RESPONSE TO COUNCIL QUESTIONS RE: 9/10/19 CITY COUNCIL AGENDA

Agenda Item #: Study Session
Title: Study Session to Introduce Issues Requiring Council Direction for Proposed Amendments to Charter Article VI (The Council) to be Submitted to Voters in the March 2020 Election to Implement City Council By-District Elections

Council Question: There is language in Section 601 about designating incumbents for each office. How does staff suggest that is handled in the case that two incumbents run for one seat? Would there be two incumbents listed in that case?

Staff Response: The language in current section 601 is tied to seat number, and would be eliminated in the updated charter as the City will no longer have a seat system. California Elections Code section 13107 governs ballot designations, and defines an incumbent as a "candidate for the same office which he or she holds at the time of filing the nomination papers, and was elected to that office by a vote of the people." In the initial transition to districts, a current council member running in a new district could be designated as "Council Member Seat X," but could not be listed as an incumbent for a district seat.

Council Question: There is language in Section 602 that incumbents can only run for seats they currently hold, which in 2020 would be impossible. Is staff working on accommodating that restriction? It isn't listed.

Staff Response: The restriction on running for a seat a council member currently holds would not be applicable under the new district system because council "seats" will be eliminated. Term limits will be the only restriction for current council members running in a new district.

Council Question: Section 604. There is no mention that staff will be handling the case regarding the vacancy in the seat of mayor. For instance, would the council appoint a current council member, then follow the established procedure to fill the vacant Council seat? This potential situation is not included in staff's list.

Staff Response: The vice mayor would handle mayoral duties until the vacancy was addressed. The Council would follow the established procedure to fill the mayor seat by appointment or election. If the council chose to appoint a current council member as mayor, and that member accepted the appointment, that would create a vacancy in the district seat held by the individual appointed because one cannot hold two offices. The council would then have to fill the vacant district seat.

Council Question: Section 605. Again, handling the vacancy of the directly-elected mayor seat is not clear. Is vacancy of mayor filled by appointment among elected council members, then the council seat filled by appointment or election?

Staff Response: See above. Staff is proposing to maintain existing appointment provisions for all council seats, including mayor. A requirement to fill a mayoral vacancy from elected council members is not proposed.

Council Question: For the Study Session, I would like to know about the terms of the cities in Santa Clara County that have directly elected mayor. Are they 2 year or 4 year terms? So are they running every two years or four years?

Staff Response:

Santa Clara:	4 years
Morgan Hill:	2 years
Milpitas:	2 years
Gilroy:	4 years
San Jose:	4 years

Council Question: What are the actions in other cities that Councils can take against the Mayor (in case of issues with performance)?

Staff Response: Generally, if a city maintains a censure policy, all elected officials would be subject to that censure policy. (See Section C of the 2019 Code of Ethics for Elected and Appointed Officials)

Council Question: I recall that we were specifically told not to use "race" as a criterion for selecting a map. Do I recall correctly?

Staff Response: The following is a summary of the staff comments during previous City Council meetings regarding on the role of race in the CVRA and Federal Voting Rights Act. As noted earlier, this area of the law is complicated and is still evolving:

- The Fourteenth Amendment restricts the use of race as the "**predominant**" criterion in drawing districts and the subordination of other considerations. (*Shaw v. Reno,* 509 U.S. 630 (1993); *Miller v. Johnson,* 515 U.S. 900 (1995)).
- "Race may predominate even when a reapportionment plan respects traditional principles, the [Supreme] Court explained, if '[r]ace was the criterion that, in the State's view, could not be compromised,' and race-neutral considerations 'came into play only after the race-based decision had been made.' (*Shaw v. Hunt*, 517 U.S. 899, 907. *Bethune-Hill v. Va. State Bd. of Elections*, 137 S. Ct. 788, 798 (2017)).
- Fourteenth Amendment does not, however, prohibit all consideration of race in redistricting. (*Easley v. Cromartie,* 532 U.S. 234 (2001)).
- A jurisdiction engages in establishing districts must consider race to ensure compliance with the federal Voting Rights Act, which protects the voting rights of racial groups that are sufficiently numerous and in reasonably compact residential patterns to be able to form a majority in a district.

Council Question: How is "race" defined? Race is not a scientific term. Is it legally defined? ("Scientific American" on the non-science of race: https://www.scientificamerican.com/article/race-is-a-social-construct-scientists-argue/).

Staff Response: The CVRA addresses the "the dilution or the abridgment of the rights of voters who are members of a protected class, as defined pursuant to Section 14026."

Elections Code section 14026 defines protected class as follows:

> (d) "Protected class" means a class of voters who are members of a race, color, or language minority group, as this class is referenced and defined in the federal Voting Rights Act of 1965 (52 U.S.C. Sec. 10301 et seq.).

In the federal Voting Rights Act the term, "race" is not used scientifically. Section 2 lawsuits have been brought by persons of African origin, Asian origin, American Indian origin, Caucasian origin, and Asian-Pacific Islanders, which are the groupings in the Census data which is the foundation of the districting process.

Council Question: In evaluating maps I see "% Asian-American" which I understand to include Indian-Americans. Why are Indian-Americans included in that group? I can't see any commonality in history, language, appearance, of history of discrimination in the US. Shouldn't they be a separate "community of interest" or "protected class"?

Staff Response:
The Census Bureau collects data based on self-identification and classification under the five traditional groupings. Information from the Census Bureau concerning its aggregation of data under the term, "race" is attached.

Indian-Americans (or other subsets of the five traditional groupings) can certainly have distinct community interests different from other groups categorized in the Census data as "Asian". For example, when the City of Fremont transitioned to district elections, the Afghani community was very vocal about its unique interests and prevailed in the structuring of a district to reflect those interests.

Agenda Item #: 1D
Title: Adopt a Resolution of the City Council of the City of Sunnyvale Acknowledging Receipt of a Report From the Department of Public Safety Regarding Annual Fire and Life Safety Inspections Pursuant to Sections 13146.2 Through 13146.4 of the California Health and Safety Code

Council Question: The rate of compliance for hotels was 95%. Is there a minimum?

Staff Response: There is no minimum. The state mandate is to inspect 100 percent.

Council Question: Is there a more complete report (or is just numbers of inspections)?

Staff Response: The state law only requires reporting of the inspection compliance rate. No additional report was produced.

Council Question: For those not inspected (were they inspected in the previous year)?

Staff Response: The five percent not inspected represents 105 occupancies (buildings). Our data reveals that these 105 occupancies all received an inspection in 2018.

Agenda Item #: 2
Title: Public Hearing Pursuant to Elections Code Section 10010(a) (2) to Receive Public Comment Regarding the Content of the Draft City Council Districting Maps Published on September 3, 2019, and the Proposed Sequence of Elections

Council Question: RTC. Is it possible to correct the date in the Background section to June 18, 2020?

Staff Response: After further clarification, the typo has been identified to be in the Background section of the Study Session to Introduce Issues Requiring Council Direction for Proposed Amendments to Charter Article VI (The Council) to be Submitted to Voters in the March 2020 Election. Staff will make the correction to reflect the accurate June 18, 2019 date for RTC No. 19-0362. Staff identified another typo in the same sentence and will correct City Council voted count from 6-2 to 5-2.

Council Question: The submitter mentioned a separate letter that was not included in the packet. Would staff please provide a copy of Map 107, 120, and 124?

Staff Response: Map 107: Attachment 3 has been updated to include all documents and comments (Exhibits A & B) submitted by the map maker. An updated document is attached and has been uploaded in Legistar.

Agenda Item #: 4
Title: Approve the Green Stormwater Infrastructure Plan, Approve Budget Modification No. 7, and Find that the Action is Exempt from CEQA Pursuant to CEQA Guidelines Section 15308.

Council Question: In the final Draft of the GSI, I was surprised the ECR Precise Plan (*NOTE misspelling of ERC on page 12 of the report*) showed no projected Employment growth along El Camino Real? I thought with Village Centers we are already projecting mixed use (housing/retail/office) along the area.

Staff Response:

- The data in Table 1-2 is incorrect and the number for the ECR Employment appears to have been deleted accidentally. The correct number for the ECR Precise Plan employment in 2040 is 15,535. The data in the table represent 2040 Build-Out numbers, not just the projected growth. The Table's title will be corrected to reflect this. The Final Report will be corrected to include all the changes including the misspelling of ECR.
- There is negligible employment growth for the ECR Precise Plan as the amount of commercial space stays the same. Only housing is added. This is similar to the Village Centers where the current uses are commercial and housing is added.

Enclosed is the Table with the correct employment figures.

	Household (2040)	Employment (2040)
Downtown PDA	5,075	5,818
Lawrence SAP PDA	3,500	9,260
ERC Precise Plan PDA	12,450	15,535
Tasman Crossing PDA	3,469	900
East Sunnyvale PDA	4,080	6,300
Non-PDA	43,606	86,185
TOTAL	**72,180**	**123,998**

Council Question: Were the failures more often from a specific water source (SFPUC/Valley Water)?

Staff Response: This question appears to be for Item #6 .

Agenda Item #: 6
Title: Public Hearing and Approval of the City of Sunnyvale's 2019 Public Health Goal Report on Water Quality (2016-2018); Direct Staff to file with the California State Water Resources Control Board Division of Drinking Water and Find that the Action is Exempt from CEQA.

Council Question: Would staff kindly provide the RTC and the approved report from the most recent 3-year cycle?

