency exists in California after making determinations that:

1. The conditions caused by COVID-19 are likely to require the combined forces of a mutual aid region or regions to appropriately respond; and,
2. Local authority is inadequate to cope with the threat posed by COVID-19.

On March 12, 2020, the Alameda County Department of Public Health confirmed evidence of community-acquired transmission.

On March 13, 2020, the President of the United States of America declared a National state of emergency in response to the spread of COVID-19 within the United States of America.

On March 13, 2020, the City Manager declared a Local Emergency. The declaration was based upon the Alameda County Department of Health confirming evidence of community-acquired transmission within Alameda County and the President of the United States declaring a National state of emergency.

On March 16, 2020, the City Council adopted a resolution ratifying the declaration of local emergency (Resolution No. 2020-033).

On June 8, July 27, September 14, November 9, December 14, 2020, February 8, March 22, May 10, June 28, July 26, September 13, October 25, November 22, December 13, 2021, and January 10, 2022, the City Council adopted resolutions of continued local emergency (Resolution Nos. 2020-78, 2020-133, 2020-166, 2020-207, 2020-235, 2021-018, 2021-037, 2021-063, 2021-112, 2021-140, 2021-155, 2021-179, 2021-195, 2021-217, and 2022-006, respectively).

The state and Alameda County continue to monitor COVID-19 case rates and hospitalizations, as well as variants such as Delta and Omicron, and the County has reinstated face covering requirements in indoor settings due to a significant increase in case rates. Additionally, local provisions granted under the emergency proclamation such as outdoor dining and eligibility for funding reimbursement remain in effect as the City continues to recover. Therefore, the emergency conditions identified by the proclamation of local emergency still exist.

Staff recommends the City Council continue the proclamation of emergency services ratified on March 16, 2020 and continued June 8, July 27, September 14, November 9, December 14, 2020, February 8, March 22, May 10, June 28, July 26, September 13, October 25, November 22, December 13, 2021, and January 10, 2022, and continue to authorize teleconference meetings of the City's legislative bodies in accordance with AB 361.

FISCAL AND ADMINISTRATIVE IMPACTS

The continuance of a Local Emergency allows the City to access federal, state and county resources, including potential financial reimbursements.

ATTACHMENTS

1. Resolution

Prepared by: Christine Martin
Assistant City Manager

Approved by:



Marc Roberts
City Manager

Fiscal Review by:



Bhavna Chaudhary
City Treasurer/Finance Manager

IN THE CITY COUNCIL OF THE CITY OF LIVERMORE, CALIFORNIA

**A RESOLUTION OF CONTINUED LOCAL EMERGENCY AND
REAUTHORIZING REMOTE TELECONFERENCE MEETINGS FOR THE
CITY OF LIVERMORE'S LEGISLATIVE BODIES IN ACCORDANCE
WITH ASSEMBLY BILL 361**

On March 4, 2020, the Governor of the State of California (the "Governor") proclaimed a statewide state of emergency due to COVID-19.

On March 1 and 5, 2020, the Alameda County Health Officer (the "Health Officer") declared a Local Health Emergency due to COVID-19.

On March 16, 2020, the City Council adopted a resolution, *Ratifying the Proclamation of the Director of Emergency Services Concerning the Existence of a Local Emergency* (Resolution No. 2020-033). The local emergency proclamation concerned conditions of extreme peril to the safety of persons and property, which have arisen within the city of Livermore due to the COVID-19 pandemic.

All meetings of the City of Livermore's legislative bodies are open and public, as required by the Brown Act (Cal. Gov. Code sections 54950 et seq.), so that any member of the public may attend, participate, and watch the City's legislative bodies conduct their business.

The City Council has regularly adopted resolutions determining the need for continuing the local emergency pursuant to California Government Code section 8630 (Resolution Nos. 2020-078, 2020-133, 2020-166, 2020-207, 2020-235, 2021-018, 2021-037, 2021-063, 2021-112, 2021-140, 2021-155, 2021-179, 2021-195, 2021-217, and 2022-006).

On January 10, 2022, the City Council adopted Resolution 2022-006 reaffirming that a local emergency still exists, and that in-person meetings of the City's legislative bodies would present imminent risks to the health or safety of attendees and authorized the City's legislative bodies to continue to meet via teleconferencing under modified Brown Act requirements.

The public health officers for the State of California and the County of Alameda continue to monitor transmission, case rates, and hospitalizations of COVID-19 and associated variants (including Delta and Omicron) and continue to require face coverings in certain indoor settings and recommend vaccination, boosters, and social distancing.

Due to these conditions, City staff reported that the emergency conditions identified by the previous emergency proclamation still exist today. Staff also recommended the City Council continue to authorize teleconference meetings of the City's legislative bodies.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Livermore that it has reviewed the March 13, 2020 proclamation of local emergency ratified on March 16, 2020, by Resolution No. 2020-033, and hereby finds that conditions warrant continued maintenance of that proclamation of local emergency due to the COVID-19 pandemic.

BE IT FURTHER RESOLVED by the City Council of the City of Livermore that:

1. The Recitals set forth above are true and correct and are incorporated into this Resolution by this reference.

2. The City Council has reviewed the March 13, 2020 proclamation of local emergency that the City Council ratified on March 16, 2020 (Resolution No. 2020-033), and finds that conditions warrant continued maintenance of that proclamation of local emergency due to the COVID-19 pandemic.

3. The City Council has reconsidered the circumstances of the state of emergency and has determined that the state of emergency continues to impact the ability of members of the City's legislative bodies to meet safely in person. In-person meetings of the City's legislative bodies would present imminent risks to the health or safety of attendees. The City continues to impose measures to promote social distancing in City-owned and operated facilities.

4. The staff and legislative bodies of the City of Livermore are hereby reauthorized and directed to take all actions necessary to carry out the intent and purpose of this Resolution including, conducting open and public meetings in accordance with Government Code section 54953 (e) and other applicable provisions of the Brown Act.

5. This Resolution shall take effect immediately upon its adoption and shall be effective until the earlier of March 16, 2022, or such time the City Council makes subsequent findings in accordance with Government Code section 54953 (e)(3) to extend the time during which the legislative bodies of the City of Livermore may continue to teleconference without compliance with Government Code section 54953(b)(3).

6. If any section, subsection, clause, or phrase in this Resolution is for any reason held invalid, the validity of the remainder of this Resolution shall not be affected thereby. The City Council would have passed this Resolution and each section, subsection, sentence, clause, or phrase thereof, irrespective of the fact that one or more sections, subsections, sentences, clauses, or phrases thereof be held invalid.

On motion of Council Member _____, seconded by Council Member _____, the foregoing resolution was passed and adopted on February 14, 2022, by the following vote:

AYES: COUNCIL MEMBERS:
NOES: COUNCIL MEMBERS:
ABSENT: COUNCIL MEMBERS:
ABSTAIN: COUNCIL MEMBERS:

ATTEST:

APPROVED AS TO FORM:

Marie Weber
City Clerk

/s/ Jason R. Alcala
Jason R. Alcala
City Attorney



CITY COUNCIL STAFF REPORT

ITEM NO. 6.1

DATE: February 14, 2022

TO: Honorable Mayor and City Council

FROM: Donald Hester, Acting Administrative Services Director

SUBJECT: 7:05 P.M. - Third Public Hearing to receive an update on redistricting efforts to date, receive public input on the composition of City Council voting district draft maps prepared by the City's demographer, and provide direction to the City's demographer for revisions of the draft maps to be considered at the fourth public hearing

RECOMMENDED ACTION

Staff recommends that the City Council:

1. Receive an update regarding the redistricting efforts to date;
2. Conduct the third public hearing to receive input on the composition of voting district draft maps; and
3. Provide direction to the City's demographer for revisions of the draft maps to be considered at the fourth public hearing.

SUMMARY

The California Elections code requires that every ten years cities with by-district election systems use new census data to review and, if needed, redraw district lines to reflect how local populations have changed. This process ensures all districts have nearly equal population (10% or less of overall deviation). Council Member Districts 3 and 4 were included on the ballot for the first time during the November 3, 2020 election and Districts 1 and 2 will transition during the November 8, 2022 election. During this meeting the Livermore City Council will complete the third of four required public hearings. The entire redistricting process must be complete by April 17, 2022.

DISCUSSION

Background

Each city with district-based elections is required to update the district boundaries every ten years following receipt of updated population data from each federal decennial census. The City of Livermore has district-based elections for four Council Members and therefore is required to update the district boundaries prior to the November 8, 2022 Election. Although the City only recently established the

district boundaries on November 26, 2018, the boundaries were drawn in compliance with the 2010 census and 2020 census data must now be taken into consideration.

On October 11, 2021, the City Council held its first Public Hearing prior to maps being drawn. At that time, the City's demographer Wagaman Strategies, provided information on the 2020 census data, the redistricting process, and legal requirements included in the FAIR MAPS Act. The City's outreach consultant Tripepi Smith provided an outline of the community outreach plan and received direction from the City Council. The Council also provided an opportunity for members of the public to provide input.

On October 18, 2021, the City Council held its first special meeting workshop where the City's demographer, Wagaman Strategies, provided information and guidance on how to use DistrictR, the City's map drawing tool. In addition, Wagaman Strategies provided an overview of the excel and paper map options available to the public.

On January 24, 2022, the City Council held its second public hearing prior to maps being presented. During the public hearing the Council received an update on community outreach efforts to date from Tripepi Smith, reviewed the redistricting requirements with Wagaman Strategies, and held a public hearing to solicit public input. The City Council directed staff to focus future public outreach on Community of Interest submissions. In addition, the Council provided initial direction to the City's demographer on the composition of draft maps which included the following items:

1. Not using race as a predominate factor
2. Keep identified communities together, such as avoiding moving District 2 east into District 1
3. Explore plans that lower the current deviation
4. Track and consider residents who may be subject to deferral

Language Requirements for Redistricting

On June 11, 2021, the Secretary of State provided guidance for Cities regarding language requirements related to Elections Code Section 21608. Per the Secretary of State, the City of Livermore is not required to provide qualifying materials or live translation (interpretation) services in any additional languages. However, the City is committed to transparency and engagement and therefore Spanish interpretation services will automatically be available at all public hearings. Map materials have also been translated and social media posts are available in both English and Spanish. Any member of the public requesting accommodations under the Americans with Disabilities Act (ADA), is asked to notify the ADA Coordinator at adacoordinator@cityoflivermore.net or call (925) 960-4170 at least 3 business days in advance of the meeting.

Publication and Noticing Requirements for Public Hearings

Per Elections Code Section 21608(c) and 21608(g)(3), the City is required to "publish" the hearing date, time, and location 5 days in advance of the meeting on the internet (a website calendar satisfies this requirement). The City regularly publishes public hearing notices on the city website and in The Valley Times.

To increase public participation and good faith efforts from the City, the following notices have been published in addition to election code requirements:

- Posted redistricting information weekly on Facebook, Twitter, and Nextdoor in English and

Spanish, with milestone posts boosted to increase reach.

- Posted a notice of public hearing on the dedicated redistricting website and subscribers who signed up to receive redistricting updates were notified via email.
- Published a related press release inviting public participation for scheduled public hearings.
- Hearing dates and times are posted at all Livermore libraries, the Chamber of Commerce, and in the Downtown kiosks.

Mapping Tools and Participation Kits

California's new "Fair Maps Act" has significantly changed the criteria for mapping compared to the rules when Livermore first went through the transition from at-large to by-district elections. The City's demography consultant, Wagaman Strategies, has provided the mapping tools needed to empower residents to review draft maps and to develop and submit their own map proposals. The Public Participation Kit (paper kits) are available at City Hall and the Chamber of Commerce for residents that prefer to use a paper map or don't have access to internet. The Special Meeting Workshop video from October 18, 2021 showing how to use the DistrictR software is also available on the redistricting website at drawlivermore.org.

Additional Community Outreach Efforts

The City of Livermore hired professional redistricting consultants Wagaman Strategies and Tripepi Smith to assist with managing the City's redistricting process and ensure overall compliance with data analysis, map creation, website administration, public outreach and timeline and noticing requirements. To date, Tripepi Smith and City staff have completed the following:

- Weekly social media posts in English and Spanish
- Calls to engage 60+ community organizations including the school district, local churches, senior living facilities, and non-profit organizations
- Letters sent to all advisory body members encouraging their participation
- English and Spanish flyers published in Peachjar through the Livermore Valley Joint Unified School District reaching 13,000+ email recipients with 426 views.
- Map and community of interest paper kits have been made available at the Chamber of Commerce for residents to pick up
- Deployment of redistricting kiosks at all Livermore Libraries where residents can submit an electronic map or pick up a paper mapping kit
- City booths at the January 9th and 16th Livermore Downtown Sunday Farmer's Market to share information, provide map kits, and answer questions. Staff counted 80+ interactions at each Farmer's Market and found that when asked, approximately 49% of residents were happy with the existing district lines, 50% were uncertain, and 1% were unhappy.
- Webpage banner published on Las Positas College homepage directing viewers to the City's dedicated redistricting website
- Email sent to City contacts and social media posts directly requesting the submission of Community of Interest maps
- Social Media survey which yielded 21 results that showed 47.5% of respondents are happy with the current map, 43% are uncertain, and 9.5% want changes to the current district lines (Attachment 6)

Next Steps

At this public hearing, Wagaman Strategies will present draft versions of district boundary maps for the City Council to review and provide direction (Attachment 4). Draft maps will be published to the districting website (drawlivermore.org) at least seven days in advance of the third and fourth public hearing. At the fourth public hearing on March 14, 2022, the City Council will be asked to take public testimony and select a final map. This final map will establish new district boundaries for Council Members, which will go into effect for the November 8, 2022 General Municipal Election.

Based on the analysis of the final Census data, and having received 17 district maps from members of the public (as of January 31, 2022), the City Council has the following options tonight:

1. Consider a map presented by a member of the public; or
2. Consider a draft map presented by Wagaman Strategies (green, blue, purple, or red); or
3. Direct Wagaman Strategies to draft a new or revised map based on feedback from the City Council

After completion of the third public hearing, City staff will continue their community outreach efforts to gather any new or clarifying information on communities of interest and to solicit feedback from the community on draft maps (particularly any maps focused on by City Council during the third hearing). The fourth public hearing will be held March 14, 2022, at which time the City Council will be asked for any additional revisions and to select a final map.

FISCAL AND ADMINISTRATIVE IMPACTS

For the 2021-22 redistricting process, funding has already been appropriately budgeted within the City Clerk's Division under the General Fund and includes consulting services from both community outreach and demographic firms. The City elected to retain the services of Tripepi Smith to assist with public outreach and the cost shall not exceed \$48,000. The cost of providing demographic services by Wagaman Strategies shall not exceed \$49,000. Legal Counsel is being provided by the Livermore City Attorney's Office. Staff estimates that current funds will be sufficient to complete the redistricting process.

ATTACHMENTS

1. Presentation
2. Communities of Interest DistrictR Submissions
3. Communities of Interest Tool Submissions
4. Draft Plans
5. Demographics
6. Draft Plan Review
7. Survey Responses

Prepared by: Marie Weber
City Clerk

Approved by:



Marc Roberts
City Manager

Fiscal Review by:



Bhavna Chaudhary
City Treasurer/Finance Manager

Redistricting

Livermore
Plan Review and Additional Direction

February 14, 2022

Actions Requested

Conduct public hearing to receive input on draft and public plans

Provide direction to demographer on potential revisions

Timeline

Hearing	Purpose	Date
1	<ul style="list-style-type: none"> • Education • Public input 	October 11
2	<ul style="list-style-type: none"> • Public input • Initial direction 	January 24
3	<ul style="list-style-type: none"> • Review plans (public & draft) • Provide additional direction 	February 14
4	<ul style="list-style-type: none"> • Review or further revise plans • Select final plan 	March 14

Criteria

In order of priority:

- Equal Population
- Federal Law
- Contiguous
- Neighborhoods & communities of interest
- Understandable boundaries
- Compactness

Things to Remember

Strive for population equality. Be prepared to justify deviations

Focus on traditional criteria. Draw contiguous districts that respect communities, while using understandable boundaries, and are compact when possible

Do not use race as the predominant factor. Only as one of many factors and cannot subordinate other redistricting criteria

Plans

Draft Plans

- Plan Green (Current)
- Plan Blue
- Plan Purple
- Plan Red

Public Plans

- 17 Plans

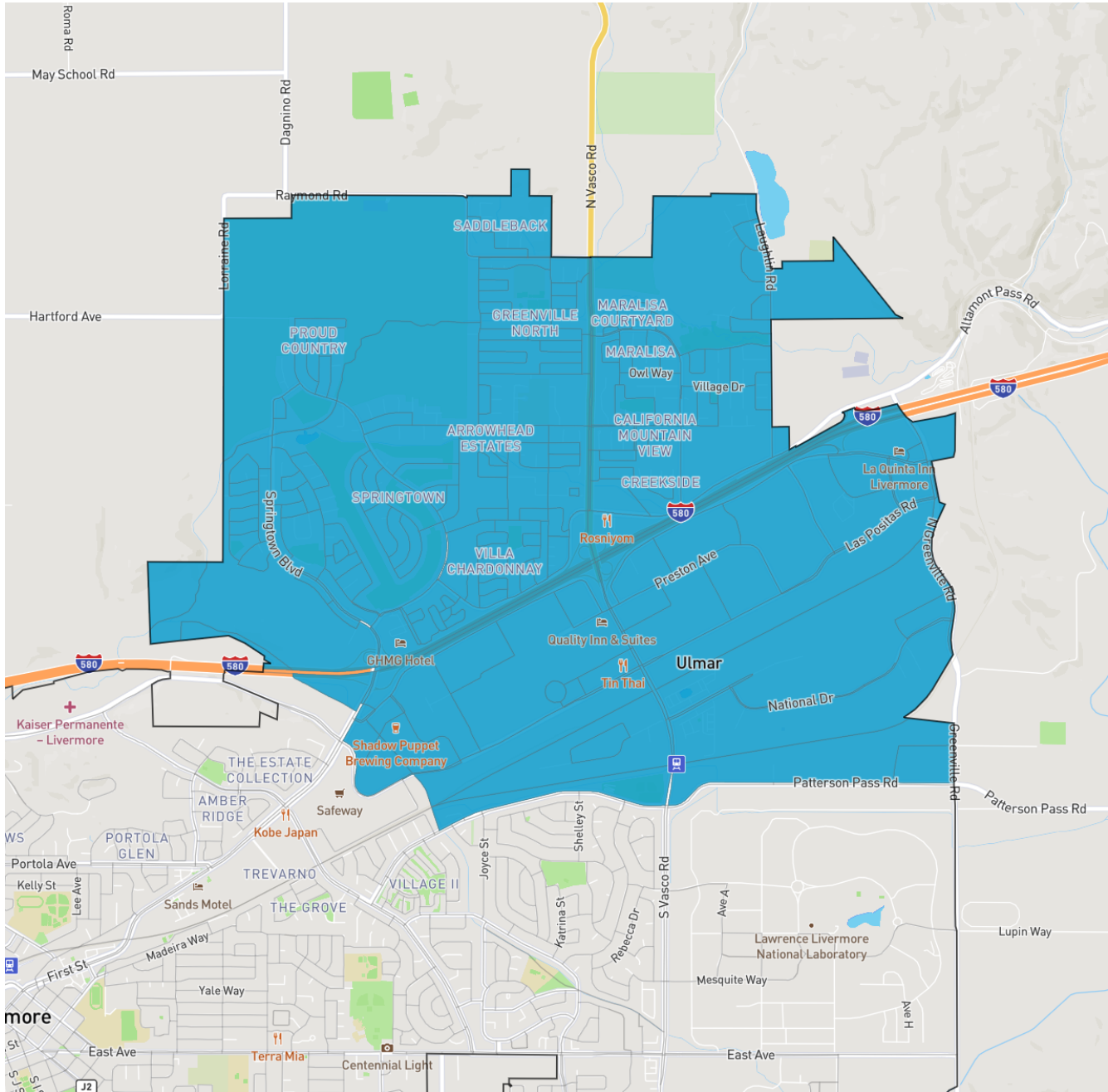
Resources

Webpage

- <https://drawlivermore.org/>
- Will be maintained for ten years

Email

- redistricting@cityoflivermore.net



ATTACHMENT 2



About redistricting

About the data

Save plan

Districtr homepage

New plan

Print / PDF

Export Districtr-JSON

Export COI plan as SHP

Export COI plan as GeoJSON

Export assignment as CSV (these units)

About import/export options

These details are updated automatically

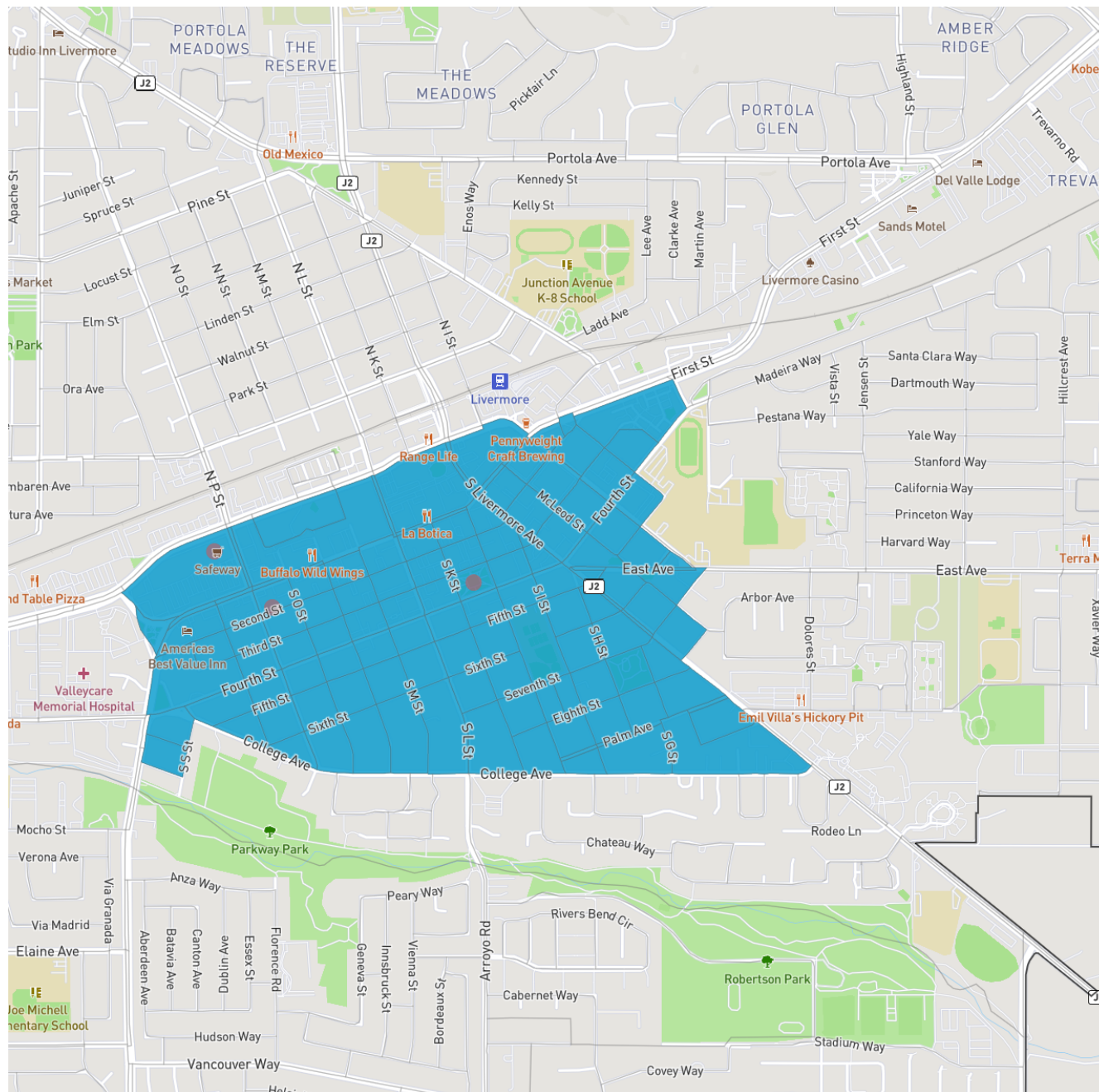
▼ Important Places



104305

Communities of Interest

 Springtown / Vasco Area



ATTACHMENT 2



About redistricting

About the data

Save plan

District homepage

New plan

Print / PDF

Export Districtr-JSON

Export COI plan as SHP

Export COI plan as GeoJSON

Export assignment as CSV (these units)

About import/export options

These details are updated automatically

► Important Places

104633

Communities of Interest

● South Downtown

Livermore's oldest section (Streets with numbers and alphabet) has downtown business area and residential area with wider streets. In the residential area single and multi units coexist. In general lots are bigger and deeper, and each house has its own character. Last 20 years older residents slowly moved out, and professionals are buying and modernizing the old houses.

Important Places

Carnegie Park

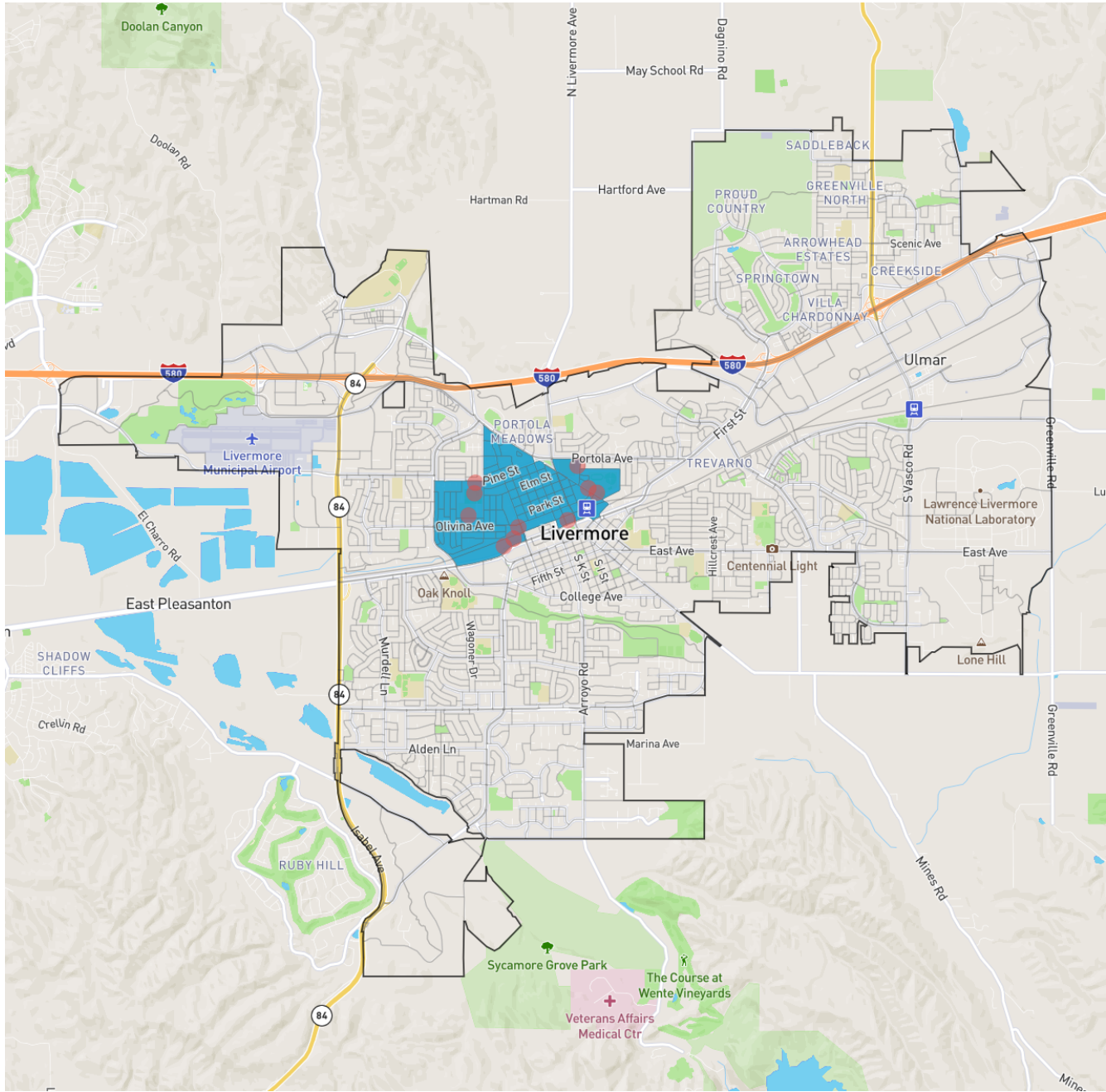
Summer Farmers Market

Safeway shopping center

Safeway, Ace (Former Orchard Hardware Supply), and CVS (Former Longs) serve the neighborhood. Starbucks has the regular customers.

Vine Cinema

Funky little movie theater where independent films often be shown.



ATTACHMENT 2



About redistricting

About the data

Save plan

Districtr homepage

New plan

Print / PDF

Export Districtr-JSON

Export COI plan as SHP

Export COI plan as GeoJSON

Export assignment as CSV (these units)

About import/export options

These details are updated automatically

Important Places



107347

Communities of Interest

● North Downtown

North Downtown (Tree name and I to P St) are older section of Livermore, and include lowest vaccination rate Census Tracts. Although Livermore's Hispanic/Latino population live throughout the city, Hispanic targeted businesses concentrate in the neighborhood. It has 26.5% Hispanic and 4.2% Black voting age population (much higher if children are included), and should be kept together in a district.

Important Places

Contreras Market

Hispanic Market

Olivina Plaza Shopping Center

Many businesses cater to Hispanic/Latino population. El Castillo Taqueria, Del Rancho Supermarket,

St Bart's Food Pantry

Tri-Valley Haven Food Pantry

Hidalgo Market

Hispanic grocery

Grocery Outlet

99 Cents Only Store

Rincon Library

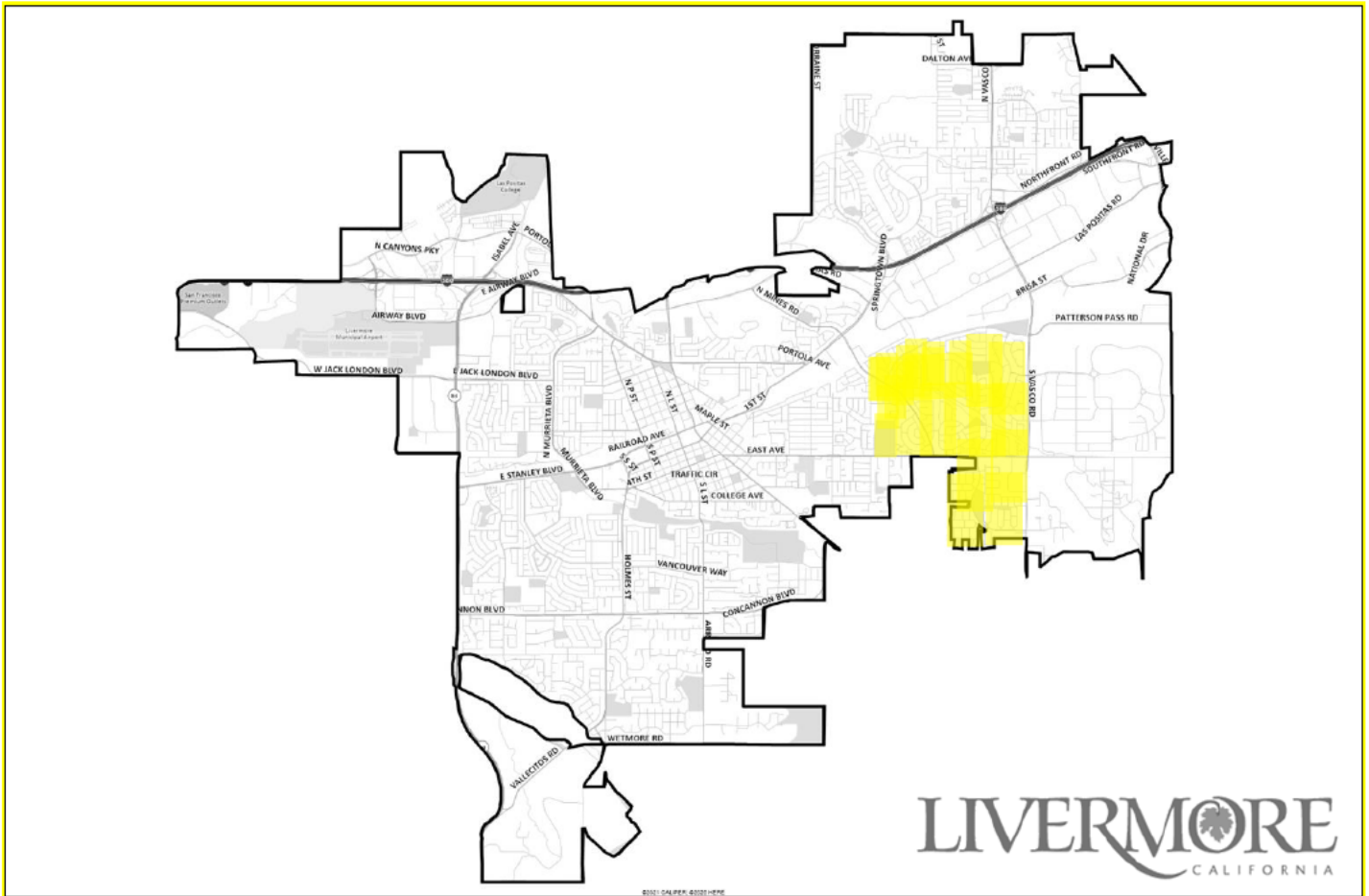
Junction K-8 School

Marilyn Ave Elementary School

1) Name your Community: _____ Girls Names

Streets _____

2) Draw your Community on the Map:



3) Describe your Community (*Specific boundaries. What makes it a community? Why should it be kept together?*):

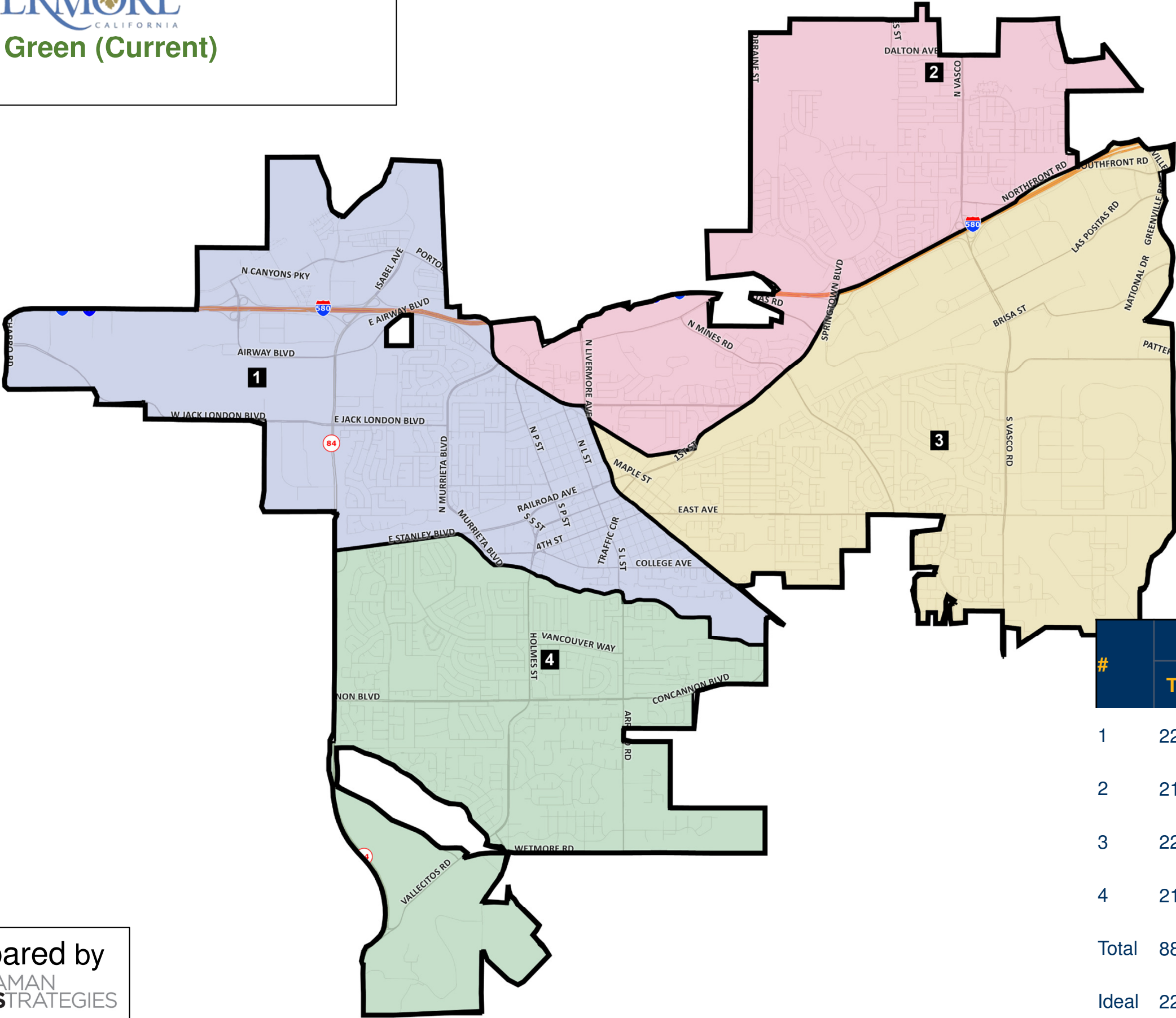
Our boundaries are Patterson Pass Between Vasco and Loyola south to Tesla road to just north of Patterson Pass. What makes us a community is shared common resources like Arroyo Seco Elementary school and park bus stops, the Livermore Community Center and park, that elementary school, Bruno Canziani park, access to the trail that goes to Tesla and beyond, the vineyard proximity, and the access to mass transit (ACE train), and proximity to the two national labs. We should be kept together because we are similarly affected by traffic, crime, school and park access, mass transit access, and what happens to the labs and the warehouse area across from the labs on Vasco north of East Avenue.

4) Tell us about Yourself (optional):

ATTACHMENT 3

Name: Yolanda Fintschenko Email: _____

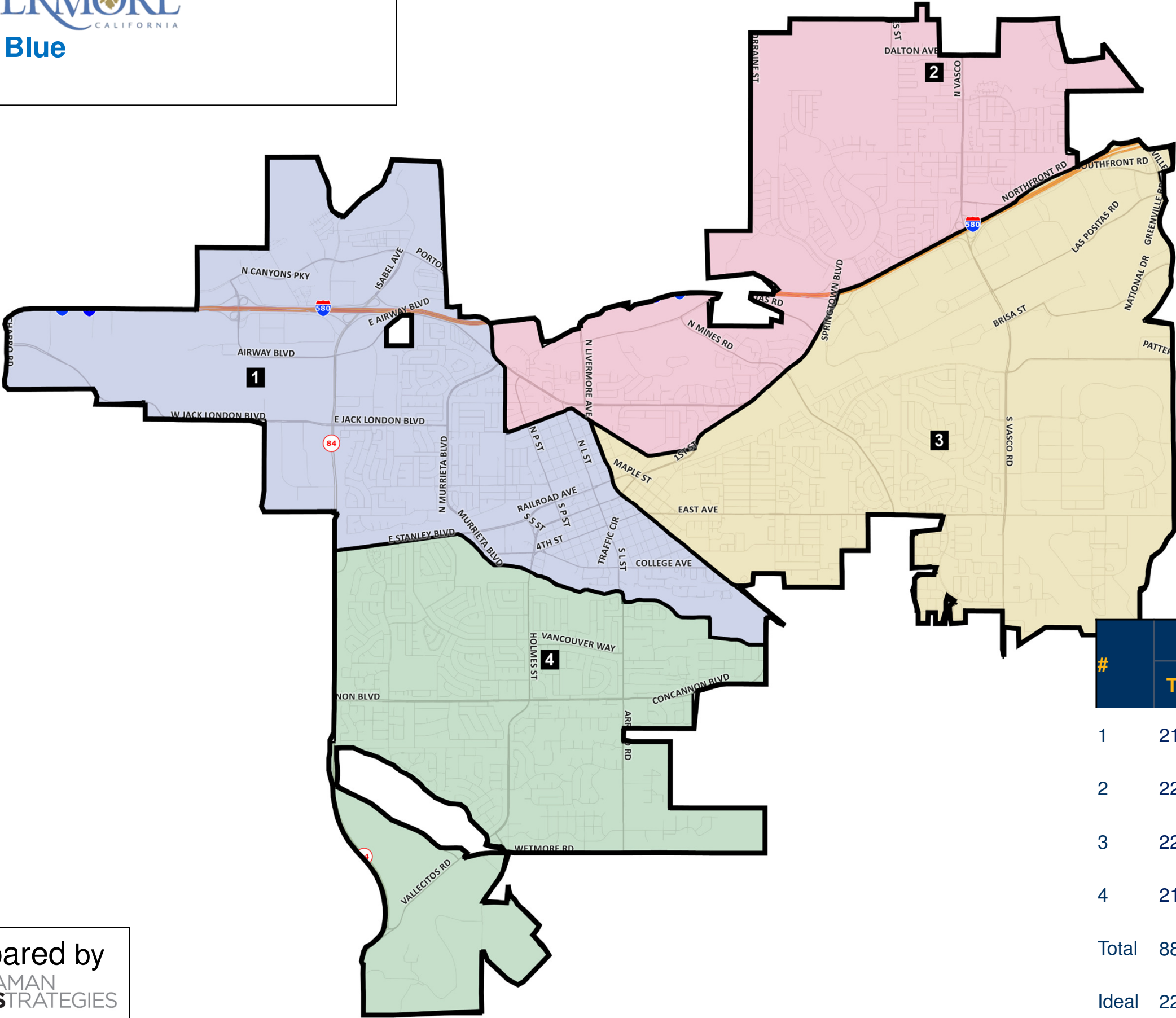
Email to redistricting@cityoflivermore.net or drop off or mail to 1052 S. Livermore Ave;
Livermore, CA 94550 by January 31st for consideration in the draft maps.



^ 2020 Census Redistricting Data. Adjusted for incarcerated populations
+ 2015-2019 American Community Survey Special Tabulation
* Calculated pursuant to OMB BULLETIN NO. 00-02

#	Population^		Citizen Voting Age Population*				
	Total	Deviation	Total	Latino*	Asian*	Black*	NH-White
1	22,837	+3.8%	16,240	17.7%	10.6%	3.3%	67.8%
2	21,020	-4.5%	14,742	15.9%	12.8%	3.3%	66.5%
3	22,292	+1.3%	15,089	12.0%	14.9%	3.2%	68.0%
4	21,857	-0.7%	15,883	12.6%	8.8%	0.9%	76.0%
Total	88,006	8.3%	61,954	14.6%	11.7%	2.6%	69.6%
Ideal	22,002						

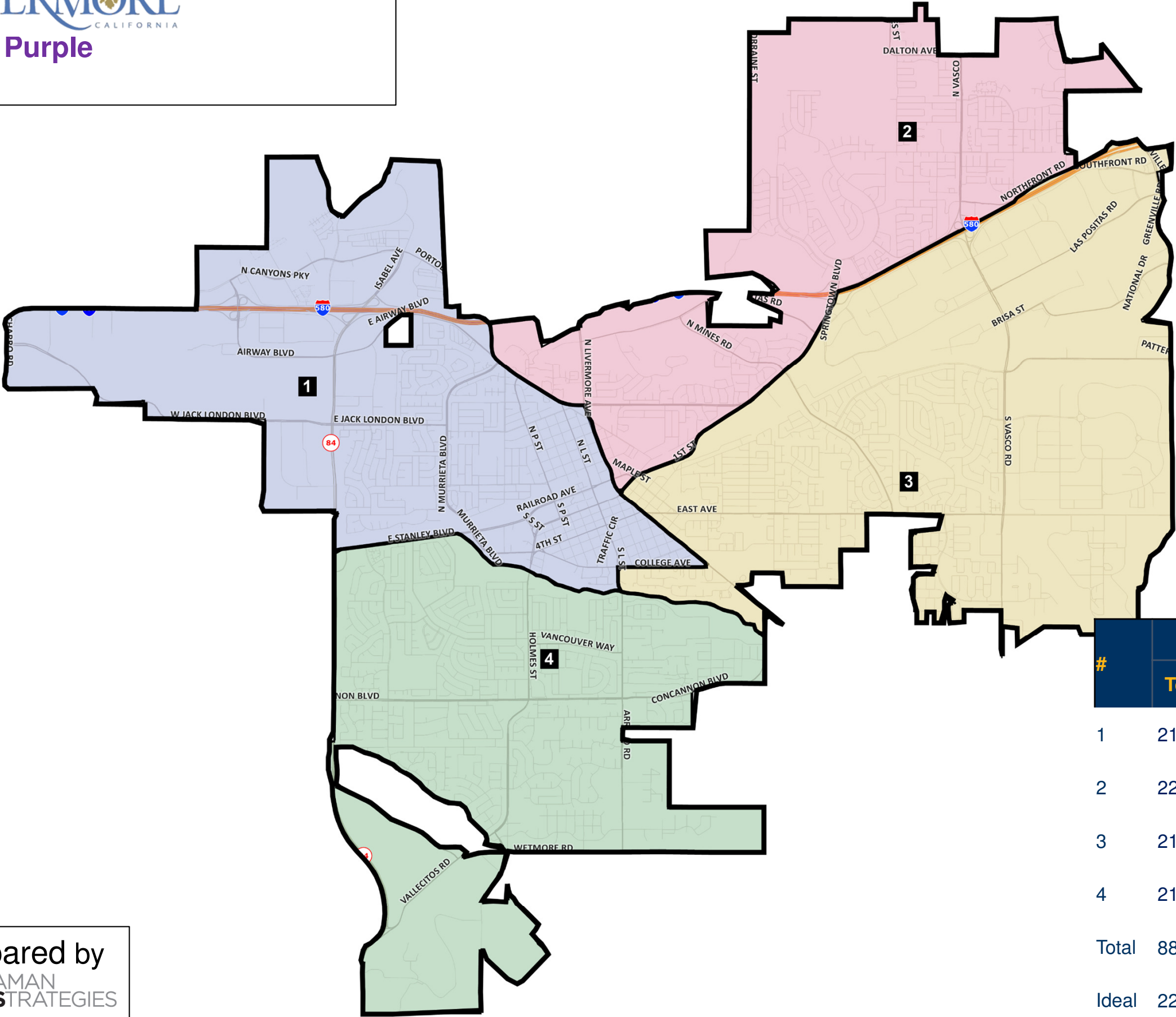
Prepared by
WAGAMAN STRATEGIES



^ 2020 Census Redistricting Data. Adjusted for incarcerated populations
+ 2015-2019 American Community Survey Special Tabulation
* Calculated pursuant to OMB BULLETIN NO. 00-02

#	Population^		Citizen Voting Age Population*				
	Total	Deviation	Total	Latino*	Asian*	Black*	NH-White
1	21,849	-0.7%	15,591	17.0%	10.7%	3.4%	68.4%
2	22,008	0.0%	15,391	16.7%	12.7%	3.1%	66.0%
3	22,292	+1.3%	15,089	12.0%	14.9%	3.2%	68.0%
4	21,857	-0.7%	15,883	12.6%	8.8%	0.9%	76.0%
Total	88,006	2.0%	61,954	14.6%	11.7%	2.6%	69.6%
Ideal	22,002						

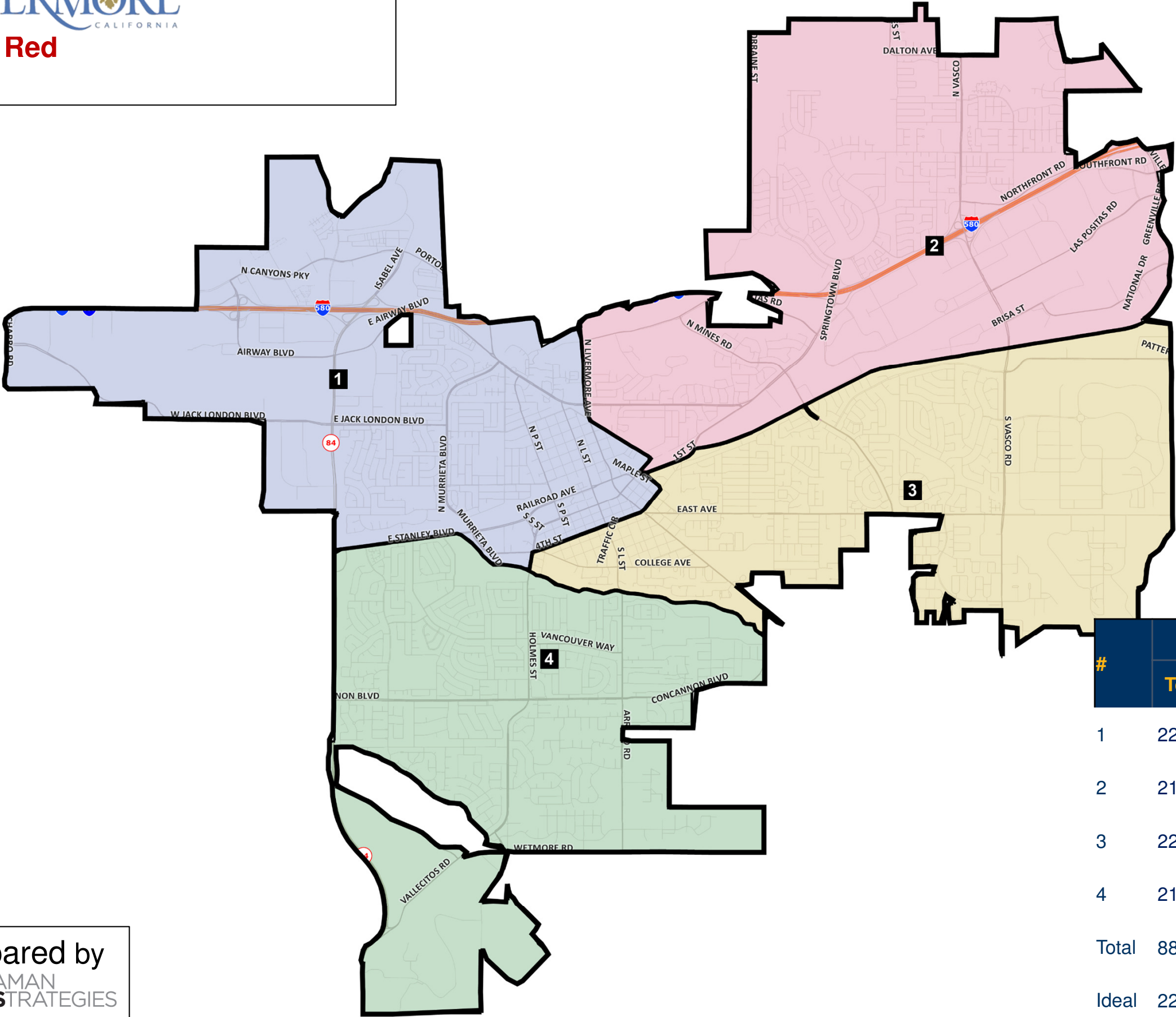
Prepared by
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^ 2020 Census Redistricting Data. Adjusted for incarcerated populations
+ 2015-2019 American Community Survey Special Tabulation
* Calculated pursuant to OMB BULLETIN NO. 00-02

#	Population^		Citizen Voting Age Population*				
	Total	Deviation	Total	Latino*	Asian*	Black*	NH-White
1	21,814	-0.9%	15,292	18.2%	10.9%	3.5%	66.8%
2	22,307	+1.4%	15,433	16.5%	13.2%	3.2%	65.1%
3	21,987	-0.1%	15,307	11.0%	14.1%	3.2%	70.5%
4	21,898	-0.5%	15,922	12.6%	8.8%	0.9%	76.0%
Total	88,006	2.2%	61,954	14.6%	11.7%	2.6%	69.6%
Ideal	22,002						

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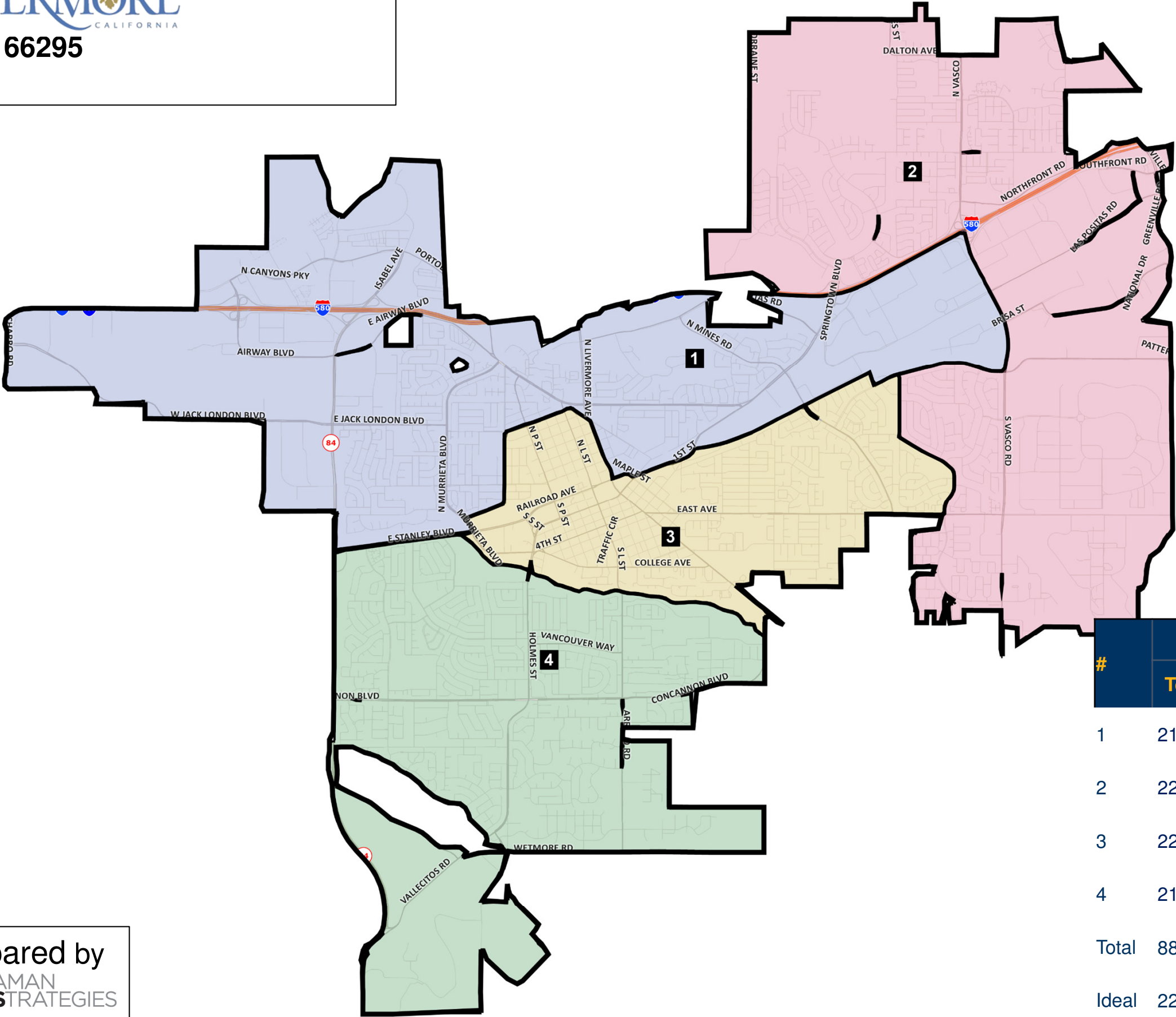
^ 2020 Census Redistricting Data. Adjusted for incarcerated populations
+ 2015-2019 American Community Survey Special Tabulation
* Calculated pursuant to OMB BULLETIN NO. 00-02

#	Population^		Citizen Voting Age Population*				
	Total	Deviation	Total	Latino*	Asian*	Black*	NH-White
1	22,253	+1.1%	15,245	20.2%	11.3%	3.9%	63.0%
2	21,304	-3.2%	14,746	15.0%	15.9%	3.1%	64.8%
3	22,551	+2.5%	16,041	10.8%	11.1%	2.9%	74.2%
4	21,898	-0.5%	15,922	12.6%	8.8%	0.9%	76.0%
Total	88,006	5.7%	61,954	14.6%	11.7%	2.6%	69.6%
Ideal	22,002						

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LIVERMORE
CALIFORNIA

Plan 66295



^ 2020 Census Redistricting Data. Adjusted for incarcerated populations
+ 2015-2019 American Community Survey Special Tabulation
* Calculated pursuant to OMB BULLETIN NO. 00-02

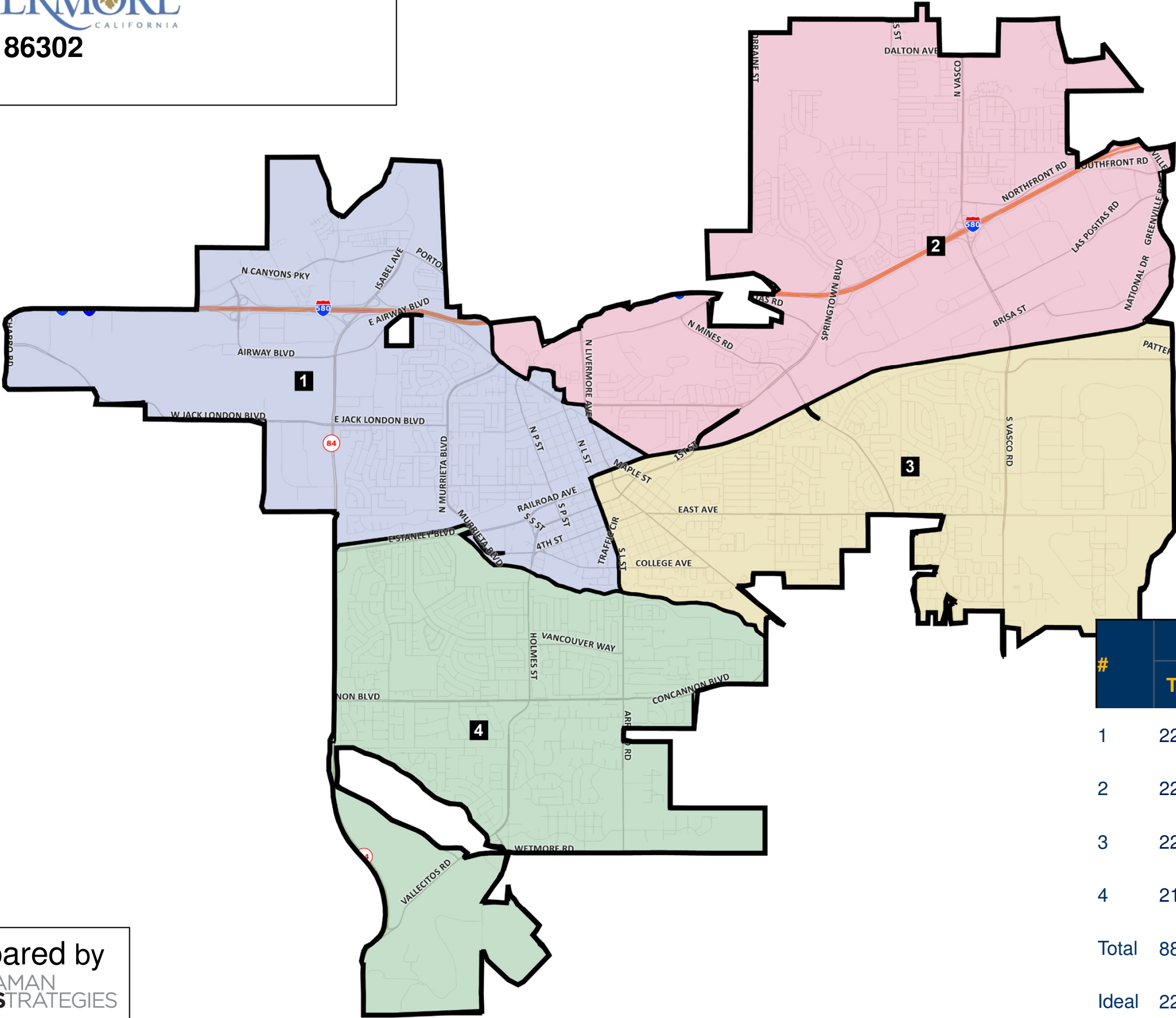
#	Population^		Citizen Voting Age Population*				
	Total	Deviation	Total	Latino*	Asian*	Black*	NH-White
1	21,151	-3.9%	14,584	16.9%	13.6%	4.7%	62.6%
2	22,826	+3.7%	15,796	14.5%	13.7%	3.3%	67.3%
3	22,022	+0.1%	15,584	14.4%	11.0%	2.0%	72.3%
4	21,898	-0.5%	15,922	12.6%	8.8%	0.9%	76.0%
Total	88,006	7.6%	61,954	14.6%	11.7%	2.6%	69.6%
Ideal	22,002						

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LIVERMORE
CALIFORNIA

Plan 86302



^ 2020 Census Redistricting Data. Adjusted for incarcerated populations
+ 2015-2019 American Community Survey Special Tabulation
* Calculated pursuant to OMB BULLETIN NO. 00-02

#	Population^		Citizen Voting Age Population*				
	Total	Deviation	Total	Latino*	Asian*	Black*	NH-White
1	22,002	0.0%	15,142	19.5%	11.3%	3.7%	64.2%
2	22,060	+0.3%	15,280	15.3%	15.2%	3.3%	64.6%
3	22,036	+0.2%	15,608	11.1%	11.6%	2.8%	73.4%
4	21,908	-0.4%	15,924	12.6%	8.8%	0.9%	75.9%
Total	88,006	0.7%	61,954	14.6%	11.7%	2.6%	69.6%
Ideal	22,002						

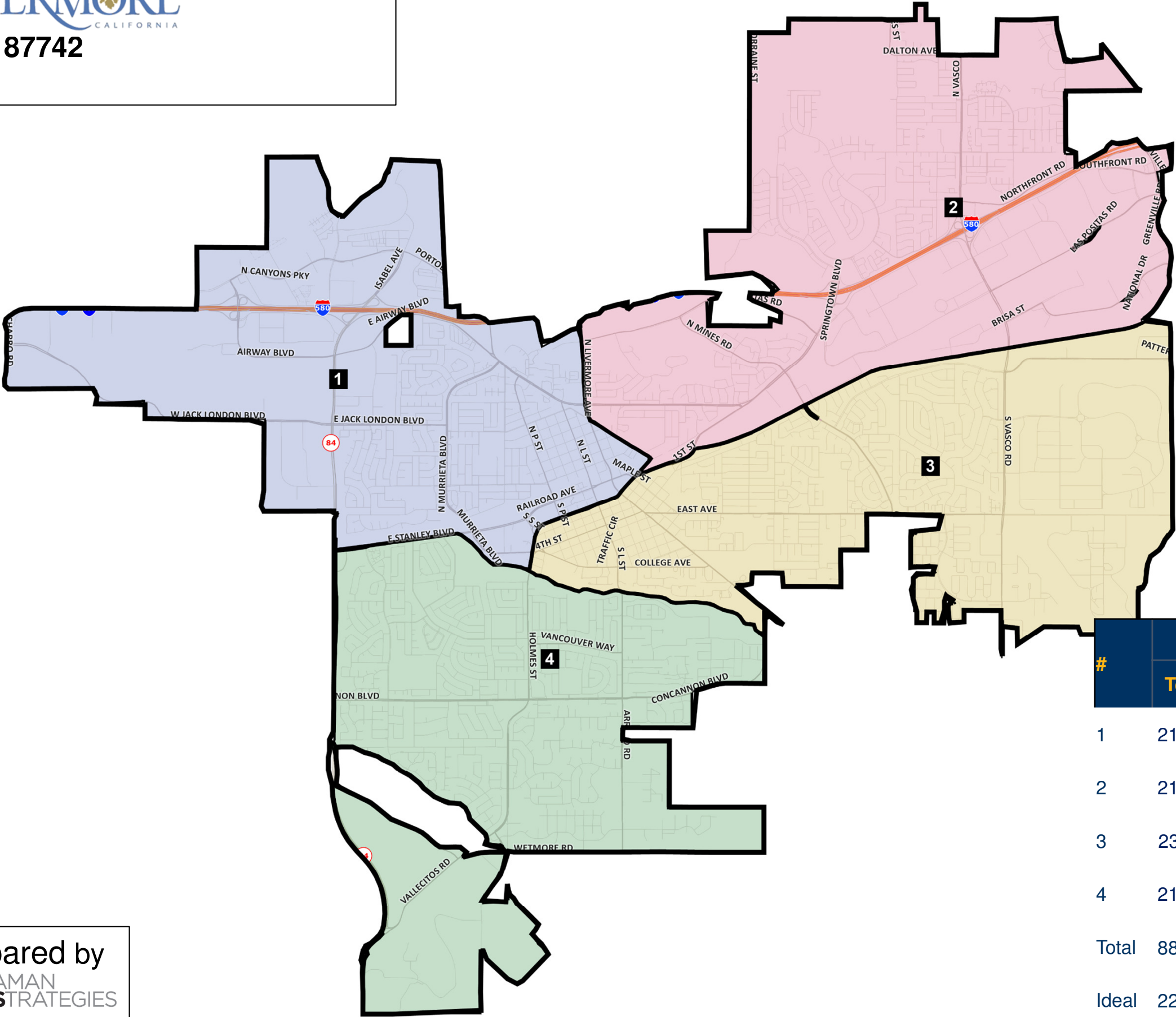
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CALIFORNIA

Plan 87742



^ 2020 Census Redistricting Data. Adjusted for incarcerated populations
+ 2015-2019 American Community Survey Special Tabulation
* Calculated pursuant to OMB BULLETIN NO. 00-02

#	Population^		Citizen Voting Age Population*				
	Total	Deviation	Total	Latino*	Asian*	Black*	NH-White
1	21,687	-1.4%	14,819	20.4%	11.6%	3.9%	62.7%
2	21,304	-3.2%	14,746	15.0%	15.9%	3.1%	64.8%
3	23,117	+5.1%	16,467	10.8%	10.9%	2.8%	74.2%
4	21,898	-0.5%	15,922	12.6%	8.8%	0.9%	76.0%
Total	88,006	8.2%	61,954	14.6%	11.7%	2.6%	69.6%
Ideal	22,002						

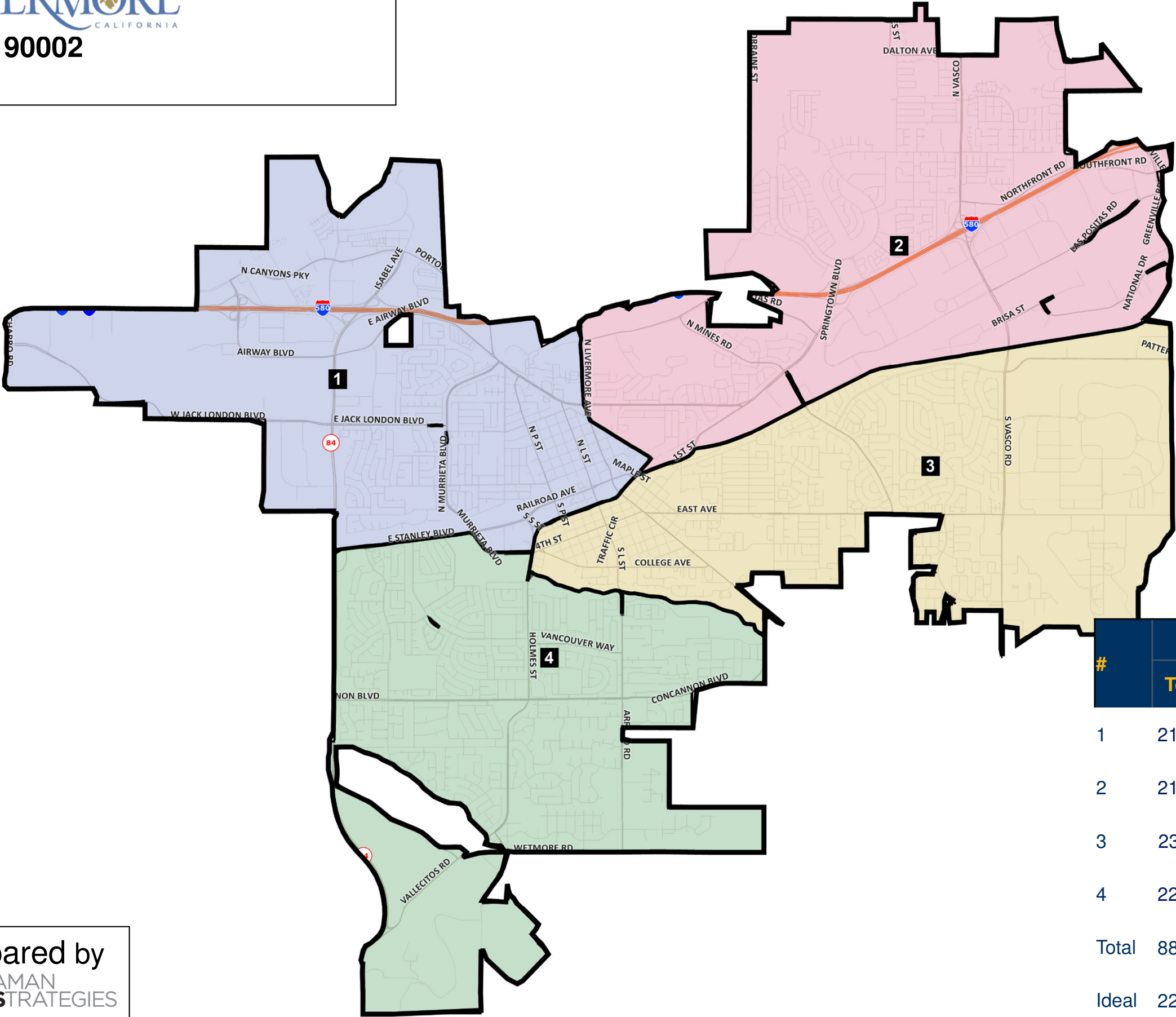
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CALIFORNIA

Plan 90002



^ 2020 Census Redistricting Data. Adjusted for incarcerated populations
+ 2015-2019 American Community Survey Special Tabulation
* Calculated pursuant to OMB BULLETIN NO. 00-02

#	Population^		Citizen Voting Age Population*				
	Total	Deviation	Total	Latino*	Asian*	Black*	NH-White
1	21,022	-4.5%	14,295	20.1%	11.5%	3.9%	63.2%
2	21,304	-3.2%	14,746	15.0%	15.9%	3.1%	64.8%
3	23,117	+5.1%	16,467	10.8%	10.9%	2.8%	74.2%
4	22,563	+2.5%	16,446	13.1%	9.0%	1.0%	75.1%
Total	88,006	9.5%	61,954	14.6%	11.7%	2.6%	69.6%
Ideal	22,002						

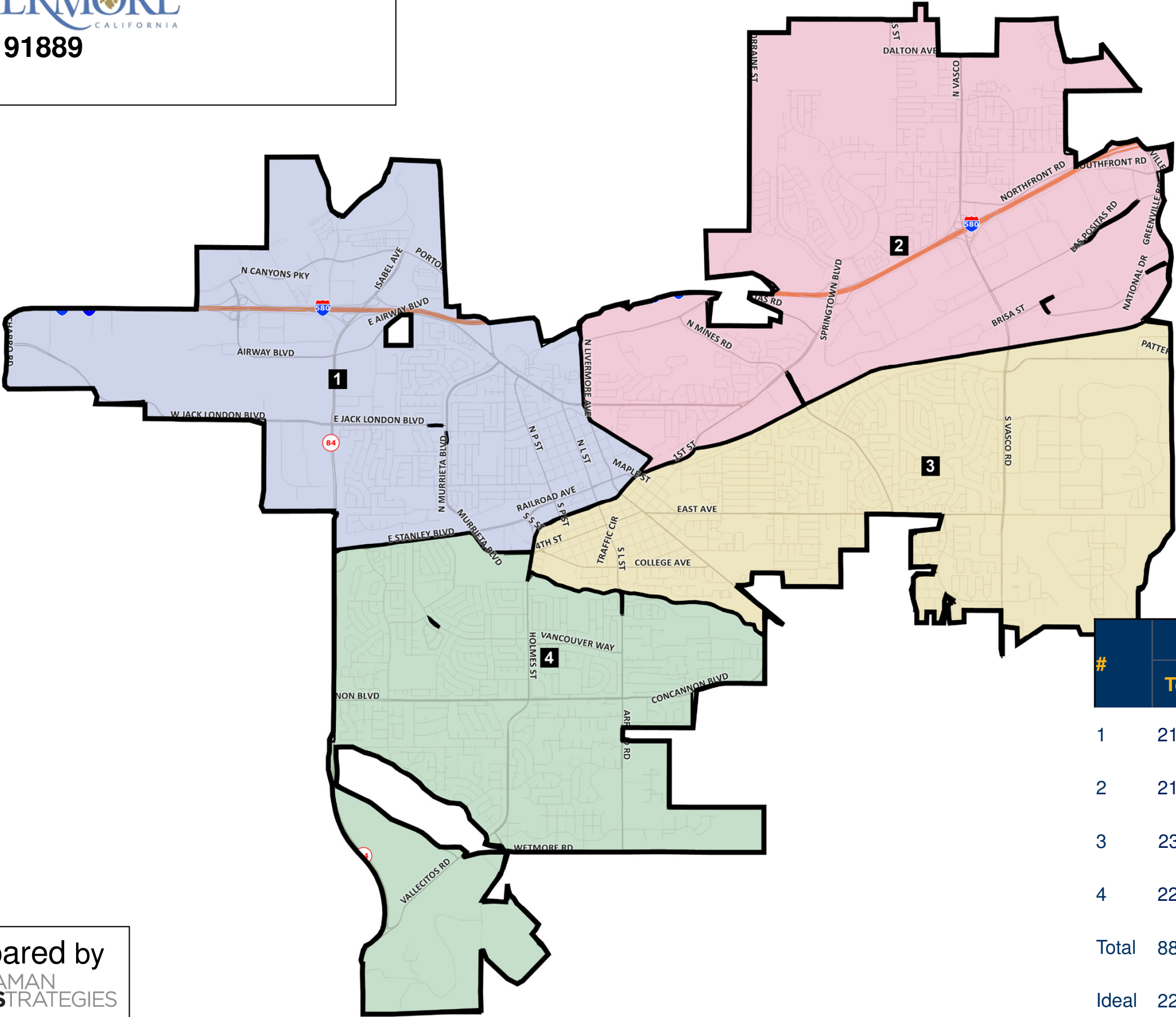
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Plan 91889



^ 2020 Census Redistricting Data. Adjusted for incarcerated populations
+ 2015-2019 American Community Survey Special Tabulation
* Calculated pursuant to OMB BULLETIN NO. 00-02

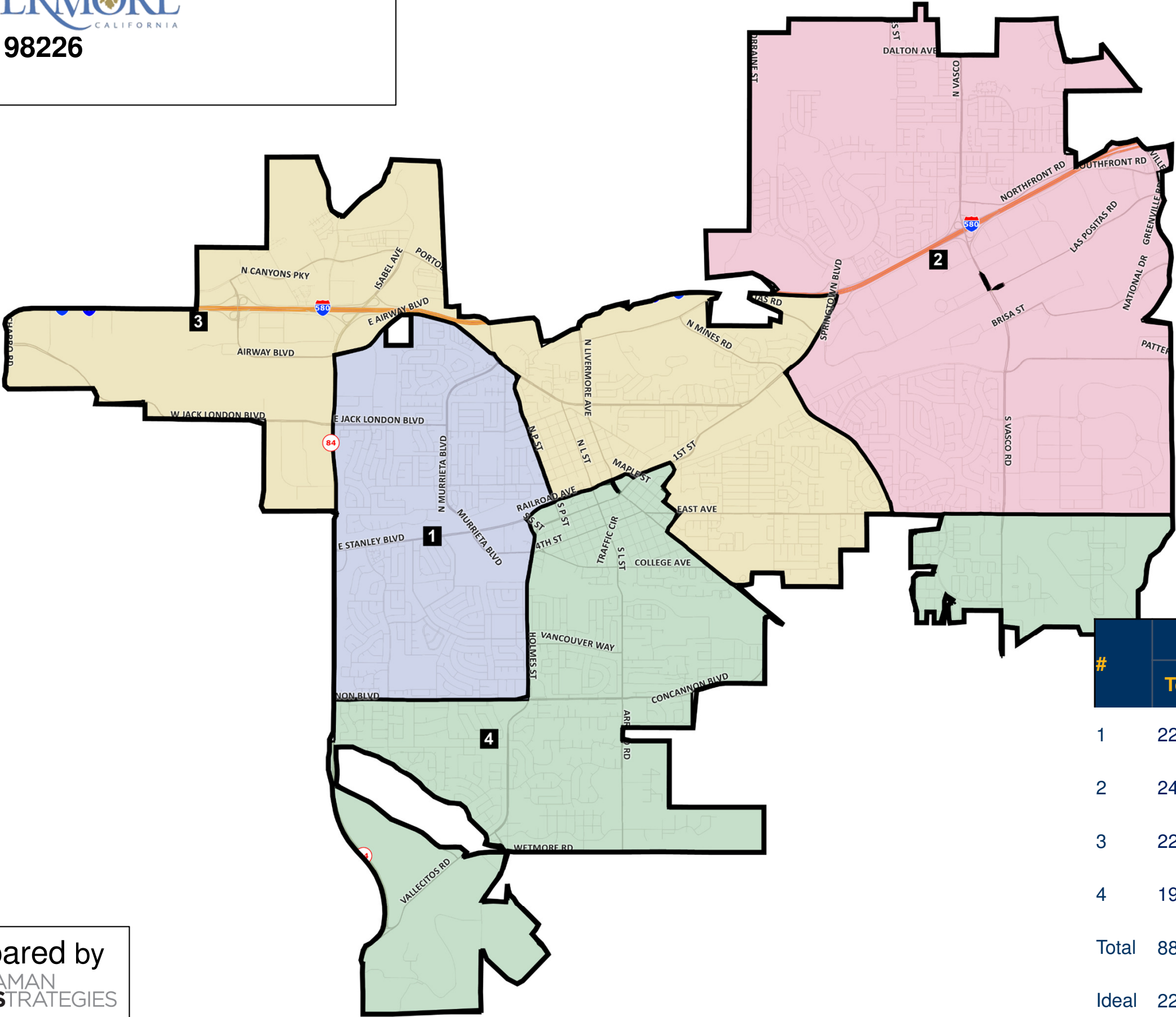
#	Population^		Citizen Voting Age Population*				
	Total	Deviation	Total	Latino*	Asian*	Black*	NH-White
1	21,022	-4.5%	14,295	20.1%	11.5%	3.9%	63.2%
2	21,304	-3.2%	14,746	15.0%	15.9%	3.1%	64.8%
3	23,117	+5.1%	16,467	10.8%	10.9%	2.8%	74.2%
4	22,563	+2.5%	16,446	13.1%	9.0%	1.0%	75.1%
Total	88,006	9.5%	61,954	14.6%	11.7%	2.6%	69.6%
Ideal	22,002						

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Plan 98226



^ 2020 Census Redistricting Data. Adjusted for incarcerated populations
+ 2015-2019 American Community Survey Special Tabulation
* Calculated pursuant to OMB BULLETIN NO. 00-02

#	Population^		Citizen Voting Age Population*				
	Total	Deviation	Total	Latino*	Asian*	Black*	NH-White
1	22,265	+1.2%	16,207	18.0%	7.7%	2.4%	70.4%
2	24,146	+9.7%	16,802	15.0%	14.0%	3.0%	67.0%
3	22,278	+1.3%	14,562	15.1%	15.2%	3.8%	64.6%
4	19,317	-12.2%	14,383	9.7%	10.1%	1.3%	77.0%
Total	88,006	21.9%	61,954	14.6%	11.7%	2.6%	69.6%
Ideal	22,002						

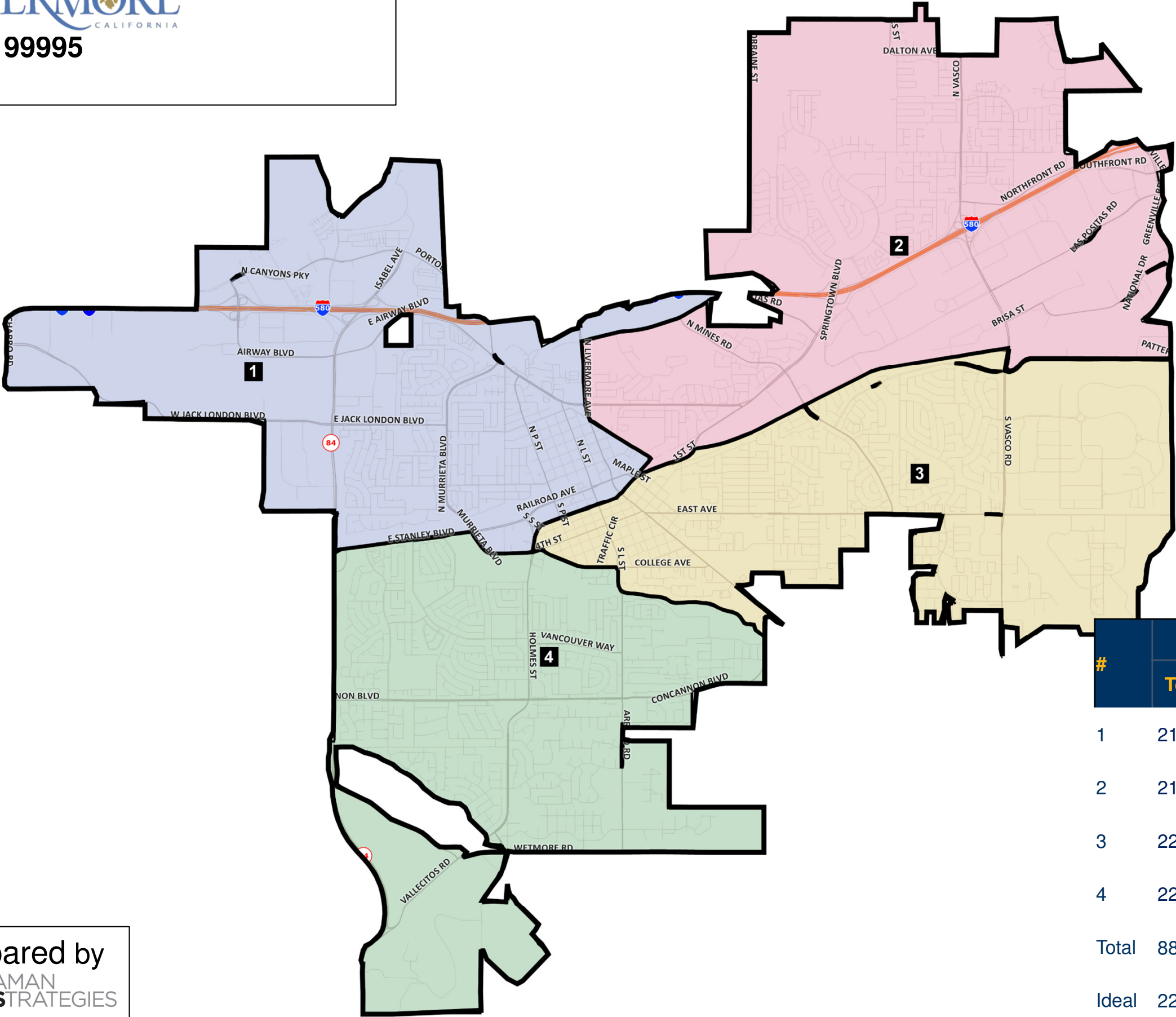
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CALIFORNIA

Plan 99995



^ 2020 Census Redistricting Data. Adjusted for incarcerated populations
+ 2015-2019 American Community Survey Special Tabulation
* Calculated pursuant to OMB BULLETIN NO. 00-02

#	Population^		Citizen Voting Age Population*				
	Total	Deviation	Total	Latino*	Asian*	Black*	NH-White
1	21,051	-4.3%	14,322	20.1%	11.5%	4.0%	63.1%
2	21,291	-3.2%	14,719	15.0%	15.9%	3.0%	64.8%
3	22,715	+3.2%	16,175	11.0%	11.0%	2.9%	73.9%
4	22,949	+4.3%	16,738	12.9%	8.9%	1.0%	75.4%
Total	88,006	8.6%	61,954	14.6%	11.7%	2.6%	69.6%
Ideal	22,002						

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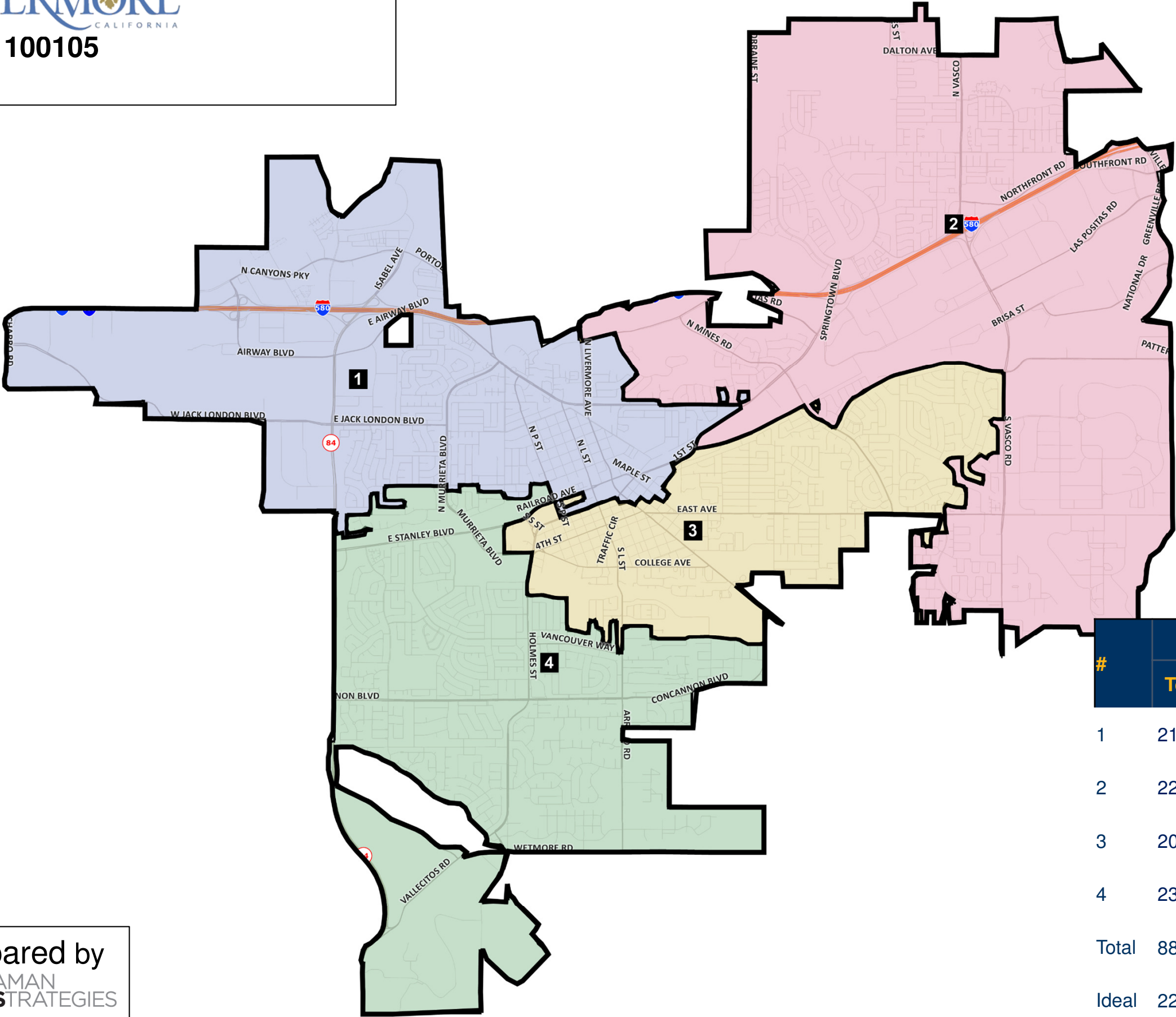
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Plan 100105



^ 2020 Census Redistricting Data. Adjusted for incarcerated populations
+ 2015-2019 American Community Survey Special Tabulation
* Calculated pursuant to OMB BULLETIN NO. 00-02

#	Population^		Citizen Voting Age Population*				
	Total	Deviation	Total	Latino*	Asian*	Black*	NH-White
1	21,423	-2.6%	14,315	19.9%	13.2%	3.8%	61.8%
2	22,673	+3.0%	15,590	14.7%	14.9%	4.0%	65.0%
3	20,396	-7.3%	14,810	10.8%	10.5%	1.8%	75.9%
4	23,514	+6.9%	17,239	13.3%	8.7%	1.2%	75.0%
Total	88,006	14.2%	61,954	14.6%	11.7%	2.6%	69.6%
Ideal	22,002						

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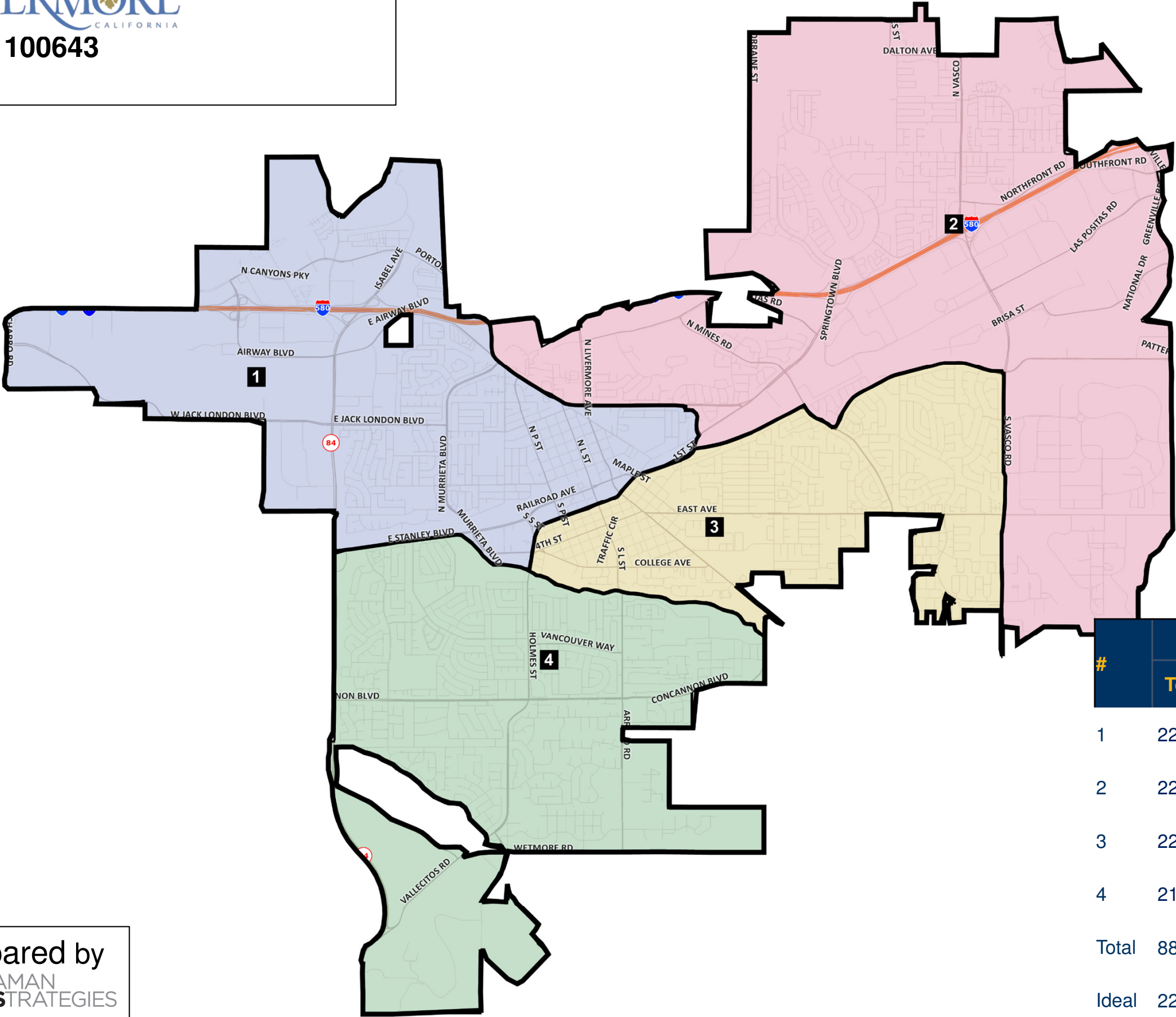
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Plan 100643



^ 2020 Census Redistricting Data. Adjusted for incarcerated populations
+ 2015-2019 American Community Survey Special Tabulation
* Calculated pursuant to OMB BULLETIN NO. 00-02

#	Population^		Citizen Voting Age Population*				
	Total	Deviation	Total	Latino*	Asian*	Black*	NH-White
1	22,006	0.0%	14,956	20.2%	12.7%	3.7%	62.2%
2	22,074	+0.3%	15,436	14.7%	14.8%	3.3%	65.9%
3	22,028	+0.1%	15,640	11.1%	10.7%	2.9%	74.1%
4	21,898	-0.5%	15,922	12.6%	8.8%	0.9%	76.0%
Total	88,006	0.8%	61,954	14.6%	11.7%	2.6%	69.6%
Ideal	22,002						

Prepared by

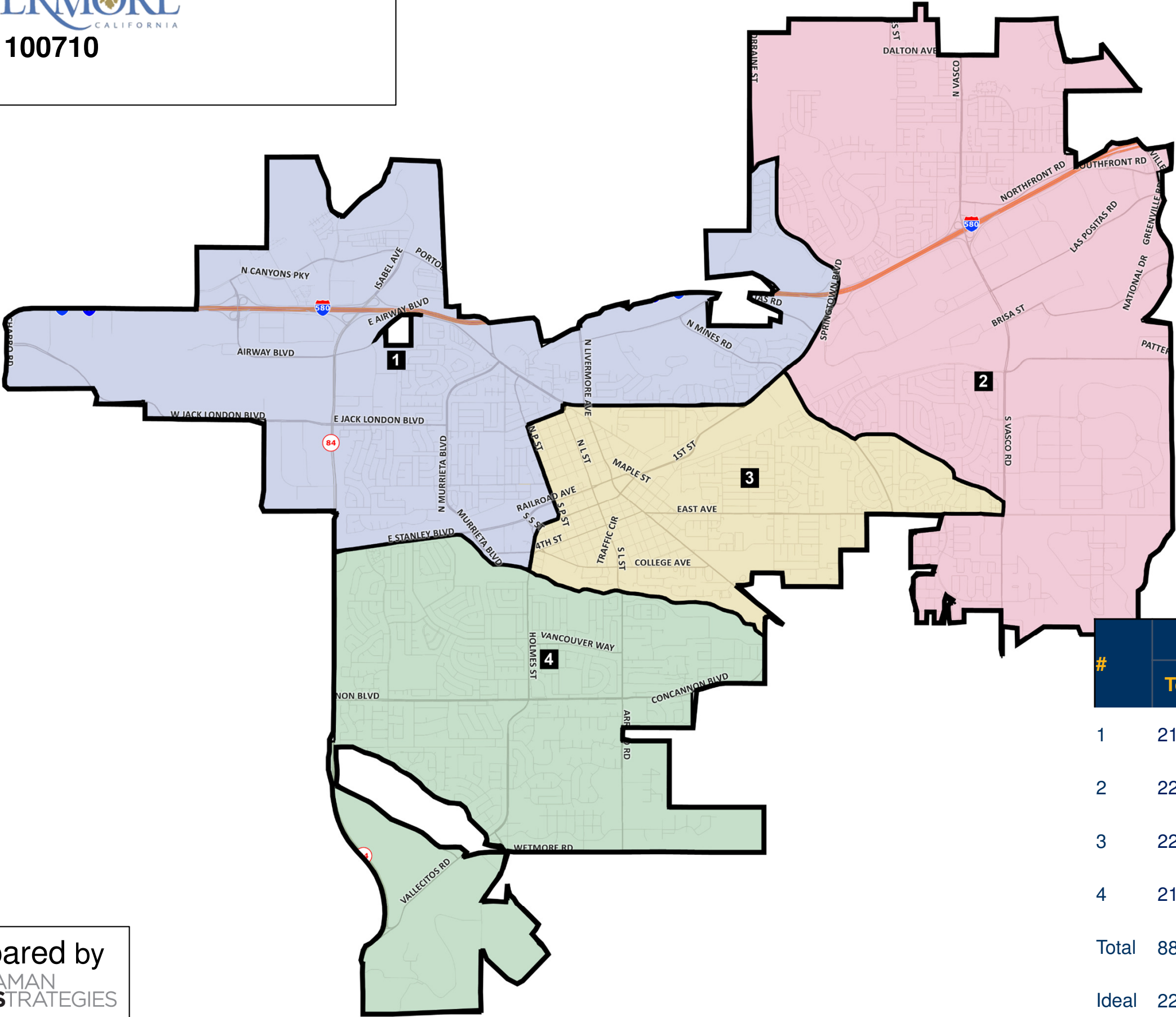
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STRATEGIES

LIVERMORE

CALIFORNIA

Plan 100710



^ 2020 Census Redistricting Data. Adjusted for incarcerated populations
+ 2015-2019 American Community Survey Special Tabulation
* Calculated pursuant to OMB BULLETIN NO. 00-02

#	Population^		Citizen Voting Age Population*				
	Total	Deviation	Total	Latino*	Asian*	Black*	NH-White
1	21,659	-1.6%	15,783	20.5%	10.9%	4.4%	62.6%
2	22,248	+1.1%	15,214	11.0%	15.4%	2.1%	70.1%
3	22,201	+0.9%	15,035	14.0%	12.0%	3.2%	69.9%
4	21,898	-0.5%	15,922	12.6%	8.8%	0.9%	76.0%
Total	88,006	2.7%	61,954	14.6%	11.7%	2.6%	69.6%
Ideal	22,002						

Prepared by

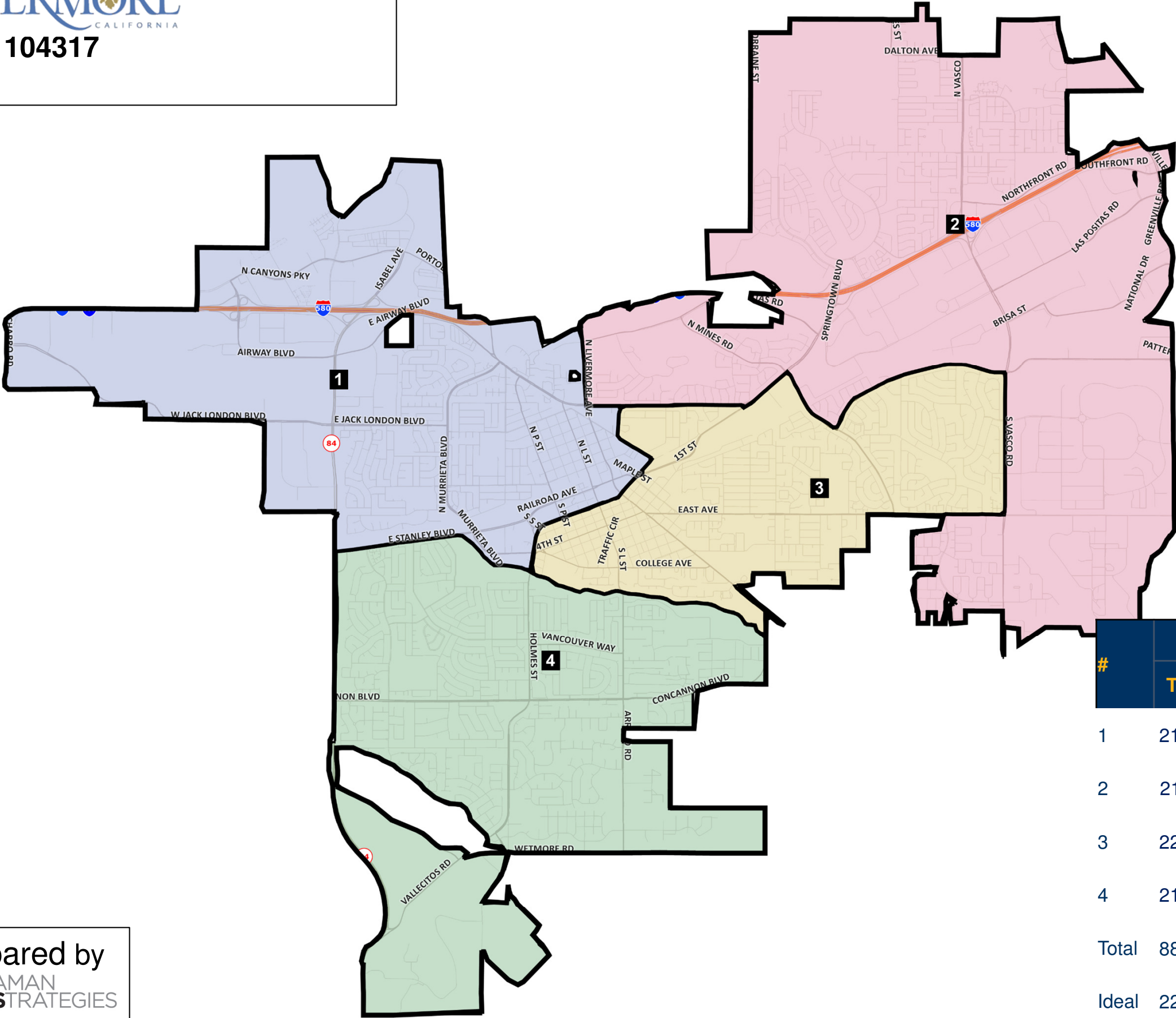
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STRATEGIES