Staff Response: Enclosed are the RTC and the approved report that was done in 2016 which covered the three year cycle from 2013 through 2015. A notable change since the 2016 report is that Chromium VI maximum Contaminant Level was repealed and not included in the 2019 report.

Council Question: Of the 140 samples taken each month over the last few years, when there was detection of Coliform bacteria, was it more often in a specific area/neighborhood of the city?

Staff Response: No, locations are random throughout the City.

Council Question: Were the failures more often from a specific water source (SFPUC/Valley Water)?

Staff Response: No, detection of coliform is not related to the source and is specific to a localized sample point. Often it is related to construction activities and sediments that require flushing.

Race

About

The U.S. Census Bureau must adhere to the 1997 Office of Management and Budget (OMB) standards on race and ethnicity which guide the Census Bureau in classifying written responses to the race question:

White – A person having origins in any of the original peoples of Europe, the Middle East, or North Africa.

Black or African American – A person having origins in any of the Black racial groups of Africa.

American Indian or Alaska Native – A person having origins in any of the original peoples of North and South America (including Central America) and who maintains tribal affiliation or community attachment.

Asian – A person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam.

Native Hawaiian or Other Pacific Islander – A person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.

The 1997 OMB standards permit the reporting of more than one race. An individual's response to the race question is based upon self-identification.

An individual's response to the race question is based upon self-identification. The Census Bureau does not tell individuals which boxes to mark or what heritage to write in. For the first time in Census 2000, individuals were presented with the option to self-identify with more than one race and this continued with the 2010 Census. People who identify with more than one race may choose to provide multiple races in response to the race question. For example, if a respondent identifies as "Asian" and "White," they may respond to the question on race by checking the appropriate boxes that describe their racial identities and/or writing in these identities on the spaces provided.

What is Race?

The data on race were derived from answers to the question on race that was asked of individuals in the United States. The Census Bureau collects racial data in accordance with guidelines provided by the U.S. Office of Management and Budget (OMB), and these data are based on self-identification.

The racial categories included in the census questionnaire generally reflect a social definition of race recognized in this country and not an attempt to define race biologically, anthropologically, or genetically. In addition, it is recognized that the categories of the race item include racial and national origin or sociocultural groups. People may choose to report more than one race to indicate their racial mixture, such as “American Indian” and “White.” People who identify their origin as Hispanic, Latino, or Spanish may be of any race.

OMB requires five minimum categories: White, Black or African American, American Indian or Alaska Native, Asian, and Native Hawaiian or Other Pacific Islander.

Reasons for Collecting Information on Race

Information on race is required for many Federal programs and is critical in making policy decisions, particularly for civil rights. States use these data to meet legislative redistricting principles. Race data also are used to promote equal employment opportunities and to assess racial disparities in health and environmental risks.

Contact Us

For assistance, please contact the Census Call Center at 1-800-923-8282 (toll free) or visit ask.census.gov for further information.

Related Information

Research to Improve Data on Race and Ethnicity

Last Revised: January 23, 2018

NDC **Sunnyvale 2019 Districts** August 30, 2019
Plan Submitter Comments

101 David Bratman

The attached Excel submission is intended not as a serious proposal, but more as an experimental entry intended to provide other entrants with some data they can use to work from, and I hope it will be taken in that spirit.

In this entry, District 2 is intended as the most concentrated Hispanic/Latino district that it's possible to draw with the Excel population units. I started with the units with heaviest concentration of Hispanics in the census population, and built around that with the contiguous districts with the highest concentration until I had a district-sized area. This includes all the highest Hispanic population units except those around Acalanes, which is too far away from the rest to put in the same high-concentration district. It has 42% Hispanic total population, but only 25% Hispanic voting age citizen population, which shows part of the problem in drawing districts this way.

Districts 5 and 6 are drawn to include as much as possible of the Cupertino and Santa Clara school districts, respectively, in one Council district each. In both cases the school district area in Sunnyvale is larger than a Council district.

Following the suggestion at the meeting to draw fill-in districts in the parts of the city you're less concerned with, I've created districts 1, 3, and 4 as fill-ins. Note that District 1 is heavily gerrymandered, connecting two separated populated areas via the unpopulated industrial park, which shows the limitations of drawing the ideal Latino district. And District 3 would require some microscopic adjustment, lower than the population unit level, to keep it contiguous. I hope you will accept it as designated as an acceptable district for purposes of display on the website.

Still, I hope this idea will be useful for other citizens who wish to draw less rigid districts concentrated on the same basis.

Follow up comments:

In the meantime, I have at least modified it enough to make the population balances better, but District 2 is still specifically drawn to maximize Hispanics. I've attached the modified file. If it can be posted for users to see, with my initial explanation of what I was doing attached, and dropped from your list of preferred plans to submit to Council, that would be my preference.

102 Holly Lofgren

Please find attached my district map submission package. It includes: a) the Excel file b) a hard copy drawing of the districts c) this page of explanation. Please acknowledge receipt of all three items in my package with a return email.

I attended one map drawing training where we were encouraged to give reasons for our district lines. Besides dividing them roughly equally for the populations, I took into consideration the following items:

a) While there are no really heavily predominant races clusters in Sunnyvale, the data showed a preponderance of Hispanic and Asian ethnicity people in certain areas and I tried to keep them together.
b) Another community of interest is the high school districts and I followed those lines as much as possible. Notable exceptions are area 50 and area 71.
c) Another community if interest factor is major highways. I used Highway 101 as a dividing line while still attempting to keep the mobile home parks together, as some are found below Highway 101. Thus, I had a larger population than I desired due to limitations using the Excel tool, but the mobile homes area south of Highway 101 could be selected more specifically by the consultant to reduce the size of that district.
d) Other major roads such as Old San Francisco, Remington and parts of Hollenbeck also seemed to garner communities of interest.
e) I kept the central part of the city together as it seemed important to not divide the downtown, so between El Camino and Central Expressway, I have a district.

Thank you for the opportunity to participate in district map making.

103 Martin Gates

The districts are relatively balanced numbers and the shapes have a reasonable center of area without outlying branches. [Pop Unit 30 could be in district 3 for better shape, but pushes 3 over 1K from ideal]

104 Pam Anderson

I think this map makes sense because it relies on elementary school boundaries as the primary 'community of interest'. School attendance is one of the strongest ways that our community comes together, and creates natural boundaries in our community. A summary of how my districts are organized is as follows: Properties in Area 1 are generally assigned to Lakewood, Fairwood, San Miguel and Mayne elementary schools, Area 4 is assigned to Cumberland, Cherry Chase and West Valley Schools, Area 5 is Stocklemeier and Nimitz, and Area 6 is those assigned to Santa Clara Unified School District (e.g. Laurelwood, Ponderosa, Braly and Bracher.) Areas 2 & 3 are all assigned to Sunnyvale schools Bishop, Vargas, Ellis, and some San Miguel. For these 2 areas significant road boundaries area also considered (e.g. El Camino, and Evelyn Ave/Central Exwy.) There are a few population units that had to be assigned as exceptions in order to meet the criteria of 'essentially equal population' - specifically, units 47 & 50 are part of the Cumberland boundaries, but are assigned to District 3 (using El Camino as a boundary) and unit 71 is part of Elllis school, but is assigned to District 5. Unit 34 is assigned to Zone 3 becuase the school assigned to this unit is Vargas which is part of Area 3. I could not assign some of the units with '0' population, as I wasn't sure which was which.

105 Lou Saviano

Thank you for inviting community input on creating new City Council districts. I've attached a proposed map, outlining 6 districts.

The "population unit" for my proposed districts ranges from 23,061 to 23,665. (Please feel free to check my math.) I've tried to construct districts that are geographically compact in shape and that try to generally conform with existing boundaries (e.g. Cupertino Union School District for District 1) and recognizable demarcation lines, (e.g. Highway 101, El Camino Real, Fremont Ave. etc.).

I have lived (happily) in Sunnyvale for 36 years, and I suggest these districts without any hard knowledge of (or interest in) the demographic composition of these areas. I hope that districts will be drawn in a "demographically agnostic" manner — without regard to the presumed political, religious, philosophical, racial, or ethnic background of the residents. One person, one vote. I do not believe "communities of interest" necessarily are defined by demographic factors.

I support moving to district based elections, as long as the districts are not gerrymandered to give an edge to one type of candidate over another.

106 Mei-Ling Stefan

Although Council does not want a 7-district election, I am dutifully submitting a 7-district map, and the excel file, with my thoughts on drawing the map. My guidelines for proposing which 4 districts will be up for election in 2020 are: (1) All council members whose terms expire in 2020 should be able to run for re-election (2) The 2 districts most heavily populated with ethnic minority groups should be included.

107 Frances Stanley-Jones

DISTRICT 1 Keeps the North Sunnyvale Mobile Home Parks together. Keeps Lakewood Village LWV together with residents NORTH OF 101. It is the preference of the LWV residents this is attached to the paper map submission. The Asian population is 44% high for Sunnyvale. Residents north of 101 and between that and highway 237 face similar issues such as traffic increase in crime schools.

DISTRICT 2 Keeps the Sunnyvale Neighborhood Association SNA of SNAIL San Miguel together. Built in the 1970s they have similar single family homes traffic and land use issues in common. They also share the same junior high school. Residents from this area a very active community in Sunnyvale attended the mapping class on August 7 and want to keep the SNAIL SNA in the same voting district.

DISTRICS 4 5 6 See separate letter. The same map named smhps2 Full Map has also been submitted to Teri Silva as an email. The emailed map includes the letter from the LWN residents and signatures from mobile home park residents supporting this map.