LIVERMORE

CALIFORNIA

Plan 104317



^ 2020 Census Redistricting Data. Adjusted for incarcerated populations
+ 2015-2019 American Community Survey Special Tabulation
* Calculated pursuant to OMB BULLETIN NO. 00-02

#	Population^		Citizen Voting Age Population*				
	Total	Deviation	Total	Latino*	Asian*	Black*	NH-White
1	21,976	-0.1%	15,000	20.4%	11.7%	3.9%	62.3%
2	21,911	-0.4%	15,129	14.1%	15.0%	3.0%	66.2%
3	22,162	+0.7%	15,863	11.5%	11.5%	2.9%	73.5%
4	21,898	-0.5%	15,922	12.6%	8.8%	0.9%	76.0%
Total	88,006	1.2%	61,954	14.6%	11.7%	2.6%	69.6%
Ideal	22,002						

Prepared by

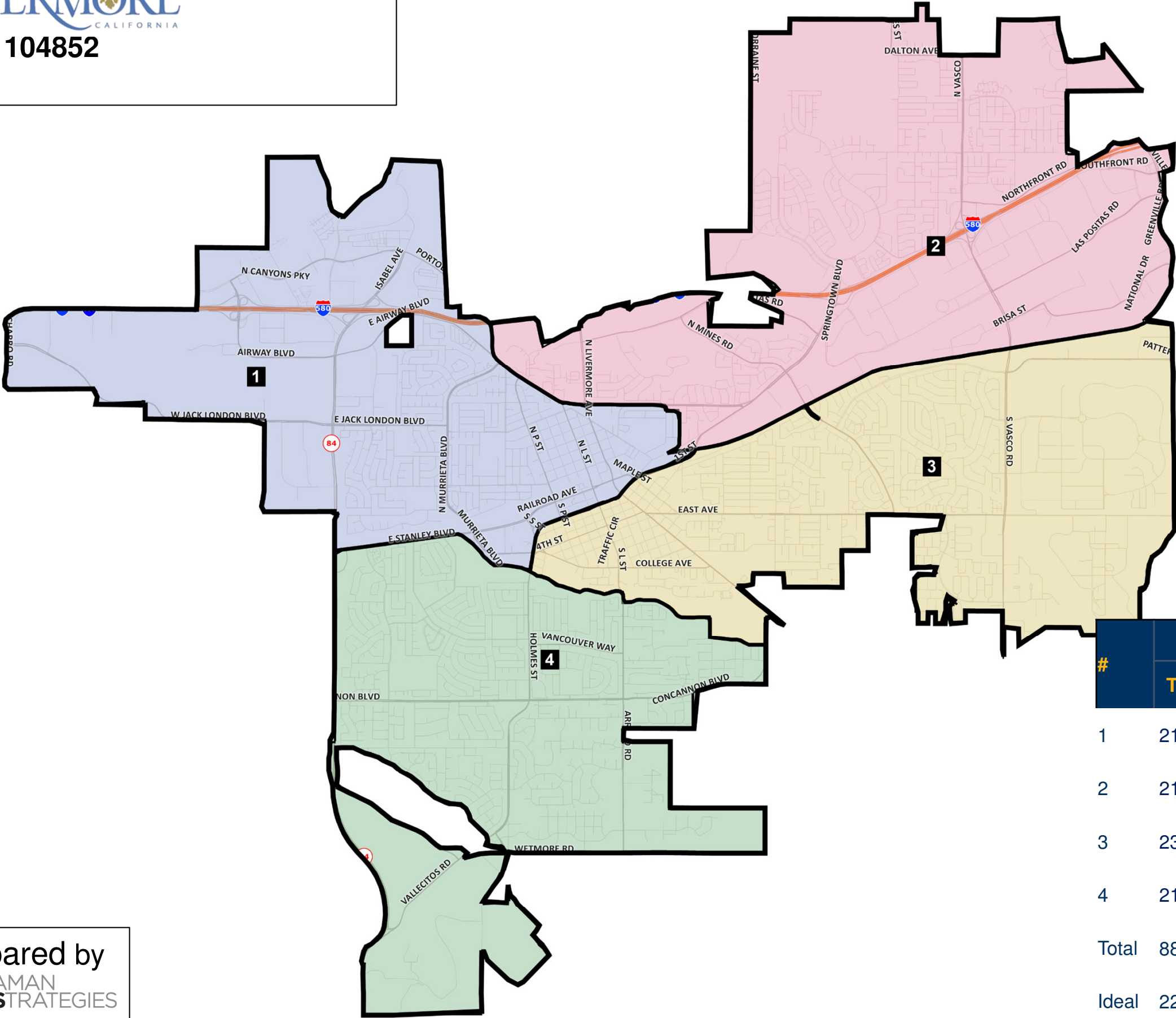
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STRATEGIES

LIVERMORE

CALIFORNIA

Plan 104852



^ 2020 Census Redistricting Data. Adjusted for incarcerated populations
+ 2015-2019 American Community Survey Special Tabulation
* Calculated pursuant to OMB BULLETIN NO. 00-02

#	Population^		Citizen Voting Age Population*				
	Total	Deviation	Total	Latino*	Asian*	Black*	NH-White
1	21,758	-1.1%	14,787	20.3%	12.6%	3.7%	62.2%
2	21,233	-3.5%	14,778	15.1%	14.9%	3.3%	65.3%
3	23,158	+5.3%	16,506	10.9%	10.9%	2.8%	74.2%
4	21,857	-0.7%	15,883	12.6%	8.8%	0.9%	76.0%
Total	88,006	8.7%	61,954	14.6%	11.7%	2.6%	69.6%
Ideal	22,002						

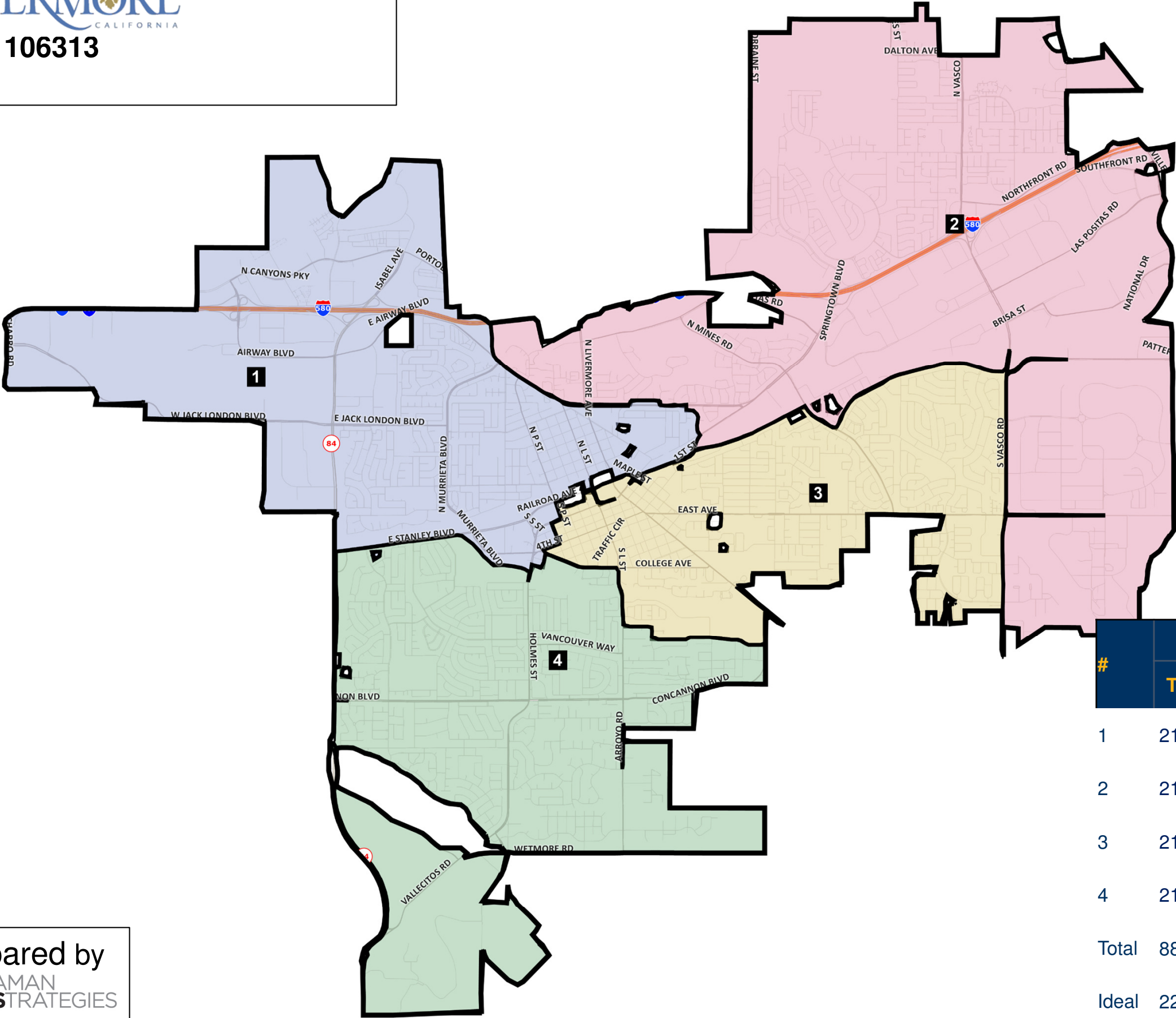
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STRATEGIES

LIVERMORE
CALIFORNIA

Plan 106313



^ 2020 Census Redistricting Data. Adjusted for incarcerated populations
+ 2015-2019 American Community Survey Special Tabulation
* Calculated pursuant to OMB BULLETIN NO. 00-02

#	Population^		Citizen Voting Age Population*				
	Total	Deviation	Total	Latino*	Asian*	Black*	NH-White
1	21,664	-1.5%	14,653	20.1%	12.6%	3.6%	62.5%
2	21,928	-0.3%	15,347	14.8%	14.9%	3.3%	65.7%
3	21,836	-0.8%	15,532	11.1%	11.0%	2.9%	73.9%
4	21,628	-1.7%	15,704	12.5%	8.5%	0.9%	76.4%
Total	88,006	1.4%	61,954	14.6%	11.7%	2.6%	69.6%
Ideal	22,002						

Prepared by

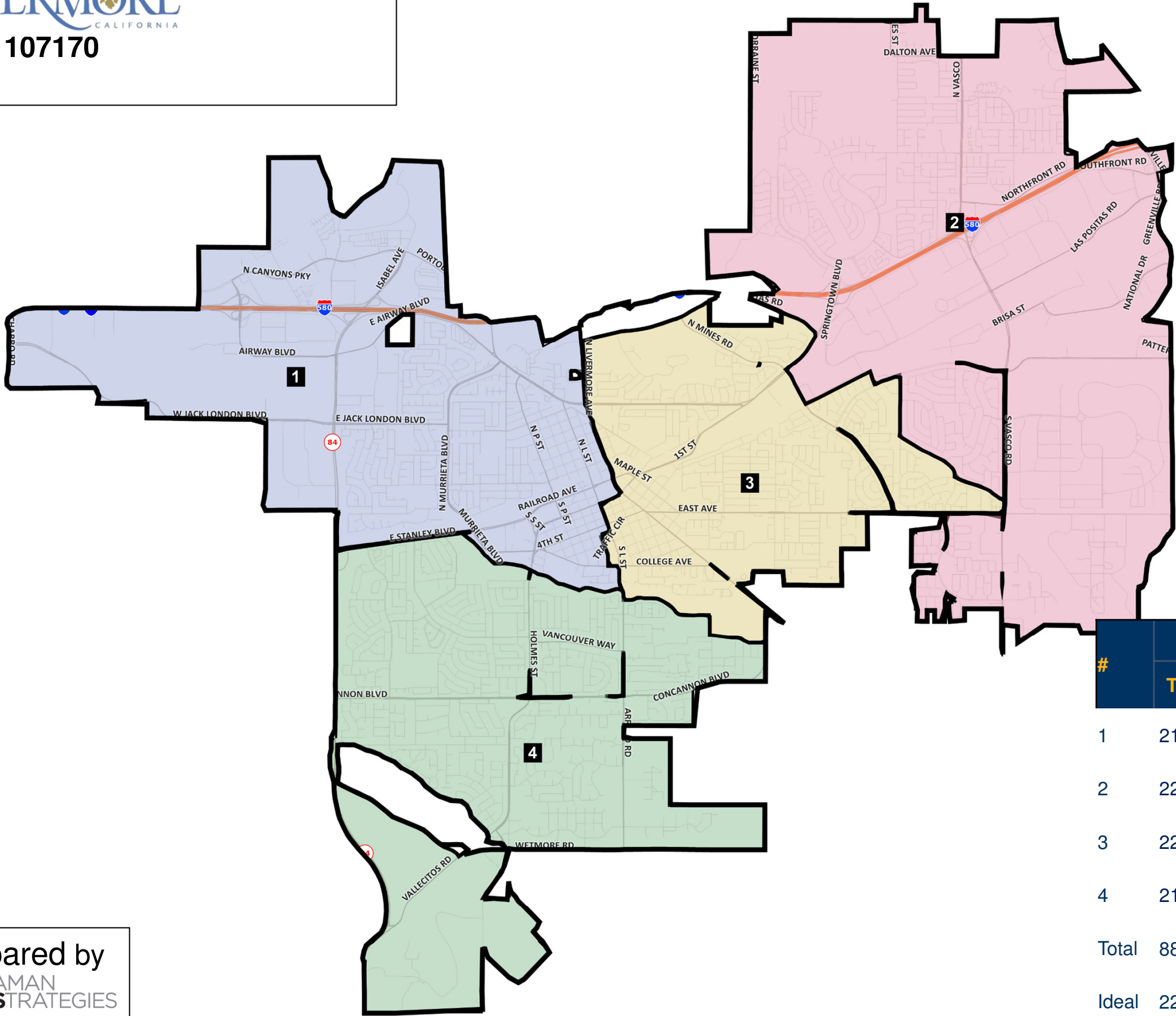
WAGAMAN

STRATEGIES

LIVERMORE

CALIFORNIA

Plan 107170



^ 2020 Census Redistricting Data. Adjusted for incarcerated populations
+ 2015-2019 American Community Survey Special Tabulation
* Calculated pursuant to OMB BULLETIN NO. 00-02

#	Population^		Citizen Voting Age Population*				
	Total	Deviation	Total	Latino*	Asian*	Black*	NH-White
1	21,871	-0.6%	15,268	18.9%	11.2%	4.0%	65.1%
2	22,009	0.0%	15,372	13.7%	14.4%	2.2%	68.2%
3	22,135	+0.6%	15,334	13.1%	12.6%	3.5%	69.2%
4	21,857	-0.7%	15,883	12.6%	8.8%	0.9%	76.0%
Total	88,006	1.3%	61,954	14.6%	11.7%	2.6%	69.6%
Ideal	22,002						

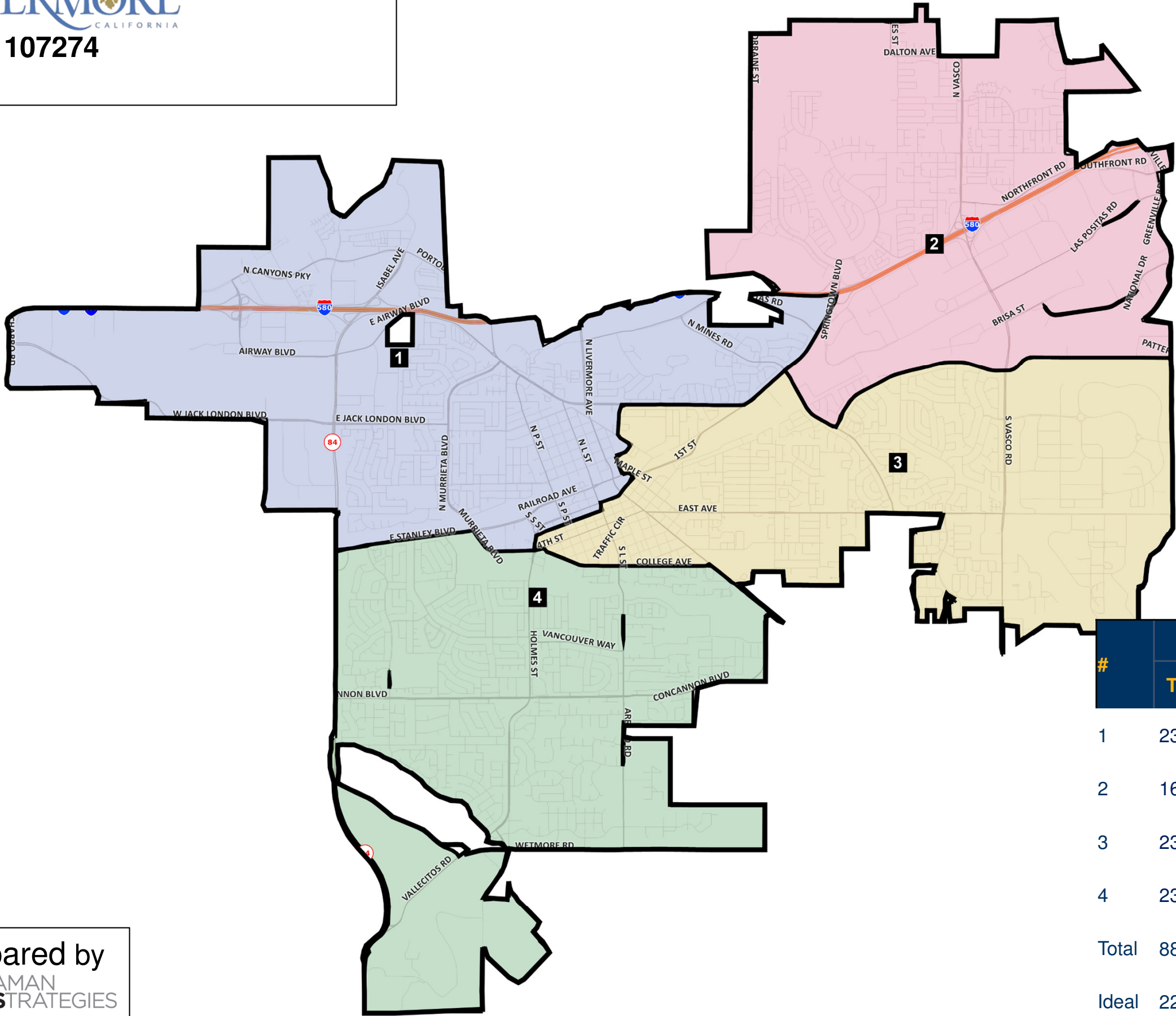
Prepared by

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STRATEGIES

LIVERMORE
CALIFORNIA

Plan 107274



^ 2020 Census Redistricting Data. Adjusted for incarcerated populations
+ 2015-2019 American Community Survey Special Tabulation
** Calculated pursuant to OMB BULLETIN NO. 00-02*

#	Population [^]		Citizen Voting Age Population ⁺				
	Total	Deviation	Total	Latino [*]	Asian [*]	Black [*]	NH-White
1	23,619	+7.3%	16,384	19.1%	11.3%	4.2%	64.1%
2	16,899	-23.2%	11,505	15.3%	16.0%	2.3%	65.1%
3	23,531	+6.9%	16,404	11.4%	12.4%	3.1%	71.8%
4	23,957	+8.9%	17,661	12.8%	8.8%	1.0%	75.8%
Total	88,006	32.1%	61,954	14.6%	11.7%	2.6%	69.6%
Ideal	22,002						

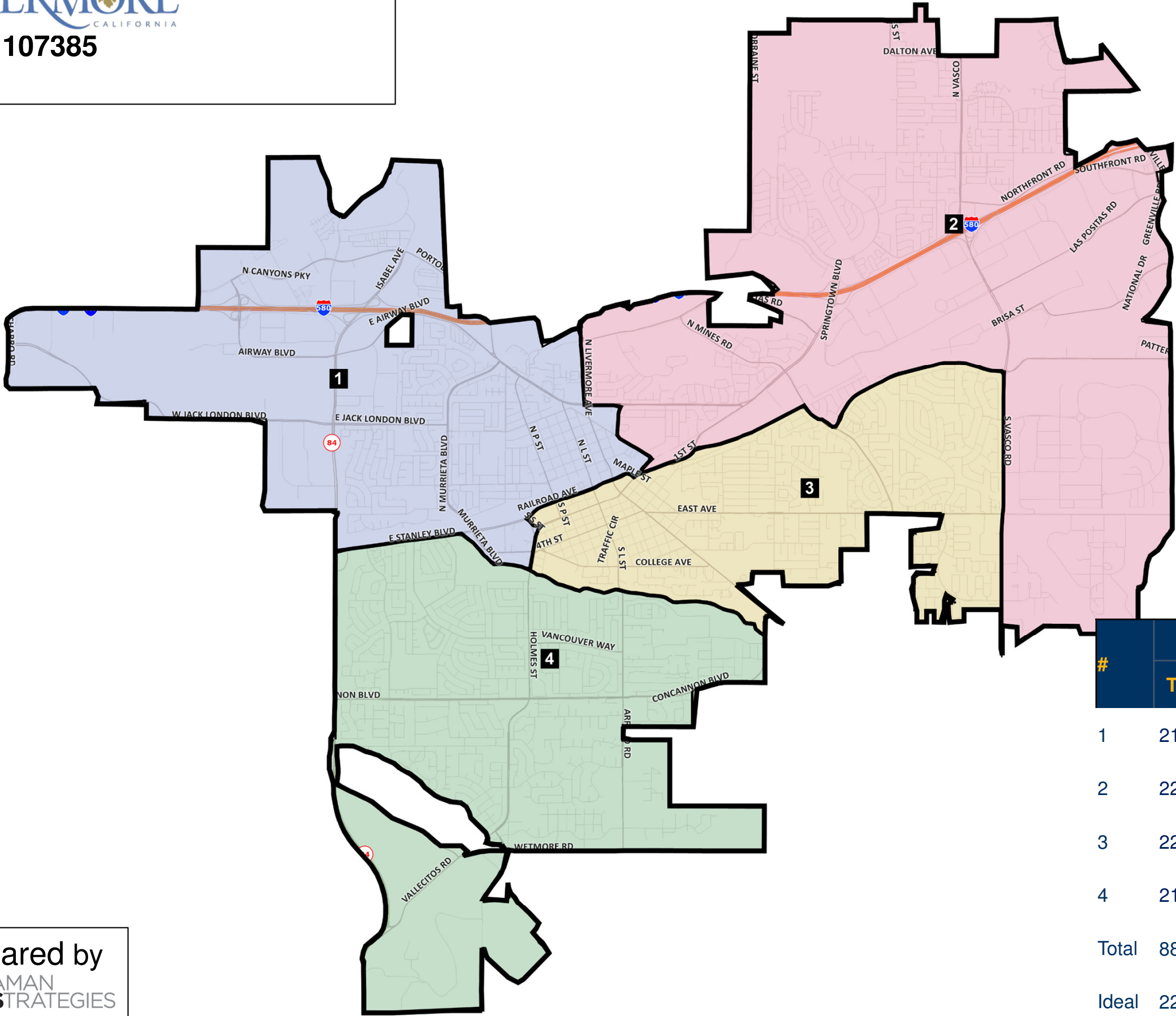
Prepared by

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STRATEGIES

LIVERMORE

CALIFORNIA

Plan 107385



^ 2020 Census Redistricting Data. Adjusted for incarcerated populations
+ 2015-2019 American Community Survey Special Tabulation
* Calculated pursuant to OMB BULLETIN NO. 00-02

#	Population^		Citizen Voting Age Population*				
	Total	Deviation	Total	Latino*	Asian*	Black*	NH-White
1	21,696	-1.4%	14,748	20.4%	11.6%	4.0%	62.5%
2	22,060	+0.3%	15,364	14.5%	15.8%	3.0%	65.7%
3	22,352	+1.6%	15,920	11.2%	10.9%	2.9%	73.8%
4	21,898	-0.5%	15,922	12.6%	8.8%	0.9%	76.0%
Total	88,006	3.0%	61,954	14.6%	11.7%	2.6%	69.6%
Ideal	22,002						

Prepared by

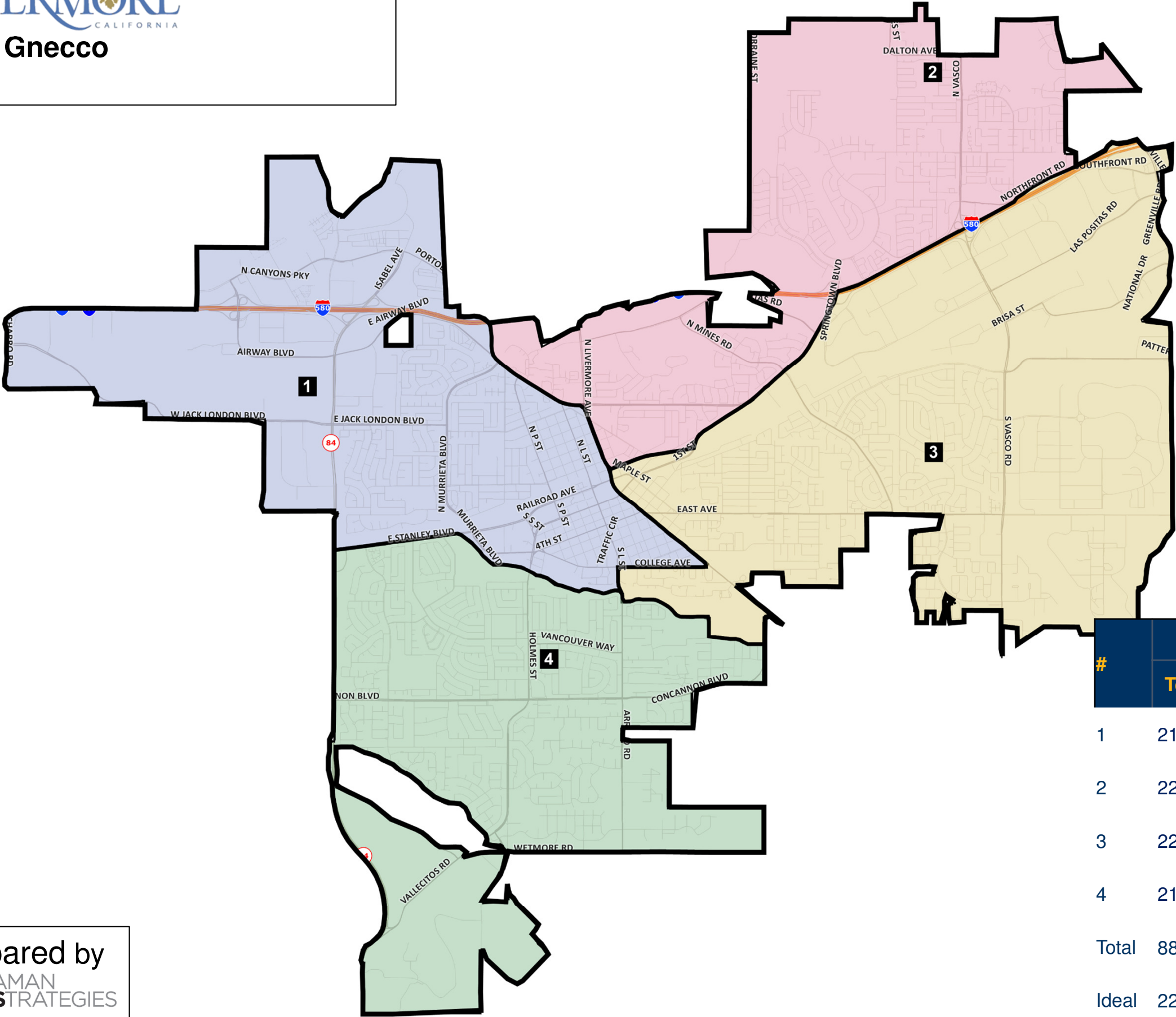
WAGAMAN

STRATEGIES

LIVERMORE

CALIFORNIA

Plan Gnecco



^ 2020 Census Redistricting Data. Adjusted for incarcerated populations
+ 2015-2019 American Community Survey Special Tabulation
* Calculated pursuant to OMB BULLETIN NO. 00-02

#	Population^		Citizen Voting Age Population*				
	Total	Deviation	Total	Latino*	Asian*	Black*	NH-White
1	21,788	-1.0%	15,278	18.2%	10.9%	3.5%	66.9%
2	22,046	+0.2%	15,241	16.7%	12.8%	3.2%	65.2%
3	22,315	+1.4%	15,552	11.0%	14.5%	3.2%	70.2%
4	21,857	-0.7%	15,883	12.6%	8.8%	0.9%	76.0%
Total	88,006	2.4%	61,954	14.6%	11.7%	2.6%	69.6%
Ideal	22,002						

Prepared by

WAGAMAN STRATEGIES

Draft and Public Plans*

Plan		Population							Voting Age Population					Citizen Voting Age Population				
Name	#	Total	Deviation	% Dev	Latino	Asian	Black	NH White	Total	Latino	Asian	Black	NH White	Total	Latino	Asian	Black	NH White
Green*	1	22,837	835	3.8%	26.0%	16.1%	2.3%	51.5%	18,229	23.0%	15.4%	2.2%	55.5%	16,240	17.7%	10.6%	3.3%	67.8%
Green*	2	21,020	-982	-4.5%	21.4%	19.3%	2.6%	52.4%	16,245	19.2%	18.8%	2.6%	55.5%	14,742	15.9%	12.8%	3.3%	66.5%
Green*	3	22,292	290	1.3%	24.0%	16.6%	2.9%	52.5%	17,234	21.1%	16.3%	2.7%	56.3%	15,089	12.0%	14.9%	3.2%	68.0%
Green*	4	21,857	-145	-0.7%	14.8%	15.9%	1.3%	64.0%	16,760	13.1%	14.8%	1.3%	67.0%	15,883	12.6%	8.8%	0.9%	76.0%
Blue	1	21,849	-153	-0.7%	25.9%	16.2%	2.4%	51.7%	17,455	22.8%	15.5%	2.2%	55.7%	15,591	17.0%	10.7%	3.4%	68.4%
Blue	2	22,008	6	0.0%	21.7%	19.1%	2.6%	52.2%	17,019	19.6%	18.5%	2.6%	55.3%	15,391	16.7%	12.7%	3.1%	66.0%
Blue	3	22,292	290	1.3%	24.0%	16.6%	2.9%	52.5%	17,234	21.1%	16.3%	2.7%	56.3%	15,089	12.0%	14.9%	3.2%	68.0%
Blue	4	21,857	-145	-0.7%	14.8%	15.9%	1.3%	64.0%	16,760	13.1%	14.8%	1.3%	67.0%	15,883	12.6%	8.8%	0.9%	76.0%
Purple	1	21,814	-188	-0.9%	26.6%	16.5%	2.4%	50.3%	17,381	23.5%	15.9%	2.3%	54.4%	15,292	18.2%	10.9%	3.5%	66.8%
Purple	2	22,307	305	1.4%	23.7%	19.0%	2.6%	50.5%	17,145	21.2%	18.6%	2.6%	53.8%	15,433	16.5%	13.2%	3.2%	65.1%
Purple	3	21,987	-15	-0.1%	21.2%	16.4%	2.9%	55.5%	17,147	18.8%	15.8%	2.7%	59.1%	15,307	11.0%	14.1%	3.2%	70.5%
Purple	4	21,898	-104	-0.5%	14.8%	15.9%	1.3%	64.0%	16,795	13.1%	14.8%	1.3%	67.0%	15,922	12.6%	8.8%	0.9%	76.0%
Red	1	22,253	251	1.1%	30.2%	16.9%	2.4%	46.5%	17,571	26.7%	16.5%	2.4%	50.8%	15,245	20.2%	11.3%	3.9%	63.0%
Red	2	21,304	-698	-3.2%	20.1%	21.8%	2.6%	51.1%	16,383	18.1%	21.2%	2.6%	54.2%	14,746	15.0%	15.9%	3.1%	64.8%
Red	3	22,551	549	2.5%	21.1%	13.5%	2.8%	58.5%	17,719	18.6%	13.0%	2.6%	62.1%	16,041	10.8%	11.1%	2.9%	74.2%
Red	4	21,898	-104	-0.5%	14.8%	15.9%	1.3%	64.0%	16,795	13.1%	14.8%	1.3%	67.0%	15,922	12.6%	8.8%	0.9%	76.0%

Livermore Redistricting: February 14, 2022

ATTACHMENT 5

Draft and Public Plans*

Plan		Population							Voting Age Population					Citizen Voting Age Population				
Name	#	Total	Deviation	% Dev	Latino	Asian	Black	NH White	Total	Latino	Asian	Black	NH White	Total	Latino	Asian	Black	NH White
66295	1	21,151	-851	-3.9%	25.1%	18.7%	2.4%	49.7%	16,698	22.1%	18.4%	2.3%	53.4%	14,584	16.9%	13.6%	4.7%	62.6%
66295	2	22,826	824	3.7%	19.7%	21.0%	2.6%	52.7%	17,418	18.1%	20.1%	2.5%	55.7%	15,796	14.5%	13.7%	3.3%	67.3%
66295	3	22,022	20	0.1%	26.8%	12.2%	2.8%	54.0%	17,490	23.4%	12.0%	2.6%	58.1%	15,584	14.4%	11.0%	2.0%	72.3%
66295	4	21,898	-104	-0.5%	14.8%	15.9%	1.3%	64.0%	16,795	13.1%	14.8%	1.3%	67.0%	15,922	12.6%	8.8%	0.9%	76.0%
86302	1	22,002	0	0.0%	29.2%	16.7%	2.2%	47.8%	17,411	25.8%	16.3%	2.2%	52.0%	15,142	19.5%	11.3%	3.7%	64.2%
86302	2	22,060	58	0.3%	21.2%	21.3%	2.7%	50.5%	16,992	19.1%	20.7%	2.7%	53.7%	15,280	15.3%	15.2%	3.3%	64.6%
86302	3	22,036	34	0.2%	21.2%	13.9%	2.9%	58.0%	17,268	18.6%	13.5%	2.7%	61.5%	15,608	11.1%	11.6%	2.8%	73.4%
86302	4	21,908	-94	-0.4%	14.8%	15.9%	1.3%	64.0%	16,797	13.1%	14.8%	1.3%	67.0%	15,924	12.6%	8.8%	0.9%	75.9%
87742	1	21,687	-315	-1.4%	30.3%	17.2%	2.4%	46.2%	17,132	26.8%	16.8%	2.4%	50.5%	14,819	20.4%	11.6%	3.9%	62.7%
87742	2	21,304	-698	-3.2%	20.1%	21.8%	2.6%	51.1%	16,383	18.1%	21.2%	2.6%	54.2%	14,746	15.0%	15.9%	3.1%	64.8%
87742	3	23,117	1,115	5.1%	21.2%	13.3%	2.8%	58.5%	18,158	18.7%	12.8%	2.6%	62.1%	16,467	10.8%	10.9%	2.8%	74.2%
87742	4	21,898	-104	-0.5%	14.8%	15.9%	1.3%	64.0%	16,795	13.1%	14.8%	1.3%	67.0%	15,922	12.6%	8.8%	0.9%	76.0%
90002	1	21,022	-980	-4.5%	30.1%	17.2%	2.3%	46.4%	16,598	26.6%	16.8%	2.3%	50.6%	14,295	20.1%	11.5%	3.9%	63.2%
90002	2	21,304	-698	-3.2%	20.1%	21.8%	2.6%	51.1%	16,383	18.1%	21.2%	2.6%	54.2%	14,746	15.0%	15.9%	3.1%	64.8%
90002	3	23,117	1,115	5.1%	21.2%	13.3%	2.8%	58.5%	18,158	18.7%	12.8%	2.6%	62.1%	16,467	10.8%	10.9%	2.8%	74.2%
90002	4	22,563	561	2.5%	15.5%	15.9%	1.4%	63.3%	17,329	13.7%	14.8%	1.4%	66.3%	16,446	13.1%	9.0%	1.0%	75.1%
91889	1	21,022	-980	-4.5%	30.1%	17.2%	2.3%	46.4%	16,598	26.6%	16.8%	2.3%	50.6%	14,295	20.1%	11.5%	3.9%	63.2%
91889	2	21,304	-698	-3.2%	20.1%	21.8%	2.6%	51.1%	16,383	18.1%	21.2%	2.6%	54.2%	14,746	15.0%	15.9%	3.1%	64.8%
91889	3	23,117	1,115	5.1%	21.2%	13.3%	2.8%	58.5%	18,158	18.7%	12.8%	2.6%	62.1%	16,467	10.8%	10.9%	2.8%	74.2%
91889	4	22,563	561	2.5%	15.5%	15.9%	1.4%	63.3%	17,329	13.7%	14.8%	1.4%	66.3%	16,446	13.1%	9.0%	1.0%	75.1%
98226	1	22,265	263	1.2%	23.6%	14.0%	1.7%	56.8%	17,266	21.1%	13.2%	1.7%	60.4%	16,207	18.0%	7.7%	2.4%	70.4%
98226	2	24,146	2,144	9.7%	21.2%	19.7%	2.8%	51.9%	18,454	19.2%	19.0%	2.7%	55.1%	16,802	15.0%	14.0%	3.0%	67.0%
98226	3	22,278	276	1.3%	26.2%	18.4%	2.9%	48.5%	17,578	22.9%	18.4%	2.9%	52.2%	14,562	15.1%	15.2%	3.8%	64.6%
98226	4	19,317	-2,685	-12.2%	14.4%	15.2%	1.7%	64.7%	15,170	12.8%	14.1%	1.5%	67.7%	14,383	9.7%	10.1%	1.3%	77.0%
99995	1	21,051	-951	-4.3%	30.1%	17.2%	2.3%	46.4%	16,626	26.6%	16.8%	2.3%	50.6%	14,322	20.1%	11.5%	4.0%	63.1%
99995	2	21,291	-711	-3.2%	20.1%	21.8%	2.6%	51.1%	16,365	18.1%	21.2%	2.6%	54.2%	14,719	15.0%	15.9%	3.0%	64.8%
99995	3	22,715	713	3.2%	21.4%	13.3%	2.9%	58.3%	17,841	18.8%	12.9%	2.6%	61.9%	16,175	11.0%	11.0%	2.9%	73.9%
99995	4	22,949	947	4.3%	15.4%	15.8%	1.4%	63.5%	17,636	13.6%	14.8%	1.4%	66.5%	16,738	12.9%	8.9%	1.0%	75.4%
100105	1	21,423	-579	-2.6%	30.2%	17.7%	2.4%	45.6%	16,766	27.0%	17.4%	2.3%	49.5%	14,315	19.9%	13.2%	3.8%	61.8%
100105	2	22,673	671	3.0%	19.9%	21.5%	2.9%	51.5%	17,339	18.2%	20.8%	2.8%	54.5%	15,590	14.7%	14.9%	4.0%	65.0%
100105	3	20,396	-1,606	-7.3%	20.5%	12.4%	2.5%	60.2%	16,142	17.8%	11.9%	2.3%	64.0%	14,810	10.8%	10.5%	1.8%	75.9%
100105	4	23,514	1,512	6.9%	16.2%	15.8%	1.5%	62.6%	18,221	14.3%	14.9%	1.5%	65.7%	17,239	13.3%	8.7%	1.2%	75.0%

Livermore Redistricting: February 14, 2022

ATTACHMENT 5

Draft and Public Plans*

Plan		Population							Voting Age Population					Citizen Voting Age Population				
Name	#	Total	Deviation	% Dev	Latino	Asian	Black	NH White	Total	Latino	Asian	Black	NH White	Total	Latino	Asian	Black	NH White
100643	1	22,006	4	0.0%	30.1%	17.4%	2.3%	46.3%	17,365	26.6%	17.1%	2.3%	50.4%	14,956	20.2%	12.7%	3.7%	62.2%
100643	2	22,074	72	0.3%	19.8%	21.4%	2.8%	51.7%	16,997	17.9%	20.6%	2.8%	54.8%	15,436	14.7%	14.8%	3.3%	65.9%
100643	3	22,028	26	0.1%	21.6%	13.1%	2.7%	58.4%	17,311	18.9%	12.7%	2.5%	62.1%	15,640	11.1%	10.7%	2.9%	74.1%
100643	4	21,898	-104	-0.5%	14.8%	15.9%	1.3%	64.0%	16,795	13.1%	14.8%	1.3%	67.0%	15,922	12.6%	8.8%	0.9%	76.0%
100710	1	21,659	-343	-1.6%	24.2%	17.9%	2.3%	51.5%	17,243	21.4%	17.4%	2.2%	55.4%	15,783	20.5%	10.9%	4.4%	62.6%
100710	2	22,248	246	1.1%	18.4%	21.2%	2.6%	53.6%	17,049	16.8%	20.3%	2.4%	56.7%	15,214	11.0%	15.4%	2.1%	70.1%
100710	3	22,201	199	0.9%	28.9%	12.8%	3.0%	51.2%	17,381	25.3%	12.8%	2.9%	55.2%	15,035	14.0%	12.0%	3.2%	69.9%
100710	4	21,898	-104	-0.5%	14.8%	15.9%	1.3%	64.0%	16,795	13.1%	14.8%	1.3%	67.0%	15,922	12.6%	8.8%	0.9%	76.0%
104317	1	21,976	-26	-0.1%	30.6%	17.2%	2.4%	46.0%	17,353	27.0%	16.8%	2.4%	50.2%	15,000	20.4%	11.7%	3.9%	62.3%
104317	2	21,911	-91	-0.4%	18.6%	21.8%	2.7%	52.7%	16,785	16.9%	21.0%	2.6%	55.7%	15,129	14.1%	15.0%	3.0%	66.2%
104317	3	22,162	160	0.7%	22.4%	13.0%	2.7%	57.6%	17,490	19.5%	12.7%	2.5%	61.3%	15,863	11.5%	11.5%	2.9%	73.5%
104317	4	21,898	-104	-0.5%	14.8%	15.9%	1.3%	64.0%	16,795	13.1%	14.8%	1.3%	67.0%	15,922	12.6%	8.8%	0.9%	76.0%
104852	1	21,758	-244	-1.1%	30.3%	17.3%	2.3%	46.2%	17,162	26.7%	17.1%	2.3%	50.4%	14,787	20.3%	12.6%	3.7%	62.2%
104852	2	21,233	-769	-3.5%	20.1%	21.7%	2.7%	51.2%	16,353	18.2%	20.9%	2.7%	54.3%	14,778	15.1%	14.9%	3.3%	65.3%
104852	3	23,158	1,156	5.3%	21.3%	13.3%	2.8%	58.5%	18,193	18.7%	12.8%	2.6%	62.1%	16,506	10.9%	10.9%	2.8%	74.2%
104852	4	21,857	-145	-0.7%	14.8%	15.9%	1.3%	64.0%	16,760	13.1%	14.8%	1.3%	67.0%	15,883	12.6%	8.8%	0.9%	76.0%
106313	1	21,664	-338	-1.5%	30.0%	17.4%	2.3%	46.5%	17,049	26.5%	17.2%	2.2%	50.5%	14,653	20.1%	12.6%	3.6%	62.5%
106313	2	21,928	-74	-0.3%	19.8%	21.5%	2.8%	51.6%	16,894	18.0%	20.7%	2.8%	54.6%	15,347	14.8%	14.9%	3.3%	65.7%
106313	3	21,836	-166	-0.8%	21.6%	13.2%	2.7%	58.4%	17,132	18.9%	12.7%	2.5%	62.1%	15,532	11.1%	11.0%	2.9%	73.9%
106313	4	21,628	-374	-1.7%	14.7%	15.7%	1.3%	64.2%	16,627	13.0%	14.6%	1.3%	67.2%	15,704	12.5%	8.5%	0.9%	76.4%
107170	1	21,871	-131	-0.6%	27.6%	17.0%	2.3%	49.0%	17,410	24.4%	16.4%	2.3%	53.0%	15,268	18.9%	11.2%	4.0%	65.1%
107170	2	22,009	7	0.0%	18.5%	21.5%	2.5%	53.4%	16,826	17.0%	20.6%	2.4%	56.4%	15,372	13.7%	14.4%	2.2%	68.2%
107170	3	22,135	133	0.6%	25.4%	13.4%	3.0%	54.1%	17,363	22.0%	13.5%	2.8%	58.0%	15,334	13.1%	12.6%	3.5%	69.2%
Gnecco	4	21,857	-145	-0.7%	14.8%	15.9%	1.3%	64.0%	16,760	13.1%	14.8%	1.3%	67.0%	15,883	12.6%	8.8%	0.9%	76.0%
107274	1	23,619	1,617	7.3%	27.6%	16.9%	2.3%	49.1%	18,762	24.4%	16.5%	2.3%	53.2%	16,384	19.1%	11.3%	4.2%	64.1%
107274	2	16,899	-5,103	-23.2%	20.2%	23.0%	2.9%	49.6%	12,819	18.5%	22.2%	2.8%	52.6%	11,505	15.3%	16.0%	2.3%	65.1%
107274	3	23,531	1,529	6.9%	22.9%	14.2%	2.8%	56.0%	18,418	20.0%	14.0%	2.6%	59.6%	16,404	11.4%	12.4%	3.1%	71.8%
107274	4	23,957	1,955	8.9%	15.4%	15.4%	1.4%	63.9%	18,469	13.6%	14.3%	1.4%	67.0%	17,661	12.8%	8.8%	1.0%	75.8%
107385	1	21,696	-306	-1.4%	30.6%	17.1%	2.4%	46.0%	17,101	27.0%	16.8%	2.4%	50.2%	14,748	20.4%	11.6%	4.0%	62.5%
107385	2	22,060	58	0.3%	19.4%	21.6%	2.7%	51.9%	16,975	17.6%	20.9%	2.7%	54.9%	15,364	14.5%	15.8%	3.0%	65.7%
107385	3	22,352	350	1.6%	21.7%	13.2%	2.7%	58.2%	17,597	19.0%	12.8%	2.5%	61.9%	15,920	11.2%	10.9%	2.9%	73.8%
107385	4	21,898	-104	-0.5%	14.8%	15.9%	1.3%	64.0%	16,795	13.1%	14.8%	1.3%	67.0%	15,922	12.6%	8.8%	0.9%	76.0%

Draft and Public Plans*

Plan		Population							Voting Age Population					Citizen Voting Age Population				
Name	#	Total	Deviation	% Dev	Latino	Asian	Black	NH White	Total	Latino	Asian	Black	NH White	Total	Latino	Asian	Black	NH White
Gnecco	1	21,788	-214	-1.0%	26.6%	16.5%	2.4%	50.4%	17,361	23.5%	15.9%	2.3%	54.4%	15,278	18.2%	10.9%	3.5%	66.9%
Gnecco	2	22,046	44	0.2%	23.9%	18.8%	2.6%	50.5%	16,948	21.4%	18.4%	2.6%	53.8%	15,241	16.7%	12.8%	3.2%	65.2%
Gnecco	3	22,315	313	1.4%	21.1%	16.5%	2.9%	55.4%	17,399	18.7%	16.0%	2.7%	59.0%	15,552	11.0%	14.5%	3.2%	70.2%
Gnecco	4	21,857	-145	-0.7%	14.8%	15.9%	1.3%	64.0%	16,760	13.1%	14.8%	1.3%	67.0%	15,883	12.6%	8.8%	0.9%	76.0%

* Plan Green follows current district boundaries

* Population and Voting Age Population from 2020 Census Redistricting data. Adjusted for incarcerated populations.

* Citizen Voting Age Population from adjusted 2015-2019 American Community Survey Special Tabulation.

* Racial/Ethnic data calculated pursuant to OMB BULLETIN NO. 00-02.

Livermore Redistricting: February 14, 2022

Draft and Public Plans*

Plan	Deviation <10%	All blocks assigned	Districts Contiguous
Green			
Blue			
Purple			
Red			
66295		No	
86302		No	No
87742		No	
90002		No	
91889		No	
98226	No		No
99995		No	
100105	No		No
100643			
100710			No
104317		No	
104852			
106313		No	No
107170		No	
107274	No	No	
107385			
Gnecco			

* Plan Green follows current district boundaries.

* Plans with deviations greater than 10%, unassigned blocks, or non-contiguous districts would require amendment before adoption.

Livermore Redistricting: February 14, Draft and Public Plans*

Plan	# Deferred
Green	0
Blue	0
Purple	1,049
Red	3,323
66295	9,307
86302	2,319
87742	3,686
90002	4,351
91889	4,351
98226	16,262
99995	4,351
100105	7,026
100643	3,686
100710	8,437
104317	5,288
104852	3,686
106313	3,499
107170	6,919
107274	5,911
107385	4,025
Gnecco	1,049

* Plan Green follows current district boundaries.

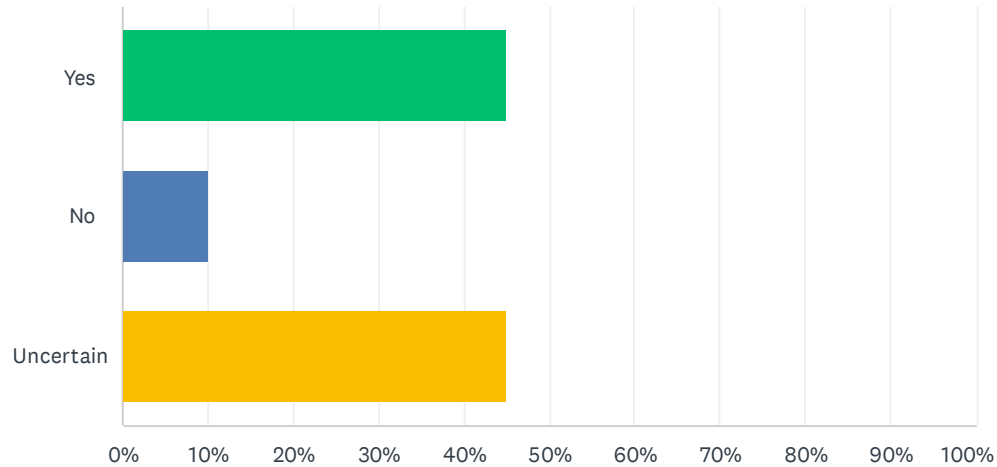
* Individuals are "deferred" if they are moved from a district voting in 2022 to one voting in 2024.