Note: Exhibit A is included as additional information submitted by the map maker.

109 John Carlsen

East-west hard division along railway Union Pacific, and north-south soft division along storm channel, East Channel, resulting in population division within about 6 percent of ideal.

110 John Carlsen

Compact districts with southern four quadrants radiating from Community Center and northern districts stacked numbered spiraling outward from city center district 1 in approximate order in which they were developed and having population distribution variance from median within 30 people.

110 John Carlsen

Population evenly distributed within 0.01%, 0-3 people, with each district neighboring at least 2 others and sharing borders near city center, numbered spiraling outward.

111 John Carlsen

Compact districts with population distribution variation of 0.2 percent, within 0.1 percent of median, numbered spiraling outward from city center in approximate order in which they were developed.

112 Kevin Kelly

Districts are formed by natural transportation boundaries that already separate and define many neighborhoods. Any deviations are purely to provide numerical population balance which would need to be changed anyway after the new census.

113 Kevin Kelly

Designed around the premise that all Sunnyvale residents have a shared interest in the development of downtown and the city core this plan has all six districts converging there and sharing responsibility for the downtown area. Major roadways and transportation corridors are used as district borders and 4 districts share portions of El Camino Real the major commercialretail strip. The high-tech commercial area north of 237 is shared by 2 districts.

114 Yuan Xu

This is a revised plan based on my previous Balanced Cut to make the boundary look more reasonable between district 1 and 3.

115 Timothy Oey

This is as compact, balanced and natural a set of districts as I could create around existing natural Sunnyvale neighborhoods using major roads and rail lines as boundaries.

116 Cameron Kelly

This proposal provides a fair and balanced level of population per district while maintaining sensible dividing lines along major roads and train tracks in order to show how neighboring communities reflect larger areas, which are here translated into districts. This plan also intends to ensure representation among minorities. Each census block has been apportioned into a specific district so that minorities will have more empowerment through voting and representation without rendering their representatives ineffective by allocating a district for a single ethnic group. I have been involved in numerous community activities in Sunnyvale

which allowed me to interact with a diverse pool of families and individuals. They all have one thing in common: they live in Sunnyvale, and this has inspired me to submit what I believe would be the most comprehensive district map plan unique to the City of Sunnyvale.

117 Richard Mehlinger

This plan aims to respect use major roads as boundaries where possible. The exception to this is D6, which is designed to maximize Asian-American CVAP. D4 meanwhile gets 25% Latino CVAP, which is probably about as high as it's possible to get. D6 would include Butcher's corner.

118 Frank Hand

I am submitting two suggestions for Sunnyvale's district map. My preference is the map named Bal Neighborhoods Development Downtown (#118). The maps emphasize each neighborhoods identity, inclusion, i.e. communities of interest, values, and encourage participation in Sunnyvale's ongoing revitalization development. Thank you.

119 Frank Hand

I am submitting two suggestions for Sunnyvale's district map. My preference is the map named Bal Neighborhoods Development Downtown (#118). The maps emphasize each neighborhoods identity inclusion, i.e. communities of interest, values, and encourage participation in Sunnyvale's ongoing revitalization & development. Thank you.

120 Evelyn Rocha

Through meetings with the mobile home park community, SNAIL , the Latinx community, the Asian American community, and the Hindu community, in addition to a joint unity meeting consisting of a large and diverse cohort of Sunnyvale residents, we were able to build broad support for both Unity Maps A and B. These maps reflect robust community of interest feedback and knowledge from the lived experiences of community members across Sunnyvale. Below you will find specific community of interest reasons that support this district map in more depth. Thank you for your consideration. We are sending the full COI testimony by email.

Full testimony email text:

> This map is the result of many meetings with a large and diverse group of Sunnyvale residents, representing communities including the mobile home park community, SNAIL, the Latinx community, the Asian American community, and the Hindu community.
> This map reflects input from all of these residents and communities on traditional districting criteria based on their experiences living in Sunnyvale. Below you will find specific community of interest reasons that support this district map in more depth. Thank you for your consideration.
> **District 1**
> ● This district keeps the SNAIL neighborhood (bounded by Fair Oaks, Maude, Mathilda, and the 101 freeway) whole. The SNAIL neighborhood should be kept

whole because it is a tight-knit community that also has its own official 501(c) 4 non-profit status. SNAIL distributes 1,200 monthly newsletters door to door, hosts the largest and most popular National Night Out, and has an active web presence.

● This district keeps low and middle income communities in North central Sunnyvale together. Socio-economically, SNAIL residents have strong similarities to folks living South of Maude and north of the train tracks such as the Lowlanders neighborhood. It also keeps SNAIL together with San Miguel. Both neighborhoods are made up mostly of single-family homes.

● This district keeps stores used by the Latinx community, such as Chavez Supermarket, Mi Ranchito Produce, and Guadalajara Market together.

● This district keeps important community services (Columbia Neighborhood Center, Sunnyvale Community Services) together in a central district in the City.

● This district also results in a Latino influence district.

District 2

● This district keeps the following mobile home parks in North Sunnyvale in one district so that residents can advocate together on issues that impact their community, like traffic, office development, rent stabilization, and more: Willow Ranch, Cape Cod, Fox hollow, Fair Oaks, El Dorado, Casa De Amigos, Plaza del Rey, and Adobe Wells.

● Historically, North Sunnyvale has been geographically underrepresented on the City Council and a North Sunnyvale district ensures that a North Sunnyvale resident gets elected to the Council.

● This district contains the Sunnyvale Hindu Temple on Persian drive, which is the largest Hindu temple in the South Bay and serves a large Hindu community, including a significant population of Hindus who live in the surrounding area.

District 3

● District 3 respects the boundary between Cupertino Union Elementary School District and Santa Clara Unified School District by following Wolfe Road south of El Camino Real. Parents are actively involved in their children's education in CUSD where there is a special focus on math and music. Council district lines that align with school district boundaries is important for the Asian American community so that the Council can be responsive to issues important to students and their parents.

● Louis E. Stocklmeir Elementary School is in this district. At around 1,200 students, this is the largest elementary school in the entire Bay Area. With a very involved parent community, Stocklmeir has the highest test scores of any public school in the city.

● Next to Stocklmeir Elementary School is Ortega Park which attracts folks from all around District 2 for picnics, playgrounds, walks, sports, yoga, and tai chi. The school and the park are the hub for people of District 2 to meet and be in community.

● This district also creates an Asian American empowerment district. Asian Americans have been attracted to this area by a combination of the quality of the schools; close proximity to different Asian restaurants, grocery stores, and places of worship; and relatively short commutes to major employers.

District 4

● District 4 respects the boundary between Cupertino Union Elementary School District and Santa Clara Unified School District by following Wolfe Road south of El Camino Real. Aligning council district lines with school district lines have been identified as a priority for the Asian American community.
● This district keeps the Sunnyvale portions of the attendance zones for Ponderosa, Laurelwood, and Braly Elementary schools together. These three zones combine for a close community around Peterson Middle School.

District 5

● Includes Cherry Chase, Cumberland, Cherry Hill, and West Valley. This district keeps together areas that have high rates of home ownership and higher income levels than the city at large.
● The Bar Yohai Sephardic Minyan synagogue and Chabad of Sunnyvale, which both serve the Jewish community, are located in this district.

District 6

● This district has a high percentage of renters and apartment units.
● This district keeps most of the Heritage district or downtown area intact.
● It also keeps a number of Indian grocery stores along El Camino Real together in one district.
● District 6 keps many of the apartment buildings on the far west side of the City, north of El Camino, together.

Other Notes

● Multiple districts touch the downtown urban corridor so all districts have a responsibility to look after the communities there.

Proposed Sequencing: D1, 2, and 3 in 2020 and D4, 5, and 6 in 2022
This sequencing ensures that the communities that have historically lacked representation on City Council and that see their voting power increased because of the transition to district elections, including Latinx voters (D1), Asian American voters (D3), and mobile home park resident voters (D2), will have an opportunity to vote in the first district-based elections in 2020.

Sign-ons

Valerie Suares - D1; Sunnyvale community chair
Diane Gleason - D1
Kathy Higuchi - D1
Bowman Ching - D1
Janette Brambila - D1
Eloisa Herrera – D1
Modesta Albino – D1
Janet Takahashi - resident of Cupertino but active at the Congregational Church of Sunnyvale located in D1 and previously lived in Sunnyvale for 15 years
Ram Agarwal - D2; active member of Hindu Temple
MJ LaRoche - D2
Galen Davis - D3
Cal Cornwell - D3
Samir Kalra - D3
Scott Manley - D4
Srivats Iyer – D4
Naomi Nakano-Matsumoto – D5

Beth Claywell - D5
Coleen Hausler - D5
Elsa Amboy - D5
Ray Xu – D5
Evelyn Rocha - D6
Ann Stevenson - resident of Cupertino but active at St. Thomas Episcopal Church located in D6
Rita Welsh

121 Martin Pyne

This plan preserves communities of interest across Sunnyvale. Districts 2 and 6 roughly break along school district boundaries. District 4 contains all of the trailer parks in north Sunnyvale with District 5 containing the rest of SNAIL and apartments along Fair Oaks. District 5 is a majority-minority coalition district in terms of CVAP while District 2 is an AAPI-opportunity district. I would sequence districts 1, 4 and 5 to go in 2020 as they had the largest drop-off in vote between 2016 and 2014 suggesting that they would benefit the most from voting in a presidential year.