* For Livermore individuals moved from Districts 1 or 2 into District 3 or 4 would be deferred.

* Deferral not calculated for individuals not assigned to a district.

Q1 Are you satisfied with the current City Council electoral district map depicted below?

Answered: 20 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	45.00%	9
No	10.00%	2
Uncertain	45.00%	9
TOTAL		20

Q2 If you have a suggestion for how the district lines should be drawn, please visit drawlivermore.org/draw-a-map to submit your own map and/or community of interest. You may also provide a comment in the field below.

Answered: 1 Skipped: 19

#13

COMPLETE

Collector: Web Link 1 (Web Link)
Started: Wednesday, January 26, 2022 6:24:58 AM
Last Modified: Wednesday, January 26, 2022 6:27:37 AM
Time Spent: 00:02:39

Page 1

Q1

No

Are you satisfied with the current City Council electoral district map depicted below?

Page 2

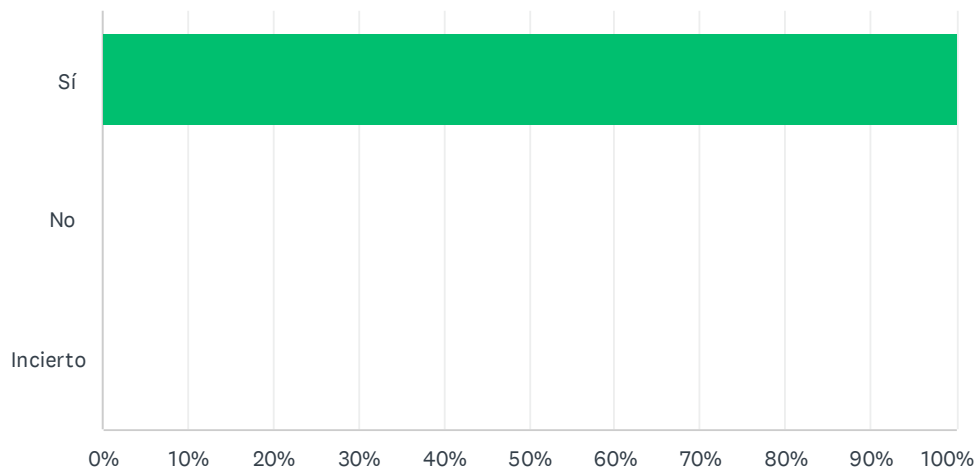
Q2

If you have a suggestion for how the district lines should be drawn, please visit drawlivermore.org/draw-a-map to submit your own map and/or community of interest. You may also provide a comment in the field below.

District 3 should not extend so far east but should be included with parts of District 1

Q1 ¿Está satisfecho con el mapa actual de distritos electorales del Concejo Municipal que se muestra a continuación?

Answered: 1 Skipped: 0



ANSWER CHOICES	RESPONSES	
Sí	100.00%	1
No	0.00%	0
Incierto	0.00%	0
TOTAL		1



CITY COUNCIL STAFF REPORT

ITEM NO. 6.2

DATE: February 14, 2022

TO: Honorable Mayor and City Council

FROM: Scott Lanphier, Public Works Director

SUBJECT: Hearing to **introduce an ordinance** amending and restating Chapters 13.26 and 13.27 of the Livermore Municipal Code pertaining to water conservation measures.

RECOMMENDED ACTION

Staff recommends that the City Council introduce an ordinance amending and restating Chapters 13.26 and 13.27 of the Livermore Municipal Code pertaining to water conservation.

SUMMARY

On June 14, 2021, the City Council adopted an updated Water Shortage Contingency Plan in conformance with state regulations. This updated plan includes two additional shortage stages and minor shifts of some demand management measures. In order to align the City's Municipal Code with the Plan, an update to the Code is required.

DISCUSSION

On June 14, 2021, the City Council adopted an updated Water Shortage Contingency Plan (Plan) in conformance with Section 10632 of the California Water Code. The purpose of this Plan is to identify ways that the City can reduce water demand during periods of supply shortages (such as a drought).

The previous plan included demand management measures (also known as conservation measures) split into four stages of water shortage. In 2018, the state adopted new regulations which required water purveyors to plan for six stages of water shortages ranging from a 10% reduction to an over 50% reduction in water supply. The updated Plan includes the required six stages, along with demand management measures for each of these stages, many of which are similar to the previous plan.

The proposed ordinance would amend and restate Chapters 13.26 and 13.27 of the Livermore Municipal Code which delineate the legal authority for the City to enforce the selected demand management measures. The proposed ordinance will realign the City's enforcement authority to match the most recent Plan. In addition, this ordinance also clarifies some language with the intent of making it clearer and more easily understood. Staff continue to take an education-first approach to enforcement of these rules

during the current drought.

Fiscal and Administrative Impacts

Staff does not anticipate any new fiscal or administrative impacts due to the adoption of this ordinance as similar rules and procedures already exist in the Livermore Municipal Code.

ATTACHMENTS

1. Staff Report for WSCP Adoption on June 14, 2021
2. 2021 Adopted Water Shortage Contingency Plan
3. Ordinance
4. Exhibit A - Amended and Restated Chapters 13.26 Water Conservation and 13.27 Mandatory Drought Conservation Measures

Prepared by: Anthony Smith
Management Analyst II

Approved by:



Marc Roberts
City Manager

Fiscal Review by:



Bhavna Chaudhary
City Treasurer/Finance Manager

**CITY COUNCIL STAFF REPORT****ITEM NO. 5.3**

DATE: June 14, 2021
TO: Honorable Mayor and City Council
FROM: Scott Lanphier, Public Works Director
SUBJECT: Hearing to approve the City's 2020 Water Shortage Contingency Plan

RECOMMENDED ACTION

At the conclusion of the public hearing, it is recommended that the City Council adopt a resolution:

1. Adopting and approving the 2020 Water Shortage Contingency Plan.
2. Authorize transmittal to the California Department of Water Resources.
3. Authorize the City Manager to take appropriate and necessary actions to carry out the purpose and intent of this Resolution and to incorporate any necessary amendments as stipulated by the State Department of Water Resources.

SUMMARY

Staff updated the Livermore's Municipal Water (LMW) Water Shortage Contingency Plan (WSCP) per requirements of the Urban Water Management Act, Section 10632. The WSCP includes the following major components:

1. Water supply reliability analysis over a 5-year period from 2021 to 2025.
2. A new six-stage categorization of water shortage levels and corresponding demand reduction measures to cover more than 50% of supply shortage.
3. Financial consequences of actions during shortages.

Overall, the LMW 2020 WSCP demonstrates that Livermore has a reliable water system over the next five years. In addition, the LMW can implement a variety of measures during water shortage stages to reduce water demands. Revenue loss due to water shortage will be recovered through water conservation rates. Following adoption by the City Council, the 2020 WSCP will be submitted to the California Department of Water Resources prior to the July 1, 2021 deadline and will be made available to the public.

DISCUSSION

The City of Livermore retained Kenney/Jenks Consultants, Inc. to update the Livermore's Municipal Water (LMW) Water Shortage Contingency Plan (WSCP) per requirements of the Urban Water Management Act, Section 10632 of the California Water Code. The purpose of this WSCP is to provide guidance if triggering events (reduced supply, increased demand, or an emergency declaration) occur and identify corresponding actions to be taken during the various stages of a water shortage. The plan includes a description of stages which are intended to be fair to all water customers and users while having the least impact on business, employment, and quality of life for residents. The City first adopted a WSCP in 1991 and updated the plan in 1996, 2005, and 2010. A summary of the major topics in the current update are presented below.

Water Supply Reliability Analysis (Chapter 2)

As stated in the LMW's 2020 UWMP, the water supply reliability analysis considers "normal", "single-dry", and "five-year drought". The analysis in the UWMP documents that LMW has sufficient supply to meet normal and dry-year demands. An area of overlap between the UWMP and WSCP is a new requirement to prepare a Drought Risk Assessment (DRA).

The DRA requires suppliers to assess water supply reliability over a five-year period from 2021 to 2025 that examines water supplies, water uses, and the resulting water supply reliability under a reasonable prediction for five consecutive dry years. It is expected that Zone 7 will be able to meet all treated water requests during this scenario. Therefore, no WSCP actions are anticipated to be implemented. However, in the case of a shortfall in supply, the use reduction and supply augmentation measures described in Chapter 5 of the WSCP are available for implementation.

Annual Water Supply and Demand Assessment Procedures (Chapter 3)

New provisions in Water Code Section 10632.1. require that an urban water supplier such as LMW, conduct an annual water supply and demand assessment ("Annual Assessment"), on or before July 1 of each year, to be submitted to the Department of Water Resources (DWR).

LMW Operations staff presents the five-year treated water request to Zone 7 in the July timeframe each year. Around January, Zone 7 provides a preliminary treated water request response that determines if this allocation can accommodate the needs of its retailers. If it is determined that Zone 7 cannot provide the requested volume of water for LMW, LMW will determine the percentage difference in demand versus supply and will enact a shortage stage. This can be in conjunction with any demand reductions required by the State of California and/or Zone 7. In April of each year, Zone 7 finalizes the available water supply to each of its users for the coming year based on State Water Project allocations and other factors. This final determination informs LMW if it is in a shortage scenario, and the results will be reported by LMW to the DWR by July 1st of each year.

Six Standard Water Shortage Stages (Chapter 4)

The primary factor that causes a water shortage is a drought, where the annual supply projection cannot meet the annual demand projection. The 2010 WSCP defines four stages of water shortage, which covers up to 35% of supply shortage and demand reduction measures. The 2020 WSCP requires the LMW to develop a new six-stage system of water shortage levels. The six standard water shortage levels correspond to progressively increasing estimated shortage conditions (up to 10-, 20-, 30-, 40-, 50-percent, and greater than 50% shortage compared to the normal reliability condition).

Other events, besides drought, that could trigger a water shortage event include an earthquake, water system failures, fire, contamination, regional power outage, state restrictions or other causes. The City

has developed a comprehensive Emergency Response Plan (ERP) that addresses a variety of potential emergency situations directly affecting the LMW.

Water Shortage Response Actions by Shortage Stage (Chapter 5)

When a shortage level is triggered based on the Annual Assessment, shortage response actions are also triggered with the associated shortage level. Each stage shall remain in effect until conditions indicate a more or less restrictive stage is necessary. The City will use a variety of methods through different stages to achieve more than 50% reduction in water demands. One of the most important and earliest strategies will be an expanded public education and outreach campaign. Other demand reduction measures are listed as follows.

- Limit landscape irrigation to specific days and times.
- Require automatic shut-off hoses.
- Improve customer usage data review and alerts.
- Implement drought conservation rates structures.
- Prohibit use of potable water for construction and dust control.
- Require covers for pools and spas.
- Require commercial kitchens to use pre-rinse spray valves.
- Restrict or prohibit runoff from landscape irrigation.
- Prohibit use of potable water for washing hard surfaces.
- Prohibit vehicle washing except at facilities using recycled or recirculating water.
- Require swimming pools to be leak proof.
- Prohibit turf or lawn irrigation.
- Restrict water use for decorative water features, such as fountains.
- Require restaurants serve water only upon request.

FISCAL AND ADMINISTRATIVE IMPACTS

The stages of action to be undertaken by the urban water supplier in response to water supply shortage have impacts on the LMW's water revenues and expenses. While expenses will be reduced through lower wholesale water purchases from Zone 7, the decline in expenses does not fully offset the loss in revenue from reduced sales. This is due, in part, to the fact that monthly water rates and charges do not fully recover all of the fixed costs on meter service charges, and instead allocate some fixed charges to the water rate component of the bill. This practice slightly inflates the consumption-based portion of the customer bill to encourage conservation during normal conditions. However, the downside of this practice is that net revenue can decline during water shortages or other periods of reduced water sales.

The impact to net water system revenues will vary with each stage of action and the corresponding level of water shortage and expected conservation. To offset the impacts of water shortages, the LMW has developed conservation rates that may be enacted in response to water shortages. Conservation rates are updated and adopted by the Livermore City Council each time normal water rates and service charges are adjusted. By having previously adopted conservation rates, the LMW can avoid the delays associated with Proposition 218 notification and ballot procedures prior to implementing conservation rates in response to a water shortage. These pre-approved rates were essential in maintaining revenues during the 2014/2015 drought and placed the LMW in an excellent financial position compared to retailers without pre-approved rates in place.

Conservation rates correspond to each stage identified in the WSCP and are calculated to recover the

necessary revenue based on the reduced volume of water expected to be sold and purchased in each stage. For example, Stage 2 conservation rates are designed to recover the revenue lost from a 20% reduction in water sales while taking into account the reduced cost of purchasing 20% less water. The LMW's next cost-of-service study will evaluate these rates in preparation of future drought events and to align conservation rates with the six shortage stages.

ATTACHMENTS

1. Resolution
2. Exhibit A - 2020 WSCP

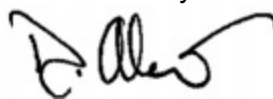
Prepared by: Yanming Zhang
Water Resources Technical Programs
Manager

Approved by:



Marc Roberts
City Manager

Fiscal Review by:



Douglas Alessio
Administrative Services Director



275 Battery Street, Suite 550
San Francisco, California 94111
415-243-2150

2020 Water Shortage Contingency Plan

18 June 2021

Prepared for

Livermore Municipal Water

101 W. Jack London Blvd.
Livermore, CA 94551

K/J Project No. 2068015.00

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Chapter 1: Introduction

This plan documents the City of Livermore's Water Shortage Contingency Plan (WSCP) per requirements of the Urban Water Management Act, Section 10632 of the California Water Code. Livermore Municipal Water (LMW) purchases all treated potable water from Zone 7 Water Agency.

The purpose of this WSCP is to provide guidance if triggering events occur — whether from reduced supply, increased demand, or an emergency declaration — and identify corresponding actions to be taken during the various shortage levels or stages of a water shortage. The plan includes a description of shortage levels or stages which are intended to be fair to all water customers and users while having the least impact on business, employment, and quality of life for residents.

Chapter 2: Water Supply Reliability Analysis

2.1 Overview

Water Code Section 10632(a) requires that every urban water supplier prepare and adopt a Water Shortage Contingency Plan (WSCP) as part of its Urban Water Management Plan (UWMP). While the WSCP is a stand-alone document it is updated and adopted in concert with the UWMP. Contents of the WSCP are informed by the analysis of water supply reliability conducted pursuant to Water Code Section 10635 (contained in the UWMP). The reliability analysis of the UWMP considered “normal”, “single-dry”, and “5-year drought”. The analysis in the UWMP documents reflects that LMW has sufficient supply to meet normal and dry-year demands. An area of overlap between the UWMP and WSCP is a new requirement to prepare a Drought Risk Assessment (DRA) (Section 7.8 of the 2020 UWMP) to account for the significant duration of recent California droughts and the predictions about hydrological variability attributable to climate change. The DRA is detailed in Section 2.5.

2.2 Water Supplies

As noted earlier, LMW purchases all its potable water supplies from the Zone 7 Water Agency and has no other source of supply. Thus, the water supply assessment and reliability analysis focuses on historical supply from Zone 7 and demands from LMW. While LMW relies on Zone 7 as its primary water source, the Zone 7 system consists of a variety of different sources. A summary of Zone 7 supplies includes:

- Imported Surface Water
 - State Water Project
 - Byron Bethany Irrigation District
- Local Surface Water Runoff
 - Arroyo Las Positas
 - Arroyo Mocho
- Local Storage
 - Lake Del Valle
 - Chain of Lakes
- Non-Local Storage
 - Semitropic Water Storage District
 - Cawelo Water District

Therefore, Zone 7 is able to balance its supply between a variety of different sources to adapt to shortages or limitations in any one source due to legal, environmental, regulatory, or climatic factors. Traditionally, Zone 7 has been able to supply all the water demands from Livermore even during historical drought conditions. Table 2-1 below provides the Zone 7 supply projections over the planning horizon of this document.

Table 2-1 Zone 7 Normal Year Supply Projections (Volumes are in AF)

	2025	2030	2035	2040	2045
SWP Table A	47,000	46,000	45,000	43,500	43,500
SWP Carryover	10,000	10,000	10,000	10,000	10,000
Arroyo Valle	5,500	5,500	5,500	5,500	5,500
Main Basin	9,200	9,200	9,200	9,200	9,200
SWP/Other Transfer	5,000	5,000	-	-	-
BARDP or Potable Reuse	-	5,000	5,000	5,000	5,000
Sites Reservoir Project	-	10,000	10,000	10,000	10,000
Total	76,700	90,700	84,700	83,200	83,200

Notes:

The values contained in this table/figure are planning level estimates and there is an uncertainty associated with each of these values

Zone 7 projects that the water agency will have surplus treated water during normal, 1-year drought, and 5-year drought water conditions. See the Zone 7 UWMP located at (insert web link) for more information.

2.3 Supply Reliability

Zone 7 has provided water system reliability data and supply projections for Water Years 2010 through 2045. Zone 7, through the application of water use efficiency (WUE), supply exchanges, and alternate water sources projects a reduction in reliance on water from the Delta Watershed. The averaged projected reduction in watershed reliance in Years 2020 through 2045 is approximately 23%, see Table 2-2 below. This projected reliability reduction does not include the projected reduction in use from water use efficiency over that time period. Additions to supply include exchanges with local contributors, local supplies via Arroyo Del Valle and groundwater wells, and groundwater banking programs.

Table 2-2 Zone 7 Reliability on the Delta Watershed

Percent Change in Supplies from the Delta Watershed (As a Percent of Demand w/out WUE)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045 (Optional)
Percent of Water Supplies from the Delta Watershed	85%	59%	48%	73%	70%	61%	58%	58%
Change in Percent of Water Supplies from the Delta Watershed		-26%	-37%	-12%	-15%	-24%	-27%	-27%

Notes:

The values contained in this table/figure are planning level estimates and there is an uncertainty associated with each of these values."

In addition to diversifying water supply, Zone 7 has estimated reductions in water use due to water use efficiency measures. Projected water use efficiency figures (Water Years 2020 through 2045) showed an approximate reduction of 22% in water use when implemented. These reduction percentages can be met through implementation of WSCP shortage actions discussed further in Section 5 below. See Table 2-3 for projected water use reductions assumed by Zone 7.

Table 2-3 Zone 7 Water Use Efficiency Projections

Total Service Area Water Demands (Acre-Feet)	Baseline (2010)	2015	2020	2025	2030	2035	2040	2045 (Optional)
Service Area Water Demands with Water Use Efficiency Accounted For	66,200	47,900	57,000	70,300	71,700	73,000	74,500	74,500
Reported Water Use Efficiency or Estimated Water Use Efficiency Since Baseline		25,634	17,254	15,137	19,279	21,209	22,031	22,031
Service Area Water Demands without Water Use Efficiency Accounted For	66,200	73,534	74,254	85,437	90,979	94,209	96,531	96,531
Percent reduction in demand from Water Use Efficiency		35%	23%	18%	21%	23%	23%	23%

Note: Data per Zone 7 updated Delta Reliance Tables provided 2/22/2021

The values contained in this table/figure are planning level estimates and there is an uncertainty associated with each of these values.

In addition to Zone 7's expected reduced reliance on the Delta, Livermore has also utilized water use efficiency measures and recycled water to limit its reliance on Delta water supplies. Appendix B of the 2020 UWMP includes DWR Tables C-1 through C-4 outlining the reduction in reliance on the Delta. Projected water use efficiency and recycled water use equates to an expected 40% reduction in Delta reliance by the year 2045.

2.4 Demand Projections

LMW Operations staff work closely with Zone 7 each year to provide up to date treated water request estimates for the next 5 years. These estimates are based on historical water use, per capita water use trends, and expected changes in land use areas and development within the service area. Water Year 2020 saw a large increase in per capita water use in comparison to previous years which can likely be attributed to increased residential water use due to the Covid-19 pandemic. Water use projections developed for Water Years 2021 through 2025 show a decrease in per capita use closer to the baseline values seen in 2017-2019 and then a linear increase to align with Zone 7 demand projections in 2025. The treated water request estimates prepared by LMW Operations may differ slightly from UWMP long-range demand projections because they are based on the historic actual water demand from the prior year. See Section 4 of the Livermore 2020 UWMP for more detailed information concerning projected demands.

2.5 Drought Risk Assessment

The DRA requires suppliers to assess water supply reliability over a 5-year period from 2021 to 2025 that examines water supplies, water uses, and the resulting water supply reliability under a reasonable prediction for five (5) consecutive dry years.

The gross water use values for 2021 -2025 presented in Table 2-4 are estimates based on Zone 7's projected water use for its entire service area. The percentage of LMW's demand during normal year conditions was utilized to project water uses from Zone 7's 2020 UWMP Table 7-5 values for the LMW service area. As noted earlier, the gross water use values may slightly differ from UWMP long-range demand projection because of a difference in methods. LMW treated water request estimates often fall below Zone 7 demand projections for the service area allowing for some conservatism in planning values for Zone 7 supplies. LMW's total water supplies were projected based on the total available supply to the entirety of Zone 7's service area adjusted for percentage of water demand from LMW.

Error! Reference source not found. provides a summary of the expected supply and demand scenarios for a 5-year drought condition from 2021-2025. It is expected that Zone 7 will be able to meet all treated water requests during this scenario. Therefore, no Water Shortage Contingency Plan actions are anticipated to be implemented. However, in the case of a shortfall in supply, the use reduction and supply augmentation measures described in Section 5 of this WSCP are available for implementation.

Table 2-4 Five-Year Drought Risk Assessment (DWR Table 7-5)

2021 (Volumes are in Million-Gallon)	Total
Gross Water Use	2,135
Total Supplies	2,135
Surplus/Shortfall w/o WSCP Action	0
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	0
WSCP - use reduction savings benefit	0
Revised Surplus/(shortfall)	0
Resulting % Use Reduction from WSCP action	0
2022	Total
Gross Water Use [Use Worksheet]	1,994
Total Supplies [Supply Worksheet]	1,994
Surplus/Shortfall w/o WSCP Action	0
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	0
WSCP - use reduction savings benefit	0
Revised Surplus/(shortfall)	0
Resulting % Use Reduction from WSCP action	0
2023	Total
Gross Water Use [Use Worksheet]	2,007
Total Supplies [Supply Worksheet]	2,007
Surplus/Shortfall w/o WSCP Action	0

Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	
WSCP - use reduction savings benefit	
Revised Surplus/(shortfall)	0
Resulting % Use Reduction from WSCP action	0
2024	Total
Gross Water Use [Use Worksheet]	2,020
Total Supplies [Supply Worksheet]	2,020
Surplus/Shortfall w/o WSCP Action	0
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	
WSCP - use reduction savings benefit	
Revised Surplus/(shortfall)	0
Resulting % Use Reduction from WSCP action	0
2025	Total
Gross Water Use [Use Worksheet]	2,040
Total Supplies [Supply Worksheet]	2,040
Surplus/Shortfall w/o WSCP Action	0
Planned WSCP Actions (use reduction and supply augmentation)	
WSCP - supply augmentation benefit	
WSCP - use reduction savings benefit	
Revised Surplus/(shortfall)	0
Resulting % Use Reduction from WSCP action	0

Notes:

The values contained in this table/figure are planning level estimates and there is an uncertainty associated with each of these values.

Chapter 3: Annual Water Supply and Demand Assessment Procedures

California Water Code Division 1, Section 350, states:

“The governing body of a distributor of a public water supply, whether publicly or privately owned and including a mutual water company, shall declare a water shortage emergency condition to prevail within the area served by such distributor whenever it finds and determines that the ordinary demands and requirements of water consumers cannot be satisfied without depleting the water supply of the distributor to the extent that there would be insufficient water for human consumption, sanitation, and fire protection.”

These Annual Assessment procedures described herein are one tool to be used to determine if a water shortage is to be declared.

New provisions in Water Code Section 10632.1. require that an urban water supplier such as LMW, conduct an annual water supply and demand assessment (“Annual Assessment”), on or before July 1 of each year, to be submitted to DWR. An urban water supplier that relies on imported water from the State Water Project (SWP) or the Bureau of Reclamation shall submit its Annual Assessment within 14 days of receiving its final allocations, or by July 1 of each year, whichever is later. The requirement to perform the Annual Assessment begins in July 2022.

3.1 Timeline and Methodology for Conducting the Annual Assessment

As described in Section 2.4, LMW Operations staff develops a 5-year treated water request schedule using the current year’s water consumption as a baseline. LMW Operations staff estimates a monthly water usage for the next 5 years based on current usage trends and expected new water connections from development within the service area. Projected conservation values are calculated at 10% of average use values for reporting purposes to Zone 7. LMW treated water requests are also compared to Zone 7’s projections to ensure values are similar amongst the agencies. LMW Operations staff presents the 5-year treated water request to Zone 7 in the July timeframe each year (see Table 3-1 below for an approximate timeline). In about January, Zone 7 provides a preliminary treated water request approval by analyzing the initial SWP allocation and determines if this allocation can accommodate the needs of its retailers.

If it is determined that Zone 7 cannot provide the requested volume of water for LMW, LMW will determine the percentage difference in demand versus supply and will enact a shortage level described in Chapter 4. This can be in conjunction with any demand reductions required by the State of California and/or Zone 7.

In April of each year Zone 7 finalizes the available water supply to each of its users for the coming year based on SWP allocations and other factors. This final determination informs LMW if it is in a shortage scenario and the results will be reported by LMW to the DWR by July 1st of each year.

Table 3-1 provides targets for performing the Annual Assessment. By starting to plan in June of the previous year, Livermore Municipal Water will get a snapshot of conditions and can start lining up the resources to mitigate supply and start outreach to customers to manage demand. Major actions are proposed in January, when an initial shortage level is triggered. A final annual assessment is proposed in the May-June current year timeframe.

Table 3-1 Calendar and Methodology for Performing Annual Assessment

Target Date	Action
June	Zone 7 requests 5-year water demand projection
July	LMW Distribution Operations Manager submits demands and conservation demands
January	Zone 7 responds to demand projections with available supply and preliminary approval letter LMW determines if supply is less than demand triggering a shortage event (Shortage Level 1-6)
February	LMW issues a shortage stage resolution triggering shortage response actions if necessary
April	Zone 7 issues final supply report Continue public outreach, if necessary
February -July	Monitor customer response to water shortage messaging and other response actions, if necessary Report final annual assessment to DWR

A sample template for synthesizing the information is provided in Appendix A.

3.2 Current Predicted Shortages Based on Annual Water Supply and Demand Assessment

While the first Annual Assessment is not required to be submitted to DWR until July 1, 2022, Suppliers are encouraged to use the procedures documented in its WSCP to prepare and include the outcome of an Annual Assessment for 2021, and to present the results in their UWMP as an example.

Further, although the Annual Assessment must be submitted to DWR on or before July 1 of every year, an early Annual Assessment allows Suppliers and customers to identify uncertainties and prepare financially and logistically for any anticipated water supply constraints in the coming months. Therefore, Suppliers are encouraged to develop procedures, including decision-making processes, that facilitate early analysis and adoption.

LWM does not predict a water supply shortage for the current water year (2021). Anticipated demands are within the planning values presented by Zone 7. Zone 7 has traditionally been able to meet all anticipated demands even during dry conditions. No shortage levels or response actions directly associated with specific shortage levels are anticipated for the current water year.

Chapter 4: Six Standard Water Shortage Stages

4.1 Water Shortage Event

A water shortage event can be anything from a single occurrence as short as twenty-four hours to a multi-year weather condition. If water shortage event triggers identified in Table 5-1 are met the City will consider enacting voluntary and/or mandatory restrictions and other drought response actions as listed in Table 5-2 targeted primarily at reducing outdoor watering activities. Any such restrictions would be enacted with an adopted resolution passed by the Livermore City Council.

Other events, besides drought, that could trigger a water shortage event include an earthquake, water system failures, fire, contamination, regional power outage, state restrictions or other causes.

4.2 Definition of Drought

The following definition was written by the California Department of Water Resources:

Defining when drought occurs is a function of drought impacts to water users. Drought can best be thought of as a condition of water shortage for a particular user in a particular location. Hydrologic conditions constituting a drought for water users in one location may not constitute a drought for water users in a different part of California or for users with a different water supply. Individual water suppliers may use criteria such as rainfall/runoff, amount of water in storage, or expected supply from a water wholesaler to define their water supply conditions.

Drought is a gradual phenomenon. Although persistent drought may be characterized as an emergency, it differs from typical emergency events. Most natural disasters, such as floods or forest fires, occur relatively rapidly and afford little time for preparing for disaster response. Droughts occur slowly, over a period of time. There is no universal definition of when a drought begins or ends. Impacts of drought are typically felt first by those most reliant on annual rainfall – ranchers engaged in dryland grazing, rural residents relying on wells in low-yield rock formations, or small water systems lacking a reliable water source. Criteria used to identify statewide drought conditions do not address these localized impacts. Drought impacts increase with the length of a drought, as carry-over supplies in reservoirs are depleted and water levels in groundwater basins decline.

Source: <http://www.water.ca.gov/waterconditions/background.cfm>

4.3 Natural Disaster or Failure of Water System Facilities

In the event of a natural disaster such as an earthquake, fire, toxic spill or flood, or should a catastrophic failure occur at any of Livermore System's facilities, the City can enact restrictions as described in Table 5-2 of this WSCP. Such restrictions would be based on the varying circumstances as determined necessary and appropriate by the City Council to respond to the

emergency conditions, or by the City Manager in the event the City Council cannot act in a timely manner.

4.4 Existing Water Shortage Levels

The below definitions represent the shortage stages originally described in the 2015 Urban Water Management Plan that are consistent with the current Livermore Municipal Code. A cross-reference between the existing four Livermore shortage stage definitions to the new six shortage levels required by DWR is provided in the crosswalk table in Figure 4-1 in Section 4.5.

Normal Supply

Inclusion of “Normal Supply” in the Plan is an important level. The Water Conservation Bill of 2009 requires urban water suppliers to reduce per-capita water consumption by 20 percent by 2020. Implementing conservation during “Normal Supply” periods will play an important role in reaching the required twenty percent reduction in per-capita consumption.

- **Definition:** Water supplies are adequate to meet all the water demands of customers.
- **Message:** We can deliver all the water our customers need, recognizing that customers should practice wise water use at all times.
- **Type:** Voluntary.
- **Expected Reduction:** None targeted
- **Conservation:** Basic water conservation measures and public information promoting wise water use and Best Management Practices when using water for residential, commercial or irrigation uses.

Livermore Stage 1- Minimal Reduction

- **Definition:** There is sufficient uncertainty concerning water supplies for this year or in the next few years that it would be prudent to conserve local water supplies so that these supplies may be used to meet water demands in the future.
- **Message:** We think we can deliver all the water our customers want but request their help to conserve water to be sure local and imported supplies are adequate to meet future years’ water demands – please conserve.
- **Type:** Voluntary.
- **Expected Reduction:** Up to 20%

Livermore Stage 2- Moderate Reduction

- **Definition:** There are definable events that lead to a reasonable conclusion that in the current and/or upcoming water years, water supplies may not be adequate to meet all customer water demands.
- **Message:** We may not be able to deliver all the water our customers want, and we need customers’ help to conserve water.
- **Type:** Voluntary or Mandatory.
- **Expected Reduction:** up to 20%

Livermore Stage 3- Severe Reduction

- **Definition:** There are definable events that lead to a firm conclusion that in the current water year, water supplies will not be adequate to meet customers' water demands.
- **Message:** We cannot deliver all the water our customers need, and we are requiring our customers to use less water.
- **Type:** Mandatory.
- **Expected Reduction:** up to 35%

Livermore Stage 4- Critical Reduction

- **Definition:** A Stage 3 shortage has been in effect and the reduction goal is not being met or new definable events require increasing the reduction goal.
- **Message:** We cannot deliver all the water our customers need, and we have not been able to achieve targeted reductions, so we now have to enforce the use of less water.
- **Type:** Mandatory.
- **Expected Reduction:** >=35 %

4.5 Proposed Water Shortage Levels

The shortage levels are shown in the crosswalk below describing the cross-reference from LMW's four stages of shortage to the six stages of shortage as required in the DWR's 2020 guidance documents.



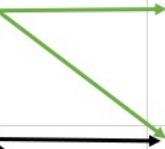
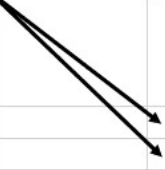
Livermore Water Shortage Stages				
2015 UWMP Stage	Demand Reduction Target	Crosswalk	State 2020 WSCP Standard Stage	Shortage Level
1	Up to 20% Voluntary Minimal Shortage		1	≤ 10%
2	Up to 20% Mandatory Moderate Shortage		2	10% - 20%
3	Up to 35% Mandatory Severe Shortage		3	20% - 30%
4	≥ 35% (Mandatory) Critical Shortage		4	30% - 40%
			5	40 - 50%
			6	≥ 50%

Figure 4-1 Shortage Stage Crosswalk

The shortage stages for the 2020 WSCP are shown in DWR Table 8-1 below. The mapped stage language from the 2015 WSCP with the proposed stages is reflected in **Table 5-1**. These mapped stages will help transition LMW's shortage actions in DWR Tables 8-2 and 8-3 to the proposed 2020 stages.

Table 4-1 Water Shortage Reductions DWR Table 8-1

New Shortage Level	Percent Shortage Range ¹ <i>Numerical value as a percent</i>	Existing Shortage Response Actions <i>(Narrative description)</i>
<i>Add additional rows as needed</i>		
1	Up to 10%	Stage 1: Voluntary Minimal Reductions up to 20%
2	Up to 20%	Stage 2: Mandatory Moderate Reductions up to 20%
3	Up to 30%	Stage 3: Severe Reductions up to 35%
4	Up to 40%	Stage 3: Severe Reductions up to 35%/ Stage 4: Critical Reductions more than 35%
5	Up to 50%	Stage 4: Critical Reductions more than 35%
6	>50%	Stage 4: Critical Reductions more than 35%

¹ One stage in the Water Shortage Contingency Plan must address a water shortage of 50%.

4.6 Actions to Prepare for Catastrophic Interruption

4.6.1 Emergency Response Plan

This section describes actions taken by the City to prepare for and to be implemented during a catastrophic interruption of water supplies. Potential catastrophic supply interruptions include but are not limited to a regional power outage, earthquake, or other disaster causing a water supply outage such as a failure of the San Joaquin Delta levee system.

The City has developed a comprehensive Emergency Response Plan (ERP) that addresses a variety of potential emergency situations directly affecting the City's municipal water system. The goals of the ERP are to:

- Rapidly restore water service after an emergency;
- Ensure adequate water supply for fire suppression;
- Minimize water system damage;
- Minimize impacts and loss to customers;
- Minimize negative impacts on public health and employee safety;
- Provide emergency public information concerning customer service.

The ERP establishes "Action Plans" for different emergency conditions which outline the steps City staff will take to respond to, evaluate, and mitigate the emergency. Action Plans were developed for a variety of water supply interruptions including power outages; earthquakes; flooding; and terrorist events. In addition to Action Plans, the City's Emergency Response Plan includes an inventory of emergency supplies, mutual aid contacts, and lists of potential vendors of emergency supplies.

The LMW Emergency Response Plan was developed to comply with Section 1433(b) of the Safe Drinking Water Act (SDWA) as amended by the Public Health Security and Bioterrorism Preparedness and Response Act of 2002.

Due to the sensitive nature of the information contained in the Emergency Response Plan, the plan includes an Access Control section that limits distribution of the plan to “individuals directly involved in LMW emergency planning and response activities”. Therefore, excerpts from the LMW Emergency Response Plan are not included with this UWMP.

Below is a brief summary of some of the steps staff will implement in response to specific water supply interruptions:

Regional Power Outage – Four of the City’s municipal water system’s five pump stations have emergency generators in the event of regional or local power outage situations. The water telemetry center at the Livermore Water Reclamation Plant also has plans to implement emergency backup power during extended outages. Backup pump station power will allow City staff to maintain water service as long as Zone 7 has available water supplies.

Water Supply Outage – After notification by Zone 7 of a regional water supply outage, City staff will immediately put one of the emergency plans into action. If the South Bay Aqueduct (part of State Water Project) were damaged, it is possible that a limited amount of water would be available in the Patterson Pass Treatment Plant forebay and additional water could be taken from Lake Del Valle. If a Zone 7 pipeline were damaged, water could be networked around the Tri-Valley and around the leak through retailer interties. If a City municipal water system pipeline were damaged or leaking, the leak or damaged section could be isolated and an alternate supply path created through the supply network.

During short-term supply outages, City staff would implement similar procedures described above for power outages. For prolonged, regional outages, City staff would consider the need and feasibility of implementing progressively more aggressive strategies to extend local reservoir supplies. These might include restricting all uses except emergency firefighting, with staff distributing drinking water and portable toilets throughout the service area to meet sanitation and drinking needs. These types of measures would only be considered in the most extreme and prolonged emergency conditions.

Seismic – As part of LMW’s Water Distribution System Risk and Resilience Assessment (RRA), The City of Livermore evaluated seismic risk to water facilities and identified mitigation measures to lessen the risk. This plan meets the requirements of the federal Disaster Mitigation Act of 2000 as well as the requirements of Water Code Section 10644. A copy of the 2020 LWD Water Distribution System RRA will be submitted to DWR with the adopted Water Shortage Contingency Plan (WSCP).

From the LMW 2020 Water Distribution System RRA, Livermore is between the Calaveras and Greenville faults. Per the United States Geologic Survey’s (USGS’s) 2007 projections, Livermore has approximately 10-20 percent chance of sustaining a rupture with a magnitude of $M \geq 6.7$ over 30 years. From another figure in the same report, that corresponds to a 0.1-1% [0.44% for Calaveras Fault] 5-year probability of the event. The Livermore area has a chance of an earthquake with $M \geq 6.7$ of approximately 7.4% over 30 years, or an annual likelihood per year of 0.0025.

In order to minimize the impact of peak ground acceleration (PGA) of 0.4-1.1g during a seismic event, the LMW has a countermeasure to replace larger rigid pipes (≥ 12 inches in diameter) with flexible pipes. The pipe replacement will be carried out through the City's long-term water system renewal and replacement program. Replacing aging rigid pipes (e.g. cast-iron pipes and asbestos-cement pipes) will bring the following benefits:

- Decreases the susceptibility of the system to breaks and leaks with ground movement: Increases robustness of the system.
- Reduces susceptibility to other threats like corrosion: Increases flexibility of system to a range of threats.
- When flexible pipelines are in place, the trunk system will ensure the system is brought back online as quickly as possible: Increases the responsiveness to this threat.
- Once service is restored, flexible pipes are less likely to fail from longer-term stress brought about by minor ground movement: Recovery is enhanced.

All LMW's pump stations that are in use have at least been retrofitted since 1997, bringing them up to current codes and construction for resilience around the Bay Area faults. If the PGA of the pumping equipment exceeds that of the structure, the disabled structure could continue to function, though the structure would require replacement.

All water tanks owned by LMW are made of steel which is a flexible material compared to concrete. Three out of four water tanks were constructed after 2002, showing compliance with current seismic code. The risk calculation shows that the events that would be sufficient to rupture the tanks were large and had a low chance of occurrence. The tanks are positioned so that even a severe rupture would destroy the tank but would be very unlikely to endanger life. The Doolan Tank is about 1,800 feet from a nearby commercial/industrial area. There is adequate landscape to significantly dampen the impact of flows from the tank. One tank at the Altamont tank site was constructed in 1985. The LMW will review the initial design of the Altamont tank for seismic code compliance and conduct retrofit if necessary.

Chapter 5: Water Shortage Response Actions (by Shortage Stage)

The LMW has adapted the four-stage plan, as outlined in Chapter 13.26 Water Conservation and Chapter 13.27 Mandatory Drought Conservation Measures of Division 1 (Water) of Title 13 (Public Services) of the Livermore Municipal Code. During the 2020 WSCP, the LMW has developed a six-stage (or shortage level) contingency plan to reduce demand up to more than 50 percent during a severe or extended water shortage event. Livermore has both voluntary and mandatory stages. References to stages from this point forward are to the six shortage levels required by DWR, unless specifically identified.

Table 5-1 Water Shortage Stages and Triggers/Demand Reduction Goals

Stage	Trigger	New Demand Reduction Goal	Existing Demand Reduction Goal
Minimal			
Stage 1	Annual Supply Projection is 10% below Demand Projection	10% Voluntary	Livermore Stage 1: Up to 20% Voluntary ¹
Moderate			
Stage 2	Annual Supply Projection is between 10% and 19% below Demand Projection	Up to 20% Voluntary or Mandatory	Livermore Stage 1: Up to 20% Voluntary or Livermore Stage 2 up to 20% Mandatory ¹
Severe			
Stage 3	Annual Supply Projection is between 20% and 29% below Demand Projection	30% Mandatory	Livermore Stage 3: up to 35% Mandatory Livermore Stage 4: >=35% Mandatory ¹
Stage 4	Annual Supply Projection is between 30% and 39% below Demand Projection	40% Mandatory	
Critical			
Stage 5	Annual Supply Projection is between 40% and 49% below Demand Projection	50% Mandatory	Livermore Stage 4: >=35 Mandatory ¹
Stage 6	Annual Supply Projection is below 50% of Demand Projection	> 50% Mandatory	

¹ % Reduction from 2015 Livermore UWMP

5.1 Shortage Response Actions

The water shortage conditions in Table 5-1 are based on the Annual Assessment. Other circumstances may also be considered, including but not limited to the time of year, weather forecasts, river flow forecast, rainfall, temperature, past experience and economic feasibility, the volume of water available from Zone 7, and quality of the water produced from each source.

While each shortage level triggers specific shortage response actions, LMW continues to implement water savings strategies year-round to achieve a baseline demand reduction to assist with desired demand reduction for Zone 7 water agencies. These actions include but are not limited to:

- Monthly meter readings – LMW staff identify higher than average water usage and provide information and outreach to customers for reducing their water bills
- Baseline public outreach – LMW provides bill stuffers, social media, and web site information pertaining to local drought conditions and local water use restrictions

5.2 Demand Reduction Actions

When a shortage level is triggered based on the Annual Assessment, shortage response actions are also triggered with the associated shortage level. Table 5-2 describes the response actions and the estimated reduction in demand associated with each action. During the recent 2014-2017 drought, public information messaging which was occurring regionally and statewide was sufficient to achieve the savings mandated by the Governor's Executive Order.

Table 5-2 Demand Reduction Actions DWR Table 8-2

Shortage Level	Demand Reduction Actions	How much is this going to reduce the shortage gap? <i>Include volume units used.</i>	Additional Explanation or Reference <i>(optional)</i>	Penalty, Charge, or Other Enforcement?
<i>Add additional rows as needed</i>				
1	Landscape - Limit landscape irrigation to specific times	2%	6 PM to 9 AM	No
1	Other - Require automatic shut off hoses	<1%		No
1 ^a	Expand Public Information Campaign	32%		No
1 ^b	Improve Customer Billing	2%	Enhanced data review and alert	No
1	Implement or Modify Drought Rate Structure or Surcharge	10%	Livermore Stage 1/1 Rates ^d	No
2 ^c	Landscape - Limit landscape irrigation to specific days	10%	Nonconsecutive days	No

2	Implement or Modify Drought Rate Structure or Surcharge	10%	Livermore Stage 2/2 Rates ^d	No
3	Pools and Spas - Require covers for pools and spas	<1%		No
3	Other - Prohibit use of potable water for construction and dust control	<1%		No
3	Implement or Modify Drought Rate Structure or Surcharge	10%	Livermore Stage 3/3 Rates ^d	No
4	CII - Commercial kitchens required to use pre-rinse spray valves	<1%	Required to use low flow rinse nozzles	Yes
4 ^c	Landscape - Limit landscape irrigation to specific days	10%	Hand water Saturday or Sunday only	Yes
4	Landscape - Restrict or prohibit runoff from landscape irrigation	<1%		Yes
4	Other - Prohibit use of potable water for washing hard surfaces	<1%	Prohibit street washing or flooding	Yes
4	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water	2%	Only wash vehicles at recycled water wash facilities	Yes
4	Other water feature or swimming pool restriction	<1%	Must be leak proof	Yes
4	Implement or Modify Drought Rate Structure or Surcharge	15%	Livermore Stage 3/4 Rates ^d	Yes
5	Landscape - Prohibit certain types of landscape irrigation	2%	Prohibit turf or lawn irrigation	Yes
5	Water Features - Restrict water use for decorative water features, such as fountains	<1%	Prohibit potable water use	Yes
5	CII - Restaurants may only serve water upon request	<1%		Yes
5	Implement or Modify Drought Rate Structure or Surcharge	15%	Livermore Stage 4/5 Rates ^d	Yes

6	Implement or Modify Drought Rate Structure or Surcharge	15%	Livermore Stage 4/6 Rates ^d	Yes
NOTES: All response actions are cumulative i.e. action described in prior stages are also applicable in subsequent stages (e.g. actions described in Shortage Level 1 are also applicable in Shortage Levels 2-6). Drought rates are not additive.				
^a 2014/2015 drought saw a 32% reduction in water use only from an expanded outreach campaign to customers				
^b Livermore's billing software allows them to increase the frequency of account usage reviews to weekly or daily if needed. Outreach is initiated when an account is flagged for high usage.				
^c A Statewide Analysis of Outdoor Water Savings Potential March 2018 Texas Living Waters Project				
^d The first water rates at different stages are for fiscal years through 2021-22. The second water rates are for fiscal years 2022-23 and onward.				

Livermore's billing software currently analyzes customer water usage and bills customers on a monthly basis. This software has the ability to track water usage for customers on a weekly and daily basis if needed during drought conditions. LMW can use this tool to increase frequency of account water usage reviews and to initiate outreach to customers when a higher than normal usage is determined. Billing customers will remain on a monthly basis but this intermediate means of communication will help curtail water waste in between billing periods.

5.2.1 Customer Demand Reduction

Most of the shortage response actions taken by LMW in the near future will be focused on reducing demand as LMW cannot easily develop supplemental water supply. Each Stage of water shortage has accompanying water reduction measures.

The City will use a variety of methods to achieve up to more than 50% reduction in water demands in the event of serious supply shortages. One of the most important and earliest strategies will be an expanded public education and outreach campaign during the initial stages of any water shortage.

In addition, the City has conservation rates that correspond to each of the four Livermore Stages identified in the WSCP. The use of Conservation Rates recovers necessary revenue based on the reduced volume of water during water shortages and has the added benefit of 5% to 10% reduced consumption of water as Conservation Rates increase. For residential users, implementation of Shortage Stage Conservation Rates increases across all rate tiers to send an economic message to conserve water. Livermore Stage 4 Conservation Rates encourage water users to minimize water use by increasing the water rates for an average of 1.9 times of Normal Supply rates.

Each stage shall remain in effect until conditions indicate a more or less restrictive stage is necessary and action is taken by the City Council based on supply criteria in Table 5-1. The City Council may enact any stage and need not proceed in order through the stages.

1. Enacting water use restrictions:

Shortage Levels 1-6 of the WSCP shall be enacted by the Livermore City Council declaring an emergency water restriction. Water supply conditions and goals for each restriction stage are outlined in Table 5-1.

2. Modifying and ending water use restrictions:

For each month that customer water use restrictions are in effect at Shortage Level 4, 5, or 6 under this WSCP, the City Manager shall report to the City Council on the status of the shortage and water use changes in the Livermore Water system, including a recommendation to maintain, change or end the water use restrictions. A water shortage event can be terminated by the City Council upon determination that “normal year” supplies have been secured by rainfall, basin replenishment, or a new supply. A water shortage event involving sudden, unforeseen emergencies can be terminated by the City Manager or their designee upon a determination that the emergency no longer exists. As soon as practicably possible or at the next scheduled Council meeting, the City Manager or their designee shall share this termination decision with the City Council.

3. Water Rate Structure:

Water rates will return to the rate structure prior to the water shortage event upon the termination of the event.

5.3 Supply Augmentation Actions

LMW does not contract for additional water sources other than purchasing water directly from Zone 7. Supply augmentation actions in Table 5-3 below represent additional methods to achieve lower demand within the service area to reduce overall demand on Zone 7's water supplies.

Table 5-3 Supply Augmentation and Other Actions DWR Table 8-3

Shortage Level	Supply Augmentation Methods and Other Actions by Water Supplier	How much is this going to reduce the shortage gap? <i>Volume type or percentage</i>	Additional Explanation or Reference <i>(optional)</i>
<i>Add additional rows as needed</i>			
1 ^a	Expand Public Information Campaign	32%	Voluntary cutbacks requested
1 ^b	Improve Customer Billing	2%	
1	Implement or Modify Drought Rate Structure	10%	Implement Livermore Stage 1/1 ^c Conservation Rates
2	Implement or Modify Drought Rate Structure	10%	Implement Livermore Stage 2/2 ^c Conservation Rates
3	Implement or Modify Drought Rate Structure	10%	Implement Livermore Stage 3/3 ^c Conservation Rates
4	Implement or Modify Drought Rate Structure	15%	Implement Livermore Stage 4/4 ^c Conservation Rates
5	Implement or Modify Drought Rate Structure	15%	Implement Livermore Stage 4/5 ^c Conservation Rates

6	Implement or Modify Drought Rate Structure	15%	Implement Livermore Stage 4/6 ^c Conservation Rates
NOTES: All response actions are cumulative (i.e. actions described in Shortage Level 1 are also applicable in Shortage Levels 2-6). Drought rates are not additive.			
^a 2014/2015 drought saw a 32% reduction in water use only from an expanded outreach campaign to customers			
^b Livermore's billing software allows them to increase the frequency of account usage reviews to weekly or daily if needed. Outreach is initiated when an account is flagged for high usage.			
^c The first water rates at different stages are for fiscal years through 2021-22. The second water rates are for fiscal years 2022-23 and onward.			

5.4 Operational Changes

LMW shall comply with the restrictions similar to those implemented for the public to the extent possible. The following actions can be used by LMW as additional measures to limit operational water use within the agency.

- Limit use of potable water to irrigate newly planted street, park and/or golf course trees, street medians, and general irrigation on all LMW properties. No new plantings shall be installed by the City during Livermore Stage 3 or higher Water Shortage Events, unless necessary for erosion control.
- In Livermore Stage 3 or higher, mandatory restrictions, ornamental fountains, and waterfalls shall not be replenished unless water recirculates.
- The use of potable water for municipal activities such as street cleaning and sewer main flushing will be suspended at the Livermore Stage 4 level. Recycled water will be used for these needs in Livermore Stage 4 water shortage events, with the exception of water used for sewer line flushing during emergency sanitary sewer blockages or overflows.