122 Martin Pyne

This plan preserves communities of interest across Sunnyvale in a somewhat different way than in the other plan I submitted. Districts 2 and 6 roughly break along school district boundaries. District 4 contains all of Sunnyvale north of 101 plus the San Miguel neighborhood. District 5 remains a majority-minority coalition district in terms of CVAP containing all of SNAIL, while District 2 is an AAPI-opportunity district. I would sequence districts 1, 4 and 5 to go in 2020 as they had the largest drop-off in vote between 2016 and 2014, suggesting that they would benefit the most from voting in a presidential year.

123 Kristel Wickham

Intention was to create simple district boundaries that aligned to geographic neighborhoods, main roadways and the railroad. Harder than I thought to get the population numbers to be equal. Thanks for the opportunity to suggest.

124 Valérie Suarès, SNAIL

Here is SNAIL's members recommended map.

D1: includes everything north of 101, and the western edge down to the train tracks. Most of the mobile home parks are north of 101, but also includes Pop Unit ID#26 which is Mary Manor Mobile Home Park.

In D2, keeping apts. together, housing single family homes East of Mathilda and North of the train tracks, as we move towards Lawrence Expressway there are more apts. and condos. Pop Unit ID# 53 and 60 are apts. whereas 59 is single family houses.
Perhaps Pop Unit# 59 can be with Ponderosa neighborhood.

In Pop Unit ID# 21, there is a small mobile home park, but the majority of this population unit is single family homes which are part of the SNAIL neighborhood.

This SNAIL neighborhood with over 1,400 is historically very active with a large number of regular and annual events have been and are hosted in this particular Pop Unit.
SNAIL neighborhood include Pop Unit IDs# 20, 19, 21, 28. We share similarities economically north of the tracks. The track is a natural boundary.

To reinforce the reasons why we believe SNAIL should remain intact and undivided, I have enclosed a map of the SNAIL neighborhood as found on our SNAIL NextDoor map.

You will find a SNAIL neighborhood profile and collected data of our August 2019 National Night Out, illustrating in red, the streets on which our attendees live. This graphic illustrates that neighbors from most streets in SNAIL, from East to West and North to South are attending this annual and traditional event recognized by City Elected Officials as being most popular with the greatest attendance record in the entire City of Sunnyvale.

Furthermore, you will find some historical and statistical data about the neighborhood historically, which include the location of our annual 3 days yard-sales hosted in a cul-de-sac on Carolina at Glendale, which have generate $3,652 in its best year.

For these reasons, SNAIL members urge you to keep the SNAIL neighborhood together.

Thank you for keeping the SNAIL Neighborhoods intact, undivided and united.

Note: Additional documents are attached as Exhibit B.

Dave King, supporting SNAIL map (#124)

Over many years the SNAIL neighborhood organization has worked to provide forums and activities for residents in our neighborhood so that all are given a voice and feel that they've been heard.

When you consider proposed voting districts that include the SNAIL - please keep SNAIL in one piece and avoid gerrymandering pieces of SNAIL into parts of other proposed districts.

Any split or fracturing of SNAIL would inevitably pit neighbor against neighbor and slowly destroy the comity we've sought to achieve in our group.

125 Janice Horn

Abstract: Maps for six Sunnyvale voting districts based on the existing maps of the four Zip Codes that cover Sunnyvale: 94085, 94086, 94087, and 94089.

126-8 NDC map proposals

129 Herbert Barchie

Please keep Population Unit 21 (population: 2274) in a district south of 101 so I can continue to walk to events of the neighborhood. The district I suggest is comprised of single family homes, rentals, and some condos, all sharing schools and a neighborhood association.

(Note from NDC: the smHpa map is Map # 107)

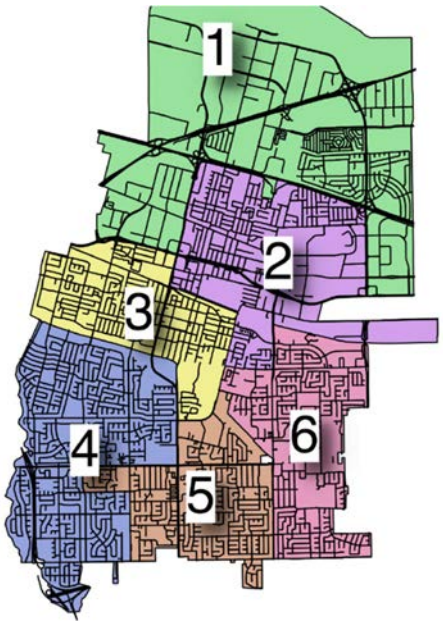
smHpa 2 Full Map

Comments

(see "Maptitude" for the same titled map submitted by Francis Stanley

Districts	Population	% Deviation	% Hispanic Origin	% NH_DOJ_Asn
1	23,016	-1.42	20.03	43.95
2	23,432	0.36	10.32	51.7
3	23,318	-0.12	7.07	39.57
5	23,764	1.79	37.48	33.14
6	23,415	0.29	17.13	44.89

1. **Districts have less than 10% deviation from the largest 23,764 to the smallest 23,016.**
2. **Districts are all Contiguous**
3. **Districts are divided along major streets or highways and kept geometric.**
4. **Areas of interest and school attendance were kept together as explained below**
5. **In a city like Sunnyvale that is quiet integrated, there was no Gerrymandering along racial lines.**



COMMENTS ON DISTRICTS

DISTRICT 1 –
This is largely an industrial area, therefore it is quite large.

- It keeps the North Sunnyvale Mobile Home Parks together.
- It keeps Lakewood Village (LWV) together with residents NORTH OF 101. It is the preference of the LWV residents per the attached email.
- The Asian population is 44% which is high for this city.
- In the attached email to Teri Silva are pages with signature from residents supporting this map. These residents (16in total) attended a mapping class in Plaza del Rey on Aug 7th and reviewed the plans and learned about the mapping process.
- Residents north of 101 and between highway 237, face similar issues such as traffic, increase in crime, & schools.

DISTRICT 2 –

- Keeps the Sunnyvale Neighborhood Associations of SNAIL & San Miguel intact & together.
- They have similar single family homes, have traffic and land use issues in common. They were built in the 1970's and share the same junior high school.
- Residents from this area attended the mapping class on August 7 and agreed that they want to keep the SNAIL Sunnyvale Neighborhood Associate in the same voting district. This map does that. This is an very active community in Sunnyvale.

This map also keeps together other Sunnyvale Neighborhood Associations in the same district: They are Lowlanders, Hazel Heads, Stowell Orchard, & Victory village

DISTRICT 3
This includes the Heritage District and Pastoria Avenue Neighborhood Associations.

DISTRICS 4, 5 & 6
At the residents request wanted districts to be divided along School District Boundaries.

If you don't live in Sunnyvale you may not know that the Neighborhood Associations are very active. They support events such as "NATIONAL NIGHT OUT". They work together on cleanup and recycling projects. They support the city council and city staff with such projects as this one, "District Elections". Keeping these groups in the same voting district benefits the city as a whole

LETTER FROM OFFICE OF THE SUNNYVALE LAKEWOOD VILLAGE RESIDENTS ASSOCIATION

Boonya <boonya2@yahoo.com>
To:Sunnyvale Alliance
Aug 7 at 7:11 PM

Abby is no longer the LVNA president. I'm one of the new officers**. I asked and we stand with our mobile home residents North of 101.**

We will have greater voting power

Sent from Yahoo Mail on Android

On Tue, Aug 6, 2019 at 2:57 PM, Sunnyvale Alliance <smhpamail@yahoo.com> wrote:

Hi Tony:
I just want to clarify why I am asking. No one from Lakewood Village has participated in any meetings etc dealing with District Elections. That I am aware of.

Tomorrow night Aug 7 we will be meeting with people from SNAIL and Mobile Home Parks to draw the lines for the next city council elections in 2020. No more everyone votes for certain seats at large.

I have placed 17 postings on Nextdoor regarding this issue. I *called and left a message for Abby Rosa but heard nothing.*

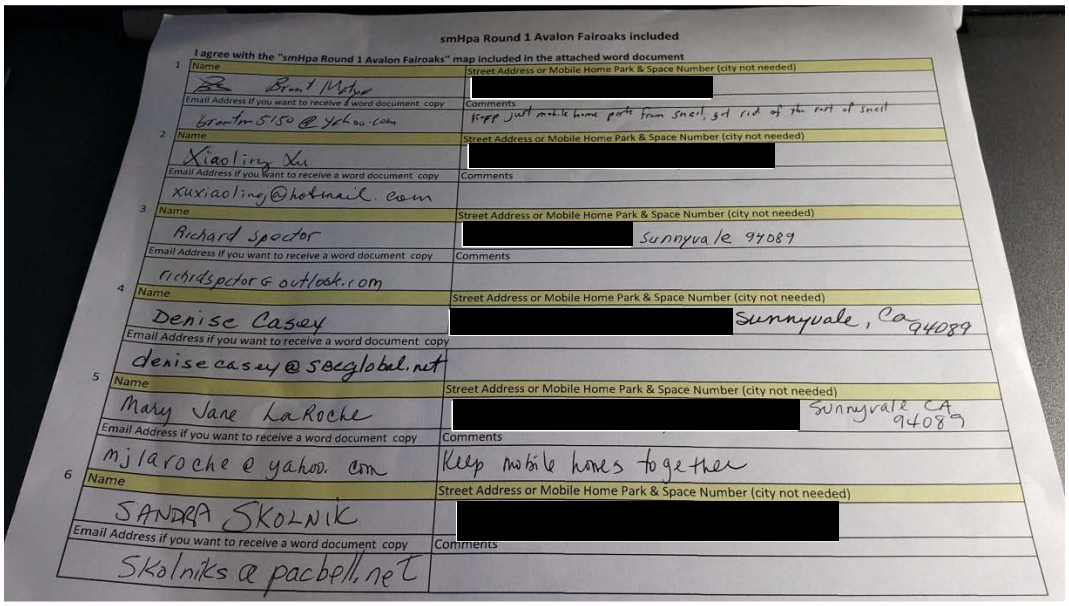
I am contacting you as a courtesy as it seems you are interested in what goes on around you.