5.5 Additional Mandatory Prohibitions

The WSCP includes a variety of voluntary and mandatory management practices to conserve water. The majority of the mandatory conservation practices are triggered at the Livermore Stage 2 level; corresponding to an expected reduction of 20% below normal use as shown above in Table 5-1.

5.6 Effectiveness of Shortage Response Actions (by Water Shortage Stage)

5.6.1 Public Information

Without exception, experience has shown that a well-informed public is generally more willing to heed requests to voluntarily conserve or alter water use patterns and will be more likely to comply if mandatory water use restrictions become necessary. DWR (2008) estimates that public information campaigns have alone reduced demand in the range of 5 to 20 percent, depending on the time, money, and effort spent. Public information supports voluntary and mandatory measures by educating and convincing the public that a critical water shortage exists and provides information on how water is used and how they can help. The DWR Drought

Guidebook highlights that when the public perceives the drought to be severe, they changed behaviors (such as flushing the toilet less often).

The information provided to the public should include a description of the conditions that will trigger implementation of shortage stages as well as a description of what the plan entails (restrictions, enforcement provisions, etc.). It is also advisable to provide practical “consumer” information that will help water users comply with the plan. For example, information about restrictions on lawn watering might be accompanied with information about proper lawn watering practices.

During the 2014/2015 drought, Livermore Municipal Water customers reduced demand by about 32%, with reductions as high as 42% in many months. City customers achieved this level of reduction based on outreach efforts and warning notices alone, and staff was not forced to issue fines or penalties to achieve compliance.

5.6.2 Enforcement

A study examining the effectiveness of drought management programs in reducing residential water-use (Virginia Polytechnic Institute 2006) showed considerable variation in the effectiveness of drought management programs and highlighted the importance of public information and enforcement. Results, shown in Table 5-4, indicate that overall reductions in residential water-use ranged from 0-7 percent for voluntary restrictions and from 0-22 percent for mandatory restrictions. The observed differences were statistically attributed to information efforts for voluntary restrictions and both information and enforcement efforts for mandatory restrictions.

Table 5-4 Drought Program Management Variables Effect on Residential Water-Use

Classification	Estimated change in Water-Use	Statistically Different than no effect?
Voluntary Restrictions		
Little or no information disseminated	-2%	No
Moderate level of information	-2%	No
Aggressive information dissemination	-7%	Yes
Mandatory Restrictions		
Low information and low enforcement	-5%	No
Moderate information and low enforcement	-6%	Yes
Aggressive information and low enforcement	-12%	Yes
Low information and moderate enforcement	-4%	No
Moderate information and enforcement	-9%	Yes
Aggressive information and moderate enforcement	-15%	Yes
Moderate information and aggressive enforcement	-20%	Yes

Aggressive information and enforcement	-22%	Yes
--	------	-----

Source: Virginia Polytechnic Institute 2006

The analysis highlights the key role that public outreach and information plays in the success of drought response actions. Voluntary restriction programs with little to moderate levels of information dissemination had no appreciable effect on water-use. Voluntary restriction programs with active promotional efforts, however, reduced water-use by an estimated 7 percent from what would have otherwise occurred without any restriction program. Thus for voluntary restrictions, only the most intense programs had even a moderate level of success in reducing water-use.

Mandatory restriction programs without a significant enforcement component broadly mirrored the outcomes achieved by the voluntary programs. Programs with mandatory restrictions that invested minimal effort in information dissemination did not appreciably reduce residential water-use. Programs with no active enforcement efforts but with moderate to high levels of informational dissemination achieved 6 and 12 percent reductions in water-use, respectively. These estimated reductions are similar to those achieved by voluntary programs with aggressive informational campaigns.

The experience LMW had implementing its WSCP and successfully reaching its reduction goals supports the importance of a strong public information program locally, regionally, and statewide. Delivering accurate and timely information to water users, news media and local governments with updates on conditions, restrictions, and helpful contact information is key.

5.6.3 Restrictions on Non-Essential Water Uses

LMW's Water Shortage Response Actions focuses on public outreach to curtail water waste and non-essential water use. Outdoor water use, including washing sidewalks and watering ornamental landscapes is targeted. These uses are typically considered to be discretionary or nonessential, are highly visible, and therefore relatively easy to monitor, and often are a substantial component of water demand, particularly during the summer months when drought conditions are likely most severe.

Given the significance and visibility of lawn watering as the predominant component of seasonal use, best management practices in WSCP typically prescribe time-of-use and other restrictions on lawn watering as described in Section 5.2. This often involves placing water users on a schedule which allows for staggered lawn watering days, as well as restrictions on the times during the day when lawns can be watered.

The American Waterworks Association estimates that voluntary outdoor water use limits can result in a water savings of up to 10 percent and mandatory outdoor water limits can achieve up to a 40 percent reduction in outdoor water use (AWWA 2008).

5.6.4 Drought Surcharge Rates

LMW does not issue drought surcharges, although a conservation rate structure is available as a tool. Zone 7 maintains a drought contingency fund, which is a rate stabilization fund that can

be utilized during declared drought events to minimize impacts on water rates as a result of drought conditions. If Zone 7 implements an additional drought surcharge the City would also pass this cost on to ratepayers.

Chapter 6: Communication Protocols

Table 6-1 below briefly describes communication protocols and outreach programs already in practice by Zone 7 and Livermore Municipal Water in coordination with Tri-Valley water retailers. These programs along with public information campaigns such as shared website, development and distribution of social media, radio advertisements, and newspaper outreach materials, and providing recycled water to residents for watering landscape have successfully reduced water consumption during past drought events.

Table 6-1 Communication Protocols

Program/Outreach	Description	Details	Date
Public Information Outreach	Livermore provides general outreach on water conservation	Examples include booths at local events, local festivals, WRP tours, paid advertising, brochures, websites, notices, etc.	2014
Tri-Valley Water Conservation Group	Monthly meetings to coordinate regional outreach efforts	Includes periodic advertising, water conservation info, media campaigns, website resources, PSAs, etc.	1980's
High Efficiency Washing Machine Rebate Program	Rebate program for installation of high-efficiency washing machines	Targeted for single-family residences	2008
Utility Billing Software	Billing software tracks volumetric usage by water meter type	Recently updated with a customer portal where customers can setup notification of high water consumption. Notifies utility billing staff for outreach purposes.	2010
Monthly Billings	Provides data on monthly water consumption compared to previous year	Billing staffers are provided outlining water savings techniques	1991
Recycled Water Service Area	Requires recycled water for outdoor landscape irrigation	Recycled Water Master Plan Feasibility Study completed in 2013 to expand recycled water use	2003
Water-wise Gardening Program	Web based program helps visitors design a water efficient landscape	Assists users in designing landscapes, selecting water wise plants, and water saving tips	2005
School Education Program	Education program offered to schools in the City's municipal water service area	Educational materials and course outlines developed in accordance with California curriculum standards	2002
Water-Efficient Landscaping Lawn Conversion Rebate	Rebate for replacing lawns with drought-tolerant landscaping and capping sprinkler systems/ converting them to drip irrigation.	Rebate available to all customer types.	2016

Weather-Based Irrigation Controller Rebate	Rebate for replacing irrigation controller with a WaterSense weather-based irrigation controller.	Rebate available to all customer types.	2016
Water Supply Education Program	Website and presentations help residents understand their water supply	Assists participants with understanding where their water comes from and the challenges that put supply at risk	2015

Chapter 7: Penalties, Charges, Other Enforcement of Prohibitions

7.1 Excessive Use Penalties

If customer outreach and education are not sufficient, LMW can utilize several financial disincentives or penalties to discourage excessive use, both during normal water conditions and during shortage events.

The primary financial “penalty” for excessive use is the ascending tier water rates used by LMW, with increasing rates for higher levels of use. Ascending tier rates are in-place during normal and water shortage conditions. In addition, LMW also utilizes conservation rates that have an ascending rate structure to further discourage excessive use.

LMW also has the authority to implement a penalty for excessive use by individual customers. LMW staff can develop conservation usage targets based on average per-capita consumption or a percentage of historic consumption in response to specific shortage events. These usage targets will be used to evaluate customers for potential excessive use penalties. If customers use more than the allotted usage targets for three consecutive billing periods, the City may increase the water rates to the highest conservation tier for a period of three months.

Customers will be provided with the ability to appeal excessive use penalties if they feel their use allocation was inappropriate due to factors such as:

- A higher than average number of people in residential units;
- Medical needs that demand water-consuming devices or uses;
- Water consumed in products or activities that cannot be reduced.

Customers will also have an opportunity to appeal excessive use penalties based on economic hardship or other factors. Excessive use penalties can be implemented at the Livermore Stage 4 level and above.

In addition to additional charges for excessive use through ascending tier rates and penalties for excessive use, LMW may also issue penalties for violating mandatory prohibitions. LMW staff will be able to issue administrative citations to customers violating mandatory prohibitions starting at the Livermore Stage 4 conservation level and above.

Chapter 8: Legal Authorities

The Livermore City Council may enact any stage of the Water Shortage Contingency Plan by adopting a resolution in response to local or regional water supply conditions. The Plan may be enacted based on a number of conditions, including:

- A formal water supply shortage notification by the Zone 7 Water Agency;
- A collective recommendation of the Tri-Valley Water Retailers Group;
- An actual or potential local water supply restriction or emergency affecting the LMW system;
- A proclamation from the City of Livermore of a local water supply emergency

The Livermore City Council may also enact Livermore Stage 1 or Stage 2 water restrictions and conservation rates as necessary to meet the local requirements or state requirements such as the Water Conservation Bill of 2009, which requires a reduction in baseline per capita water usage of 20% by 2020.

The Conservation Stages will normally be implemented in a progressive manner; however, it may be necessary for the City to skip Stages in the use reduction plan in response to catastrophic supply reductions. In general, conservation/use reduction levels will be set according to the anticipated reduction in available water supplies. The City of Livermore will inform the public of implementation of any water shortage stage and expected water shortages during drought conditions. Information will be disseminated via platforms discussed in Chapter 6: Communication Protocols as well as at City Council meetings when resolutions are adopted.

Actions required by each Stage of the WSCP are cumulative; therefore, if Stage 2 of the Plan is implemented, all the reduction measures in both Stage 1 and Stage 2 shall be implemented.

The priorities for use of available water during shortages, based on Chapter 3 of the California Water Code, are as follows:

1. Health & Safety – interior residential (drinking & sanitation) and fire fighting
2. Commercial, Industrial & Governmental – maintain jobs and economic base
3. Annual Crops – protect jobs
4. Existing Landscaping – especially trees and shrubs
5. New Demands – projects without permits when shortage is declared

Chapter 9: Financial Consequences of Actions during Shortages

The stages of action to be undertaken by the urban water supplier in response to water supply shortage have impacts on the LMW's water revenues and expenses. While expenses will be reduced through lower wholesale water purchases from Zone 7, the decline in expenses does not fully offset the loss in revenue from reduced sales. This is due, in part, to the fact that monthly water rates and charges do not fully recover all of the fixed costs on meter service charges, and instead allocate some fixed charges to the water rate component of the bill. This practice slightly inflates the consumption-based portion of the customer bill to encourage conservation during normal conditions. However, the downside of this practice is that net revenue can decline during water shortages or other periods of reduced water sales.

The impact to net water system revenues will vary with each stage of action and the corresponding level of water shortage and expected conservation. To offset the impacts of water shortages, LMW has developed conservation rates that may be enacted in response to water shortages. Conservation rates are updated and adopted by the Livermore City Council each time normal water rates and service charges are adjusted. By having previously adopted conservation rates, LMW can avoid the delays associated with Proposition 218 notification and ballot procedures prior to implementing conservation rates in response to a water shortage. These pre-approved rates were essential in maintaining revenues during the 2014/2015 drought and placed LMW in an excellent financial position compared to retailers without pre-approved rates in place. See Section 8 of Livermore's 2020 UWMP for more information concerning conservation water rates.

Conservation rates correspond to each Stage identified in the WSCP and are calculated to recover the necessary revenue based on the reduced volume of water expected to be sold and purchased in each Stage. Currently, Livermore maps the original four stage water rates to the update six shortage levels or stages as part of this WSCP utilizing the crosswalk described in an earlier section. LMW will prepare a cost-of-service study to evaluate these rates in preparation of future drought events and to align conservation rates with the six shortage stages.

9.1 Financial Consequences of Limiting Excessive Water Use

Per the California Water Code Section 365 et al., retail water suppliers are required to prohibit or discourage excessive water use as described in Section 7.1. Reporting this is not a required part of the UWMP; however, Water Code Section 10632(a)(8)(C) requires the financial consequences of these actions be reported as part of the UWMP.

Water Code Section 367 states that there are three types of drought emergencies:

- Declared statewide drought emergency
- When a supplier implements its mandatory reductions per their WSCP
- A declared local drought emergency

This topic is also addressed here in the WSCP because of the relationship between drought emergencies and implementation of the WSCP.

Water Code Section 366 states that a retail water supplier must prohibit excessive use through one of two strategies:

- Rate structure: A rate structure that includes block tiers, water budgets, or rate surcharges over and above base rates for excessive water use by a residential water customer.
- An excessive water use ordinance: An ordinance that includes a procedure to identify and address excessive water use by metered single-family residential customers and customers in multiunit housing complexes in which each unit is individually metered or submetered and may include a process to issue written warnings to a customer and perform a site audit of customer water usage prior to deeming the customer in violation.

In addition to penalties for excessive use described in Section 7.1, LMW also has the option to implement conservation rates that discourage excessive water use. Should a drought emergency occur, LMW would already have the necessary processes in place to discourage excessive use. As discouraging excessive use is already a part of LMW's actions and because of the conservation rates, the financial consequences of prohibiting excessive use would be minimal.

Additionally, LMW currently monitors customer water usage through its billing software. The billing software currently flags high water usage and contacts water users when usage is above average for a typical meter. This allows LMW to track water losses as well as inform customers when usage is encroaching on meeting a conservation rate threshold. LMW uses conservation rates as a method of water consumption reduction and as a method for financial recuperation from lost water sales during drought periods.

Chapter 10: Monitoring and Reporting

10.1 Metering

All water connections are fully metered. Water service in the City's municipal water service area is not allowed without a water meter. This requirement is further strengthened by water wholesaler rules that also do not allow service connections without a meter. All customer sectors are billed by volume of use at tiered rates. Original tiers had a declining cost structure with higher use. In 1991, the City implemented inverted tiered rates for all accounts as a means of encouraging water use efficiency. The inverted tiered rates can be found in Resolution 2017-098 in Appendix B.

Meter replacement and/or recalibration are evaluated regularly via billing software. Unusual consumption is flagged and checked for accuracy. Meters that are stuck or do not meet accuracy specifications are immediately replaced. Billing accounts with meter failures are assessed an estimated consumption rate that reflects their average usage during the period. Meters that are 3-inches and larger are proactively tested annually and recalibrated, repaired or replaced as needed. Additionally, meters are replaced within the system based on their service length with the oldest meters receiving replacement priority as funding allows.

10.2 Monitoring

In normal water supply conditions, purchase and sales data is checked monthly by water staff. These totals are reported to the Water Resources Manager or the Public Works Director as requested. The totals are also logged into the annual report to the Department of Water Resources.

Shortage Level 1, Shortage Level 2, and Shortage Level 3 Water Shortage:

During Shortage Levels 1-3 water shortage, weekly turnout readings are reported to the Water Distribution Operations Manager. The Operations Manager compares the weekly purchase records to the weekly target to verify that the reduction goal is being met. Weekly reports are forwarded to the Water Resources Division Manager and the Public Works Director. Monthly summary reports are also sent to the Public Works Director. If reduction goals are not met, the Operations Manager will propose additional activities or conservation measures and advise the Water Resources Division Manager. The Division Manager will notify the Public Works Director that additional corrective actions or use-reduction measures will be implemented.

Shortage Level 4, Shortage Level 5, and Shortage Level 6 Water Shortage:

During Shortage Levels 4-6 water shortage, the procedure listed above will be followed, with the addition of a daily water purchase report being submitted to the Water Resources Division Manager.

Emergency Shortage:

During an Emergency Shortage, a major focus will be on monitoring LMW storage tanks to ensure adequate fire protection and emergency storage. Water staff will review tank levels via

the Supervisor Control and Data Acquisition (SCADA) system on an hourly or continuous basis to ensure tank levels are maintained at safe levels for as long as possible. Also, meter readings of the volume of water purchased by LMW can be reported to the Water Distribution Operations Supervisor, Water Resources Division Manager or Public Works Director hourly, if needed.

Chapter 11: Refinement Procedures

Each year the WSCP will be revisited for completion of the Annual Assessment. This procedure will allow LMW to refine the treated water request estimation procedures to more closely align with the next year's projected water use. Coordination with Zone 7 will assist in providing a consistently updated document that closely monitors water supply availability.

Adoption of this document will also allow for the WSCP to be updated each year as the service area continues to change in terms of population, land use, climate factors, and other factors. During the final Annual Assessment report in June/July, any adjustments to the previous year's WSCP will be discussed and documented for future use within the WSCP.

Chapter 12: Special Water Feature Distinction

LMW defines special water features for the purposes of this plan. Features that are supplied by public water from LMW include but are not limited to pools, spas, water fountains, decorative features, and others. DWR defines special water features as those other than pools and spas that could use non-potable water such as recycled water. In LMW, natural water features that do not require public potable water for recreational use such as ponds, lakes, waterfalls, and others do not fall within the special water feature distinction and therefore are not subject to water shortage stage response actions. The intent of this definition is to provide guidance for shortage response actions directed at special water features and to not provide restrictions towards natural water features within the service area.

Chapter 13: Plan Adoption Resolution or Ordinance

Upon adoption of the WSCP, the document will be made available to all customers online via the official City of Livermore website. The resolution adopting the WSCP by the City of Livermore found in Appendix C shall serve as a record of the WSCP as a separate stand-alone document.

References

Livermore Municipal Code Division 1 (Water) of Title 13 (Public Services) Chapter 13.26 Water Conservation and Chapter 13.27 Mandatory Drought Conservation Measures

The Effectiveness of Drought Management Programs in Reducing Residential Water-Use in Virginia. Virginia Polytechnic Institute and State University. 2006.

Urban Water Management Plan. Zone 7 Water Agency. 2020.

Urban Water Management Plan. Livermore Municipal Water. 2015.

Water Conservation by the Yard: A Statewide Analysis of Outdoor Water Savings Potential. Texas Living Waters Project. March 2018.

Urban Water Management Plan. Zone 7 Water Agency. 2020.

Appendix A: Annual Assessment Template

Livermore Municipal Water
Annual Water Supply and Demand Assessment
2020 Water Year

NOTE: ADJUST DATES AS NEEDED

Section 1. Water Demand Assessment

As described in the Water Shortage Contingency Plan, Livermore Operations staff develops a 5-year treated water request schedule using the current year's water consumption as a baseline. Livermore Operations staff estimates a monthly water usage for the next 5 years based on current usage trends and expected new water connections from development within the service area. Projected conservation values are calculated at 10% of average use values for reporting purposes to Zone 7. LMW treated water requests are also compared to Zone 7's projections to ensure values are similar amongst the agencies. Livermore Operations staff presents the 5-year treated water request to Zone 7, and Zone 7 provides a preliminary treated water request response by analyzing the initial SWP allocation and determining if this allocation can accommodate the needs of its retailers.

CONTRACTOR: City of Livermore

DEMAND TYPE: Without Conservation

NOTES: Monthly Schedule Amounts will be rounded to the nearest 10 AF

CONTRACTOR	REQUEST YEAR	UNITS	YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL	MAX DAY (MGD)
LIVERMORE	ACTUAL	AF	2019														
LIVERMORE	2019	AF	2020														
LIVERMORE	2019	AF	2021														
LIVERMORE	2019	AF	2022														
LIVERMORE	2019	AF	2023														
LIVERMORE	2019	AF	2024														
LIVERMORE	2020	AF	2021														
LIVERMORE	2020	AF	2022														
LIVERMORE	2020	AF	2023														
LIVERMORE	2020	AF	2024														
LIVERMORE	2020	AF	2025														

SUBMITTED BY: _____
 TITLE: _____
 DATE: _____

Section 2. Water Supply Assessment

Livermore Municipal Water relies 100 percent on Zone 7 water supplies. Thus, the water supply assessment will focus on supply from Zone 7 for the current year and projected supply for the next five (5) years.

NOTE: REPLACE WITH LETTER RECEIVED FROM ZONE 7

Water Distribution Operations Manager
City of Livermore
101 W. Jack London Blvd.
Livermore, CA 94550

[Submitted Electronically]

RE: Preliminary Approval of <2021> Treated Water Request

Dear Mr/Ms. XXXX:

Thank you for submitting a Preliminary Delivery Schedule for years <2021-2025>. Zone 7 hereby acknowledges your request for <*Treated Water Request*> acre-feet of treated water in calendar year <2021>. As of <December 1, 2020>, the initial State Water Project (SWP) Allocation is 10%. However, there are several months left of the rain season and this amount may change. In the event that the <2021> SWP allocation remains unchanged, a 10% voluntary conservation based on your delivery request is recommended at this time.

With regard to deliveries, Zone 7 is prepared to meet all your projected <2021> demands under current conditions. Enclosed you will find tables showing <2019 – 2020> actual deliveries and 2021 projections. Please review these and let me know if you have any comments.

We will keep you apprised of our water supply outlook as the season unfolds. As before, we plan to finalize the Annual Zone 7 Sustainability Report in April when the water supply conditions are more certain. Thank you for your attention to this matter. If you have any questions, please contact me at (925) 454-5068 or via email at ssegura@zone7water.com.

Sincerely,

Sal Segura
Associate Civil Engineer

Section 3. Water Supply Reliability Assessment

Livermore Municipal Water anticipates *<Shortage Level xx/no shortage>* restrictions within its service area **are/are not** necessary at this time per analysis in Table 3-1.

Table 3-1: Supply and Demand Comparison

	Unit	Demand	Supply	Supply/Deficit
2020	AF			
2021	AF			
2022	AF			
2023	AF			
2024	AF			
2025	AF			

Section 4. Triggered Actions

<Shortage Level xx> triggered the following actions according to Livermore's 2020 Water Shortage Contingency Plan (WSCP):

- *<Stage x> of Demand Reduction Actions*
- *<Stage x> of Consumption Reduction Method*
- *<Stage x> of Penalties, Charges, other Enforcement of Prohibitions*
- *Others (e.g. Operational Changes, Supply Augmentation Actions)*

OR

<No actions are triggered since there is no anticipated water supply deficit.>

Section 5. Communication Actions

Livermore will follow the communication protocols to give the notice of the assessment results to its customers and within its service area.

OR

No actions are triggered since there is no anticipated water supply deficit.

CERTIFICATION

The Annual Water Supply and Demand Assessment for <20xx> was prepared and certified by:

Signature: _____

Signature: _____

Printed Name: _____

Printed Name: _____

Title: Water Resources Division Manager

Title: _____ City Manager

Date: _____

Date: _____

Appendix B: Rate Ordinance

IN THE CITY COUNCIL OF THE CITY OF LIVERMORE, CALIFORNIA
A RESOLUTION AMENDING WATER RATES AND CHARGES FOR
FISCAL YEARS 2017-18 THROUGH 2021-22

The City of Livermore operates the municipal water system as an Enterprise fund, with customer rates and charges providing full funding for all water storage and distribution system costs, including capital improvement projects to renew and replace water system facilities and the cost of purchasing water from the Zone 7 Water Agency.

Water rates and charges must be adjusted to provide funding to meet normal inflationary increases in the costs of goods and services used by the water utility and to provide adequate renewal/replacement funding.

Council action is also necessary to continue to pass through all costs related to the wholesale purchase of water from the Zone 7 Water Agency and to pass through any increases in Zone 7 costs beginning in January 2018 and for the next five years upon notice to customers as required by law.

The Water Resources Division staff has completed a Comprehensive Water and Wastewater Cost of Service Study in conjunction with Raftelis Financial Consultants, Inc. which identifies the revenue necessary to fund expected expenses of the Livermore Municipal Water Enterprise.

Notices of a public hearing for increasing water rates for Fiscal Years 2018-19 through 2021-22 were mailed to all property owners within the Livermore Municipal Water service area on May 12, 2017 as required by the provisions of Proposition 218.

A public hearing on proposed increases and adjustments to water rates was held by the City Council on June 26, 2017.

The City Council determined that a majority protest to the increases to water rates did not exist at the conclusion of the public hearing.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Livermore as follows:

Section 1. Deposits, Meter Testing Fees, Service Reconnection Fees, Water Rates and Charges. Pursuant to Chapters 13.08, 13.16, and 13.20 of the Livermore Municipal Code, the City Council establishes the following deposits, meter testing fees, service reconnection fees, water rates and charges for meters and water furnished by the City of Livermore.

DEPOSITS

The amount of deposit required for water service for an applicant who is not the owner of the premises shall be as follows:

If the application is for residential service:

5/8" meter	\$ 100.00
1"	100.00

If the application is for service other than residential:

5/8" or 3/4" meter	\$ 100.00
1" or 1-1/2" meter	100.00
2" or 3" meter	200.00
4" or larger	400.00

The amount of deposit required for the meter provided by the City in furnishing water for construction work shall be as follows:

5/8", 3/4", and 1" meter	\$ 250.00
3" and larger	1,400.00

METER TESTING FEES

The meter testing fee shall be \$100.00 for meters up to 2 inches in size and \$200.00 for meters larger than 2 inches.

RECONNECTION FEES

The service reconnection fee shall be \$60.00 for first-time restoration and \$80.00 for any subsequent restoration in a 12-month period for all restorations occurring during normal business hours of 8:00 A.M. to 5:00 P.M., Monday through Friday. The reconnection fee shall be \$100.00 if the water meter is removed during normal business hours. The reconnection fee will be \$250.00 if the reconnection occurs outside of normal business hours.

WATER RATES FOR SERVICE WITHIN THE CORPORATE
LIMITS OF THE CITY OF LIVERMORE

Quantity Rate

For all water delivered per water meter per month:

Normal Supply - Voluntary Conservation

Residential – Single Family

Rate Tier	Per 100 Cu ft	August 1, 2017 City Distribution Cost per 100 Cubic Feet	July 1, 2018 City Distribution Cost per 100 Cubic Feet	July 1, 2019 City Distribution Cost per 100 Cubic Feet	July 1, 2020 City Distribution Cost per 100 Cubic Feet	July 1, 2021 City Distribution Cost Per 100 Cubic Feet
Tier I	0-7	\$ 1.00	\$ 1.07	\$ 1.13	\$ 1.19	\$ 1.25
Tier II	Over 7	\$ 1.40	\$ 1.48	\$ 1.57	\$ 1.66	\$ 1.74

Residential – Multi Family

Rate Tier	Per 100 Cu ft	August 1, 2017 City Distribution Cost per 100 Cubic Feet	July 1, 2018 City Distribution Cost per 100 Cubic Feet	July 1, 2019 City Distribution Cost per 100 Cubic Feet	July 1, 2020 City Distribution Cost per 100 Cubic Feet	July 1, 2021 City Distribution Cost Per 100 Cubic Feet
Tier I	0-7	\$ 1.00	\$ 1.07	\$ 1.13	\$ 1.19	\$ 1.25
Tier II	Over 7	\$ 1.40	\$ 1.48	\$ 1.57	\$ 1.66	\$ 1.74

Commercial, Institutional & Public Agency

Rate Tier Per 100 Cu ft	August 1, 2017 City Distribution Cost per 100 Cubic Feet	July 1, 2018 City Distribution Cost per 100 Cubic Feet	July 1, 2019 City Distribution Cost per 100 Cubic Feet	July 1, 2020 City Distribution Cost per 100 Cubic Feet	July 1, 2021 City Distribution Cost Per 100 Cubic Feet
Uniform	\$ 1.08	\$ 1.15	\$ 1.22	\$ 1.29	\$ 1.35

Irrigation

Rate Tier Per 100 Cu ft	August 1, 2017 City Distribution Cost per 100 Cubic Feet	July 1, 2018 City Distribution Cost per 100 Cubic Feet	July 1, 2019 City Distribution Cost per 100 Cubic Feet	July 1, 2020 City Distribution Cost per 100 Cubic Feet	July 1, 2021 City Distribution Cost Per 100 Cubic Feet
Uniform	\$ 1.40	\$ 1.48	\$ 1.57	\$ 1.66	\$ 1.74

Recycled

Rate Tier Per 100 Cu ft	August 1, 2017 City Distribution Cost per 100 Cubic Feet	July 1, 2018 City Distribution Cost per 100 Cubic Feet	July 1, 2019 City Distribution Cost per 100 Cubic Feet	July 1, 2020 City Distribution Cost per 100 Cubic Feet	July 1, 2021 City Distribution Cost Per 100 Cubic Feet
Uniform	\$ 2.64	\$ 2.81	\$ 2.97	\$ 3.14	\$ 3.30

Stage I - Voluntary 10% Water Conservation

Residential – Single Family

Rate Tier	Per 100 Cu ft	August 1, 2017 City Distribution Cost per 100 Cubic Feet	July 1, 2018 City Distribution Cost per 100 Cubic Feet	July 1, 2019 City Distribution Cost per 100 Cubic Feet	July 1, 2020 City Distribution Cost per 100 Cubic Feet	July 1, 2021 City Distribution Cost Per 100 Cubic Feet
Tier I	0-7	\$ 1.16	\$ 1.21	\$ 1.26	\$ 1.32	\$ 1.38
Tier II	Over 7	\$ 1.62	\$ 1.69	\$ 1.76	\$ 1.84	\$ 1.92

Residential – Multi Family

Rate Tier	Per 100 Cu ft	August 1, 2017 City Distribution Cost per 100 Cubic Feet	July 1, 2018 City Distribution Cost per 100 Cubic Feet	July 1, 2019 City Distribution Cost per 100 Cubic Feet	July 1, 2020 City Distribution Cost per 100 Cubic Feet	July 1, 2021 City Distribution Cost Per 100 Cubic Feet
Tier I	0-7	\$ 1.16	\$ 1.21	\$ 1.26	\$ 1.32	\$ 1.38
Tier II	Over 7	\$ 1.62	\$ 1.69	\$ 1.76	\$ 1.84	\$ 1.92

Commercial, Institutional, & Public Agency

Rate Tier Per 100 Cu ft	August 1, 2017 City Distribution Cost per 100 Cubic Feet	July 1, 2018 City Distribution Cost per 100 Cubic Feet	July 1, 2019 City Distribution Cost per 100 Cubic Feet	July 1, 2020 City Distribution Cost per 100 Cubic Feet	July 1, 2021 City Distribution Cost Per 100 Cubic Feet
Uniform	\$ 1.26	\$ 1.32	\$ 1.38	\$ 1.44	\$ 1.50

Irrigation

Rate Tier Per 100 Cu ft	August 1, 2017 City Distribution Cost per 100 Cubic Feet	July 1, 2018 City Distribution Cost per 100 Cubic Feet	July 1, 2019 City Distribution Cost per 100 Cubic Feet	July 1, 2020 City Distribution Cost per 100 Cubic Feet	July 1, 2021 City Distribution Cost Per 100 Cubic Feet
Uniform	\$ 1.62	\$ 1.69	\$ 1.76	\$ 1.84	\$ 1.92

Recycled – “Normal” recycled water rates remain in effect in all stages of conservation.

Stage II – Voluntary/Mandatory 20% Water Conservation

Residential – Single Family

Rate Tier	Per 100 Cu ft	August 1, 2017 City Distribution Cost per 100 Cubic Feet	July 1, 2018 City Distribution Cost per 100 Cubic Feet	July 1, 2019 City Distribution Cost per 100 Cubic Feet	July 1, 2020 City Distribution Cost per 100 Cubic Feet	July 1, 2021 City Distribution Cost Per 100 Cubic Feet
Tier I	0-7	\$ 1.29	\$ 1.35	\$ 1.41	\$ 1.47	\$ 1.53
Tier II	Over 7	\$ 1.81	\$ 1.89	\$ 1.97	\$ 2.05	\$ 2.14

Residential – Multi Family

Rate Tier	Per 100 Cu ft	August 1, 2017 City Distribution Cost per 100 Cubic Feet	July 1, 2018 City Distribution Cost per 100 Cubic Feet	July 1, 2019 City Distribution Cost per 100 Cubic Feet	July 1, 2020 City Distribution Cost per 100 Cubic Feet	July 1, 2021 City Distribution Cost Per 100 Cubic Feet
Tier I	0-7	\$ 1.29	\$ 1.35	\$ 1.41	\$ 1.47	\$ 1.53
Tier II	Over 7	\$ 1.81	\$ 1.89	\$ 1.97	\$ 2.05	\$ 2.14

Commercial, Institutional & Public Agency

Rate Tier Per 100 Cu ft	August 1, 2017 City Distribution Cost per 100 Cubic Feet	July 1, 2018 City Distribution Cost per 100 Cubic Feet	July 1, 2019 City Distribution Cost per 100 Cubic Feet	July 1, 2020 City Distribution Cost per 100 Cubic Feet	July 1, 2021 City Distribution Cost Per 100 Cubic Feet
Uniform	\$ 1.39	\$ 1.45	\$ 1.51	\$ 1.58	\$ 1.65

Irrigation

Rate Tier Per 100 Cu ft	August 1, 2017 City Distribution Cost per 100 Cubic Feet	July 1, 2018 City Distribution Cost per 100 Cubic Feet	July 1, 2019 City Distribution Cost per 100 Cubic Feet	July 1, 2020 City Distribution Cost per 100 Cubic Feet	July 1, 2021 City Distribution Cost Per 100 Cubic Feet
Uniform	\$ 1.81	\$ 1.89	\$ 1.97	\$ 2.05	\$ 2.14

Recycled – “Normal” recycled water rates remain in effect in all stages of conservation.

Stage III - Mandatory 35% Water Conservation

Residential – Single Family

Rate Tier	Per 100 Cu ft	August 1, 2017 City Distribution Cost per 100 Cubic Feet	July 1, 2018 City Distribution Cost per 100 Cubic Feet	July 1, 2019 City Distribution Cost per 100 Cubic Feet	July 1, 2020 City Distribution Cost per 100 Cubic Feet	July 1, 2021 City Distribution Cost Per 100 Cubic Feet
Tier I	0-7	\$ 1.56	\$ 1.63	\$ 1.70	\$ 1.77	\$ 1.85
Tier II	Over 7	\$ 2.19	\$ 2.28	\$ 2.38	\$ 2.48	\$ 2.58

Residential – Multi Family

Rate Tier	Per 100 Cu ft	August 1, 2017 City Distribution Cost per 100 Cubic Feet	July 1, 2018 City Distribution Cost per 100 Cubic Feet	July 1, 2019 City Distribution Cost per 100 Cubic Feet	July 1, 2020 City Distribution Cost per 100 Cubic Feet	July 1, 2021 City Distribution Cost Per 100 Cubic Feet
Tier I	0-7	\$ 1.56	\$ 1.63	\$ 1.70	\$ 1.77	\$ 1.85
Tier II	Over 7	\$ 2.19	\$ 2.28	\$ 2.38	\$ 2.48	\$ 2.58

Commercial, Institutional, & Public Agency

Rate Tier Per 100 Cu ft	August 1, 2017 City Distribution Cost per 100 Cubic Feet	July 1, 2018 City Distribution Cost per 100 Cubic Feet	July 1, 2019 City Distribution Cost per 100 Cubic Feet	July 1, 2020 City Distribution Cost per 100 Cubic Feet	July 1, 2021 City Distribution Cost Per 100 Cubic Feet
Uniform	\$ 1.69	\$ 1.76	\$ 1.84	\$ 1.92	\$ 2.00

Irrigation

Rate Tier Per 100 Cu ft	August 1, 2017 City Distribution Cost per 100 Cubic Feet	July 1, 2018 City Distribution Cost per 100 Cubic Feet	July 1, 2019 City Distribution Cost per 100 Cubic Feet	July 1, 2020 City Distribution Cost per 100 Cubic Feet	July 1, 2021 City Distribution Cost Per 100 Cubic Feet
Uniform	\$ 2.19	\$ 2.28	\$ 2.38	\$ 2.48	\$ 2.58

Recycled – “Normal” recycled water rates remain in effect in all stages of conservation.

Stage IV - Mandatory 50% Water Conservation

Residential – Single Family

Rate Tier	Per 100 Cu ft	August 1, 2017 City Distribution Cost per 100 Cubic Feet	July 1, 2018 City Distribution Cost per 100 Cubic Feet	July 1, 2019 City Distribution Cost per 100 Cubic Feet	July 1, 2020 City Distribution Cost per 100 Cubic Feet	July 1, 2021 City Distribution Cost Per 100 Cubic Feet
Tier I	0-7	\$ 2.00	\$ 2.08	\$ 2.17	\$ 2.26	\$ 2.36
Tier II	Over 7	\$ 2.81	\$ 2.93	\$ 3.05	\$ 3.18	\$ 3.31

Residential – Multi Family

Rate Tier	Per 100 Cu ft	August 1, 2017 City Distribution Cost per 100 Cubic Feet	July 1, 2018 City Distribution Cost per 100 Cubic Feet	July 1, 2019 City Distribution Cost per 100 Cubic Feet	July 1, 2020 City Distribution Cost per 100 Cubic Feet	July 1, 2021 City Distribution Cost Per 100 Cubic Feet
Tier I	0-7	\$ 2.00	\$ 2.08	\$ 2.17	\$ 2.26	\$ 2.36
Tier II	Over 7	\$ 2.81	\$ 2.93	\$ 3.05	\$ 3.18	\$ 3.31

Commercial, Institutional, & Public Agency

Rate Tier Per 100 Cu ft	August 1, 2017 City Distribution Cost per 100 Cubic Feet	July 1, 2018 City Distribution Cost per 100 Cubic Feet	July 1, 2019 City Distribution Cost per 100 Cubic Feet	July 1, 2020 City Distribution Cost per 100 Cubic Feet	July 1, 2021 City Distribution Cost Per 100 Cubic Feet
Uniform	\$ 2.17	\$ 2.26	\$ 2.36	\$ 2.46	\$ 2.56

Irrigation

Rate Tier Per 100 Cu ft	August 1, 2017 City Distribution Cost per 100 Cubic Feet	July 1, 2018 City Distribution Cost per 100 Cubic Feet	July 1, 2019 City Distribution Cost per 100 Cubic Feet	July 1, 2020 City Distribution Cost per 100 Cubic Feet	July 1, 2021 City Distribution Cost Per 100 Cubic Feet
Uniform	\$ 2.81	\$ 2.93	\$ 3.05	\$ 3.18	\$ 3.31

Recycled – “Normal” recycled water rates remain in effect in all stages of conservation.

Meter Service Charges: Per Meter, Per Month

Meter Size¹	Effective August 1, 2017	Effective July 1, 2018	Effective July 1, 2019	Effective July 1, 2020	Effective July 1, 2021
<i>Meter Service Charges:</i>					
5/8 Inch - D	\$18.28	\$19.43	\$20.57	\$21.71	\$22.85
3/4 inch - D	\$21.05	\$24.37	\$25.90	\$27.42	\$30.46
1 inch w/ fire	\$18.28	\$19.43	\$20.57	\$21.71	\$22.85
1 inch - D	\$36.53	\$38.82	\$41.10	\$43.38	\$45.66
1 ½ inch D	\$66.95	\$71.13	\$75.32	\$79.50	\$83.68
1 ½ inch T	\$79.12	\$84.06	\$89.01	\$93.95	\$98.89
2 inch – D	\$103.45	\$109.92	\$118.38	\$122.85	\$129.31
2 inch - T	\$121.70	\$129.31	\$138.91	\$144.52	\$152.12
3 inch - T	\$270.74	\$287.66	\$304.58	\$321.50	\$338.42
4 inch - T	\$462.36	\$491.26	\$520.16	\$549.06	\$577.95
6 inch - T	\$979.44	\$1,040.65	\$1,101.87	\$1,163.08	\$1,224.29
8 inch - T	\$1,709.44	\$1,816.28	\$1,923.12	\$2,029.96	\$2,136.79
10 inch -T	\$2,561.08	\$2,721.15	\$2,861.22	\$3,041.29	\$3,201.35
<i>Fire-Line Meter Service</i>	\$2.26	\$2.40	\$2.54	\$2.68	\$2.82
<i>Charges:</i>	\$3.39	\$3.60	\$3.81	\$4.02	\$4.23
1 inch	\$4.51	\$4.79	\$5.07	\$5.35	\$5.63
1 1/2 inch	\$6.76	\$7.18	\$7.60	\$8.02	\$8.44
2 inch	\$9.00	\$9.57	\$10.13	\$10.69	\$11.25
3 inch	\$13.49	\$14.34	\$15.18	\$16.02	\$16.86
4 inch	\$17.99	\$19.11	\$20.24	\$21.36	\$22.48
6 inch	\$22.47	\$23.87	\$25.28	\$26.68	\$28.08
8 inch					
10 inch					

¹ Displacement Meters are indicated by "D" and Turbine Meters indicated by "T". All 1 inch with fire meters are Displacement

Private fire protection service charges are applicable to all water service furnished for privately owned fire protection systems.

Section 2. Definitions. The following definitions and policies shall apply to the water rate increases:

- a) Quantity Rate – Quantity rates are charged per unit volume of water delivered as determined by metering. The total quantity rate will be broken down into a Wholesale Water Cost, based on the rate charged by the Zone 7 Water Agency, and a City Distribution Cost based on the City's operations, maintenance and replacement costs.
- b) Wholesale Water Cost – A combination of fixed charges and/or variable rates based on the City's purchased water costs from the Zone 7 Water Agency. All costs resulting from wholesale water purchases from Zone 7 will continue to be passed through to Livermore Municipal Water customers between January 2018 and January 2022. Livermore City Council resolves to pass-through without further Council action, any increase in Zone 7 Water Agency rates for the next five years by adjusting the Wholesale Water Cost upon notice to customers required by law.
- c) City Distribution Cost – A quantity rate based on the City's operations, maintenance, and replacement costs. The City Distribution Costs will be adjusted by Council resolution and adjustments will take effect on July 1st of each year unless otherwise specified.
- d) Meter Service Charge – The service or demand charge is a base rate per month representing the fixed costs of providing water service and is charged in addition to the quantity rate.
- e) Private Fire Protection Service – The private fire protection service rate is the amount charged per month for each fire protection service lateral connected to the water system. Water is only delivered through the fire protection system for routine maintenance or fire emergencies. A bypass meter is read at regular intervals to verify that water is not being used through unauthorized connections to the fire system.

Section 3. In accordance with the City's current Water Shortage Contingency Plan, the "Normal Supply – Voluntary Conservation" water rates are implemented.

Section 4. This resolution is effective August 1, 2017.

BE IT FURTHER RESOLVED by the City Council of the City of Livermore resolves that commencing August 1, 2017, July 1, 2018, July 1, 2019, July 1, 2020, and July 1, 2021, the Water Rates and Meter Service Charges be amended as described.

ATTACHMENT 2

On motion of Council Member Carling, seconded by Council Member Woerner, the foregoing resolution was passed and adopted on June 26, 2017, by the following vote:

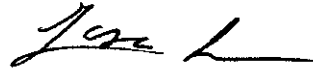
AYES: Council Members Carling, Coomber, Woerner, Vice Mayor Spedowski
NOES: None
ABSENT: Mayor Marchand
ABSTAIN: None

ATTEST:

APPROVED AS TO FORM:



Susan Neer
City Clerk



Jason Alcala
City Attorney

Date: June 27, 2017

Appendix C: Adoption Resolution

IN THE CITY COUNCIL OF THE CITY OF LIVERMORE, CALIFORNIA

**A RESOLUTION APPROVING
THE 2020 WATER SHORTAGE CONTINGENCY PLAN
FOR THE LIVERMORE MUNICIPAL WATER SYSTEM**

Water Code Section 10632 requires that every urban water supplier prepare, update, and adopt a Water Shortage Contingency Plan (WSCP) as part of its Urban Water Management Plan (UWMP). The WSCP is a document that provides a water supplier with an action plan for a drought or catastrophic water supply shortage.

A draft 2020 WSCP for the Livermore Municipal Water System has been prepared to meet all the requirements of the Urban Water Management Act (Act) and has been made available to the public for review and comment prior to today as required by the Act. Following the requirements of the Act, a public hearing concerning the 2020 WSCP was noticed for today, has been held, and public comments about it have been taken.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Livermore, that

1. That the 2020 Water Shortage Contingency Plan has been approved and adopted and is attached as Exhibit A and is incorporated by this reference.
2. Authorizes transmittal to the California Department of Water Resources.
3. Authorizes the City Manager to take appropriate and necessary actions to carry out the purpose and intent of this Resolution and to incorporate any necessary amendments as stipulated by the State Department of Water Resources.

On motion of Council Member Bonanno, seconded by Council Member Kiick, the foregoing resolution was passed and adopted on June 14, 2021, by the following vote:

AYES: Council Members Bonanno, Carling, Kiick, Vice Mayor Munro, and Mayor Woerner

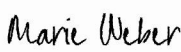
NOES: None


ABSENT: None

ABSTAIN: None

ATTEST:

APPROVED AS TO FORM:

DocuSigned by:

80,17948208C44BB...
Marie Weber
City Clerk


Tara Mazzanti
Assistant City Attorney

Date: June 14, 2021

Exhibit A – 2020 Water Shortage Contingency Plan

IN THE CITY COUNCIL OF THE CITY OF LIVERMORE, CALIFORNIA

**AN ORDINANCE AMENDING AND RESTATING TITLE 13, CHAPTER 13.26
WATER CONSERVATION, AND CHAPTER 13.27 MANDATORY DROUGHT
CONSERVATION MEASURES TO PROHIBIT WASTEFUL WATER PRACTICES**

On June 14, 2021, the Livermore City Council adopted a new Water Shortage Contingency Plan (“the Plan”) in line with the California Urban Water Management Planning Act, California Water Code section 10610, et seq. (“the Act”).

The recent update to the Plan necessitates an update to Chapters 13.26 and 13.27 of the Livermore Municipal Code to bring the voluntary and mandatory water use restrictions in line with the updated Plan.

On October 19, 2021, the Governor signed a Proclamation of State of Emergency proclaiming that a state of emergency exists in the State due to the current drought and extended the drought state of emergency statewide as a result of severe drought conditions.

To better support Tri-Valley-wide conservation targets, amendments to the City’s conservation ordinance mandating that water conservation practices are required uniformly throughout the City and not just in areas served by Livermore Municipal Water, will help curb excessive water use during droughts.

For customers of the California Water Service Company, water rates, conservation levels, and water system operations would remain within the purview of the California Water Service Company and the California Public Utilities Commission.

The City desires to amend Chapters 13.26 and 13.27 of the Code to include new limited-duration water use restrictions, realign shortage tiers, and simplify enforcement mechanisms.

**NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF LIVERMORE
DOES ORDAIN AS FOLLOWS:**

Section 1. *Amendment.* Chapters 13.26 *Water Conservation* and 13.27 *Mandatory Drought Conservation Measures* in the Livermore Municipal Code are hereby amended and restated as set forth in Exhibit A, attached hereto. In Exhibit A, the deletions are shown using a strikethrough, and the added language is shown with an underline, but the stricken language and underlines themselves shall not be codified in the Municipal Code, which publication shall only reflect the final language.

Section 2. *Environmental.* The passage of this ordinance is not a project pursuant to the California Environmental Quality Act (“CEQA”) and is exempt under CEQA Guidelines Section 15061(b)(3) (common sense exemption), in that CEQA only

applies to projects which have the potential for causing a significant effect on the environment and, therefore, is not subject to the provisions requiring environmental review. Additionally, actions by regulatory agencies as authorized by state law or ordinance to ensure maintenance, restoration, enhancement, or protection of the environment are exempt under CEQA Guidelines Section 15308 as projects which have been determined to not have a significant effect on the environment.

Section 3. Severability. If any part of this ordinance is declared invalid by a court, such invalidity shall not affect any of the remaining parts.

Section 4. Publication. This ordinance shall be published once in a newspaper of general circulation of the City of Livermore within fifteen days after its adoption.

Section 5. Effective date. This Ordinance shall take effect 30 days after its adoption.

The foregoing ordinance was introduced at the meeting of the City Council of the City of Livermore held on February 14, 2022, by the following vote:

AYES: COUNCIL MEMBERS:
NOES: COUNCIL MEMBERS:
ABSENT: COUNCIL MEMBERS:
ABSTAIN: COUNCIL MEMBERS:

The ordinance was adopted at the regular meeting of the City Council held on _____, 2022, by the following vote:

AYES: COUNCIL MEMBERS:
NOES: COUNCIL MEMBERS:
ABSENT: COUNCIL MEMBERS:
ABSTAIN: COUNCIL MEMBERS:

Mayor, City of Livermore

ATTEST:

APPROVED AS TO FORM:

Marie Weber
City Clerk

/s/ Tara M. Mazzanti
Tara M. Mazzanti
Assistant City Attorney

Exhibit A – Amended and Restated Chapters 13.26 *Water Conservation* and 13.27 *Mandatory Drought Conservation Measures*

Chapter 13.26

WATER CONSERVATION MEASURES FOR CITY CUSTOMERS

Sections:

- 13.26.010 Authority.
- 13.26.020 Findings – Purpose.
- 13.26.030 Definitions.
- 13.26.040 Application.
- 13.26.050 Water shortage contingency plan.
- 13.26.060 Water shortage contingency plan activation.
- 13.26.070 ~~Voluntary conservation measures.~~ Conservation measures – Stage 1 water shortage.
- 13.26.080 ~~Conservation measures – Stage 1 water shortage.~~ Water emergency.
- 13.26.090 ~~Conservation measures – Stage 2 water shortage.~~ Use allocations.
- 13.26.100 ~~Conservation measures – Stage 3 water shortage.~~ Conservation rates.
- 13.26.110 ~~Conservation measures – Stage 4 water shortage.~~ Exemptions.
- 13.26.120 ~~Water emergency.~~ Enforcement and penalties.
- 13.26.130 ~~Use allocations.~~ Additional penalties.
- ~~13.26.140 Demand management measures.~~
- ~~13.26.150 Conservation rates.~~
- ~~13.26.160 Exemptions.~~
- ~~13.26.170 Enforcement and penalties.~~
- ~~13.26.180 Additional penalties.~~

13.26.010 Authority.

~~In January 2008, the Governor of the state of California declared a drought and requested a voluntary 20 percent reduction in water use by all consumers in the state. Also, the Water Conservation Bill of 2009 was enacted in November 2009, requiring urban water suppliers to reduce water demands a minimum of 20 percent by 2020. California Water Code Section 10608.20 requires urban water suppliers such as the City of Livermore to reduce per capita water consumption by 20 percent by 2020, and to develop water use targets based on 80 percent of historic demands. One of the primary means of achieving the required reduction in water usage will be through the implementation of water conservation measures and demand management measures.~~

~~In addition to long term use reduction goals, the provisions of this chapter will also be used to reduce water demands during water shortage events.~~ California Water Code Section 10632(a) requires urban water

suppliers to develop a water shortage contingency plan which indicates the actions the City will take in response to supply shortages in the Livermore municipal water system service area. California Water Code Section 10632(a)(5) allows water suppliers to use any type of consumption reduction methods in its water shortage contingency analysis that would reduce water use and, are appropriate for its area, ~~and have the ability to achieve a water use reduction consistent with up to a 50 percent reduction in water supply.~~

13.26.020 Findings – Purpose.

The City Council finds that it is in the public interest of the City's water customers, the City, and the ~~s~~State to enact water conservation measures and ~~to address the 20 percent reduction in per capita water use required by the Water Conservation Bill of 2009 and to~~ establish voluntary and mandatory water conservation practices to address water supply shortages and required demand reductions.

The purpose of this chapter is to establish voluntary and mandatory water conservation measures, best management practices, ~~and use penalties to encourage wise water use~~ prevent wasteful water practices and to minimize the effect of shortages on the City's customers. This is accomplished through provisions that will significantly reduce the water consumption ~~of water over an extended period of~~ time, thereby extending the availability of water for the City's customers while reducing the hardship to the greatest extent possible on or to the City and ~~on or to~~ the general public.

13.26.030 Definitions.

For the purposes of this chapter, the following definitions shall apply:

"Advisory notice" shall mean a written notice informing a Livermore municipal water customer that they are in violation of one or more provisions of this chapter and that additional violations may result in fines or termination of service.

"City" shall mean the City of Livermore, Alameda County, California.

"City water service area" shall mean the City of Livermore municipal water service area, ~~excluding which~~ excludes the portions of the City of Livermore that are served by California Water Service Company (Cal Water).

"Commercial nursery" shall mean the use of land, buildings, or structures for the growing and/or storing of flowers, trees, edible crops, shrubs, and similar vegetation for the purpose of transplanting, stock, or grafting, and includes the retail sale or wholesale distribution of such items directly from the premises/lot.

“Conservation measures” shall mean activities or procedures to be used by residential, ~~and~~ commercial, ~~irrigation, and institutional~~ water customers to reduce their potable water consumption.

“Conservation water rates” shall mean ~~a~~ water rates adopted and enacted by the City Council to be used during water shortage events to both encourage conservation and to recover the appropriate amount of revenue to fund the City municipal water system operations from a reduced volume of water sold. Conservation rates are therefore higher than normal water rates charged during periods of adequate water supply. Conservation rates are broken down into ~~several~~ “tiers” or levels which correspond to different ~~tiers, levels or~~ stages of water supply reduction.

~~“Demand management measure” shall mean practices, procedures and methods to reduce water demands, including but not limited to behavior change, installing high efficiency water fixtures, and financial incentives or penalties to encourage wise water use and discourage water waste.~~

“Effective date” shall mean the date the ordinance adopting this chapter becomes effective.

“Essential water use” shall mean water used strictly for firefighting, health and safety purposes, water needed to sustain human and animal life, and water necessary to satisfy federal, state, and/or local public health, safety, or environmental protection requirements.

“Hand-watering” shall mean the irrigation of landscaping or vegetation using a hand-held hose equipped with a positive shut-off nozzle to supply water directly to the area to be irrigated.

“Hand-watering from container” shall mean the irrigation of landscaping or vegetation using a watering can, bucket or container to pour water directly on the area to be irrigated.

“Impervious surface” shall mean a constructed or modified surface that cannot effectively infiltrate rainfall. ~~This~~ term includes, but is not limited to, sidewalks, driveways, gutters and roadways a surface composed in whole or in part of asphalt, concrete, compacted gravel, or other nonporous or semiporous substance or substances.

~~“Nonessential water use” shall mean the application or usage of water for functions or additional activities which do not have any health or safety impacts, are not required by regulation, and are not part of the core function or business process at a site. This would include but not be limited to uses such as the watering of planters and landscape at a car wash, the washing of cars on display at a car dealer, and other activities that a reasonable person would conclude will reduce extra use of water, while not affecting a given enterprise in a fundamental way.~~

“Positive shut-off nozzle” shall mean a device attached to the end of a hose that must be manually squeezed, pressed or otherwise held in place to allow water to flow out of the hose and which automatically shuts off the flow of water when continuous manual pressure is released.

“Urban water management plan” shall mean a plan required by California Water Code Section 10621(a) for urban water suppliers to review available water supplies and water demands over a 20 year planning horizon to confirm the adequacy of water supplies.

“Water shortage contingency plan” shall mean a plan ~~developed by the City pursuant to~~ required by California Water Code Section 10632(a) which outlines the steps the City will take to reduce water demands in response to water supply shortages. The plan establishes different stages or levels of water supply shortage corresponding to the expected amount of water supply reduction.

“Water shortage event” shall mean anything from a single occurrence as short as twenty-four hours to a multi-year weather condition. Droughts, earthquakes, water system failures, fire, contamination, regional power outages, state restrictions, and other causes can trigger the stages or levels of water supply shortage in the City’s water shortage contingency plan.

“Water waste” shall mean uses of potable water which are prohibited or limited, going beyond the purpose of necessary or intended use, including area runoff, and which could reasonably be prevented.

13.26.040 Application.

This chapter shall apply within the ~~Livermore municipal City~~ water ~~system~~ service area and to all users connected to the Livermore municipal water distribution system. The provisions in this chapter do not apply to essential water uses. Compliance with the provisions of this chapter shall be a condition of continued water service. ~~However, users connected to the Livermore municipal water distribution system that have already implemented equivalent conservation measures or have achieved extremely low levels of per capita water consumption through other means, as determined by the Public Works Director or his/her designee, will not be required to implement additional conservation measures or to further reduce consumption during normal water supply conditions.~~

13.26.050 Water shortage contingency plan.

The Livermore City Council shall adopt a water shortage contingency plan for the operation of the Livermore ~~municipal~~ ~~w~~Water utility as required under California Water Code Section 10632(a). The water shortage contingency plan shall be adopted by Council resolution and shall be reviewed and updated periodically as

needed, however no less than every five years in years ending in ~~five~~six and ~~zero~~one as required by California Water Code Section 10621(a).

The water shortage contingency plan shall specify stages of action corresponding to different levels of water supply shortage and identify voluntary or mandatory water conservation measures to be used by Livermore municipal water customers and as articulated in LMC 13.26.070~~8~~ and in 13.27.040 through ~~13.26.140~~13.27.080. This chapter ~~and chapter 13.27~~ provides the legal authority to implement the water conservation measures and best management practices included in the water shortage contingency plan.

13.26.060 Water shortage contingency plan activation.

The water shortage contingency plan will be activated by Livermore City Council resolution following the plan guidelines. Council resolutions to activate the water shortage contingency plan shall establish the stage of action necessary to address the supply shortage ~~as well as estimate the expected duration of the water shortage~~. When activating the water shortage contingency plan, Council may also enact conservation rates as specified in LMC ~~13.26.100~~13.26.150.

~~13.26.070 Voluntary conservation measures.~~

~~Water customers are requested to voluntarily limit the amount of water used to the amount absolutely necessary for health, business, and irrigation, by undertaking the following water conservation measures:~~

~~A. Lawn watering and landscape irrigation, including construction meter irrigation, is permitted only between the hours of 6:00 p.m. Pacific Daylight Time (PDT), or 5:00 p.m. Pacific Standard Time (PST), and 9:00 a.m. the following day. Watering is permitted at any hour if a hand-held nozzle is used, a hand-held container is used, or a drip irrigation system is used.~~

~~B. Washing of autos, trucks, trailers, boats, airplanes, and other types of mobile equipment may be done at any hour with a bucket and a hose equipped with a positive shut-off nozzle for quick rinses. Washing is permitted at a commercial car wash, or by a mobile car wash or on-site car wash using high-pressure washing equipment. No wastewater from vehicle washing may enter the storm drain system.~~

~~C. The overfilling of swimming pools, spas, ponds, and artificial lakes is prohibited.~~

~~D. Irrigation of golf courses, parks, school grounds and recreation fields is permitted only between the hours of 6:00 p.m. PDT (5:00 p.m. PST) and 8:00 a.m. the following day. Tees and greens may be watered at any time.~~

~~E. The use of water from fire hydrants shall be limited to fire fighting and related activities, approved metered uses or other activities necessary to maintain the health, safety and welfare of the public.~~

~~F. Construction operations receiving water from a construction meter or water truck shall not use water unnecessarily for any purposes other than those required by regulatory agencies. The City has the right to inspect all construction sites using water from a city construction meter for the efficient use of water.~~

~~G. Restaurants shall not serve water to their customers except when specifically requested.~~

13.26.~~070080~~ Conservation measures – Stage 1 water shortage.

The following voluntary restrictions shall be applicable during a Stage 1 activation of the water shortage contingency plan:

A. Sprinkler irrigation, including construction meter irrigation, is permitted only after 6:00 p.m. and before 9:00 a.m. Watering is permitted at any hour if a hose with a positive shut-off nozzle, a hand-held container, or a drip irrigation system is used.

B. Washing motor vehicles by hand is permitted only with the use of a hose fitted with a positive shut-off nozzle.

~~A. All of the prohibitions and restrictions set forth in LMC 13.26.070 shall be in effect.~~

~~B. Swimming pools, spas and fountains must be leak-proof. Any leak shall be repaired in a timely manner after notification by the City, but in no case after notification in excess of 72 hours for the first violation and then every 72 hours thereafter for the second and third violations.~~

~~C. There shall be no hose washing of sidewalks, walkways, driveways, parking areas, patios, porches or verandas, except that flammable or similarly dangerous materials may be washed from such areas by direct hose flushing for the benefit of public health and safety. A bucket and broom may be used to wash paved surfaces if necessary.~~

~~D. No potable water may be used for compacting or dust control purposes in construction activities where there is a reasonably available source of recycled or other nonpotable water approved by the California Department of Public Health and appropriate for such use. This condition must be identified and specified on construction drawings submitted to the City for review.~~

~~E. No person shall cause or allow water to run off or leak from landscaped areas to adjoining streets, sidewalks, or other paved areas due to incorrectly directed or maintained sprinklers or excessive watering.~~

~~13.26.090 Conservation measures — Stage 2 water shortage.~~

~~The following mandatory restrictions shall be applicable during a Stage 2 activation of the water shortage contingency plan:~~

~~A. All of the prohibitions and restrictions set forth in LMC 13.26.070 and 13.26.080 shall be in effect and shall be mandatory prohibitions.~~

~~B. Lawn watering and landscape irrigation, including construction meter irrigation, shall be reduced to no more often than three times per week on an odd-even schedule; properties with odd street address numbers are only allowed to water on Mondays, Wednesdays, and Fridays, and properties with even street address numbers are only allowed to water on Tuesdays, Thursdays, and Saturdays, with no watering permitted on Sundays. On each day that lawn watering and landscape irrigation is permitted to occur, it may take place only after 6:00 p.m. and during the subsequent 15 hours, until 9:00 a.m. the next day.~~

~~C. Swimming pools and spas shall be covered when not in use.~~

~~D. Washing of autos, trucks, trailers, boats, airplanes, and other types of mobile equipment may be done at any hour, but no more frequently than once per month with a bucket and a hose equipped with a positive shut-off nozzle for quick rinses. Washing is permitted at a commercial car wash, or by a mobile car wash or on-site car wash using high pressure washing equipment. No wastewater from vehicle washing may enter the storm drain system.~~

~~E. Restaurant kitchens shall be equipped with low flow rinse nozzles.~~

~~13.26.100 Conservation measures — Stage 3 water shortage.~~

~~The following mandatory restrictions shall be applicable during a Stage 3 activation of the water shortage contingency plan:~~

~~A. All of the prohibitions and restrictions set forth in LMC 13.26.070, 13.26.080 and 13.26.090 shall be in effect and shall be mandatory prohibitions.~~

~~B. All water customers other than commercial nurseries, golf courses, and other water dependent industries shall be limited in the use of outdoor watering for any shrubbery, trees, lawns, grass, ground covers, plants,~~

~~vines, gardens, vegetables, flowers, or any other landscaped or vegetated areas to hand watering using a hose with a positive shut off nozzle on Saturday and Sunday only.~~

~~C. No person shall empty and refill a swimming pool except to prevent or repair structural damage or to comply with public health regulations.~~

~~D. Potable water shall not be used for street washing or flushing, except to meet public health and safety requirements.~~

~~E. Washing of autos, trucks, trailers, boats, airplanes, and other types of mobile equipment is permitted only at commercial car wash facilities that recycle all or part of the water.~~

~~F. No potable water may be used for compaction or dust control purposes for construction activities.~~

~~13.26.110 Conservation measures — Stage 4 water shortage.~~

~~The following mandatory restrictions shall be applicable during a Stage 4 activation of the water shortage contingency plan:~~

~~A. All of the prohibitions and restrictions set forth in LMC 13.26.070, 13.26.080, 13.26.090 and 13.26.100 shall be in effect and shall be mandatory prohibitions.~~

~~B. The irrigation of turf or lawn using potable water is prohibited. All water customers other than commercial nurseries, golf courses, and other water dependent industries shall be limited in the use of outdoor watering for any shrubbery, trees, plants, vines, gardens, vegetables, flowers, or any other non-turf landscaped or vegetated areas to hand watering from a container of less than five-gallon capacity on Saturday and Sunday only.~~

~~C. Cleaning of Structures. No person shall use water through a hose, including pressure washing, to clean the exterior of any building or structure.~~

~~D. Fountains, Decorative Basins, Ponds, Lakes, Waterways. No person shall use water to operate or maintain levels in decorative fountains, basins, ponds, lakes, and waterways.~~

~~E. Public Health and Safety. These regulations shall not be construed to limit water use which is immediately necessary to protect public health and/or safety.~~

13.26.080~~120~~ Water emergency.

~~In the event that~~When a water emergency is declared ~~pursuant to the City's water shortage contingency plan,~~ the City Manager or ~~his/her~~their designee may implement additional, mandatory conservation measures, restrictions, or best management practices ~~as may be necessary~~ to reduce water demands to match the available supply or to extend the length of time that current supplies will last.

13.26.~~090130~~ Use allocations.

A. During ~~water shortage events~~periods of mandatory water conservation measures, the Public Works Director or ~~his/her~~their designee shall establish water use allocations for different customer classes. Water use allocations shall be based on a combination of average historical usage, per-capita water use targets, and/or other activity-specific water usage data. Water use allocations will be calculated to achieve a reduction in demand necessary to match the amount of supply available or to maximize the length of time that existing supplies will last. The Public Works Director or ~~his/her~~their designee shall, to the extent possible, establish use allocations at levels that achieve the required demand reduction while minimizing the impacts to users ~~, that have already implemented conservation measures or have by other means achieved extremely low per capita water consumption.~~

B. ~~In the event that~~When use allocations are established, all customers shall reduce their consumption to meet the allocation within 30 days of notice by the City.

~~13.26.140 Demand management measures.~~

~~The City shall comply with the demand management measures for urban water conservation provided by the Urban Water Management Planning Act, California Water Code Section 10610 et seq., as that Act exists and as it may be amended.~~

13.26.~~100150~~ Conservation rates.

A. The Livermore City Council shall establish water rates and charges pursuant to LMC 13.20.030 to provide funding for the operation, maintenance and renewal and replacement needs of the ~~e~~City municipal water system. In addition to normal water rates and charges, the Livermore City Council shall also adopt water conservation rates to be used in the event of declared water shortages and implementation of the water shortage contingency plan described in LMC 13.26.050. Conservation water rates shall be calculated to recover the necessary revenue to continue to fund budgeted water system expenditures based on ~~an~~the expected reduction in water use at each stage of the water shortage contingency plan.

B. Conservation water rates will be implemented by Council resolution at the time of a declared water shortage event and will remain in effect until a subsequent Council resolution returning to normal water rates.

C. Conservation water rates may also be implemented by Council resolution to address shortfalls in water system revenues caused by reduced water sales, ~~or as a method to encourage water conservation in the absence of a declared shortage event.~~

13.26. ~~110~~**160** Exemptions.

A. Any customer in the City water service area who believes that the application of the provisions of this chapter results in ~~unfair treatment or causes~~ undue hardship or the customer's circumstance applies to any of the circumstances contained in 13.26.110(C) may seek an adjustment in the customer's use allocation.

B. Such customer in the City water service area shall request the adjustment in writing and shall state with specificity the reasons why the adjustment is warranted.

C. The Public Works Director ~~and the Administrative Services Director~~ shall consider all requests for exemptions and make a recommendation on the request to the City Manager. In ~~formulating a recommendation~~deciding, the Public Works Director ~~and Administrative Services Director~~ shall ~~review particular consideration to consider~~ the following:

1. ~~If T~~the reduction in water use would ~~cause conditions threatening to threaten~~ health, sanitation, fire protection, or the safety of the customer, the customer's dependents or the general public.
2. ~~If the~~The reduction would cause unfair economic hardship including, but not limited to, loss of employment, loss of production, or loss of jobs, or be unfair or result in the unnecessary loss of a business.
3. Medical requirements of the customer.
4. Household size of the customer.
5. ~~Other reasons to be judged on individual merit.~~

13.26. ~~120~~**170** Enforcement and penalties.

~~A. Any violation of this chapter is a misdemeanor. Upon conviction thereof, such person shall be punished by imprisonment in the county jail for not more than 30 days, or by fine not exceeding \$1,000, or both. In addition to any other remedies which the City may have for the enforcement of this chapter, service of water shall be discontinued or appropriately limited to any customer who willfully uses water in violation of any provision of this chapter.~~

~~B.~~ If a customer exceeds the allotted usage developed under LMC ~~13.26.09013.26.130~~ for three consecutive billing periods, the City may increase the billing rate for all water used by that customer to the highest tier conservation rate for a period of three months. At the end of three months, if the customer's use still exceeds the allotted amount, the City may continue to charge the customer at the highest conservation rate for an additional three months or until the customer's usage drops to below the allocation.

13.26.130180 Additional penalties.

In addition to the penalties provided by LMC ~~13.26.12013.26.170~~, violation of this chapter may result in the imposition of surcharges and/or termination of water service as set forth below:

A. First Violation. Advisory notice accompanied by a copy of this chapter and a ~~e~~City conservation information packet delivered to customer by United States mail.

B. Second Violation (within ~~One~~ ~~year~~ of the first violation). ~~One-hundred-dollar~~ surcharge.

C. Third Violation (within ~~One~~ ~~year~~ of the ~~F~~first ~~V~~iolation). ~~Three-hundred-dollar~~ surcharge.

D. Fourth Violation (within ~~One~~ ~~year~~ of the ~~F~~first ~~V~~iolation). ~~Five-hundred-dollar~~ surcharge and termination of water service for such period as the City ~~Council Manager~~ determines to be appropriate under the circumstances, following a hearing regarding said issue. Written notice of the hearing shall be mailed to the customer at least 10 days before the hearing.

E. Any surcharge hereunder shall be in addition to the basic or conservation water rates and other charges of the City for the account. Receipt of payment must be made to the ~~City's finance director~~City within five business days of the violation. If payment is not received within five business days, the water meter will be locked off and service disconnected until payment is received. In addition to any surcharge, a customer violating this ~~chapter~~chapter shall be responsible for payment of the City's charges for disconnecting and/or reconnecting service per the City's rate resolution then in effect. Nonpayment shall be subject to the same remedies as nonpayment of basic water rates.

F. The Public Works Director shall designate specified employees to act as enforcement officers, who shall have the authority to enforce the provisions of this chapter ~~and to issue administrative citations for violations of this chapter pursuant to Chapter 1.20 LMC.~~

G. In addition to the above, the City Manager or his or her designee is empowered to enact other penalties and restrictive measures including but not limited to the placement of a flow restricting device upon the water service, locking off ~~of~~ a water meter, removal of a water meter, and/or shutting off of a mainline.

Chapter 13.27

MANDATORY DROUGHT CONSERVATION MEASURES

Sections:

13.27.010 Purpose.

13.27.020 Application.

13.27.025 Definitions.

13.27.030 General prohibition.

13.27.040 Prohibited wasteful water practices – Stage 2 water shortage.

13.27.050 Prohibited wasteful water practices – Stage 3 water shortage.

13.27.060 Prohibited wasteful water practices – Stage 4 water shortage.

13.27.070 ~~Hardship waiver.~~ Prohibited wasteful water practices – Stage 5 water shortage.

13.27.080 ~~Penalties.~~ Prohibited wasteful water practices – Stage 6 water shortage.

13.27.090 Hardship waiver.

13.27.100 Penalties.

13.27.010 Purpose.

The purpose of this chapter is to establish mandatory drought conservation measures to prohibit wasting potable water during periods of severe water shortage. This is accomplished through provisions intended to reduce the wasting of potable water over an extended period of time, thereby extending the availability of potable water supply for residents and businesses throughout Livermore. Within areas of the City where water service is provided by any other water provider, the provisions of this chapter as to the prohibited uses and waste shall be applicable.

13.27.020 Application.

A. To the extent authorized by law, this chapter shall apply to all water users in the City including water users outside the City water service area. For the purposes of this chapter, a “water user” means any person drawing water delivered to a business or residence in the City via a water system operated by a water retailer, as well as the individual in whose name the account with the water retailer is held.

B. For water users that are also customers of the City of Livermore’s municipal water system, the provisions in this chapter are in addition to the conservation measures set forth in LMC Chapter 13.26. ~~LMC, and the The requirements provisions~~ in this chapter shall control in the event there is a conflict between the regulations.

C. The ~~provisions~~ requirements in this chapter do not apply to water uses necessary to protect public health, safety, and welfare, for essential health care, or for government services such as police, fire, and other similar emergency services.

13.27.025 Definitions

The definitions contained in LMC 13.26.030 shall also apply to this chapter.

13.27.030 General prohibition.

No water user shall make, cause, use, or permit the use of potable water in the City in a manner contrary to any provision of this chapter. Each water user violating the ~~requirements~~ provisions in this chapter shall be guilty of a separate offense for each day during which such violation occurred, continued, or was permitted.

13.27.040 Prohibited wasteful water practices – Stage 2 water shortage.

If the City adopts a resolution for a Stage 2 activation of its water shortage contingency plan for customers in the Livermore municipal water system area ~~in accordance with LMC 13.26.090~~, the wasting of potable water throughout the City shall be prohibited for all water users, and the following restrictions shall apply to all water users:

A. ~~Lawn watering and~~ landscape irrigation, including construction meter irrigation, shall be reduced to no more often than three times per week on an odd-even schedule; properties with odd street address numbers are only allowed to water on Mondays, Wednesdays, and Fridays, and properties with even street address numbers are only allowed to water on Tuesdays, Thursdays, and Saturdays, with no watering permitted on Sundays for all addresses. On each day that ~~lawn watering and~~ landscape irrigation is permitted to occur, it may take place only after 6:00 p.m. and during the subsequent 15 hours, until 9:00 a.m. the next day.

B. Washing motor vehicles by hand is permitted only with the use of a hose fitted with a positive shut-off nozzle.

~~B. Irrigation of golf courses, parks, school grounds, and recreation fields with potable water is permitted only between the hours of 6:00 p.m. and 8:00 a.m. the following day. Tees and greens may be watered at any time.~~

~~C. No person shall cause or allow water to run off or leak from landscaped areas to adjoining streets, sidewalks, or other paved areas due to incorrectly directed or maintained sprinklers or excessive watering.~~

~~D. Washing of autos, trucks, trailers, boats, airplanes, and other types of mobile equipment may be done at any hour, but no more frequently than once per month with a bucket and a hose equipped with a positive shut-off nozzle for quick rinses. Washing is permitted at a commercial car wash, or by a mobile car wash or on-site car wash using high-pressure washing equipment. No wastewater from vehicle washing may enter the storm-drain system.~~

~~E. There shall be no hose washing of sidewalks, walkways, driveways, parking areas, paties, porches, or verandas, except that flammable or similarly dangerous materials may be washed from such areas by direct hose flushing for the benefit of public health and safety. A bucket and broom may be used to wash paved surfaces if necessary.~~

~~F. The overfilling of swimming pools, spas, ponds, and artificial lakes is prohibited.~~

~~G. Swimming pools and spas shall be covered when not in use.~~

~~H. Swimming pools, spas, and fountains must be leak-proof. Any leak shall be repaired in a timely manner after notification by the City, but in no case after notification in excess of 72 hours for the first violation and then every 72 hours thereafter for the second and third violations.~~

~~I. No potable water may be used for compacting or dust control purposes in construction activities where there is a reasonably available source of recycled or other nonpotable water approved by the California Department of Public Health and appropriate for such use. This condition must be identified and specified on construction drawings submitted to the City for review.~~

~~J. Restaurant kitchens shall be equipped with low-flow rinse nozzles.~~

~~K. Restaurants shall not serve water to their customers unless specifically requested.~~

13.27.050 Prohibited wasteful water practices – Stage 3 water shortage.

If the City adopts a resolution for a Stage 3 activation of its water shortage contingency plan for customers in the Livermore municipal water system area ~~in accordance with LMC 13.26.100~~, the wasting of potable water throughout the City shall be prohibited for all water users, and all the restrictions for a Stage 2 activation included in LMC 13.27.040 shall apply to all water users with the following modifications or additions:

A. All swimming pools and spas shall be covered when not in use.

B. No potable water shall be used for compaction or dust control purposes for construction activities.

~~A. All residents and businesses other than commercial nurseries, golf courses, and other water dependent industries shall be limited in the use of outdoor watering using potable water for any shrubbery, trees, lawns, grass, groundcovers, plants, vines, gardens, vegetables, flowers, or any other landscaped or vegetated areas to hand watering using a hose with a positive shut-off nozzle on Saturday and Sunday only.~~

~~B. No person shall empty and refill a swimming pool except to prevent or repair structural damage or to comply with public health regulations.~~

~~C. Potable water shall not be used for street washing or flushing, except to meet public health and safety requirements.~~

~~D. Washing of autos, trucks, trailers, boats, airplanes, and other types of mobile equipment is permitted only at commercial car wash facilities that recycle all or part of the water.~~

~~E. No potable water may be used for compaction or dust control purposes for construction activities.~~

13.27.060 Prohibited wasteful water practices – Stage 4 water shortage.

If the City adopts a resolution for a Stage 4 activation of its water shortage contingency plan for customers in the Livermore municipal water system area ~~in accordance with LMC 13.26.110~~, the wasting of potable water throughout the City shall be prohibited for all water users, and all the restrictions for a Stage 2 activation included in LMC 13.27.040 and a Stage 3 activation included in LMC 13.27.050 shall apply to all water users with the following modifications or additions:

~~A. The irrigation of turf or lawn using potable water is prohibited.~~ All water ~~customers~~users ~~other than excluding~~ commercial nurseries, golf courses, and other water-dependent industries, shall be limited in the use of outdoor watering ~~for any shrubbery, trees, plants, vines, gardens, vegetables, flowers, or any other non-turf landscaped or vegetated areas~~ to hand-watering from a container of less than five-gallon capacity on Saturdays and Sundays only.

~~B. Potable water shall not be used for street washing or flushing, except to meet public health and safety requirements.~~

~~C. Washing of autos, trucks, trailers, boats, airplanes, and other types of mobile equipment is permitted only at commercial car wash facilities that use recycled or recirculating water.~~

~~D. Food service kitchens must be equipped with low-flow rinse nozzles.~~

E. Swimming pools, spas, and fountains must be leak-proof. Any leak shall be repaired within 72 hours of notification by City.

F. Potable water shall not be used to wash off impervious surfaces unless required for public health and safety.

G. Irrigation water shall not be allowed to run off such that water flows to adjacent properties, non-irrigated areas, or impervious surfaces.

B. Cleaning of Structures. No person shall use water through a hose, including pressure washing, to clean the exterior of any building or structure.

C. Fountains, Decorative Basins, Ponds, Lakes, Waterways. No person shall use water to operate or maintain levels in decorative fountains, basins, ponds, lakes, and waterways.

13.27.070 Prohibited wasteful water practices – Stage 5 water shortage.

If the City adopts a resolution for a Stage 5 activation of its water shortage contingency plan for customers in the Livermore municipal water system area, the wasting of potable water throughout the City shall be prohibited for all water users, and all the restrictions for a Stage 2 activation included in LMC 13.27.040, a Stage 3 activation included in LMC 13.27.050, and a Stage 4 activation included in LMC 13.27.060 shall apply to all water users with the following modifications or additions:

A. The irrigation of turf/lawn using potable water is prohibited.

B. All water users, excluding commercial nurseries, shall be limited to hand-watering non-turf landscaped areas with a container of less than five-gallon capacity on Saturdays and Sundays only.

C. Potable water shall not be used to operate or maintain water levels in decorative fountains, basins, ponds, lakes, or waterways.

D. Food service establishments shall only serve water to customers upon request.

13.27.080 Prohibited wasteful water practices – Stage 6 water shortage.

If the City adopts a resolution for a Stage 6 activation of its water shortage contingency plan for customers in the Livermore municipal water system area in accordance with LMC 13.26.110, the wasting of potable water throughout the City shall be prohibited for all water users, and all the restrictions for a Stage 2 activation

included in LMC 13.27.040, a Stage 3 activation included in LMC 13.27.050, a Stage 4 activation included in LMC 13.27.060, and a Stage 5 activation included in LMC 13.27.070 shall continue to apply to all water users.

13.27.~~090070~~ Hardship waiver.

If, due to unique circumstances, the application of a specific provision in this chapter would result in undue hardship to a water user, or to property upon which water is used, that is disproportionate to the impacts to water users generally or to similar property or classes of water users, then the person may apply for a waiver to the requirements as provided in this section.

A. Written Finding. A hardship waiver may be granted or conditionally granted only upon a written finding of fact demonstrating an undue hardship to the water user or to property upon which water is used, that is disproportionate to the impacts to water users generally or to similar property or classes of water use due to specific and unique circumstances of the user or the user's property.

1. Application. Application for a waiver must be on a form prescribed by the City and accompanied by a nonrefundable processing fee in an amount set by City Council resolution.

2. Supporting Documentation. The application should include photographs, maps, drawings, and other information, including a written statement of the applicant.

3. Required Findings for Waiver. An application for a waiver will be denied unless the City finds, based on the information provided in the application, supporting documents, or such additional information as may be requested, and on water use information for the property as shown by water use records, all of the following:

- a. That a waiver does not constitute a grant of special privilege inconsistent with the limitations upon other water users;
- b. That because of special circumstances applicable to the property or its use, the strict application of this chapter would have a disproportionate impact on the property or use that exceeds the impacts to residents and businesses generally; and
- c. That the authorizing of such waiver will not be of substantial detriment to adjacent properties, and will not materially affect the ability of the City to effectuate the purpose of this chapter and will not be detrimental to the public interest.

4. Approval Authority. The Public Works Director must act upon any completed application no later than 14 days after submittal and may approve, conditionally approve, or deny the waiver. The applicant requesting the waiver must be promptly notified in writing of any action taken. Unless specified otherwise at the time a waiver is approved, the waiver will apply to the subject property during the period of the mandatory water supply shortage condition.

13.27.080100 Penalties.

~~Any person violating or causing the violation of any of the provisions of this chapter shall be guilty of an infraction, unless otherwise specifically stated. Penalties for infractions shall be as set forth in Government Code Section 36900.~~

~~Notwithstanding the above, any violation occurring after a third infraction citation has been issued during any 12-month period shall be considered a misdemeanor. Penalties for misdemeanors shall be as set forth in Penal Code Section 19.~~

~~Nothing in this chapter shall be deemed to prevent the City Council from ordering the commencement of a civil proceeding to abate a public nuisance pursuant to the applicable law or from pursuing any other remedy available under applicable law.~~

A. Violations of this chapter may result in the issuance of an administrative citation with maximum fines pursuant to LMC Chapter 1.20.

B. Nothing in this chapter shall be deemed to prevent the City from ordering the commencement of a civil proceeding to abate a public nuisance pursuant to the applicable law or from pursuing any other remedy available under applicable law and pursuant to Title 1 of the LMC.

C. The Community Development Director shall designate specified employees to act as enforcement officers, who shall have the authority to enforce the provisions of this chapter and to issue administrative citations for violations of this chapter pursuant to LMC Chapter 1.20.



CITY COUNCIL STAFF REPORT

ITEM NO. 7.1

DATE: February 14, 2022

TO: Honorable Mayor and City Council

FROM: Marc Roberts, City Manager

SUBJECT: Oral report from the Director of Emergency Services regarding the COVID-19 emergency, its impacts, and the governmental operations in response to that emergency, as well as discussion and direction regarding the City's emergency operations in response to that emergency.

RECOMMENDED ACTION

An oral report will be given at the meeting.

SUMMARY

DISCUSSION

ATTACHMENTS

Prepared by: Christine Martin
Assistant City Manager

Approved by:

A handwritten signature in black ink, appearing to read "Marc Roberts".

Marc Roberts
City Manager

Fiscal Review by:

A handwritten signature in blue ink, appearing to read "Bhavna Chaudhary".

Bhavna Chaudhary
City Treasurer/Finance Manager



CITY COUNCIL STAFF REPORT

ITEM NO. 7.2

DATE: February 14, 2022

TO: Honorable Mayor and City Council

FROM: Jeramy Young, Police Chief

SUBJECT: Final report on the Livermore Police Department traffic stop and arrest data project as part of the Equity and Inclusion Subcommittee

RECOMMENDED ACTION

Staff recommends the City Council receive the attached report from Rob Tillyer, Ph.D. and Michael R. Smith, J.D., Ph.D, both researchers and professors at the University of Texas at San Antonio – Department of Criminology & Criminal Justice regarding their research into patterns of racial and/or ethnic disparity during traffic stops and arrests conducted by the Livermore Police Department between January 1, 2019 and April 30, 2021.

SUMMARY

On July 27, 2020, the City Council adopted Resolution No. 2020-132 ratifying and confirming the Equity and Inclusion Subcommittee and its framework, and instructed staff to seek input from a diverse group of people in the community to provide information to help the Subcommittee refine its scope, and to define objectives and measures of success.

Subgroup B – Policing and Human Services identified a mission: Reimagine and better coordinate public safety and human services for better outcomes. Two sub-subgroups were formed to review the Livermore Police Department's use of force policy and to review the Livermore Police Department's traffic stop and arrest data. A consultant was retained that specializes in benchmarking and analyzing police traffic stop and arrest data. The consultant, Rob Tillyer, Ph.D., utilized his assistant Dr. Michael R. Smith to assist with this project. Both Dr. Tillyer and Dr. Smith are researchers and professors at the University of Texas at San Antonio (UTSA) – Department of Criminology & Criminal Justice.

On December 31, 2021, Dr. Tillyer and Dr. Smith submitted their final report titled, "Traffic Stop and Arrest Analysis."

DISCUSSION

Following the tragic and senseless murder of George Floyd last year in Minneapolis, the City Council and

community members expressed a desire to examine the Livermore Police Department's use of force policies and City policies and practices for incidences of structural discrimination and racism. Based on a number of initial conversations with community members, Council directed that the scope of the discussion be broadened to include items that were repeatedly raised such as housing, transportation, youth and community culture. In response, the City Council authorized the formation of an ad hoc Equity and Inclusion Subcommittee, including direction for a diverse working group comprised of members of the Livermore community to provide information to help the Subcommittee. Ultimately, the Subcommittee sunset June 21, 2021, and at their meeting on July 26, 2021, Council accepted the ten recommendations of the Subcommittee. One of the recommendations was to complete the stop and arrest data project addressed in this agenda item.

The roughly 48 working group members self-selected into four subgroups: 1) Subgroup A- Community Culture and Representation, 2) Subgroup B- Policing and Human Services, 3) Subgroup C- Reaching and Inspiring Younger Generations, and 4) Subgroup D- Housing, Workplace, Economic, and Transportation Environments.

Subgroup B identified a mission: Reimagine and better coordinate public safety and human services for better outcomes. Two sub-subgroups were formed to review the Livermore Police Department's use of force policy and to review the Livermore Police Department's traffic stop and arrest data. A consultant was retained that specializes in benchmarking and analyzing police traffic stop and arrest data. The consultant, Rob Tillyer, Ph.D., and his assistant are researchers and professors at the University of Texas at San Antonio (UTSA) – Department of Criminology & Criminal Justice.

The contract with the City of Livermore and UTSA included the following: Consulting with Subcommittee members to increase awareness of traffic stop data analysis complexities, including benchmarking; review and assess current traffic stop data collection protocols; analyze recent traffic stop data to identify the racial/ethnic composition of those encounters and compare against appropriate benchmarks; and analyze recent Livermore Police Department arrest data to identify factors associated with arrests.

The final report contains an executive summary of the project and findings; background on the project, officer decision-making related to traffic stops and arrests; an explanation of the two benchmarks used to analyze the data; methodology of the data, the findings of the traffic stop and arrest data; and a summary and conclusion section.

Drs. Tillyer and Smith will present to City Council an in-depth explanation of their research into this project and how they determined their findings. In summary, the key findings are:

- The benchmarks used did not reveal a pattern of racial/ethnic disparity in traffic stops experienced by non-White drivers in Livermore.
- The Veil of Darkness (VOD) benchmark analysis found no statistically significant differences in the rates at which non-White drivers were stopped in Livermore during the day compared to at night.
- The Traffic Crash benchmark analysis found slightly elevated risks for stops of White, Black, and "Other" race drivers (at-fault benchmark only) and a slightly elevated risk for stops of Black drivers relative to White drivers (not-at-fault benchmark only).
- Taken together, the two benchmark analyses do not show a consistent pattern of disparity in stops based on driver race or ethnicity.
- The results of the arrest analyses do not reveal a pattern of racial disparity in police outcomes that disadvantages non-White civilians in Livermore.

Lastly, Drs. Tillyer and Smith concluded there were no clearly identifiable or concerning patterns of racial/ethnic disparities found in the 24,944 encounters that took place in Livermore over a 26-month period during 2019-2021.

FISCAL AND ADMINISTRATIVE IMPACTS

Total report preparation cost is \$45,000 which will be funded by the General Fund. There is sufficient budget for the current fiscal year under the General Fund, so no additional appropriations are required at this time.

ATTACHMENTS

1. LPD Stop and Arrest Report FINAL

Prepared by: John Reynolds
Police Lieutenant

Approved by:



Marc Roberts
City Manager

Fiscal Review by:



Bhavna Chaudhary
City Treasurer/Finance Manager



The University of Texas at San Antonio
Department of Criminology & Criminal Justice

Traffic Stop and Arrest Analysis

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Executive Summary

A research team of criminologists from the University of Texas at San Antonio was contracted to analyze recent stops by the Livermore Police Department (LPD) for patterns of racial and/or ethnic disparity. The analysis addressed two areas of possible disparity: (1) disparities in traffic stops and (2) disparities in arrests.

- Methodology: Examination of 24,944 encounters between LPD officers and civilians between January 1, 2019 and April 30, 2021.
- Traffic Stop Analyses: Use of two benchmarks to operate as proxies for driving and traffic law violating populations in Livermore to compare against the racial/ethnic composition of drivers stopped by the LPD
 - Benchmark #1: A "veil of darkness" (VOD) analysis examined differences in stop rates of non-White and White drivers during the daytime compared to the nighttime.
 - Benchmark #2: Data containing the racial composition of not-at-fault and at-fault drivers involved in two-vehicle crashes.
- Arrest Analyses: A multivariate model examined whether civilian race/ethnicity predicted the likelihood of an arrest by the LPD after controlling for other relevant factors.
- Key Findings
 - The results from the two benchmark analyses did not reveal a pattern of racial/ethnic disparity in traffic stops experienced by non-White drivers in Livermore.
 - The VOD analysis found no statistically significant differences in the rates at which non-White drivers were stopped in Livermore during the day compared to at night.
 - The traffic crash benchmark analysis found slightly elevated risks for stops of White, Black, and "Other" race drivers (at-fault benchmark only) and a slightly elevated risk for stops of Black drivers relative to White drivers (not-at-fault benchmark only).
 - Taken together, the two benchmark analyses do not show a consistent pattern of disparity in stops based on driver race or ethnicity.
 - The results of the arrest analyses do not reveal a pattern of racial disparity in police outcomes that disadvantages non-White civilians in the City of Livermore.

In sum, no clearly identifiable or concerning pattern of racial/ethnic disparity was found in the 24,944 encounters that took place in Livermore over a 26-month period during 2019-21.

I. Project Background

Researchers at the University of Texas at San Antonio (UTSA) began conversations with the City of Livermore, California and the Livermore Police Department (LPD) in late 2020 to discuss a potential research collaboration. Drs. Rob Tillyer and Michael Smith (UTSA) developed a Scope of Work that was negotiated with Chief Young (LPD) to assist with research questions requiring data analysis and assessment. These discussions culminated in a signed contract to engage with the City on the following matters:

1. Consult with selected City Council and community members to increase awareness of traffic stop data analysis complexities, including benchmarking
2. Review and assess current traffic stop data collection protocols; provide recommendations as needed
3. Analyze recent traffic stop data to identify the racial/ethnic composition of those encounters and compare against appropriate benchmarks
4. Analyze recent LPD arrest data to identify factors associated with arrest

This report addresses Tasks #3 & 4 – assess traffic stops to summarize the racial/ethnic composition of those encounters in relation to appropriate benchmarks and analyze recent LPD data to identify factors associated with arrest. Data required to complete these tasks was provided to the research team during the Summer and Fall of 2021. Data cleaning, variable creation, data analysis, and report writing was undertaken throughout this time period.

This report contains several sections that summarize:

- The scientific knowledge and best practices in traffic stop and arrest data analyses (Section II)
- The methodology applied to the LPD data (Section III)
- The primary findings from the analyses of these data (Section IV)
- The meaning of these findings for the LPD and the City of Livermore, CA.
- Recommendations on next steps (Section V)

II. Officer Decision-Making

Given the focus of this report on traffic stops and arrests, it is important to locate the current analyses within the broader landscape of current best practices and empirical evidence on these two decision points.

Traffic Stops

Law enforcement agencies, communities and their residents, and academics (among others) have expressed continuing interest in the traffic stop practices of the police over the past thirty years. A

key concern is that minority groups may receive greater attention from the police and experience elevated or disparate rates of stops and post-stop outcomes such as tickets, searches or arrests. In short, there is a concern that persons of color are targeted for enhanced contact by police and more punitive outcomes.

From a scientific perspective, the initial step in understanding the nature of this concern is to empirically evaluate the prevalence of disproportionate contact with non-White groups. If this is established, then the related question of ‘why’ this pattern of behavior occurs can be addressed. The primary challenge in analyzing the racial/ethnic composition of traffic stops initiated by the police centers on the identification of an appropriate comparison population or benchmark against which to compare the behavior of the police department.

Several scholars have written extensively on the study and evaluation of traffic stops (e.g., Alpert et al., 2004; Fridell, 2004; Ridgeway, 2007; Smith et al., 2021), and the issues can be distilled as follows. The assessment of law enforcement agency traffic stop behavior begins with the calculation of the racial/ethnic composition of traffic stops as represented by a simple rate of stops for each racial/ethnic group. Critically, the goal is to analyze police-civilian contacts that are officer-initiated and not the result of a call for service from the public. If the concern is that officers may be disproportionately stopping non-White drivers, then it is appropriate to assess their independent decision-making to make a traffic stop rather than stops made as the result of a call for service or other community-based request. As a result, using administrative data collected by the police, the total number of officer-initiated traffic stops for each racial/ethnic group is divided by the total number of officer-initiated stops to produce a rate of traffic stops for each racial/ethnic group. Drivers are frequently categorized into White, Black, Hispanic, Asian, and Other groups with the latter representing a broad category that includes Native Americans, Middle Easterners, or other minority groups.

Once stop percentages are calculated for each group, they must be compared to some independent measure of what is to be expected if no bias in officer decision-making existed. Knowing that 20% of a police department’s traffic stops involved Black civilians is meaningless unless we also know what percentage of Black drivers are available or at risk of being stopped on the roadways. Thus, an estimated population of those at risk for being stopped must be identified to compare against the stop rates experienced by non-White drivers. In short, in order to understand whether or not there are racial/ethnic disparities in traffic stops, the analyst must identify and apply an appropriate benchmark against which to compare the rate of stops experienced by non-White drivers (see Alpert et al., 2004; Fridell, 2004; Ridgeway, 2007 for further discussion).

Benchmarking

A recently published, peer-reviewed article (Smith et al., 2021) summarizes the current academic

efforts to identify an appropriate benchmark and offers the strengths and weaknesses of the most common approaches to addressing this issue. As the authors note, “In order to investigate the existence or magnitude of racial and ethnic disparities in stops of citizens undertaken by the police, it is not sufficient to simply examine the percentage of stops that target minorities. Instead, researchers must determine the extent to which different racial and ethnic groups would be represented in stops if no racial bias was present and then compare the percentage of minority citizens who were stopped to this hypothetical benchmark” (p. 515). While identifying an appropriate benchmark is critical to the assessment of traffic stops, it is without doubt the most challenging and controversial aspect of the effort (Alpert et al., 2004; Ridgeway & MacDonald, 2010; Tillyer et al., 2010). Benchmark strengths and weaknesses are rooted in their ability to accurately offer a proxy for the driving population at risk of being stopped. Importantly, some benchmarks have greater logical and empirical validity than others and represent preferred options for an assessment of possible disparities in the decisions officers make to initiate traffic stops (see Smith et al., 2021 for a more complete discussion).

The most readily accessible benchmark for stops is the Census count of the racial/ethnic composition of the local population. This benchmark is easy to access and presents some initial appeal; however, its utility and appropriateness quickly become problematic once its underlying assumptions are considered. The key challenge to this benchmark, and why it has been rejected by contemporary scholars as a scientifically appropriate benchmark, is rooted in the assumption that each resident or group within a local jurisdiction possesses an equal level of risk for being stopped by the police. This is simply an untenable assumption. Individuals and groups of civilians vary in their likelihood of contact (i.e., risk) based on a number of factors, including their own driving behavior (i.e., if they drive, how they drive, when they drive, what they drive, etc.). Related, the use of this benchmark assumes that only the residential population that lives in a particular area drives in that area. This is an unreasonable assumption as the routine activities of drivers often involve crossing jurisdictional boundaries, such that residents from neighboring cities, counties or even states often cross into the jurisdiction of interest and vice versa. This undermines the accuracy of the residential Census population as a proper representation of the driving population at risk for being stopped by the police in a given city. These two factors (i.e., driving behavior of residents and the cross-jurisdictional travel of non-resident drivers), in addition to others, render this an inappropriate benchmark (for further discussion, please see Alpert et al., 2004; Novak, 2004; Ridgeway & MacDonald, 2010; Tillyer et al., 2010).

Other benchmarking options include the use of red-light cameras to capture the racial/ethnic composition of the driving/violating population or the direct observation of the driving and/or violating populations through the systematic social observation of drivers (see Alpert et al., 2004; Meehan & Ponder, 2002). A separate technique assesses the traffic stop behavior of officers compared to other officers working similar shifts, assignments, and areas. Each of these techniques

offer some legitimacy as proxies for risk, but also possess some weaknesses, and their use is often predicated on data availability.

Veil of Darkness Benchmark

Two benchmarks are particularly relevant to this project and offer the most appropriate approach to assess the LPD traffic stop data: (i) the ‘veil of darkness’ methodology and (ii) the use of traffic crash data. The ‘veil of darkness’ (VOD) was developed by Grogger & Ridgeway (2006) and is relatively easy and straightforward to apply. This approach makes use of natural changes in lighting based on daylight savings time to allow a comparison of the racial/ethnic composition of vehicle stops made during daylight hours to the racial/ethnic composition of stops made at night during the same hours of the day. Using the sunrise and sunset times published by the Naval Observatory, traffic stops are coded as ‘daytime’ or ‘nighttime’ depending on the time of the year. For example, a traffic stop initiated at 7PM in January would be classified as a ‘nighttime’ stop, while a traffic stop undertaken at 7PM in July would be a ‘daytime’ stop. Ultimately, this approach focuses on traffic stops that occur in the ‘inter-twilight’ period, which is defined as the period of time between the earliest sunset (4:48 pm) and the latest sunset (8:33 pm) across the different months of the year (times reflect sunset in Livermore, CA. during the study period).

The use of the ‘inter-twilight’ period allows a comparison of the racial/ethnic composition of stops during times when daylight could reasonably allow the identification of driver race/ethnicity to the same period of time when darkness would limit the detection of driver race/ethnicity. The underlying logic of the comparison is that the driving patterns of racial/ethnic groups are likely to be similar across the same hours of the day, but make use of daylight savings and seasonal variation in nighttime hours that limit officers’ ability to identify driver race/ethnicity prior to a stop. Thus, if officers’ decisions to initiate traffic stops were influenced by bias (overt or implicit), then a different racial/ethnic pattern of stops would be evident in the daylight hours compared to nighttime hours (Smith, et al., 2021). Under conditions of bias, daytime stops would reflect a higher proportion of minority drivers when race is more easily identifiable than nighttime stops when skin tone and other features of drivers are more difficult to see.

This approach has been widely replicated in the literature (Chanin, Welsh, Nurge, & Henry, 2016; Pierson et al., 2019; Ritter & Bael, 2009; COPS, 2016; Ross et al., 2016; Smith et al., 2021; Taniguchi et al., 2016; Worden et al., 2012) as it does not require external data for a benchmark (beyond information supplied from police stop databases themselves). For example, Pierson and colleagues (2019) used the VOD to assess traffic stops initiated by multiple agencies across 21 states and 29 cities. Results indicated that Black drivers were stopped more often during the day and less frequently at night compared to White drivers. Kalinowski and colleagues (2017) also used the VOD methodology to assess stop data from the Massachusetts State Police, Boston, and other Massachusetts municipal agencies with at least 100 speeding stops and an African-American

population of 10 percent or higher. They reported that the odds of a Black driver being stopped during daylight hours were 35 to 48 percent higher than for White drivers, depending upon variations in the models. Moreover, they reported Black drivers seemed to adjust their driving behavior (i.e., speeding) downward during the daytime when they would be most visible to the police. As noted by Smith et al (2021), the adjustment in driving behavior of some groups during the daytime identifies a potential weakness in this benchmark that “may overestimate the population of minority traffic violators at night and underestimate minority traffic violators during the day, thus leading to a type II error and a finding of no discrimination in the treatment of minorities in stops by the police” (p. 517).

Crash Data as a Benchmark

The second benchmark used in the analysis of LPD traffic stops uses vehicle crash data. These data offer information on at-fault and not-at-fault drivers involved in vehicle crashes on roadways in Livermore. This approach was pioneered by Alpert and colleagues (2004) and provides an estimate of driving population by using the known race/ethnicity of drivers involved in crashes investigated by the police (also see Lovrich et al., 2007; Withrow & Williams, 2015). Conceptually, these data provide a proxy for the racial/ethnic composition of the driving population, while also accounting for driving frequency and potential exposure to police surveillance (Smith et al., 2021). This is particularly true for not-at-fault drivers who represent a ‘random’ cross-section of drivers on the roadways that may be at risk for police contact, but also for at-fault drivers who may represent an estimate of traffic violators most likely to draw attention from the police.