If I don't get any input from "ya'll" I will include you with the mobile homes in the map smHpa will be submitting.

Any questions give me a call. See attached spreadsheet to print out.

Judy Pavlick
smHpa (Sunnyvale Mobile Home Park Alliance) Founder
408 373 0660 Cell
408 734 1580 Home (Leave a message)

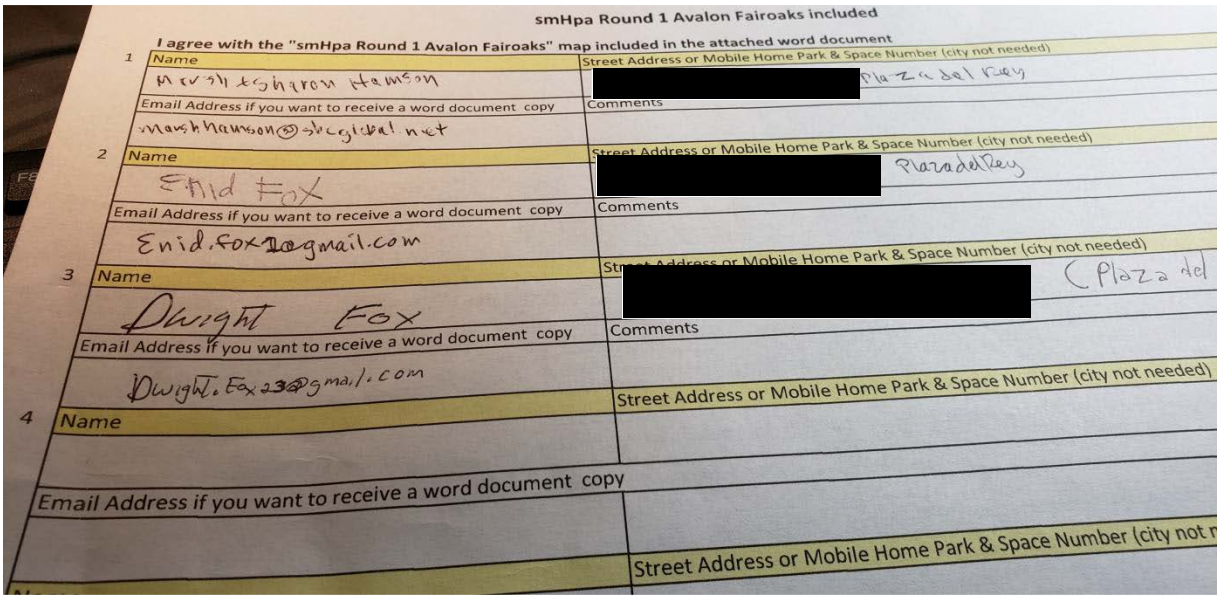
SIGNATURES FROM RESIDENTS OF NORTH SUNNYVALE IN FAVOR OF DISTRICT 1 PER ATTACHED MAP & MAP WITH SAME NAME IN MAPTITUDE



smHpa Round 1 Avalon Fairoaks included

I agree with the "smHpa Round 1 Avalon Fairoaks" map included in the attached word document

	Name	Street Address or Mobile Home Park & Space Number (city not needed)
1	Brent Mohr	[redacted]
	Email Address if you want to receive a word document copy	Comments
	brenton5150@yahoo.com	Keep just mobile home parks from Snell, get rid of the rest of Snell
2	Xiaoling Xu	[redacted]
	Email Address if you want to receive a word document copy	Comments
	xuxiaoling@hotmail.com	
3	Richard Spector	[redacted] Sunnyvale 94089
	Email Address if you want to receive a word document copy	Comments
	richdspector@outlook.com	
4	Denise Casey	[redacted] Sunnyvale, Ca 94089
	Email Address if you want to receive a word document copy	
	denisecasey@sbcglobal.net	
5	Mary Jane LaRoche	[redacted] Sunnyvale CA 94089
	Email Address if you want to receive a word document copy	Comments
	mjlaroche@yahoo.com	Keep mobile homes together
6	SANDRA SKOLNIK	[redacted]
	Email Address if you want to receive a word document copy	Comments
	Skolniks@pacbell.net	



smHpa Round 1 Avalon Fairoaks included

I agree with the "smHpa Round 1 Avalon Fairoaks" map included in the attached word document

	Name	Street Address or Mobile Home Park & Space Number (city not needed)
1	Marsh Hamson	[redacted] Plaza del Rey
	Email Address if you want to receive a word document copy	Comments
	marshhamson@sbcglobal.net	
2	Enid Fox	[redacted] Plaza del Rey
	Email Address if you want to receive a word document copy	Comments
	Enid.fox1@gmail.com	
3	Dwight Fox	[redacted] (Plaza del
	Email Address if you want to receive a word document copy	Comments
	Dwight.Fox23@gmail.com	
4	Name	Street Address or Mobile Home Park & Space Number (city not needed)
	Email Address if you want to receive a word document copy	
		Street Address or Mobile Home Park & Space Number (city not n

Submitted by Judy Pavlick August 24, 2019.

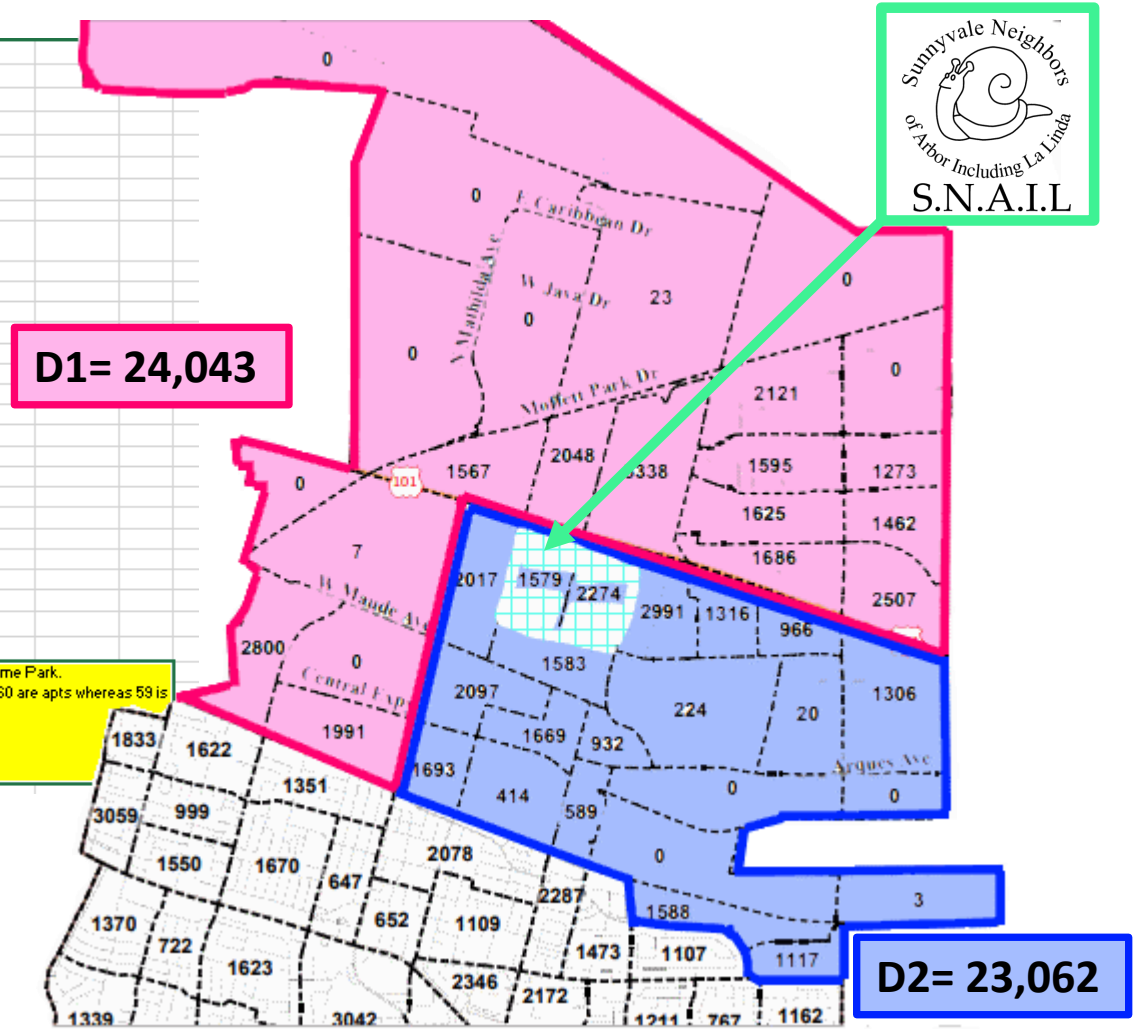
SNAIL's Members D1 & D2 Proposed Map

Sums by District Assigned Ideal population: ###
City of Sunnyvale 2019 Public Participation Kit
Valérie Suarès
SNAIL – Sunnyvale Neighborhood