In California, these data are readily accessible and can be selected for specific time periods and locales. Some researchers have raised a concern that not-at-fault driver benchmarks may not represent an unbiased estimate of the driving population (Ridgeway & MacDonald, 2010), while others (Withrow & Williams, 2015) suggest that at-fault drivers may represent an improved proxy for risky driving and therefore those most at-risk of being stopped. The current analysis uses both types of crash benchmarks to ensure a comprehensive analysis of the LPD traffic stop data. Previous research using this benchmark largely confirms that non-White drivers experience elevated rates of contact relative to White drivers (Alpert, Dunham, & Smith, 2007; Engel, Frank, Tillyer & Klahm, 2006; Farrell et al., 2004; Rojek, Rosenfeld, & Decker, 2004; Smith et al., 2021; Smith & Petrocelli, 2001).

In sum, early benchmarking studies frequently used Census data as a comparison against the rate of traffic stops of non-White populations, but this approach has been soundly rejected as the science of traffic stop benchmarking has improved. Current best practices in traffic stop analyses rely on the VOD and crash-based benchmarks to provide better proxies for the driving and traffic law violating populations and as comparisons for police traffic stop data. Given the availability of

the requisite data needed to employ these benchmarks, they were selected as appropriate options for an analysis of the LPD traffic stop data.

Arrests

The other officer decision of interest to the LPD concerned possible racial or ethnic disparities in arrests arising from traffic stops (or other police-civilian encounters initiated by officers). Arrest has a long history of study within the policing literature, and generally such analyses do not suffer from the same data limitations as the stop decision itself. As outlined previously, traffic stop data often require an external data source for comparison (i.e., a benchmark), while in the case of traffic stop outcomes, the universe of encounters in which an arrest could occur is known. While some have argued that selection bias in the decision to make a stop in the first place puts minority drivers at greater risk for arrest (Bronner, 2020), police agencies currently do not collect information on when a traffic stop could have been legally initiated but was not. With this theoretical limitation in mind, examining traffic stop arrest outcomes takes into account all traffic stop encounters, including those in which an arrest could have occurred but did not.¹ As a result, the analytic tools available to identify racial/ethnic disparities in arrest are suitable for revealing patterns of disparity in how drivers of different races and/or ethnicities experience arrest outcomes following traffic stops or other encounters with the police.

Often the goal of an arrest analysis is to identify whether the race/ethnicity of the civilian involved in the police-civilian encounter is a significant factor in whether or not the incident results in an arrest. Because the goal is to understand *officer decision-making* in relation to civilian race/ethnicity, it is important to consider the reason for the arrest and the degree of discretion the officer had in making it. For example, some arrests include a high level of discretion by the officer (e.g., arrests based on probable cause developed on the scene) while others (arrests based on a pre-existing warrant or the discovery of contraband following a search) involve little or no discretion. High discretion arrests should be analyzed separately from low discretion arrests as the goal is to understand whether officers are engaging in bias-based behavior of their own volition. Thus, arrests first should be categorized as high or low discretion and then each group should be analyzed separately. Disparities in high discretion arrests may be indicative of biased decision-making, while disparities in low discretionary arrests address a different question: Do such arrests disproportionately impact non-White civilians?

Critical to any arrest analysis is the ability to measure all relevant other factors that may be

¹ In the case of Livermore, the UTSA research team found no consistent pattern of racial or ethnic disparity in who was stopped by the LPD. Thus, any theoretical impact of stop selection bias on post-stop arrest outcomes was moot since no significant disparities were found in the traffic stops themselves, which made up the great majority of LPD encounters resulting in an arrest. See Section IV below for the results of the traffic stop benchmarking and arrest analyses.

associated with or influence the likelihood of an arrest. These factors can be grouped into several broad categories, including characteristics of the encounter, civilian characteristics, officer characteristics, and contextual factors. The relationship between civilian race/ethnicity and arrest is often of central concern, but it is important to assess this relationship while also considering the impact of other variables. For example, situational characteristics such as time of day or number of bystanders may be important. Likewise, civilian gender or age also may be related to the likelihood of an arrest. In addition, previous studies have demonstrated the importance of civilian demeanor as a predictor of whether or not an arrest is likely to occur (Kochel et al., 2011). The characteristics of the officer or the environmental context of the encounter (i.e., crime rate) may also be influential in understanding the nature of arrests. In sum, the goal is to evaluate the likelihood of an arrest by considering as many potentially relevant factors as possible in order to most accurately identify the contribution, if any, that civilian race/ethnicity has on the likelihood of arrest. The most common method to accomplish this goal is to estimate multivariate models that allow the relationship between each variable, including race/ethnicity, and arrest to be independently assessed while holding the others constant (see the next section for a specific description of this analytic approach).

Previous research on the relationship between civilian demographics and arrest (within traffic stops, in particular) has produced a mixed set of results. Several studies document an elevated likelihood of arrest for non-White groups (e.g., Alpert et al., 2006; Smith & Petrocelli, 2001; Withrow, 2004), while others demonstrate no effect (Alpert Group, 2004; Engel, Frank, Tillyer, & Klahm, 2006; Tillyer & Engel, 2013). In a recent assessment of traffic stop outcomes in San Jose, CA., no relationship was reported between civilian race/ethnicity and warrantless arrests or those conducted due to a warrant (Smith et al., 2016).

Similarly, recent literature on the relationship between civilian sex and age and arrest also reveals some mixed findings. Male drivers consistently experience arrest at a higher rate than female drivers (Alpert et al., 2006; Alpert Group, 2004; Engel et al., 2005, 2006; Engel, Tillyer, Cherkauskas, et al., 2007; Gumbhir, 2004; M. Smith & Petrocelli, 2001; Tillyer & Engel, 2013), whereas, civilian age has demonstrated an inconsistent relationship with arrest with some studies finding that older drivers were more likely to be arrested (Engel et al., 2005) and other studies reporting that older drivers were less likely to be arrested (Alpert et al., 2006; Engel et al., 2006; Gumbhir, 2004; M. Smith & Petrocelli, 2001; Tillyer & Engel, 2013).

III. Methodology

Consistent with the research goals agreed upon with the LPD, this project analyzed LPD traffic stop data to identify possible racial or ethnic disparities among those stopped by the police. Second, these data were examined to identify any racial/ethnic disparities among those arrested by the LPD following a traffic stop. To accomplish these two goals, the following methodologies were used.

Traffic Stops

An assessment of the racial/ethnic composition of traffic stops initiated by LPD officers involved several steps. Initially, all available information on the traffic stops was summarized in a series of descriptive tables. For example, the percentage of stops involving a male civilian or White civilian was calculated to provide a summary of the traffic stop characteristics. Next, we conducted benchmarking analyses that compared the percentage of traffic stops involving each of the racial/ethnic groups to those groups' expected risk of being stopped. As outlined in Section II above, two benchmarking techniques were utilized - a veil of darkness analysis and a comparison of stops to crash data.

The veil of darkness analysis calculates the percentage of traffic stops made of each racial/ethnic group during the daytime and nighttime and compares them to identify any difference. A higher rate of daytime stops involving non-White drivers compared to their percentages of nighttime stops suggests a potential difference in the decision-making process to initiate a traffic stop involving these groups. Differences in rates of daytime and nighttime stops for each group were subjected to statistical testing at the group and individual level. An ANOVA test was conducted to assess whether there were differences in the rates between daytime and nighttime stops across all groups that represented a statistical pattern. Individual t-tests were also conducted within each group to compare, for example, whether the daytime rate of stops involving Black drivers differed from the nighttime rate of Black stops. For both analyses, a statistically significant result from these tests would provide empirical evidence of a pattern of disparity whereas a non-significant result would support a conclusion that no substantive difference exists between the groups.

The second benchmark analysis used uniform traffic crash report (CHP 555) data from the State of California for Livermore to provide an estimate of risk for being stopped. These crash data include the race/ethnicity of the drivers involved in traffic collisions and were downloaded from Statewide Integrated Traffic Records System (SWITRS) for two-vehicle crashes that occurred within the City of Livermore between January 1, 2019 and April 30, 2021. In the analyses reported below, traffic crash data were compared to police stop data with not-at-fault drivers serving as an estimate of the driving population in the city and at-fault drivers serving as an estimate of those who violate the traffic laws. A statistically significant higher percentage of stops involving specific racial/ethnic groups in the LPD stop data compared to the crash data benchmarks would indicate

disproportionate stops by LPD officers based on the expected risk for stops among those groups of drivers (Alpert et al., 2004; Tillyer et al., 2010; Withrow & Williams, 2015; COPS Smith et al., 2021).

For all benchmarks (i.e., daytime vs. nighttime; traffic stops vs. at-fault crashes; traffic stops vs. not-at-fault crashes), disproportionality indices (DI) were calculated. The DI is a within-group assessment that compares the stop rates for each racial/ethnic group in the traffic stop data to the ‘expected’ rates of stop for each group based on the selected benchmark. A value of 1.0 indicates alignment between the actual stop rate and the benchmark, while a value above 1.0 indicates that the racial/ethnic group experienced a higher than anticipated stop rate compared to the benchmark. The DI is used to compare the actual rate of stops to the expected rate of stops (based on the benchmarks) within racial/ethnic groups. To further compare stops of non-White drivers to White drivers, a disproportionality ratio (DR) was calculated by dividing the DI rate for the racial/group of interest (e.g., Black) by the White DI rate. The resulting DR value is interpreted as the likelihood of a Black (or any other racial/ethnic group) driver being stopped in comparison to chances of a White driver being stopped. For example, if the disproportionality ratio is 3.0, this indicates that the group of interest is three times as likely to be stopped in comparison to the White group (Smith et al., 2021).

Arrests

The analysis of arrests involved two primary statistics: descriptive and inferential. Descriptive statistics provide a summary of the variables across all cases to allow an assessment of how frequently each variable presents itself within the data. This is most frequently accomplished by calculating a percentage of cases in which this characteristic appears within all records. For example, all records are assessed to identify the number which conclude with an arrest and this information can be used to produce a percentage of encounters involving an arrest.

The second analytic tool used for examining arrests involved the estimation of multivariate regression models. Multivariate models offer the ability to identify the specific effects of each independent variable on the dependent variable by controlling for all other independent variables (Hanushek & Jackson, 1977; Weisburd & Britt, 2004). This approach considers all variables simultaneously to assess which of the encounter characteristics are related to the likelihood of an arrest. This type of modeling is particularly useful in identifying whether a relationship between civilian race/ethnicity and an arrest exists while considering all other potential factors. Importantly, this technique is only as robust as the information that is available, and any variables that may influence an arrest but are not available for inclusion in the model weaken its explanatory power. For example, citizen behavior or demeanor may influence the arrest decision but was not available in the data. With these limitations in mind, the LPD data contained sufficient variables to allow for a meaningful analysis of the arrest decision.

Data

This study analyzed LPD traffic stops generated between January 1, 2019 and April 30, 2021. A total of 24,944 records (i.e., cases) were received from the LPD and considered for analyses.

The initial analytic step involved an assessment of available fields and cases to determine the completeness of each record. Based on conversations with the LPD, the ‘Incident Number’ represented a unique number that signified a police-civilian encounter that may be eligible for analysis. De-identified officer data also were supplied to the research team and were merged into the stop data so that each record contained information on the primary officer involved in the traffic stop. Information on 120 officers was supplied to the research team.² A third data source provided by the LPD included records for violent and selected property crimes that occurred within the various LPD beats during the study period. Information on size of the residential population was also added to allow for creation of a violent and property crime rate. Of note, the internal organizational structure of the LPD was modified during the study period from three beats (i.e., A, B, and C) to four beats (i.e., 1-4). This had implications for the multivariate analyses of arrests and is discussed in more detail below.

Table 1 describes the initial data available for analysis. Of the 24,944 original records, 24,846 cases contained a unique ‘Incident Number’, and 98 records contained a duplicate ‘Incident Number’. An additional 35 records were non-officer-initiated contacts. After removal of these records, 24,811 cases remained and were assessed for missing information in preparation for the analyses of arrests.

With respect to the benchmarking analyses, 1,922 non-traffic stops and 76 cases missing information on ‘type’ were removed. This resulted in 22,813 records that were assessed for missing data prior to conducting the benchmark analyses.

² The merging process (officers to stops) produced a 98.4% matching rate with 24,548 traffic stop records supplemented with officer characteristics.

Table 1: Data

	Records/Cases
Original Data	24,944
Duplicate Records	98
Non-Officer-Initiated Contacts	35
<i>Sub-Total for Arrest Analysis</i>	<i>24,811</i>
Non-Traffic Stops (i.e., Ped. Stops, Unlicensed, License Suspended, Other)	1,922
Missing 'Type'	76
<i>Sub-Total for Traffic Stops</i>	<i>22,813</i>

The next step was to analyze the variables for potential missing information that would preclude that record from further analysis. Table 2 outlines the available variables and groups them into situational, civilian, officer, and contextual categories. Each variable is described in terms of its measurement and then information on missing records (overall number of records and percentage) is provided along with the total number of records available for analysis. This assessment was conducted independently for the data used for the traffic stop analysis and then replicated for the data involved in the arrest analysis.

Overall, there was a very small percentage of missing data across all fields. The missing data rates for civilian characteristics (i.e., race/ethnicity, gender, and age) were below 1%, which is an unusually impressive level of completeness compared to many police administrative data sets. Missing data rates below 10% are acceptable with 5% or less missing preferred. The low missing rate of less than 1% of civilian characteristics demonstrates the commitment of LPD officers to collecting all required information as part of the RIPA process. In addition, less than 2% of all cases were missing an organizational unit identifier (i.e., beat) and less than 1% were missing officer characteristics (i.e., race/ethnicity, gender, age, years of experience, or assignment). Of note, a violent crime rate was calculated for each beat by counting the number of homicides, aggravated assaults, robberies, and sexual assaults reported within each organizational unit and then standardizing this by the residential population in those beats. The result is a violent crime rate that reflects the number of violent crimes per 1,000 population. A similar process was used to create a property crime rate at the beat level based on burglaries, thefts, and vehicle thefts. Importantly, the LPD changed its beat borders in February 2020, and population estimates were only available for the police-civilian encounters occurring since that date. As a result, there is a high missing rate for this variable. This does not reflect any incomplete information recorded by the LPD; rather, it is a product of not being able to access the population figures for the beats prior to the change in boundaries.

Table 2: Variables & Missing Data

Variables	Measurement	Traffic Stops (N=22,813)			Arrests (N=24,811)		
		Missing		Final N	Missing		Final N
		N	%		N	%	
Situational Variables							
Date & Time	Year, Month, Day of Week	0	0.0%	22,813	0	0.0%	24,811
Type of Contact	Type, Source	0	0.0%	22,813	76	0.3%	24,735
Organizational Unit	Beat	407	1.8%	22,406	415	1.7%	24,396
Civilian Variables							
Race/Ethnicity	White, Black, Hispanic, Asian, Other	76	0.3%	22,737	88	0.4%	24,723
Gender	Male, Female	0	0.0%	22,813	0	0.0%	24,811
Age	15-24, 25-32, 33-39, 40-48, 49-99	39	0.2%	22,774	48	0.2%	24,763
Officer Variables							
Race/Ethnicity	White, Black, Hispanic, Asian, Other	175	0.8%	22,638	216	0.9%	24,595
Gender	Male, Female	175	0.8%	22,638	216	0.9%	24,595
Age	21-55	175	0.8%	22,638	216	0.9%	24,595
Years of Experience	0-28	175	0.8%	22,638	216	0.9%	24,595
Assignment	Various Categories	175	0.8%	22,638	216	0.9%	24,595
Contextual Variables							
Violent Crime Rate	Violent Crime per 1,000 population	N/A	N/A	N/A	15,268	61.5%	9,543
Property Crime Rate	Property Crime per 1,000 population	N/A	N/A	N/A	15,268	61.5%	9,543

IV. Findings

Traffic Stops

Traffic stops initiated by LPD officers during the study period were examined to identify their racial/ethnic composition. White drivers were the most common group contacted by LPD officers with 44.2% of all stops involving that group. Hispanic drivers were the next most common and comprised slightly more than one quarter of all stops (28.1%). The remainder of the stops involved drivers of Other races/ethnicities (12.1%), Black drivers (10.3%), and Asian drivers (5.2%). The distribution of stops by race/ethnicity is summarized in Table 3.

Table 3: Civilian Race/Ethnicity in Traffic Stops

Total Cases: 22,737	Percentage
White	44.2%
Black	10.3%
Hispanic	28.1%
Asian	5.2%
Other	12.1%

The first assessment of the traffic stops was a veil of darkness analyses. As described previously, the veil of darkness requires the identification of traffic stops that occurred during the inter-twilight period or the period in Livermore between when the sun set the earliest (16:48) and latest (20:33) during the year. All stops occurring during the inter-twilight period were identified as either a daytime or nighttime stop depending on when during the year the stop was initiated and whether the stop took place before or after sunset on the day the stop was made. These stops were then summarized by the drivers' racial/ethnic composition.

Again, the veil of darkness analysis measures variance in the daytime stop rates of non-White drivers compared to the nighttime stop rates for these groups. Any difference in the within group rates between daytime and nighttime stop rates suggests evidence of a disparity. Two important points are critical when considering disparity. First, a simple difference in the stop rates must be assessed to determine statistical significance or whether the difference is large enough that it is unlikely due to chance. If an observed disparity is statistically significant, this does not necessarily prove bias or discrimination, which typically requires additional evidence that stops were motivated by a discriminatory purpose (*United States v. Armstrong*, 1996; *Ballou v. McElvain*, 2021). Such a determination is beyond the scope of this report and the data available to the research team. Instead, the veil of darkness analysis allows an assessment of patterns of disparity and areas of department action that may need further review or attention from LPD leadership.

Table 4 summarizes the rates of stops for each group during the daytime and nighttime and also

reports on the two analytic tests estimated to identify any statistical differences between the experience of these groups depending on the time of day. Overall, slightly more stops occurred during daylight hours (N=1,552) compared to nighttime hours (N=1,148). During both daytime and nighttime, White drivers were the majority group stopped by LPD officers (i.e., 44.5% and 43.8%) with Hispanic drivers being the second most common group involved in traffic stops (i.e., 30.0% and 29.4%).

An overall assessment of the across-group rates using an ANOVA resulted in a non-statistically significant result. Additional within-group analyses using t-tests also demonstrated no statistically significant results. The daytime stop rates of two minority groups – Hispanic (30.0% of daytime stops) and “Other” (11.5% of daytime stops) drivers – slightly exceeded their nighttime stop rates (29.4% and 10.0% of nighttime stops, respectively), but these differences were not statistically significant. The daytime stop rate of Whites also slightly exceeded this group’s nighttime stop rate, but this difference also was non-significant. Finally, the daytime stop rate of Black drivers (9.7%) was actually lower than this group’s nighttime stop rate (11.4%), which is not consistent with a pattern of disparate enforcement, and a similar pattern was observed for Asian drivers (4.3% of daytime stops vs. 5.4% of nighttime stops).

In sum, the veil of darkness analyses demonstrated no statistically significance difference in rates of traffic stops for the various racial/ethnic groups in stops during the daytime compared to the nighttime. While there were some minor differences in the rates of stops during the study period, these variations do not reflect a statistically significant pattern of racial/ethnic disparities in LPD stop practices.

Table 4: Civilian Race/Ethnicity in Daytime vs. Nighttime

Total Cases: 2,715	Daytime (N=1,552)	Nighttime (N=1,148)
White	44.5%	43.8%
Black	9.7%	11.4%
Hispanic	30.0%	29.4%
Asian	4.3%	5.4%
Other	11.5%	10.0%

Results were non-significant based on an ANOVA analysis; individual t-tests were also non-significant.

Civilian race/ethnicity was missing on 15 cases (0.6%).

The second assessment of traffic stops involved a statistical analysis of all traffic stops compared to the vehicle crash data. Using the SWITRS database on crashes, data were extracted for the City of Livermore between January 1, 2019 and April 30, 2021. During this period, 4,736 individual drivers were involved in crashes. Of those, 4,436 records were identified as either at-fault or not-at-fault; however, an additional 441 records were missing race/ethnicity. After removal of these

data due to missing information, 3,995 records provided required information for analysis (1,775 at-fault drivers and 2,220 not-at-fault drivers). Table 5 reports on the percentage of at-fault and not-at-fault drivers based on their racial/ethnic group.

Table 5: Civilian Race/Ethnicity in Crashes

Total Cases: 3,995	At-Fault Crashes (N=1,775)	Not-At-Fault Crashes (N=2,220)
White	40.7%	41.1%
Black	9.4%	8.4%
Hispanic	33.7%	28.6%
Asian	5.4%	8.1%
Other	10.9%	13.9%

Driver's race/ethnicity was missing in 441 (.9%) of the 4,436 crashes

These crash data rates were then used as a benchmark to compare against LPD traffic stops by racial/ethnic group. Table 6 provides a summary of the rates of traffic stops, at-fault crashes, and not-at-fault crashes for each racial group. Thereafter, disproportionality indices (DI) and ratios (DR) are reported for each benchmark. A DI above 1.0 indicates that the group of interest experienced a higher rate of stops compared to the rate of stops for that group using the benchmark. For example, White drivers possessed a DI of 1.1 when using the at-fault and not-at-fault benchmarks suggesting that their rate of stops was slightly above what was expected based on their representation in each benchmark. Black drivers also showed a slightly elevated DI rate when using the at-fault (1.1) and not-at-fault (1.2) benchmarks. The comparisons for the remaining racial/ethnic groups were either at or below 1.0 (with the exception of Other drivers when using the at-fault benchmark) suggesting no pattern of differential stops of these groups.

The DR statistic extends the analyses by comparing the DI rate for the group of interest (i.e., Black, Hispanic, Asian, and Other drivers) to the DI rate for White drivers. In short, this assessment compares the experience of groups of primary interest to that of White drivers. Similar to the DI, a rate above 1.0 indicates that the group of interest experienced rate of stops at an elevated rate compared to White drivers. The only comparison that demonstrated a slightly elevated rate of stops was for Black drivers compared to White drivers when using the not-at-fault benchmark. In that case, Black drivers were 1.1 times more likely to be stopped compared to White drivers when using the not-at-fault benchmark as a proxy for risk of stop, which indicates a slightly elevated disparity in stops relative to Whites. However, the DI for Black at-fault drivers was not elevated compared to Whites.

Table 6: Disproportionality Indices & Ratios

	Traffic Stops (N=22,737)	At-Fault Crashes (N=1,775)	Not-At-Fault Crashes (N=2,220)	At-Fault DI	Not-At-Fault DI	At-Fault DR	Not-At-Fault-DR
White	44.2%	40.7%	41.1%	1.1	1.1	--	--
Black	10.3%	9.4%	8.4%	1.1	1.2	1.0	1.1
Hispanic	28.0%	33.7%	28.6%	0.8	1.0	0.8	0.9
Asian	5.2%	5.4%	8.1%	1.0	0.6	0.9	0.6
Other	12.1%	10.9%	13.9%	1.1	0.9	1.0	0.8

Arrests

Arrests arising from activities initiated by officers (as opposed to calls for service) were analyzed for patterns of racial disparity using multivariate modeling. Most arrests arose from traffic stops (91.9%), but pedestrian stops (7.0%) and other miscellaneous types of encounters (0.8%) also contributed to the 445 arrests that took place during the 24,065 LPD officer-initiated encounters with civilians analyzed from January 1, 2019 through April 30, 2021 (Table 7).³

Arrests occurred in 1.8% of all encounters during the study period. Importantly, no information was recorded about the reason for the arrest or the type of arrest that was undertaken. As described in Section II, high discretion arrests ideally would be analyzed separately from low discretion arrests. However, due to the data collection protocols used by the LPD during the study period, this was not possible.

In addition to the arrest outcomes, additional variables were available to help inform the multivariate disparity analysis. These variables also are summarized below in Table 7. The majority of contacts occurred in 2019 (54.0%), during a weekday (82.4%), and during daylight hours (62.1%). The racial/composition of civilians involved in these encounters was predominately White (45.6%), with slightly more than a quarter of all civilians identified as Hispanic (28.1%). Black civilians comprised 10.0% of all contacts, Asian civilians were involved in 4.9% of all incidents, and persons of Other races/ethnicities comprised the remaining 11.5% of all encounters. Male civilians were involved in 71.2% of all encounters, and 20.3% of these incidents involved a civilian under the age of 24.

Officers initiating these contacts were predominately White (89.0%), with a small representation of Black (0.7%), Hispanic (6.6%), Asian (0.5%), or Other (3.2%) officers. Male officers initiated the encounters in 92.7% of the cases, and officers were, on average, 38 years of age with 11 years

³ 70 records did not indicate the 'type' of stop (0.3%).

of experience. Slightly more 60% of the contacts were initiated by an officer assigned to Patrol. Finally, these contacts occurred in beats with an average violent crime rate of 2.7 per 1,000 population and an average property crime rate of 23.9 per 1,000 population.⁴

Table 7: Descriptives

N=24,065	Percent	Percent/ Average	
Arrest	1.8%		
Encounter Variables		Officer Variables	
Year 2019	54.0%	Race/Ethnicity	
Year 2020	34.0%	White	89.0%
Year 2021	12.1%	Black	0.7%
Weekend	17.6%	Hispanic	6.6%
Daytime	62.1%	Asian	0.5%
Civilian Variables		Other	3.2%
Race/Ethnicity		Male	92.7%
White	45.6%	Age	37.65
Black	10.0%	Years of Experience	11.26
Hispanic	28.1%	Patrol Officer	61.0%
Asian	4.9%	Contextual Variables	
Other	11.5%	Violent Crime Rate	2.72
Male	71.2%	Property Crime Rate	23.93
Under 24 Years of Age	20.3%		

Violent and property crime rate are based organization beats in effect since Feb 2020.

Two models were estimated using the data provided by the LPD (see Table 8). Model 1 uses all available records to analyze the impact of encounter, civilian, and officer variables on the likelihood of arrest. Model 2 includes all these variables but also considers beat-level crime rates as predictors. In these models, three key pieces of information are provided. First, statistical coefficients are provided that indicate the direction of the relationship between the variable shown and the arrest outcome. A positive value indicates an increased likelihood of arrest associated with this variable; conversely, a negative value means that the chances of an arrest are reduced when this variable is present. Statistical significance is denoted with asterisks, which indicate that the variable influenced the arrest outcome to a degree unlikely due to chance. The number of asterisks indicates the level of confidence in that relationship. For example, a single asterisk represents a 95% degree of confidence that the relationship was not due to chance. Two asterisks represent a

⁴ The violent crime and property crime rates were only able to be calculated for encounters occurring since Feb 2020 due to a lack of data on population size in the beats pre-Feb 2020.

confidence interval of 99% and so on. The magnitude or impact of statistically significant coefficients is shown with an odds ratio, which provides an interpretable number to indicate how much more likely an arrest is to occur when that variable is present in the encounter. An odds ratio of 2.0, for example, would indicate that the odds of arrest were two times higher when that variable was present during the police-civilian encounter.

The results from Model 1 reveal several statistically significant variables. Of primary interest, the race/ethnicity of the civilian was related to the likelihood of an arrest across several racial and ethnic groups. In this analysis, White civilians serve as the referent group to which minority groups should be compared. Black civilians were statistically indistinguishable from White civilians in terms of arrest likelihood, while Hispanic, Asian, and Other civilians all had lower odds of an arrest compared to Whites. Similarly, males were 1.91 times more likely to be arrested than females who served as the referent gender, while civilians under the age of 24 experienced a lower likelihood of arrest.

Other important predictors of an arrest included time of the day. Arrests were 1.78 times more likely to occur during daylight hours compared to nighttime hours. Also, two officer characteristics were associated with the likelihood of an arrest. Officers with less experience and those assigned to patrol were more likely to conclude an encounter with an arrest. Of note, the race/ethnicity and sex of the officer were not related to the likelihood of an arrest.

Model 2 included the same variables as Model 1 but also included beat-level crime rates for encounters that took place after February 2020. Results were largely consistent with Model 1 with two exceptions. First, the time of day became statistically non-significant and was no longer related to the likelihood of an arrest, and second, encounters occurring within beats with higher violent crime rates were more likely to result in an arrest.

Table 8: Arrest Multivariate Models

	Arrest Model 1 N=24,065		Arrest Model 2 N=9,425	
	Coeff.	Odds Ratio	Coeff.	Odds Ratio
Intercept	-4.114***	--	-5.451***	--
<i>Encounter Variables</i>				
Year 2019	.248	--	--	--
Year 2020	.014	--	.066	--
Weekend	.111	--	.040	--
Daytime	.576***	1.78	-.122	--
<i>Civilian Variables</i>				
Black	-.040	--	-.422	--
Hispanic	-.301**	0.74	-.046	--
Asian	-2.293***	0.10	-2.171*	0.11
Other	-1.443***	0.24	-1.120*	0.33
Male	.648***	1.91	.611*	1.84
Under 24 Years of Age	-.715***	0.49	-.794**	0.45
<i>Officer Variables</i>				
Black	-.261	--	--	--
Hispanic	.167	--	-.158	--
Other	-.267	--	-.009	--
Male	-.147	--	-.111	--
Years of Experience	-.082***	0.92	-.050*	0.95
Patrol Officer	.436**	1.55	1.06**	2.86
<i>Contextual Variables</i>				
Violent Crime Rate	--	--	.440**	1.55
Property Crime Rate	--	--	-.017	--
Model R ² (Nagelkerke)	.086		.113	

*p ≤ .05, **p ≤ .01, ***p ≤ .001

Reference Groups: Year 2021, White Drivers, White Officers

Black officers were not included in Model 2 as they only accounted for 19 cases and generated unstable standard errors which make statistical modeling inappropriate.

V. Summary & Conclusions

A research team of criminologists from the University of Texas at San Antonio analyzed 24,944 encounters between LPD officers and civilians that took place between January 1, 2019 and April 30, 2021 for patterns of racial and ethnic disparity. The analysis addressed two areas of possible disparity: (1) disparities in traffic stops and (2) disparities in arrests. The traffic stop analysis made use of two benchmarking techniques that have been well-accepted in the peer reviewed literature. A "veil of darkness" (VOD) analysis examined differences in stop rates of non-White and White drivers during the daytime compared to the nighttime. A higher rate of non-White stops during daylight hours when race and ethnicity are more visible to officers prior to the stop is suggestive of possible racial bias (Grogger & Ridgeway, 2006). In addition, data obtained from a State of California-maintained database (SWITRS) containing the racial composition of not-at-fault and at-fault drivers involved in two-vehicle crashes was used as a proxy for the driving and traffic law violating populations in Livermore and was compared against the racial/ethnic composition of drivers stopped by the LPD during the period of study (see Alpert, Smith, & Dunham, 2004). These two benchmarking analyses allowed for an assessment of whether LPD officers stopped non-White drivers at rates that exceeded the risk for a stop expected for these groups and if so, how that increased risk compared to stops experienced by White drivers. In the same vein, a multivariate analysis of arrests examined whether civilian race/ethnicity predicted the likelihood of an arrest by the LPD after controlling for other relevant factors available in the data or from external sources (e.g., beat-level crime rates).

The VOD analysis found no statistically significant differences in the rates at which non-White drivers were stopped in Livermore during the day compared to at night. This finding suggests that the race/ethnicity of the driver did not influence the decision by LPD officers to initiate traffic stops. The traffic crash benchmark analysis found slightly elevated risks for stops of White, Black, and "Other" race drivers (at-fault benchmark only) and a slightly elevated risk for stops of Black drivers relative to White drivers (not-at-fault benchmark only). **Together, the results from these two benchmark analyses do not suggest a pattern of racial/ethnic disparity in traffic stops experienced by non-White drivers in Livermore.**

The multivariate arrest analysis found a *decreased* risk for arrest among non-White civilians in Livermore compared to White civilians when other relevant factors (day of week, time of day, officer race/ethnicity/gender, area crime rates) were held constant. **The results of the arrest analyses also do not reveal a pattern of racial disparity in police outcomes that disadvantages non-White civilians in the City of Livermore.**

Compared to most other traffic and arrest disparity studies reported in the literature, **no clearly identifiable or concerning pattern of racial/ethnic disparity was found in the 24,944 police-**

civilian encounters that took place in Livermore over a 26-month period during 2019-21. This is an unusual and encouraging result and suggests the LPD and city leadership are committed to providing fair and constitutional policing to the community of Livermore. They should be commended for these findings.

With these encouraging results in mind, the UTSA research team recommends regular audits of the LPD's RIPA data to assess its completeness and validity and to ensure that officers remain in compliance with the letter and spirit of the law. In addition, the team recommends an annual analysis of the RIPA data to identify any racial/ethnic disparities of concern embedded within the detailed information that RIPA now mandates be collected. For example, a fulsome analysis of citations and searches will be possible once sufficient cases are accumulated in the data, which may reveal areas that require additional training or monitoring. Subsequent arrest and search analyses can make use of RIPA's improved level of detail to separate out high and low discretion searches and arrests and examine potential disparities in outcomes that fall on the higher end of the discretion continuum. Racial and ethnic disparities in the use of force are of national concern and the LPD may consider working with an experienced research team to ensure that it is collecting the appropriate information on use of force cases and analyzing the resulting data to its full potential.

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CITY COUNCIL STAFF REPORT

ITEM NO. 10.1

DATE: February 14, 2022
TO: Honorable Mayor and City Council
FROM: Marie Weber, Acting Administrative Services Director
SUBJECT: Supplemental materials received prior to the meeting.

RECOMMENDED ACTION

SUMMARY

These materials were posted online and made available to the public at the same time that they were distributed to the City Council.

6.1	Third Public Hearing to receive an update on redistricting efforts to date, receive public input on the composition of City Council voting district draft maps prepared by the City's demographer, and provide direction to the City's demographer for revisions of the draft maps to be considered at the fourth public hearing Materials: Public Comments Received
7.1	Oral report from the Director of Emergency Services regarding the COVID-19 emergency, its impacts, and the governmental operations in response to that emergency, as well as discussion and direction regarding the City's emergency operations in response to that emergency. Material: PowerPoint Presentation
7.2	Final report on the Livermore Police Department traffic stop and arrest data project as part of the Equity and Inclusion Subcommittee Material: PowerPoint Presentation
8.0	Council Committee Reports and Matters Initiated by City Manager, City Attorney, Staff, Council Members. Material: Council Members' Reports.

DISCUSSION

ATTACHMENTS

1. Supplemental Materials

Prepared by: Debbie Elam
Deputy City Clerk

Approved by:



Marc Roberts
City Manager

Fiscal Review by:



Bhavna Chaudhary
City Treasurer/Finance Manager

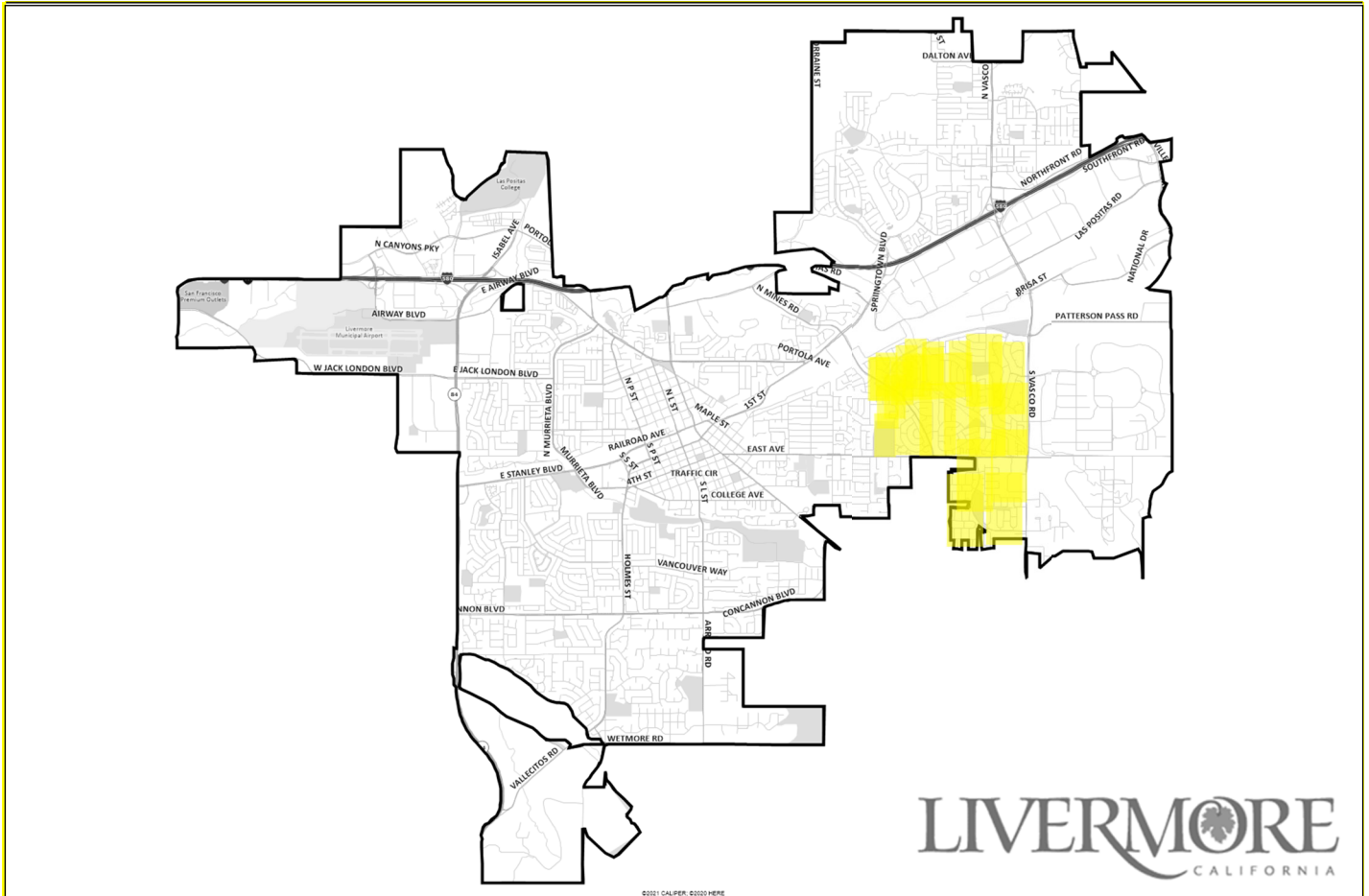
From: [Yolanda Fintschenko](#)
To: [redistricting](#)
Subject: my redistricting map
Date: Friday, January 28, 2022 3:18:22 PM
Attachments: [Livermore-COI-print-packet-v1b-YF.docx](#)

Thank you for reaching out to the community for this information. Best, Yolanda

Public Comment Received

1) Name your Community: _____ Girls Names
Streets _____

2) Draw your Community on the Map:



3) Describe your Community (Specific boundaries. What makes it a community? Why should it be kept together?):

Our boundaries are Patterson Pass Between Vasco and Loyola south to Tesla road to just north of Patterson Pass. What makes us a community is shared common resources like Arroyo Seco Elementary school and park bus stops, the Livermore Community Center and park, that elementary school, Bruno Canziani park, access to the trail that goes to Tesla and beyond, the vineyard proximity, and the access to mass transit (ACE train), and proximity to the two national labs. We should be kept together because we are similarly affected by traffic, crime, school and park access, mass transit access, and what happens to the labs and the warehouse area across from the labs on Vasco north of East Avenue.

4) Tell us about Yourself (optional):

Name: Yolanda Fintschenko Email: _____

Livermore City Redistricting

Kyoko Takayama

To whom it may concern,

I submitted 3 maps (TVP1, 2, and 3). If possible I would like to withdraw 1 & 2. I drew them before working on my own Community of Interest, South Downtown.

First I hope you are receiving more "Community of Interest" (COI) than those posted on the website.

A "community of interest" is defined as a population that shares common social or economic interests that should be included within a single district for purposes of its effective and fair representation. Communities of interest do not include relationships with political parties, incumbents, or political candidates.

It is residents' voice, and only way to learn how residents see their neighborhoods. You can balance the population, and see if districts are contiguous, but you will never know every corner of city and how residents identify themselves in their neighborhoods unless we have COIs.

I believe success of redistricting outreach can be evaluated by how many COIs were submitted. I know it is difficult, for I organized county outreach last year and the county received less than 200 COI maps, and we had over 30 organizations and many volunteers working on outreach with the county staff.

I was surprised to hear the deadline is Jan 31, 2022 at 5 pm, and 1) there was no hearing for COI, 2) the online tools did not ask who submitted and why the lines were drawn. The names do not need to be published, but it is important to know who is participating.

I was not happy with the current map because I did not see any good reason to divide South downtown or Junction area. Knocking on doors as a Census worker in 2020 and flyer for vaccine outreach have given me plenty opportunity to walk in the neighborhood beyond my own. I submitted South downtown and North downtown community of interest. While I do not live in North downtown, I am afraid that it is the best I could and the only input you might get.

The city of Livermore was originally built around railroad. Thus one of our landmark is railroad which runs west to east in the middle of the city. Business part of downtown runs West to East from Maple St to end of First St or Railroad, and North to South Railroad to 4th St. It is the heart of Livermore and I believe it should be all in a single district. I combine the area with East Ave neighborhood. The neighborhood has many apartments, and it ends at Vasco Ave where Labs closed the road to the public. East Ave neighborhood lacks grocery store.

Northwest Livermore includes North of 580, and the population is more diverse. Autumn Spring Apartment, North downtown and Murrieta Condos between Stanley and Holmes, Hispanic rich area are included, and contributing to push Hispanic rated over 20%. Southern boundary is Stanley/Arroyo Mocho/Railroad to go around the South downtown. Eastern boundary is N. Livermore/Portola/Enos/Junction/Old First St. While it is not straight line, residents should be able to identify them. Airport and future Valley link station make the district candidate for both industrial and residential development. San Francisco Outlet catering to Asian population will likely promote more Asian development in the district.

South Livermore is south of Stanley and Arroyo Mocho. It includes apartments and condos close to Stanley, and those around Lucky shopping center. Only shopping center in the area is Lucky Shopping Center on Holmes.

Northeast Livermore district includes North of 580 including Springtown, East of Vasco and North of railroad closer to the city center. Many new developments are in the district and its increasing population is Asian. New Asian market and Hindu temple signifies the trend. From Las Positas to First Street many mega chain stores are in the district. Biggest industrial are in Livermore is between Patterson Pass and 580. Like Northwest Valley link future station make the district possible candidate for high density housing community development.

Hope this email clarifies TVP3 district maps boundaries.

Thank you for your consideration.

Respect, Empower, Include, Organize!

Public Comment Received

Kyoko Takayama

Community Organizer (she/her)

[Alameda County Coalition for Fair Redistricting Facebook/Instagram](#)

[Moms Against Vaping](#)

[All On The Line/OFA East Bay Central Facebook/@OFA_EBC](#)

[Livermore Indivisible FB Page FB Group @livermoreindiv1](#)



Debbie Elam

From: Alan Burnham [REDACTED]
Sent: Tuesday, January 25, 2022 6:23 PM
To: Cityclerk - Livermore
Subject: New Map

Exercise Caution: This message is from outside the City email system. Do not open links or attachments from untrusted sources.

Please replace my previous message with this message. I have clarified a few issues. Thank you.
Alan

Dear City Clerk,
I could not find a place to connect my new map to my reasons for creating it, so I am sending that information directly to you.

Use this URL to share your plan!

<https://districtr.org/plan/104852>

Copy to Clipboard

You can close this window and keep working, and update whenever you'd like.
Even if you share the link, nobody but you can change your plan—other people's changes will save to a new link.

Would you like to Share Now, or save the map as a Work in Progress?

- ☒ Share Now
☐ Work in Progress

Tag or Event Code

#livermore

Team or Plan Name

AKB2

3) Describe your Community (*Specific boundaries. What makes it a community kept together?*):

After seeing other maps and hearing the discussion thereof, I realized that the largest defect of the existing maps is that the north Livermore downtown neighborhood is split between districts 1, 2, and 3. School Districts are an important influence on forming communities of interest, at least from my experience when our children were growing up. I suspect that Junction Avenue school, for example, is not in the same district of most of its attendees. In addition, the railroad tracks in east Livermore are a more rational dividing line between Districts 2 and 3 than First Street and I580. The tracks are just as much of a barrier to walking and biking as a freeway. I live in District 3 and have more friends in and a much stronger affiliation with the South Livermore downtown neighborhood. I walk through it frequently on my way to downtown, and I often chat with neighbors. It is in the Livermore High school district with my neighborhood, and we gained friends through our children's friends. Also, the South

Livermore neighborhood seems to have little in common with the other neighborhoods, particularly different schools. By making a few swaps of territory, I was able to get the north Livermore downtown neighborhood in the same district. Finally, the two districts with the smallest populations are the ones more likely to increase in population due to development, so the variance will decrease with time, not increase.