		Counts								Percentages							
Group	Category	1	2	3	4	5	6	Unassigne	Total	1	2	3	4	5	6	Unassigned	Total
Total Population	Tot. Pop.	####	####	0	0	0	0	92,976	####								
	Deviation from Ideal	696	-285	####	####	####	####		####	2.98%	-1.22%	#####	#####	#####	#####		102.98%
	Hisp	4,784	8,372	0	0	0	0	13,361	26,517	20%	36%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	14%	19%
	NH Wht	7,765	5,541	0	0	0	0	35,017	####	32%	24%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	38%	34%
	NH Blk	580	537	0	0	0	0	1,800	2,917	2%	2%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	2%	2%
	NH Asn	10,336	8,047	0	0	0	0	41,172	####	43%	35%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	44%	43%
Citizen Voting Age Population	Total CVAP	15,430	11,424	0	0	0	0	50,271	77,125								
	Hisp	2,501	3,005	0	0	0	0	5,181	10,687	16%	26%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	6%	14%
	NH Wht	7,109	4,355	0	0	0	0	25,571	####	46%	38%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	28%	48%
	NH Blk	761	464	0	0	0	0	1,335	2,560	5%	4%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	1%	3%
	NH Asn	4,874	3,310	0	0	0	0	17,495	####	32%	29%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	19%	33%
Nov. 2016 Registration	Total Reg.	11,211	8,382	0	0	0	0	41,332	####								
	Latino	2,209	2,036	0	0	0	0	3,939	8,184	20%	24%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	4%	13%
	Asian-American	1,924	1,438	0	0	0	0	9,864	13,226	17%	17%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	11%	22%
	Other	7,078	4,908	0	0	0	0	27,529	39,516	63%	59%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	30%	65%
Nov. 2016 Voters	Total Voters	9,019	6,816	0	0	0	0	34,751	####								
	Latino	1,686	1,620	0	0	0	0	3,102	6,408	19%	24%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	3%	13%
	Asian-American	1,470	1,143	0	0	0	0	8,143	10,756	16%	17%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	9%	21%
	Other	5,863	4,053	0	0	0	0	23,506	33,421	65%	59%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	25%	66%

Submitter's Comments about the plan:

D1: includes everything north of 101, and the western edge down to the train tracks. Most of the mobile home parks are north of 101, but also includes Pop Unit ID#26 which is Mary Manor Mobile Home Park.
In D2, keeping apts together, housing single family homes East of Mathilda and North of the train tracks, as we move towards Lawrence Expw there are more apts and condos. Pop Unit ID# 53 and 60 are apts whereas 59 is single family houses.
Perhaps Pop Unit# 59 can be with Ponderosa neighborhood.
In Pop Unit ID# 21, there is a small mobile home park, but the majority of this population unit is single family homes which are part of the SNAIL neighborhood.
This SNAIL neighborhood with over 1,400 is historically very active and a large number of regular and annual events have been and are hosted in this particular Pop Unit.



Keep SNAIL Neighborhood Intact, Undivided and Together

SNAIL's Members Map Recommendations

- D1: includes everything north of 101, and the western edge down to the train tracks. Most of the mobile home parks are north of 101, but also includes Pop Unit ID#26 which is Mary Manor Mobile Home Park.

- In D2: keeps apts. together, housing single family homes East of Mathilda and North of the train tracks, as we move towards Lawrence Expressway there are more apts. and condos. Pop Unit ID# 53 and 60 are apts. whereas ID#59 is single family houses.

Why Keep SNAIL Intact and Undivided?

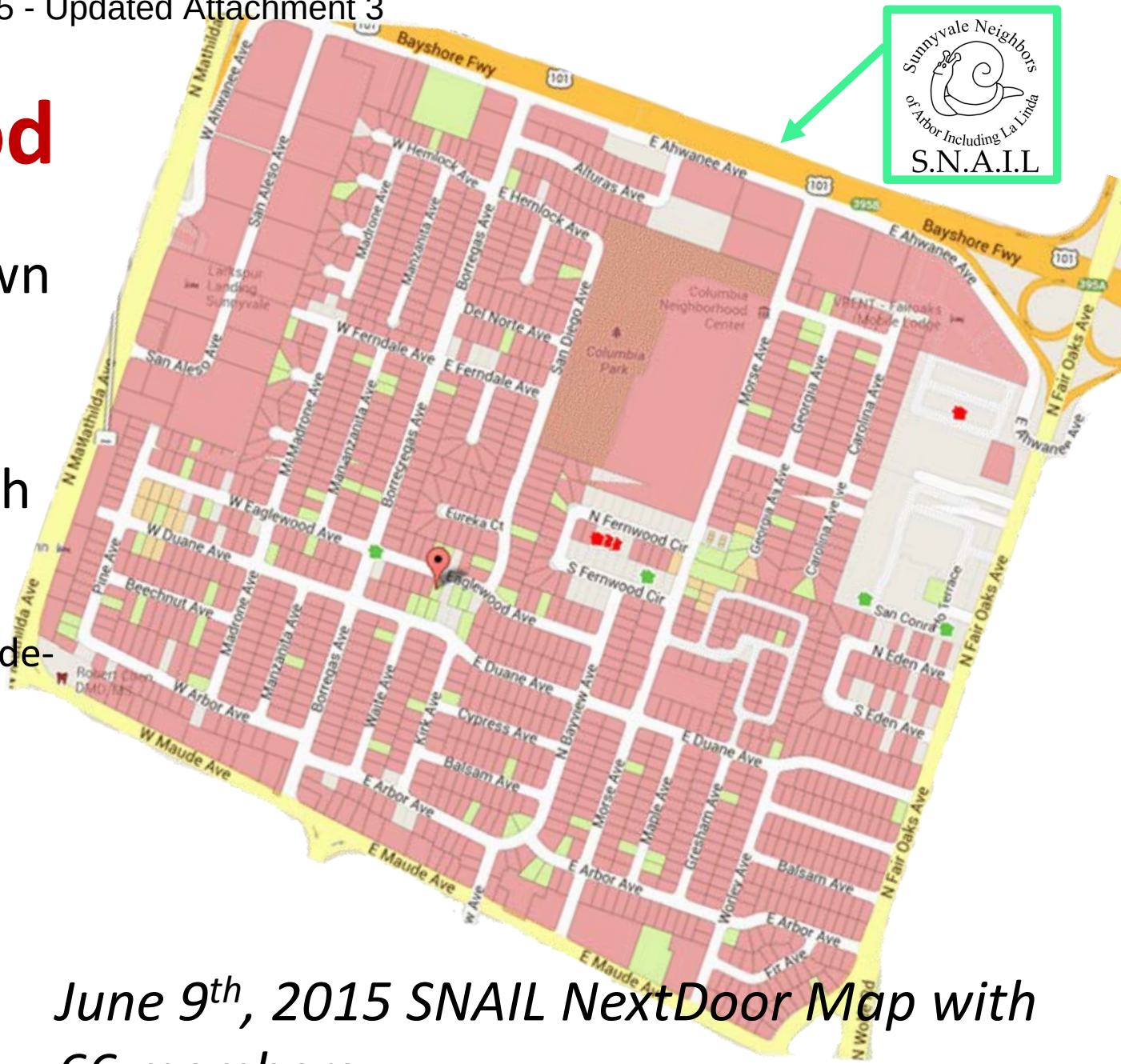
1. This SNAIL neighborhood with over 1,400 homes, is historically very active, with a large number of regular annual events that have been and still are hosted in these particular Pop Unit.
2. SNAIL neighborhood includes Pop Unit IDs# 20, 19, 21, 28.
3. We share similarities economically north of the tracks. The track is a natural boundary.
4. In Pop Unit ID# 21, there is a small mobile home park, which could be annexed by the smHPA but the majority of this Pop Unit is single family homes which are part of the SNAIL neighborhood.

SNAIL Neighborhood Profile

- **SNAIL Neighborhood Profile**
- Established in 1995
- Official 501(c) 4 non-profit
- 2,818 households (apartments and houses)
- 1,200 monthly newsletters distributed door to door
- 4 web presences:
  - www.NextDoor.com (1,557 verified members)
  - www.snail.org main neighborhood website
  - SNAILChitChat Yahoo Group (156 members)
  - SNAIL.org Yahoo Group (2,466 files of archived newsletters, agendas, minutes, grants applications since 1995)

Active Neighborhood

5. Since 2015 SNAIL has had its own 12 CERT-Captains-Team strong
6. Historically strong, SNAIL has very active Block Reps which
   - Maintain SNAIL website
   - Distribute newsletters door to door
   - Host an annual 3-day yard-sale in a cul-de-sac on Carolina at Glendale, which has generated $3,652 in its best year
   - Organize the largest NNO in the City of Sunnyvale



June 9th, 2015 SNAIL NextDoor Map with 66 members

SNAIL NextDoor Map as of 2019

Welcome to SNAIL - a neighborhood organization comprised of over 1,400 single family homes located in the north-central part of Sunnyvale, between Hwy 101, Maude, Mathilda, and Fair Oaks Avenues.

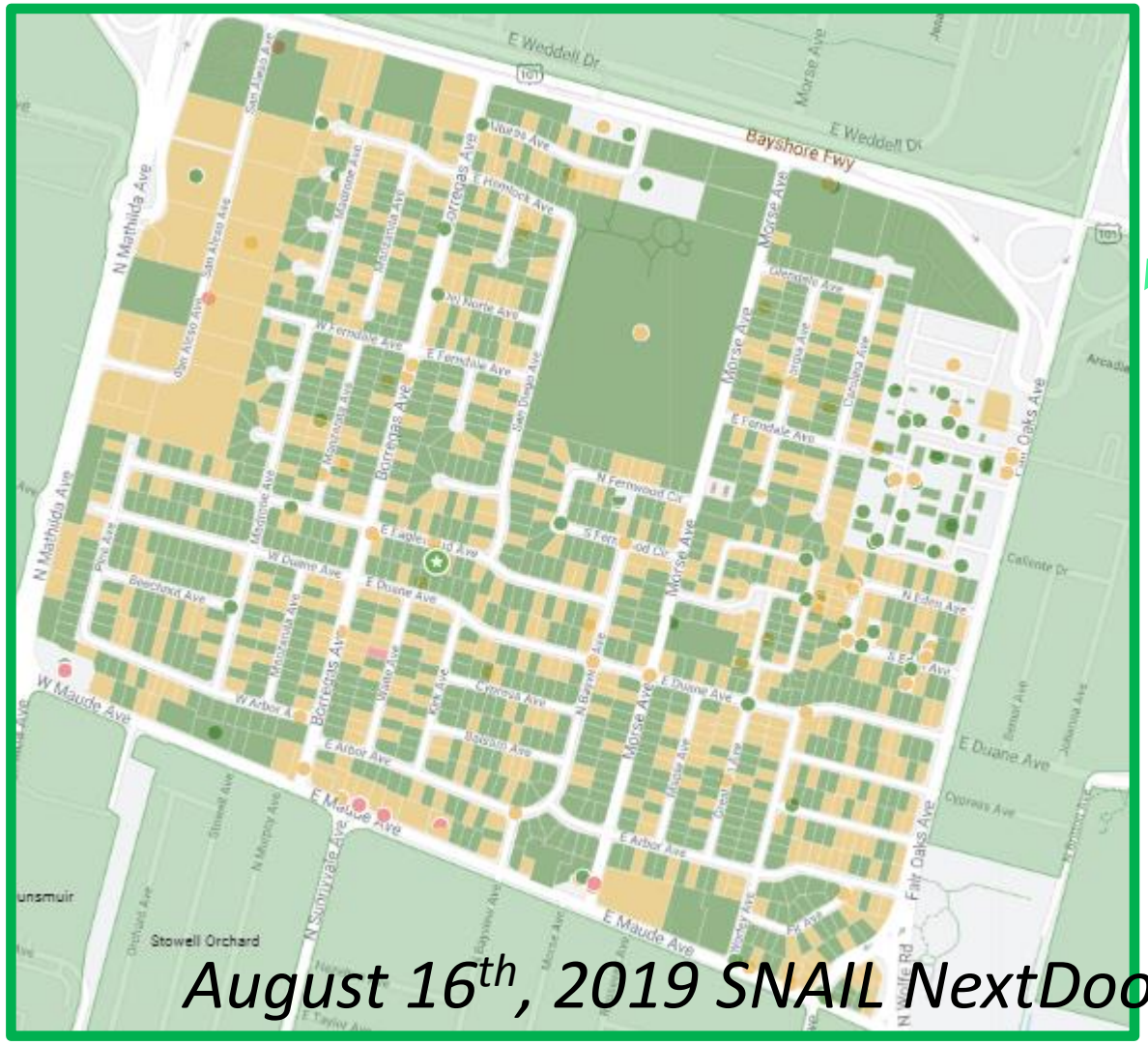
Our purpose is to renew that "old-fashioned neighborhood" feeling in our area, to be better informed about the city services that are available to us, and to provide a "united voice" with which to express our concerns to the City of Sunnyvale.

Snail

1,555 neighbors Invite

40% of 2,818 households

10,414 neighbors in
27 nearby neighborhoods

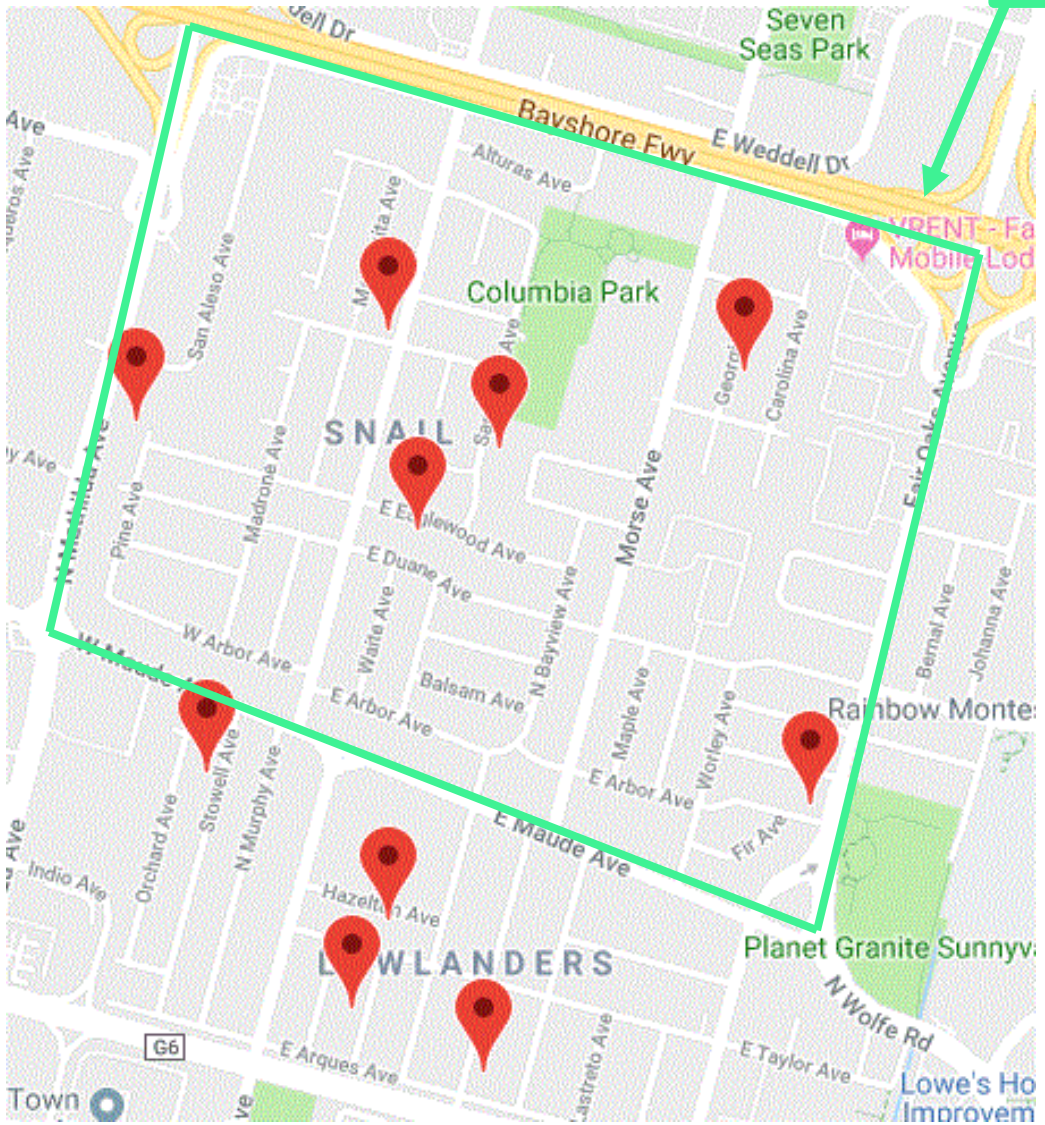


August 16th, 2019 SNAIL NextDoor Map with 1,555 members and growing

Why Keep SNAIL Intact and Undivided?

Because SNAIL:

5. Has 6 Little Free Libraries
6. Is recognized by City Elected Officials as being most organized neighborhood
7. Has the largest and most popular NNO in the City
8. Shows consistently the greatest attendance record in the entire City of Sunnyvale



SNAIL NextDoor Map with August 6th, 2019 NNO Participants Streets (highlighted in red)