Alan Burnham

[REDACTED]

[REDACTED]

Population

Data Layers

Evaluation

▼ Citizen Voting Age Population by Race

COMPARE

Hispanic population ▼

WITH

Asian population ▼

AND

Black population ▼

1

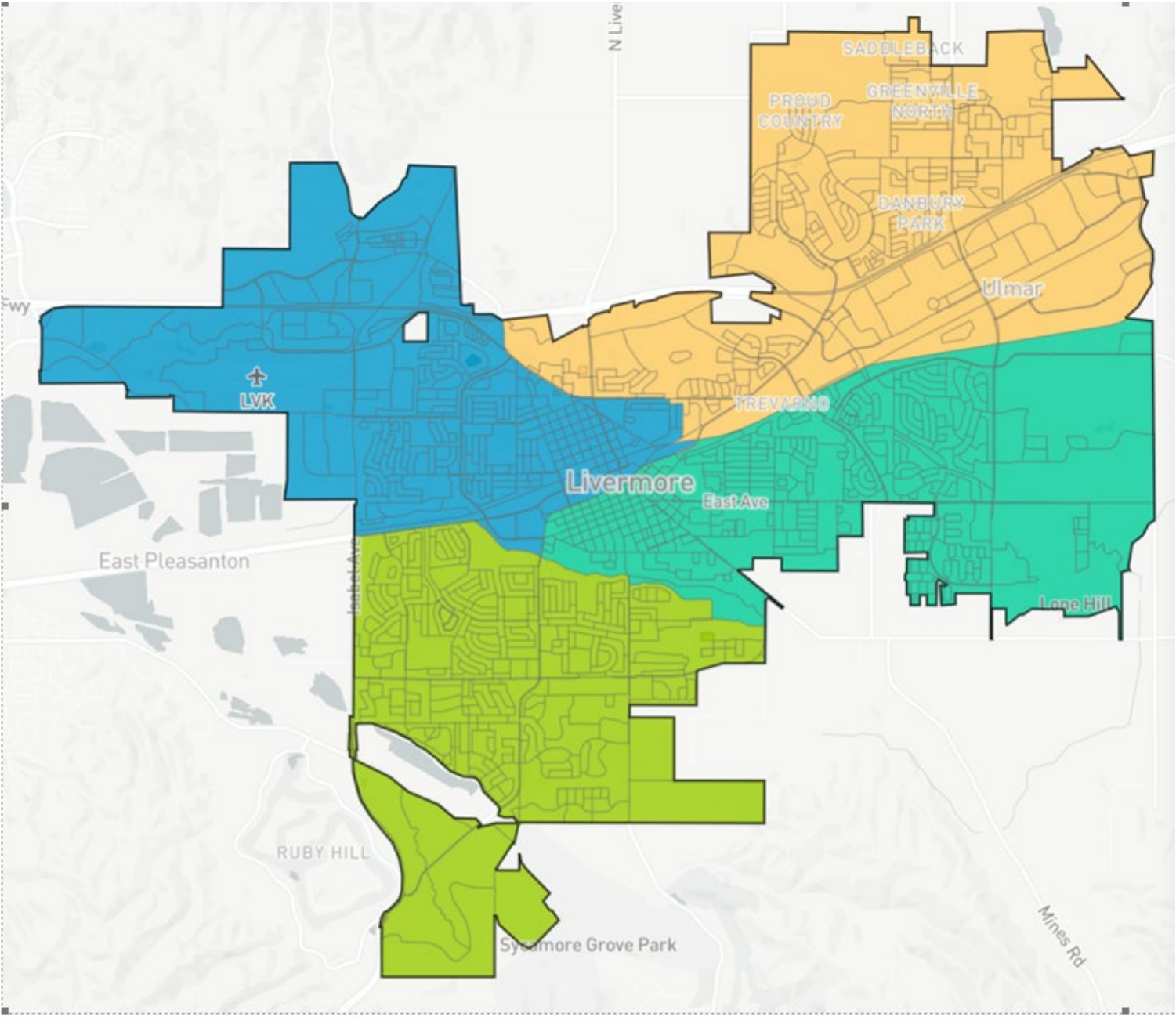
2

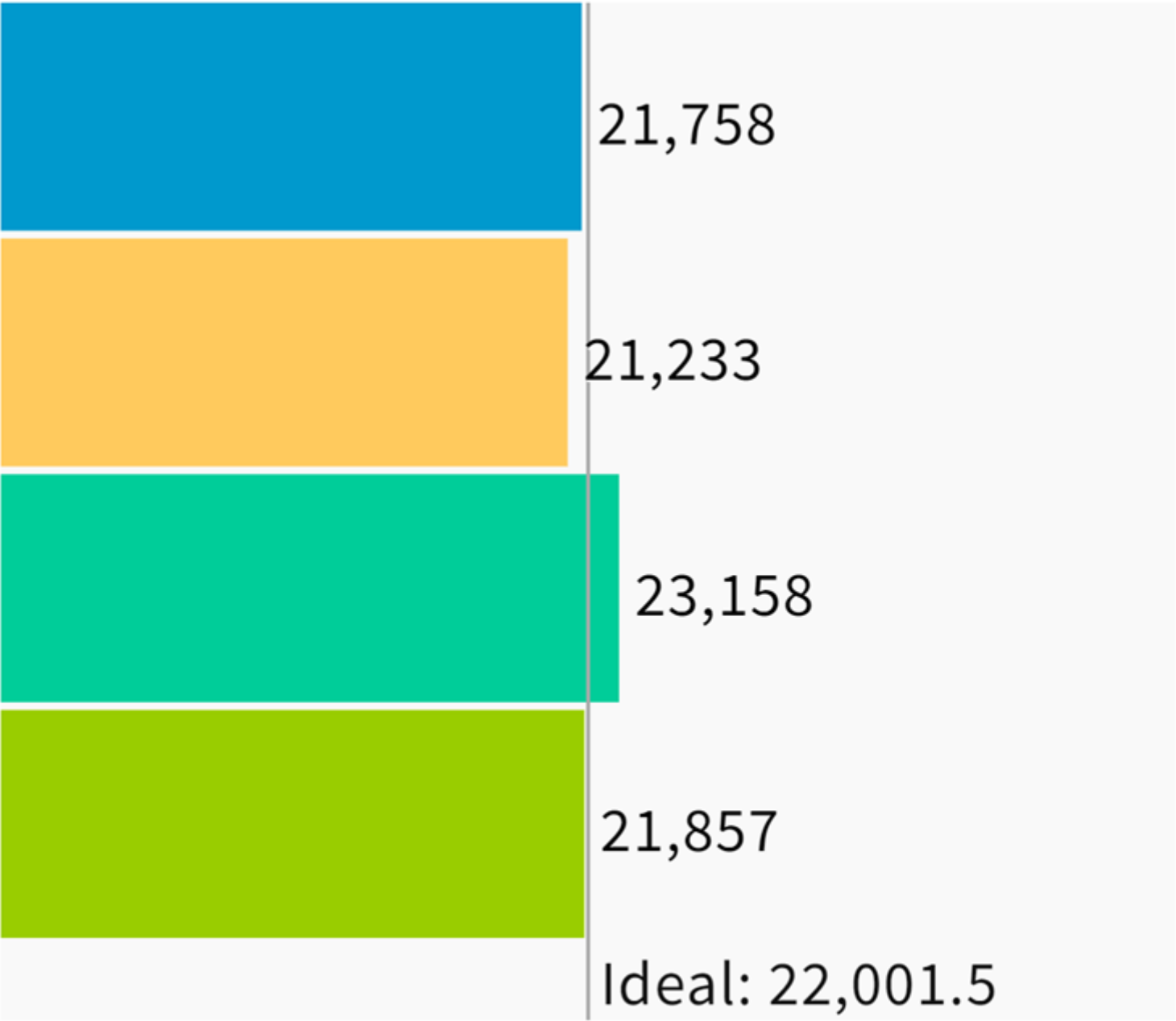
3

4

Overall

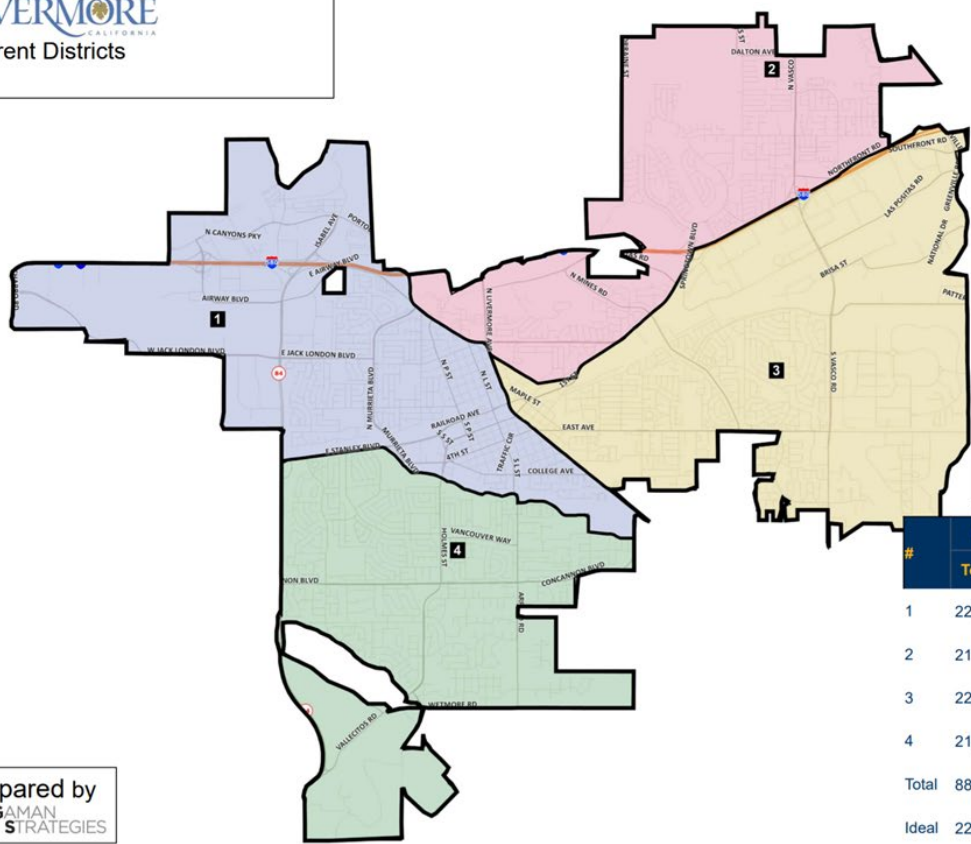
	Hispanic	Asian	Black
1	20.3%	12.6%	3.7%
2	15.1%	14.9%	3.3%
3	10.9%	10.9%	2.8%
4	12.6%	8.8%	0.8%
Overall	14.6%	11.7%	2.6%





UNASSIGNED POPULATION: 0
MAX. POPULATION DEVIATION: 5.26%

LIVERMORE
CALIFORNIA
Current Districts



^ 2020 Census Redistricting Data. Adjusted for incarcerated populations
+ 2015-2019 American Community Survey Special Tabulation
* Calculated pursuant to OMB BULLETIN NO. 00-02

#	Population [^]		Citizen Voting Age Population ⁺				
	Total	Deviation	Total	Latino ⁺	Asian ⁺	Black ⁺	NH-White
1	22,837	+3.8%	16,240	17.7%	10.6%	3.3%	67.8%
2	21,020	-4.5%	14,742	15.9%	12.8%	3.3%	66.5%
3	22,292	+1.3%	15,089	12.0%	14.9%	3.2%	68.0%
4	21,857	-0.7%	15,883	12.6%	8.8%	0.9%	76.0%
Total	88,006		61,954	14.6%	11.7%	2.6%	69.6%
Ideal	22,002						

Prepared by
WAGAMAN
STRATEGIES

Item 6.1 Public Comment Received

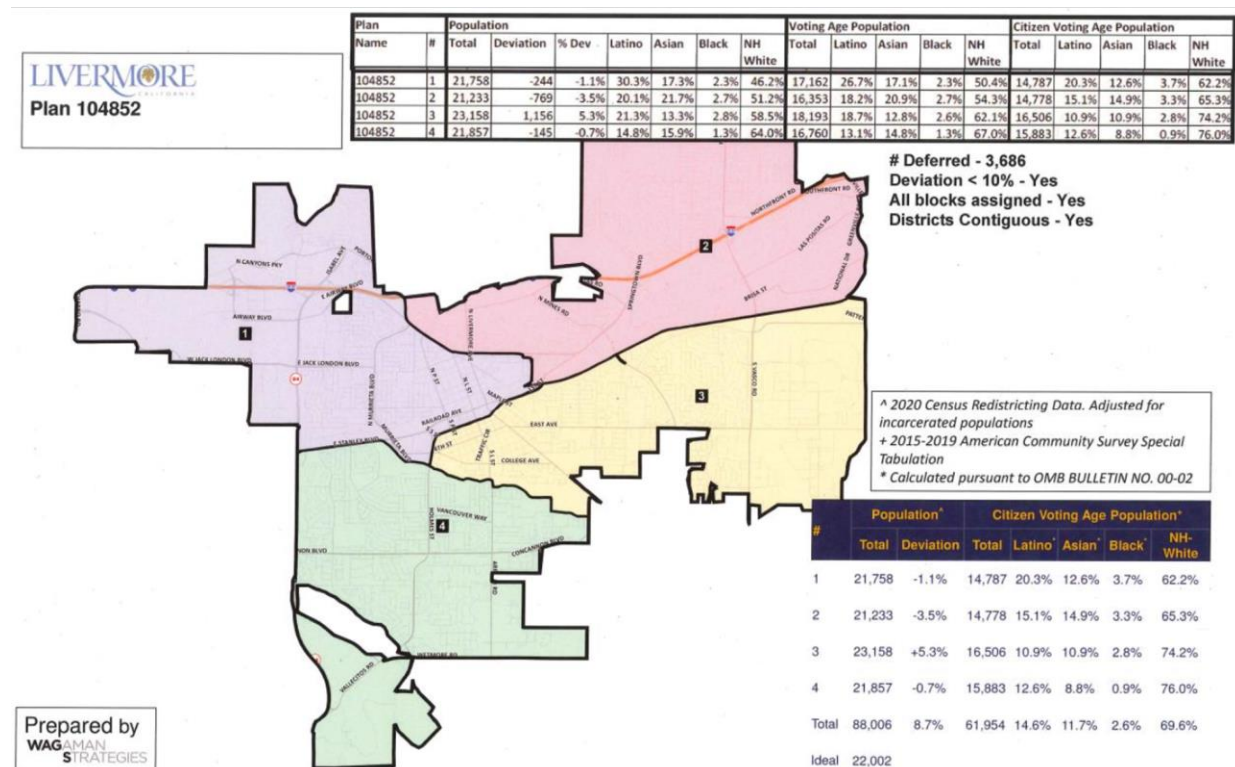
February 13, 2022

To: Livermore City Council

From: Alan Burnham

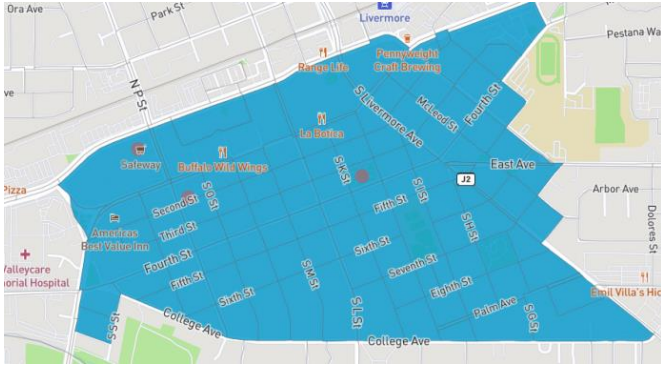
Over the past month, I created several potential zoning maps, two of which were formally submitted. I focused on our community of interest and achieving an acceptable population variance. Five specific considerations were (a) don't start from scratch and disenfranchise too many voters (b) those of us close to East Avenue School are connected more to the south downtown neighborhood than is North Livermore, given that we walk through it frequently going downtown, (c) the railroad tracks provide a more appropriate boundary than First Street between districts 2 and 3 given the limited traversal by walking and bicycling, (d) the current district map inappropriately divides the north downtown community along Livermore Ave, and (e) Districts 1 and 2 are where most future growth will occur, so if anything should have lower population in districts drawn now.

Per Council discussion, my second submitted version (104852)

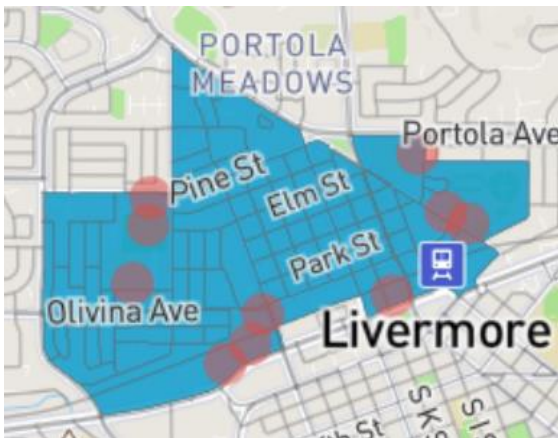


placed more emphasis on Communities of Interest than equivalent populations. My District 3 had the largest population, but I thought it was appropriate to maintain community connections. The demographer's Red Plan is similar 104852, except the 1-3 boundary is moved from to Fourth street to reduce the population variance. I think it is not the best alternative to put all of downtown in District 1. Alternatives to that move are (a) to move the District 4-3 boundary from Robertson Park and the creek to College Avenue or (b) to move the condos NW of LHS to District 3 along with moving the line in my plan westward to put the homes east of Junction School in District 2. The former is consistent with a Community of Interest map submitted by a South Livermore Downtown resident,

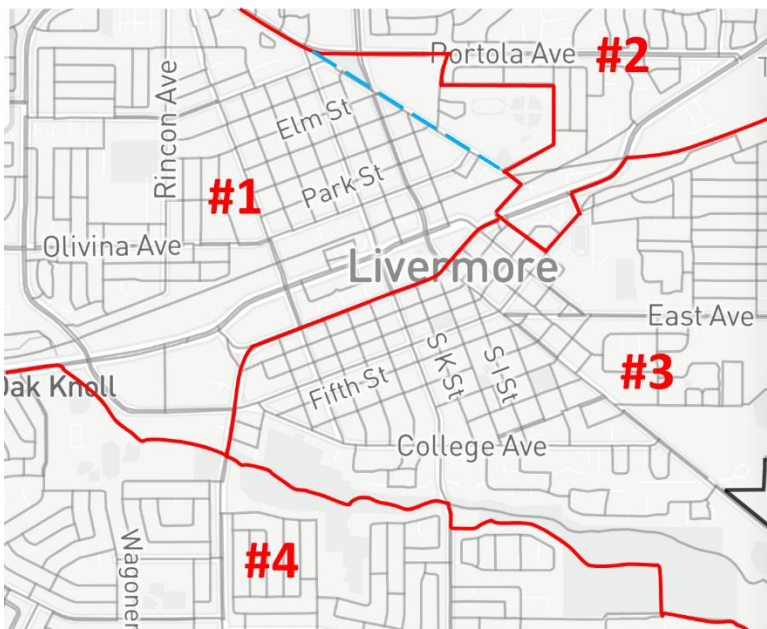
Item 6.1
Public Comment Received



and the latter is along the lines of another Community of Interest map submitted from the North Livermore downtown neighborhood. Note that the line here is not long Junction Ave as in many plans and more similar to my plan 104852.

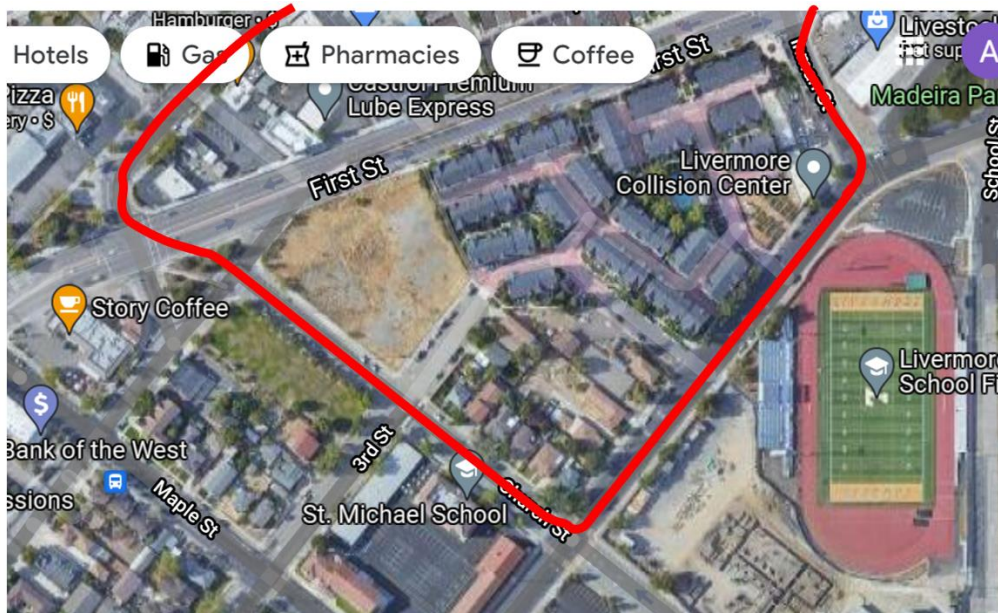


I offer a modification of my plan that I suspect will reduce the variance to below that of the current districts and allow the variance to decrease with time as North Livermore grows.



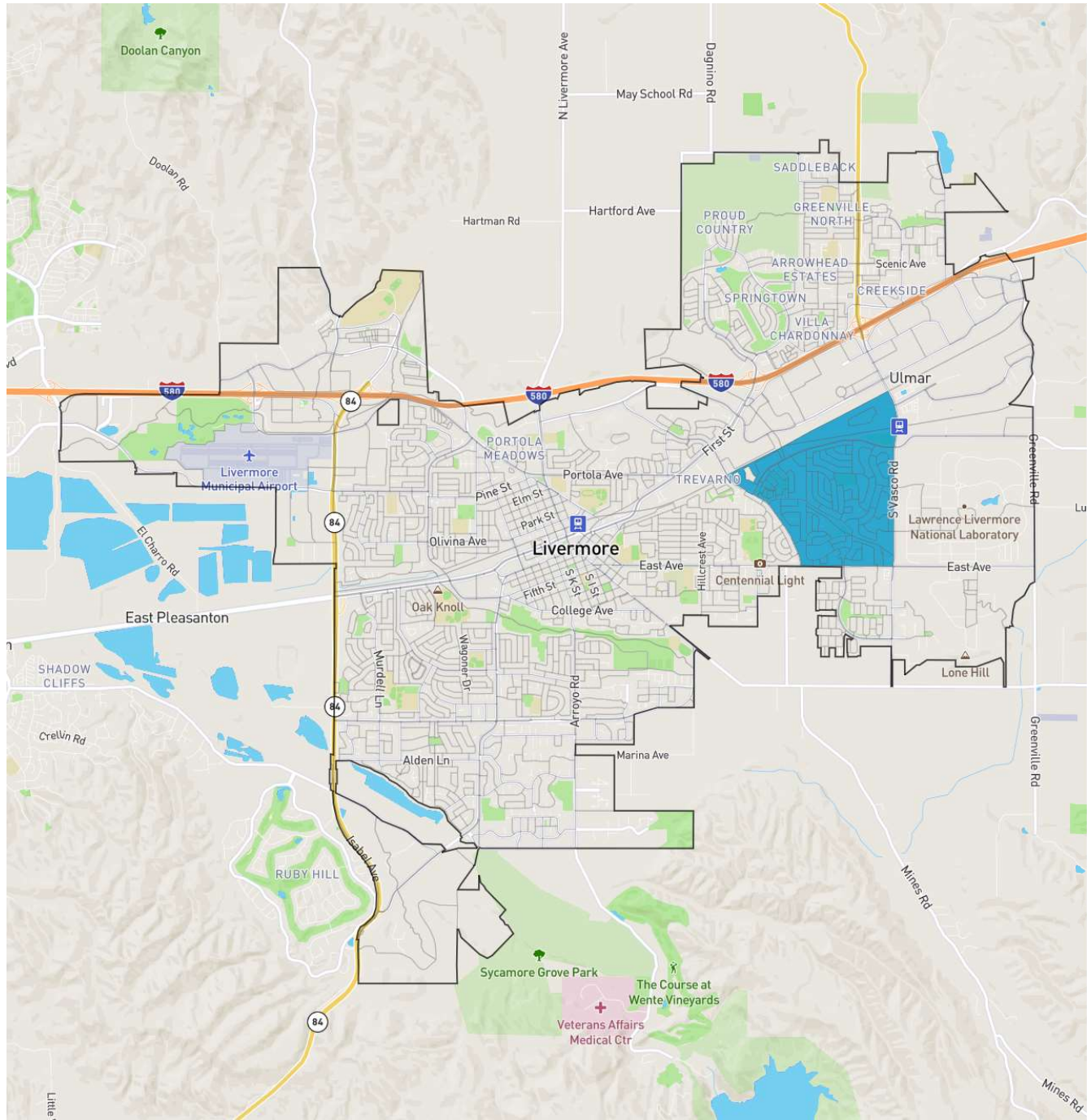
Item 6.1 Public Comment Received

An expanded view of the condos and a few houses moved to District 2 follows.



An alternative boundary along Junction Avenue is shown by the blue dashed line. Which district Junction school itself is in probably makes no practical difference. More important is what community of interest the apartment dwellers bounded by Portola, Livermore Ave, and Junction Ave might associate with. Having those dwellings in District 2 makes it more contiguous and reduces the variance between Districts 1 and 2. Unfortunately, the map drawing program is no longer available on the City website, so I cannot do a quantitative analysis.

I conclude that there is no such thing as a perfect boundary. The Railroad tracks east of downtown and Stanley Boulevard west of town are about as good as it gets. The best intersections among the Districts in the downtown area are more debatable, but having all or most districts cover part of the downtown is highly desirable in my view in order to encourage overall Livermore cohesiveness.



Item 6.1

Public Comment Received

☰

- About redistricting
- About the data
- Save plan
- Districtr homepage
- New plan
- Print / PDF
- Export Districtr-JSON
- Export COI plan as SHP
- Export COI plan as GeoJSON
- Export assignment as CSV (these units)
- About import/export options

These details are updated automatically

▼ Important Places

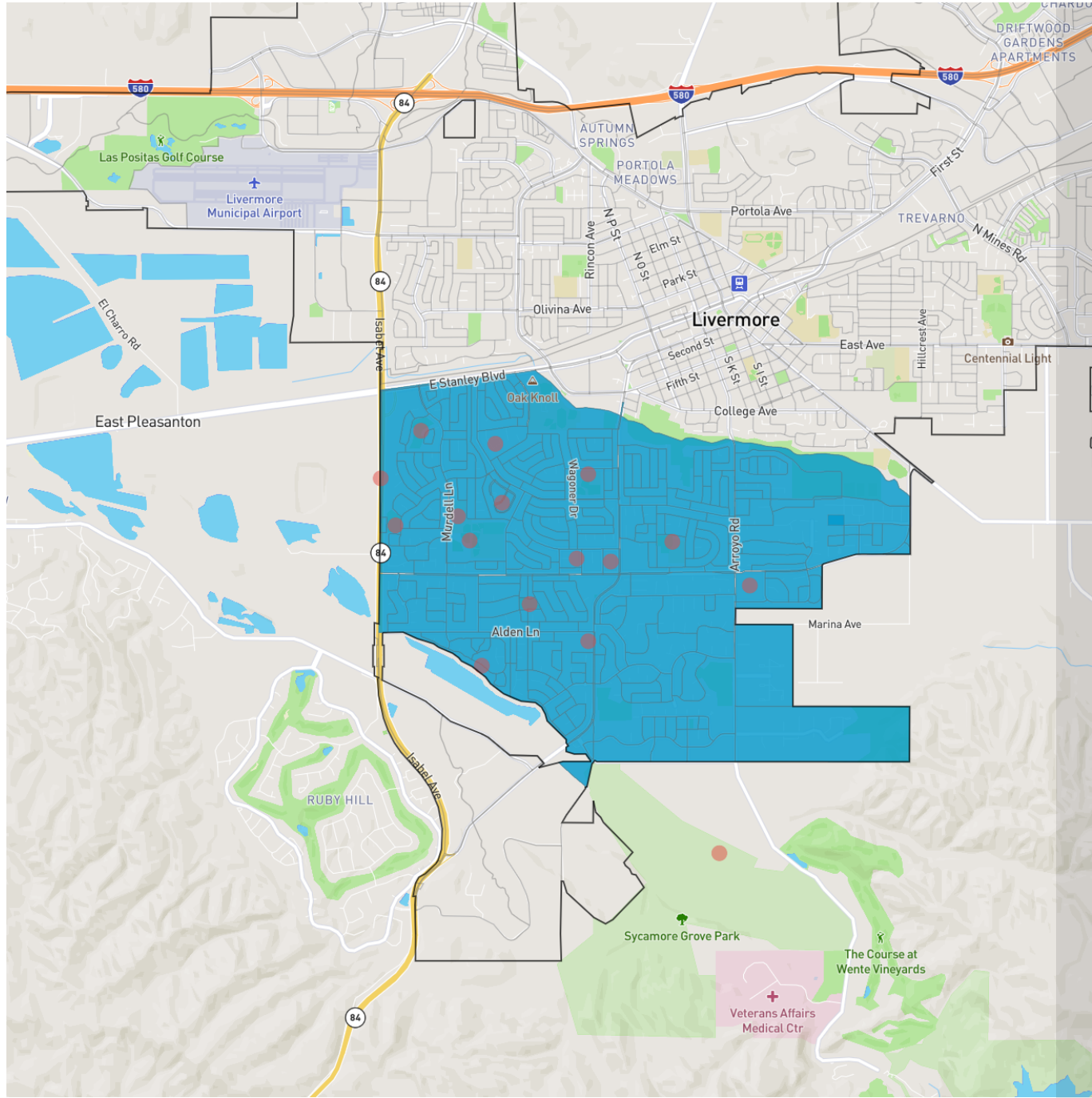
New

110962

Communities of Interest

● South-east livermore

This region sits within a boundary of higher traffic roads, but within it there is a continuity of neighborhoods.



Public Comment Received

- About redistricting
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- About import/export options

These details are updated automatically



108607

SELECT

Lucky Supermarket

PLACE NAME

Communities of Interest

● South Livermore

This community is people whose children attend or attended the two elementary schools, K-8 school, middle school, and high school on this side of town. We use the parks and the bike path, and many were members at one point or another of the swim clubs. Alden Lane Nursery is another popular gathering place.

Important Places

Lucky Supermarket

Granada High School

Smith Elementary

Mendenhall Middle School

Sycamore Grove Park

bike path

Alden Lane Nursery

Public Comment Received

Livermore Valley Swim & Tennis Club

Sunset Elementary School

Max Baer Park

Ida Holm Park

Jack Williams Park

Pleasure Island Park

Joe Michell K-8 School

bike path

Sunset Swim Club

Grocery Outlet

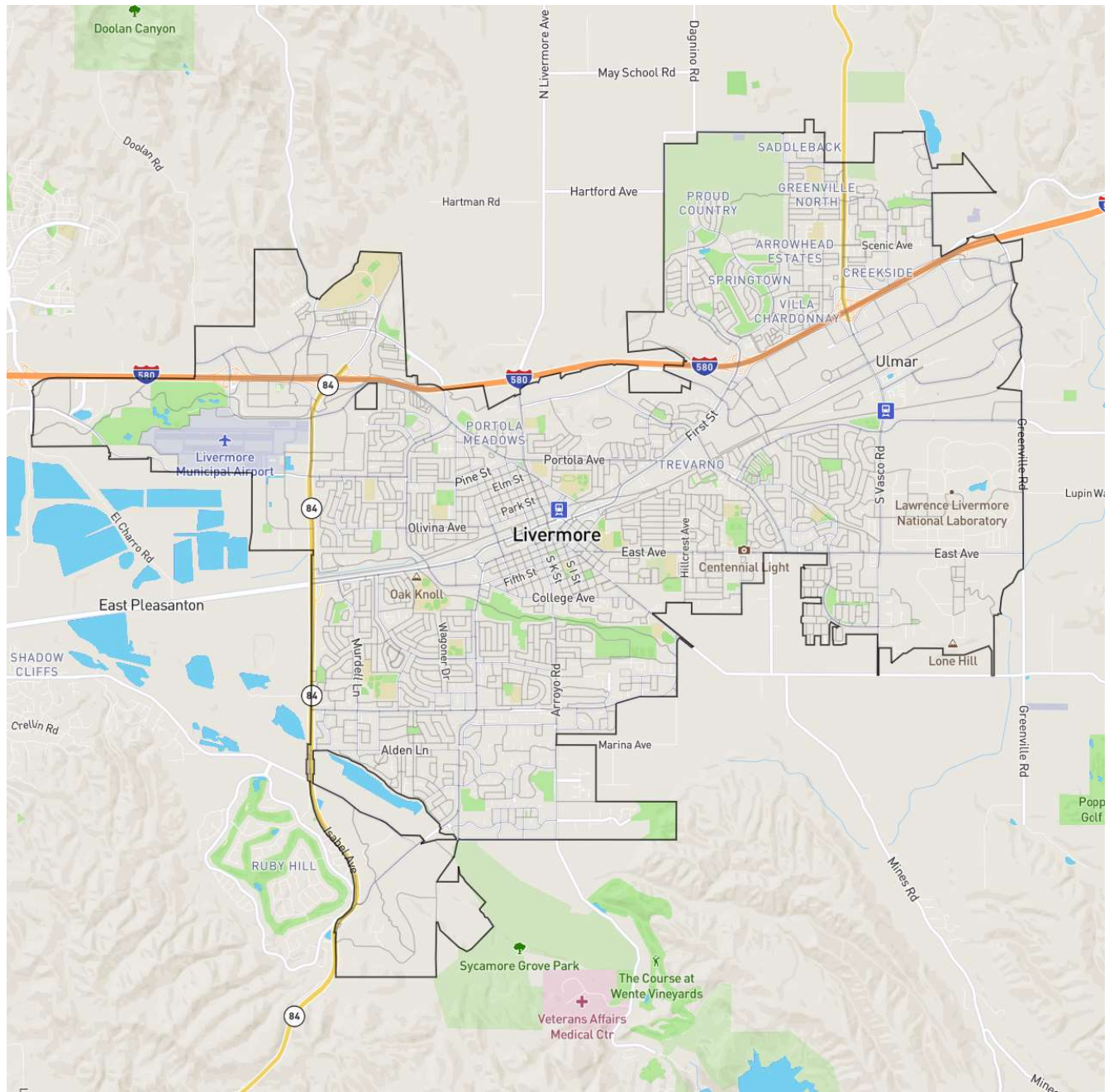
Public Comment Received

99 Cents Only Store

Rincon Library

Junction K-8 School

Marilyn Ave Elementary School



Item 6.1

Public Comment Received





- About redistricting
- About the data
- Save plan
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- Export COI plan as GeoJSON
- Export assignment as CSV (these units)
- About import/export options

These details are updated automatically

▼ Important Places

 New

110505

Communities of Interest

Community 1

All area south of Concannon Ave and Wente St and Tesla Rd in Livermore



Report from the Director of Emergency Services regarding the COVID-19 emergency

February 14, 2022

Presented by Christine Martin, Assistant City Manager



1

Updates Since We Last Met

- TESTING:

County 7-day percentage positive tests for February 12 was 5.3%



Down from January 21 when it was 17.1%

- HOSPITALIZATIONS:

County 7-day average of new COVID admissions and confirmed diagnoses on February 12 was 65



Down from January 21 when it was 115

- CASES:

Livermore 7-day average of daily new cases per 100k

- February 5: ~58; January 21: ~168

County 7-day average of daily new cases per 100k

- February 5: ~53; January 21: ~174



2

Updates Since We Last Met



February 13 Vaccine Clinic at the Sunday Farmers Market

- Administered 103 doses of Pfizer 12+
- Administered 67 doses of Pfizer Pediatric
- Alameda County Vaccine Incentive Program: 56 gift cards to youth ages 5-17 who received 1st or 2nd dose



3

Updates Since We Last Met

- Mask Mandate
 - Alameda County aligns with State of California to lift universal mask requirements for vaccinated people for most indoors public settings beginning February 16.
 - Unvaccinated people over the age of two must continue to mask in all indoor public settings.
 - Indoor masking still required for everyone, regardless of vaccination status, in public transportation; health care settings; congregate settings such as correctional facilities and homeless shelters; long-term care facilities; and in K-12 schools and childcare settings.
 - Masks strongly recommended to be worn in indoor settings as an effective tool to prevent the spread of the virus.



4

Local Testing Sites

- Mobile Testing Bus at Robert Livermore Community Center parking lot off Loyola Way
 - Started Jan. 28 and operates 7am-7pm every Friday
 - Total tests 254
 - Total positive tests 94
 - Total negative 168



- Alameda County free community testing site at Axis Community Health (5925 W. Las Positas Blvd., Pleasanton)
- Stanford Health Care – ValleyCare Community Testing (1111 E. Stanley Blvd., Livermore)
- Las Positas College Parking Lot P operated by CityHealth Urgent Care (3000 Campus Hill Dr., Livermore)



5

Vaccination Data

	Pop.	At Least One Dose	Fully Vaccinated	Fully Vaccinated with Booster Dose
Livermore	88,961	83.1%	77.0%	56.8%
Alameda County	1,648,969	88.7%	82.2%	59.2%

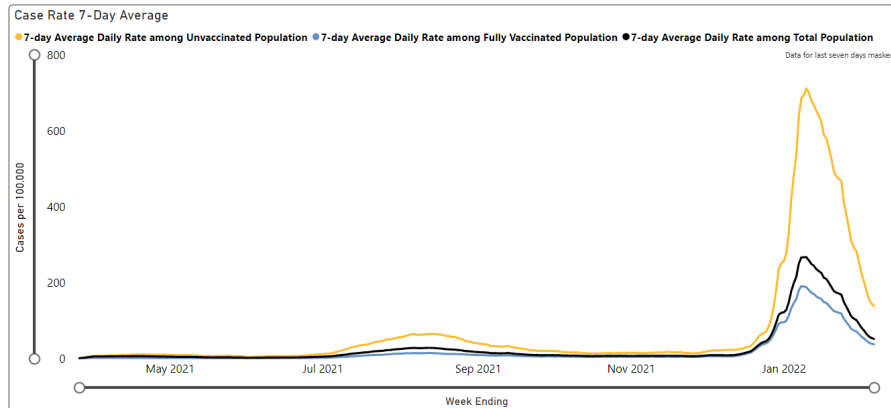
- Standing Clinics:
 - Stanford Health Care – ValleyCare (1133 E. Stanley Blvd.)
 - Local pharmacies (CVS, Walgreens, Safeway, Rite Aid, etc.)

Note: sourced from the County's COVID data site <https://covid-19.acgov.org/data>



6

Alameda County Cases by Vaccination Status



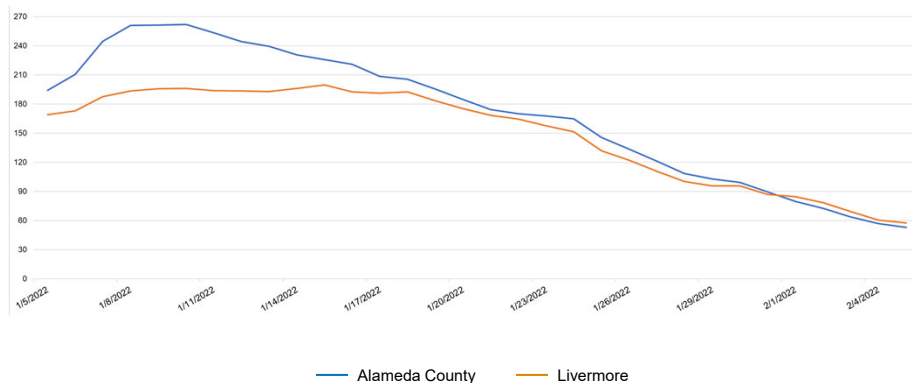
Note: sourced from the County's COVID data site <https://covid-19.acgov.org/data>

LIVERMORE
CALIFORNIA

7

7-Day Rolling Avg of Daily New COVID-19 Cases per 100,000 Population

1/5/2022 to 2/5/2022

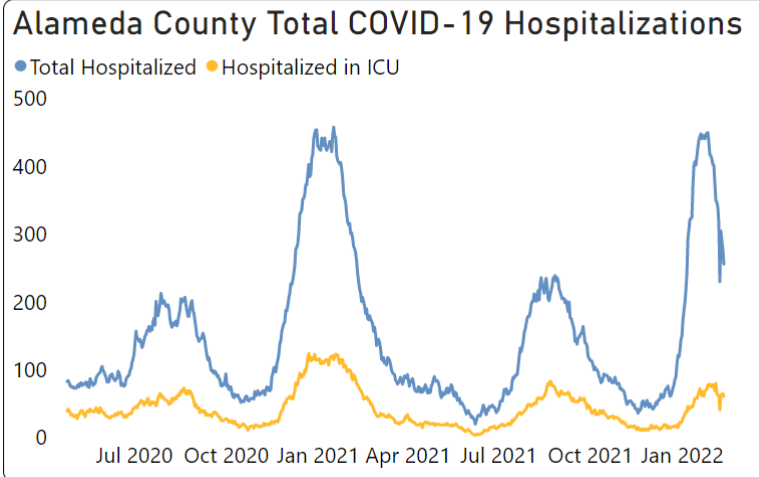


Note: sourced from the County's Data Sharing Initiative <https://data.acgov.org/>

LIVERMORE
CALIFORNIA

8

Total Daily Hospitalizations Countywide



Note: sourced from the County's COVID data site <https://covid-19.acgov.org/data>



9

Questions?



10

Livermore Police Department Traffic Stop Project: Final Report

Dr. Rob Tillyer
&
Dr. Michael Smith
Department of Criminology & Criminal Justice
University of Texas at San Antonio (UTSA)

February 14, 2022

PROJECT OVERVIEW

Project Scope: Examine contacts with the public during traffic stops to better understand the racial/ethnic composition of these encounters and their outcomes.

Deliverables:

1. Discuss best practices in data analysis of police-civilian encounters – *completed March 2021*
2. Review and assess current traffic stop data collection protocols; provide recommendations as needed – *completed October 2021*
3. Analyze recent traffic stop data to identify the racial/ethnic composition of those encounters and compare against appropriate benchmarks
4. Analyze recent LPD data to identify factors associated with arrest

METHODOLOGY

Part I: Analyze recent traffic stop data to identify the racial/ethnic composition of those encounters and compare against appropriate benchmarks

- We have no information on situations in which an officer could have stopped a civilian, but then did not. Thus, the key challenge is to identify a comparison (referred to as a benchmark).
- Key consideration: What is the risk of being stopped for a specific civilian group?
- A good benchmark reflects stopping risk (assuming no bias) by asking the following questions: Where they drive?, When they drive?, How often they drive?, What they drive?, How they drive?, Who they are?

The University of Texas at San Antonio

UTSA Criminology & Criminal Justice

METHODOLOGY

- Two benchmarks were used as proxies for driving and traffic law violating populations (i.e., risk of being stopped) in Livermore
 1. A "veil of darkness" (VOD) analysis examined differences in stop rates of non-White and White drivers during the daytime compared to the nighttime
 2. Traffic crash data:
 - a) Not-at-fault drivers serving as an estimate of the driving population
 - b) At-fault drivers serving as an estimate of those who violate the traffic laws

The University of Texas at San Antonio

UTSA Criminology & Criminal Justice

METHODOLOGY

- Why not use Census population as a benchmark?
- The key problem is the faulty assumption that the residential population possesses an equal level of risk for being stopped by the police.
 1. Civilians vary in their likelihood of contact (i.e., risk) based on a number of factors, including their own driving behavior (i.e., if they drive, how they drive, when they drive, what they drive, etc.).
 2. This benchmark assumes that only the residential population that lives in a particular area drives in that area.
- These two factors (i.e., driving behavior of residents and the cross-jurisdictional travel of non-resident drivers), in addition to others, render this an inappropriate benchmark.
- The use of Census data as a legitimate, scientific benchmark has been rejected by contemporary scholars and experts.

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UTSA Criminology & Criminal Justice

METHODOLOGY

Part II: Analyze recent LPD data to identify factors associated with arrest

- Police-civilian encounters initiated by officers (i.e., traffic and pedestrian stops) were used in this analysis
- Descriptive statistics describe the encounters
- Inferential statistics determine whether a particular civilian group is more or less likely to receive a specific outcome while considering all other relevant characteristics
- Previous research suggests some evidence for non-White groups to be arrested at higher rates, while other studies provide no evidence of a relationship
- Male civilians are consistently found to be arrested at higher rates

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DATA & ANALYSIS

- LPD activity between January 1, 2019 and April 30, 2021 was analyzed
- Part I: 22,737 LPD traffic stops were analyzed
 - Stops, Benchmark #1: ANOVA and t-tests for statistical significance
 - Stops, Benchmark #2: Disproportionality Ratios (DR) compare stopping rates between White and non-White groups
 - A rate above 1.0 indicates that the group of interest experienced rate of stops at an elevated rate compared to White drivers
- Part II: 24,065 police-civilian encounters were analyzed
 - Multivariate models were estimated to identify factors (i.e., encounter, civilian, officer, and contextual variables) associated with the likelihood of an arrest
 - Results identify variables that enhance or reduce the likelihood of an arrest while simultaneously considering all other factors

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RESULTS: Stops, Benchmark #1

	Traffic Stop % (N=22,737)	Daytime % (N=1,552)	Nighttime % (N=1,148)
White	44.2%	44.5%	43.8%
		No statistical significance	
Black	10.3%	9.7%	11.4%
		No statistical significance	
Hispanic	28.1%	30.0%	29.4%
		No statistical significance	
Asian	5.2%	4.3%	5.4%
		No statistical significance	
Other	12.1%	11.5%	10.0%

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RESULTS: Stops, Benchmark #2

	Traffic Stop % (N=22,737)	At-Fault Crashes % (N=1,775)	Not-At-Fault Crashes % (N=2,220)	At-Fault DI	Not-At-Fault-DI	At-Fault DR	Not-At-Fault-DR
White	44.2%	40.7%	41.1%	1.1	1.1	--	--
Black	10.3%	9.4%	8.4%	1.1	1.2	1.0	1.1
Hispanic	28.1%	33.7%	28.6%	0.8	1.0	0.8	0.9
Asian	5.2%	5.4%	8.1%	1.0	0.6	0.9	0.6
Other	12.1%	10.9%	13.9%	1.1	0.9	1.0	0.8

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RESULTS: Arrest

N=24,065	Percent		Percent/Average
Arrest	1.8%	<u>Officer Variables</u>	
<u>Encounter Variables</u>		Race/Ethnicity	
Year 2019	54.0%	White	89.0%
Year 2020	34.0%	Black	0.7%
Year 2021	12.1%	Hispanic	6.6%
Weekend	17.6%	Asian	0.5%
Daytime	62.1%	Other	3.2%
<u>Civilian Variables</u>		Male	92.7%
Race/Ethnicity		Age	37.65
White	45.6%	Years of Experience	11.26
Black	10.0%	Patrol Officer	61.0%
Hispanic	28.1%	<u>Contextual Variables</u>	
Asian	4.9%	Violent Crime Rate	2.72
Other	11.5%	Property Crime Rate	23.93
Male	71.2%		
Under 24 Years of Age	20.3%		

Violent and property crime rates are based on organization beats in effect since Feb 2020.

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RESULTS: Arrest

Model 1

- No statistical difference between White and Black civilians
- Hispanic, Asian, and Other groups were all less likely to be arrested compared to White civilians

Factors that Increased the Likelihood of Arrest

- Male civilians
- Civilians under the age of 24
- Officers with less experience
- Officers assigned to Patrol
- Incidents during daytime

Model 2 (Feb 2020-Apr 2021)

- Largely the same results as Model 1 with three exceptions:
 1. No difference between Hispanic and White civilians
 2. No difference between daytime and nighttime incidents
 3. Areas with higher levels of violent crime experienced higher arrest rates

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UTSA Criminology & Criminal Justice

CONCLUSIONS

Key Findings

- The results from the two benchmark analyses did not reveal a pattern of racial/ethnic disparity in traffic stops experienced by non-White drivers.
 - The VOD analysis found no statistically significant differences in the rates at which non-White drivers were stopped in Livermore during the day compared to at night.
 - The traffic crash benchmark analysis found slightly elevated risks for stops of White and Black drivers (using both type of crash data), and a slightly elevated risk for stops of Black drivers relative to White drivers (not-at-fault benchmark only).
- Taken together, the two benchmark analyses do not show a consistent pattern of disparity in stops based on driver race or ethnicity. In other words, the LPD engaged in traffic stops that largely occurred independent from the influence of civilian race/ethnicity.

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CONCLUSIONS

Key Findings

- The results of the arrest analyses do not reveal a pattern of racial disparity in police outcomes that disadvantages non-White civilians in the City of Livermore.
- In sum, no clearly identifiable or concerning pattern of racial/ethnic disparity was found in the encounters that took place in Livermore over a 26-month period during 2019-21.

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UTSA Criminology & Criminal Justice

Questions/Comments?

The findings and recommendations presented within this report are those of the authors and do not necessarily reflect the official positions or opinions of the City of Livermore, CA, or the Livermore Police Department. The authors wish to thank Chief Young, Lt. Reynolds, and members of the Livermore Police Department who provided data and assisted with the project.

Further questions can be directed to Dr. Rob Tillyer (rob.tillyer@utsa.edu)
Department of Criminology & Criminal Justice
University of Texas at San Antonio (UTSA)

Item 8.0 Council Members' Reports

Council Member	Committee Meeting Date	Committee	Agenda Link	Meeting Type
Mayor Woerner	1/25/2022	FIRE JPA		Board Meeting
Mayor Woerner	1/26/2022	Livermore Chamber of Commerce	N/A	Board Meeting
Mayor Woerner	1/27/2022	Alameda County Transportation Committee	https://www.alamedactc.org/get-involved/upcoming-meetings/	Committee Meeting
Mayor Woerner	1/28/2022	East Bay Regional Communications System Authority	http://www.ebrcsa.org/meetings.page	Board Meeting
Mayor Woerner	2/2/2022	Alameda County Health Care Services Agency		Elected Officials COVID Update
Mayor Woerner	2/3/2022	General Plan Vision Statement		Subcommittee
Mayor Woerner	2/7/2022	FIRE JPA		Board Meeting w/ Supervisors Milley and Haubert
Mayor Woerner	2/9/2022	Tri Valley San Joaquin Regional Rail Authority	https://www.valleylinkrail.com/valleylink-project	Board Meeting
Mayor Woerner	2/9/2022	Alameda County Mayors Homeless Working Group		Meeting
Mayor Woerner	2/9/2022	Alameda County Mayors Conference	https://www.alamedacountymayorsconference.org/agenda-information/	Conference Meeting
Mayor Woerner	2/14/2022	Alameda County Transportation Committee	https://www.alamedactc.org/get-involved/upcoming-meetings/	Committee Meeting

Item 8.0 Council Members' Reports

Council Member	Committee Meeting Date	Committee	Agenda Link	Meeting Type	Committee Report: Summary
Vice Mayor Bonanno	2/1/2022	LLNL/CoL Working Group		Working Group held quarterly	LLNL and CoL senior leaders address topics and share updates of mutual interest.
Vice Mayor Bonanno	2/7/2022	Livermore-Amador Valley Transit Authority	https://www.wheelsbus.com/wp-content/uploads/2021/06/BOD-020722_Files-for-Website.pdf	Board Meeting	Board approved LAVTA staff to proceed with the development of the Zero-Emission Bus (ZEB)
Vice Mayor Bonanno		Chamber of Commerce		Swearing-in of 2022 Board	

Item 8.0
Council Members' Reports

Council Member	Committee Meeting Date	Committee	Meeting Type
Council Member Carling	1/26/2022	Stop Waste	board meeting
Council Member Carling	1/27/2022	League of California Cities East Bay Division	
Council Member Carling	2/10/2022	Stop Waste	recycling board

Council Member	Committee Meeting Date	Committee	Agenda Link	Meeting Type	Committee Report: Summary
Council Member Munro	1/27/2022	League of California Cities East Bay Division		Division Meeting	Looked at the 2022 Action Agenda which includes advocating for Supply and affordability of housing, Investing in infrastructure, Homeless prevention and mitigation, Ways to manage climate change impacts: preparedness, resiliency, recovery. Presentation on the challenges and results of redistricting.
Council Member Munro	2/2/2022	East Bay Community Choice Energy Joint Powers Authority	https://ebce.org/meetings/marketing-regulatory-legislative-subcommittee-meeting-2-2-22/	Marketing, Regulatory and Legislative Subcommittee Meeting	
Council Member Munro	2/2/2022	Livermore Cultural Arts Council		Board Meeting	Strategic Planning Committee Report and Approval of new Mission/Vision Statement Presentation on Engaging our Youth through Internships by Anu Suresh, Fremont Cultural Arts Council
Council Member Munro	2/10/2022	Tri-Valley Cities Council			Legislative Reports by Andres Ramirez of Townsend Public Affairs, including a report on the Mayors' DC advocacy trip, and Sam Caygill of League of California Cities. Presentation by Rick Shumway on the Tri-Valley's need for a Level III trauma center.
Council Member Munro	2/11/2022	LOCC: Housing, Community, and Economic Development Committee		Policy Committee	Members from across the state introduced themselves and gave priorities. These were summarized as: 1. Ongoing financial support for housing, simplifying process for funding, ensuring adequate infrastructure, ensuring appropriate use of CEQA or other means to throw up roadblocks.

City of Livermore

Zoom Interpretation Instructions

Simultaneous English/Spanish and Spanish/English interpretation will be provided during the public hearing item 6.1 titled “7:05 P.M. - Third Public Hearing to receive an update on redistricting efforts to date, receive public input on the composition of City Council voting district draft maps prepared by the City’s demographer, and provide direction to the City’s demographer for revisions of the draft maps to be considered at the fourth public hearing.” Please select the language you want to follow the public hearing in from the interpretation menu at the bottom of your Zoom screen.

- LOCATE THE INTERPRETATION ICON – it is the globe-shaped icon on the bottom right of your screen
- SELECT either English or Spanish
- SELECT Mute Original Audio

To provide Public Comment, click the “raise hand” button on Zoom and you will be called upon to speak. If you are joining us by phone, you can raise your hand by dialing *9. Once you’re called on to speak, you will be unmuted at that time so you can share your comments.

All participants, in both the English and Spanish Zoom channels, will have the opportunity to provide Public Comment. Meeting participants in the Spanish Zoom channel may ask their question in Spanish to the Spanish-speaking interpreter who will then relay the question to the English channel.

Habr  interpretaci n simult nea de ingl s/espa ol y espa ol/ingl s durante el punto 6.1 de la audiencia p blica titulada “7:05 P.M. - Tercera Audiencia P blica para recibir una actualizaci n sobre los esfuerzos de redistribuci n de distritos hasta la fecha, recibir comentarios del p blico sobre la composici n de los mapas preliminares de los distritos electorales del Concejo Municipal preparados por el dem grafo de la Ciudad, y brindar orientaci n al dem grafo de la Ciudad para que las revisiones de los mapas preliminares se consideren en la cuarta audiencia p blica.” Seleccione el idioma en el que prefiere seguir la audiencia p blica en el men  de interpretaci n en la parte inferior de su pantalla de Zoom.

- LOCALICE EL  CONO DE INTERPRETACI N – es el icono con forma de globo terr queo que se encuentra en la parte inferior derecha de su pantalla
- SELECCIONE English (ingl s) o Spanish (espa ol)
- SELECCIONE "mute original audio" para silenciar el audio original

Para proporcionar comentarios p blicos, haga clic en el bot n “levanta la mano” en Zoom y se le pedir  que hable. Si se unir  a nosotros por tel fono, puede levantar la mano marcando *9. Una vez que se le llame para hablar, encender n tu micr fono para que pueda compartir sus comentarios.

Todos los participantes, tanto en los canales de Zoom en ingl s como en espa ol, tendr n la oportunidad de proporcionar comentarios p blicos. Los participantes de la reuni n en el canal de espa ol pueden hacer su pregunta en espa ol al int rprete, quien luego transmitir  la pregunta al canal en ingl s.