2019 NNO Attendees

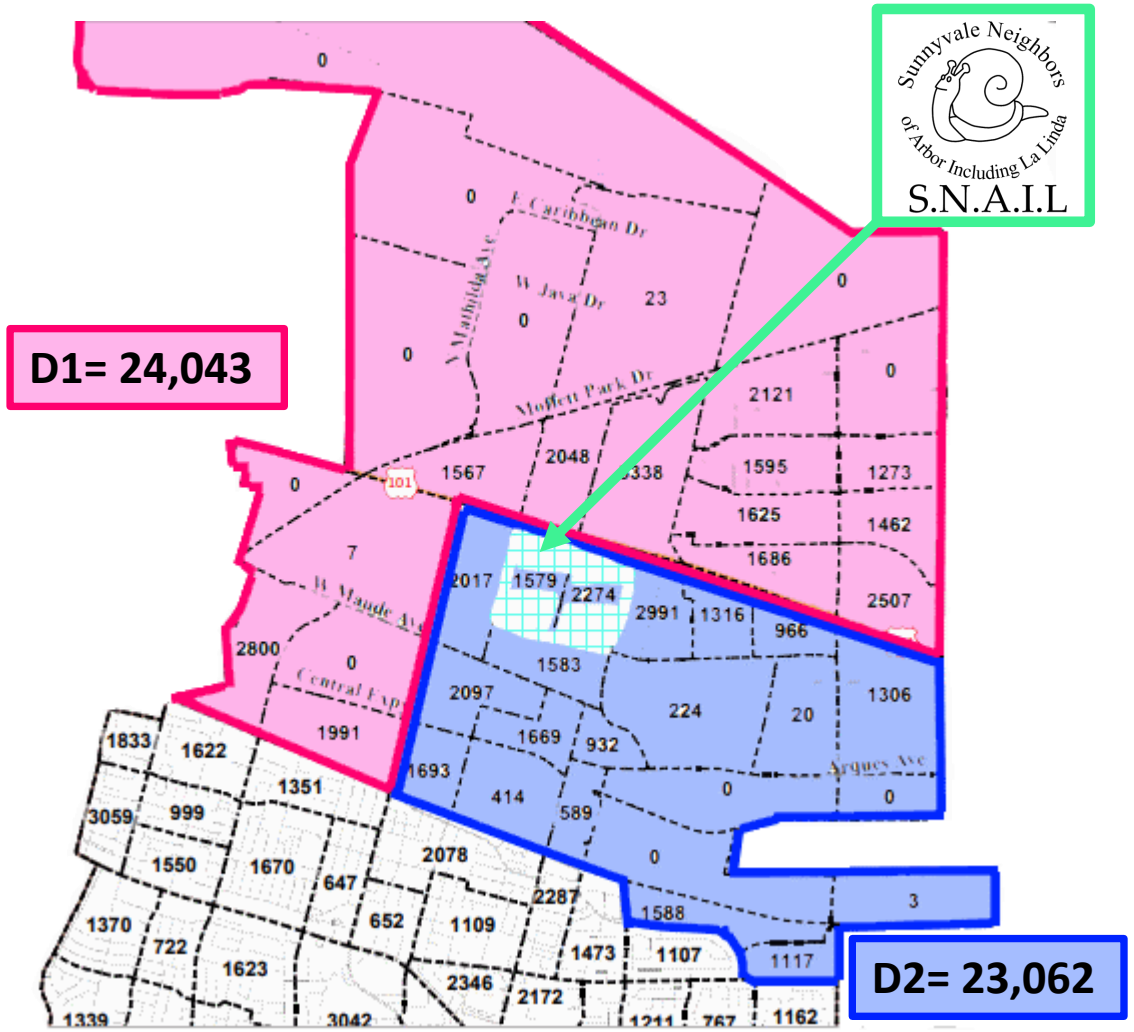
- 253 Labels
- 280 Plates
- 325 Guestinated

2019 NNO Neighborhoods Attendance

- 269 from SNAIL
- 2 from Playa Del Rey
- 2 from Lakewood Village
- 2 from Washington Park
- 1 from Heritage District
- 4 from Ponderosa Park
- 1 from Raynor Park

Keep SNAIL Intact and Undivided

SNAIL members urge you to keep their SNAIL neighborhood intact, undivided united and together.



Jim Griffith added a new photo to the album: 2018 Sunnyvale National Night Out.
August 7 at 7:05 PM ·

SNAIL Neighborhood Association, always one of the biggest events. Live music!

Larry Klein, Sunnyvale Mayor
Like This Page · August 7 · Edited ·

Councilmember Gustav Larsson, SNAIL Association President Valerie Suares and me taking a quick photo op at last night's National Night Out Event.

Google | SNAIL - Sunnyvale Neighbo...

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S.N.A.I.L.

Sunnyvale Neighbors of Arbor including La Linda

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SNAIL - A Neighborhood Organization

In the heart of Sunnyvale, California

Welcome to SNAIL - a neighborhood organization comprised of nearly 1,500 homes located in the north-central part of Sunnyvale, between Hwy 101, Maude, Mathilda, and Fair Oaks Avenues.

Our purpose is to renew that "old-fashioned neighborhood" feeling in our area, to be better informed about the city services that are available to us, and to provide a "united voice" with which to express our concerns to the City of Sunnyvale.

Sunnyvale Neighbors of Arbor Including La Linda

S.N.A.I.L

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SNAIL - A Neighborhood Organization In the heart of Sunnyvale, California

newsletter archive

Newsletter Archive

All documents in the archive prior to February 2003 are scanned from their paper originals and stored in greyscale JPG or PNG formats. Documents added since February 2003 are in PDF format and require Adobe Acrobat Reader or a compatible document viewer.

2019	Jan Feb Mar Apr May Jun Jul Aug
2018	Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
2017	Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
2016	Jan Feb Mar Apr and Recruitment Flyer May Jun and Yard Sale/Dumpster Day Flyer Jul and National Night Out Flyer Aug Sep Oct Nov Dec
2015	Jan Feb Mar Apr and Cinco de Mayo Flyer May and Yard Sale Flyer Jun Jul Aug and 20th Anniversary Party Flyer Sep Oct and Recruitment Flyer Nov Dec
2014	Jan Feb Mar Apr May and Cinco de Mayo Flyer Jun and Yard Sale Flyer Jul Aug and National Night Out Flyer Sep Oct and Recruitment Flyer Nov Dec
2013	Jan Feb Mar and Recruitment Flyer Apr May Jun and Dumpster Day/Yard Sale Flyer Jul Aug and National Night Out Flyer Sep Oct Nov Dec
2012	Jan Feb Mar Apr May Jun Jul Aug Flyers Sep and SNAP flyer Oct Nov Dec
2011	Jan Feb Mar Apr May Jun Jul Aug and NNO flyer Sep Oct Nov Dec SNAILsurvey
2010	Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
2009	Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
2008	Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
2007	Jan Feb Mar Apr May Jun and Dumpster Day/Yard Sale Flyer Jul Aug Sep Oct Nov Dec
2006	Jan Feb Mar Apr May Jun and Dumpster Day/Yard Sale Flyer Jul Aug Sep Oct Nov Dec
2005	Jan Feb Mar Apr May Jun and Dumpster Day/Yard Sale Flyer Jul Aug Sep Oct Nov Dec
2004	Jan Feb Mar Apr May Jun and Dumpster Day/Yard Sale Flyer Jul Aug Sep Oct Nov Dec
2003	Jan Feb Mar Apr May Jun and Dumpster Day/Yard Sale Flyer Jul Aug Sep Oct Nov Dec
2002	Jan Feb Mar Apr May Jun and Dumpster Day/Yard Sale Flyer Jul Aug Sep Oct Nov Dec
2001	Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
2000	Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
1999	Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
1998	Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
1997	Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
1996	Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
1995	Jul Sep Dec

S.N.A.I.L.

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SNAIL - A Neighborhood Organization In the heart of Sunnyvale, California

bylaws

S.N.A.I.L.

Sunnyvale Neighbors of Arbor including La Linda

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SNAIL - A Neighborhood Organization In the heart of Sunnyvale, California

contacts

SNAIL Board and City of Sunnyvale Support Staff

Chair	Valérie Suarès	E. Eaglewood Ave.	408-390-3335	SNAILchair @ snail.org
Vice-chair	Diane Gleason	550 E. Arbor Ave.	650-353-1575	SNAILvicechair @ snail.org
Secretary	June Valenti	610 N. Bayview Ave.	408-497-0827	SNAILsecretary @ snail.org
Treasurer	Sharon McKnight	629 Madrone Ave.	408-745-0373	SNAILtreasurer @ snail.org
Newsletter Editor	Denise Perez	564 Manzanita Ave.	408-738-3252	SNAILeditor @ snail.org
Newsletter Distribution Coordinator	Nenuca Syquia	738 Georgia Ave.		syquia . nenuca @ gmail.com
Social Secretary	Bonnie Lloyd	802 Borregas Ave.	408-747-1949	
Neighborhood Preservation	Steve Frias		408-730-7613	SFrias @ sunnyvale.ca.gov
Neighborhood Resource Officer	Amy Pistor		408-730-7146	apistor @ sunnyvale.ca.gov

REPORT TO COUNCIL

SUBJECT

..Title
Public Hearing and Approval of the City of Sunnyvale's 2016 Public Health Goal Report on Water Quality (2013-2015) and Direct Staff to file with the California State Water Resources Control Board Division of Drinking Water

..Report

REPORT IN BRIEF

[This section is used if the report will exceed 6 pages. Remove if not used]

BACKGROUND

The California Health and Safety Code requires all California water retailers serving more than 10,000 service connections to prepare a report every three years to inform consumers of water quality constituents that exceeded the Public Health Goals (PHGs). PHGs are non-enforceable water quality goals established by the California Office of Environmental Health Hazard Assessment and are based solely on public health risk considerations. Maximum Contaminant Level Goals (MCLG), established by the U.S. Environmental Protection Agency (USEPA), are the federal equivalent to California's PHGs.

Public water systems are also required to hold a public hearing for the purpose of accepting and responding to public comment on the report, which may be done as part of a regularly scheduled Council meeting.

The report is now being presented to Council to satisfy the public hearing requirements and to obtain Council approval before submittal to the California State Water Resources Control Board Division of Drinking Water (DDW)

EXISTING POLICY

Goal EM-4 Adequate Water Quality: Ensure that all water meets state & federal standards for aesthetics, quality and health.

ENVIRONMENTAL REVIEW

Approval of the 2016 Public Health Goal Report is not a project within the meaning of the California Environmental Quality Act as it does not involve any physical change to the environment (CEQA Guideline Section 15378(b)(4)).

DISCUSSION

The PHG Report (Attachment A) covers calendar years 2013-2015. It was prepared by HydroScience Engineers, Inc., a consultant employed by the City. Using an outside consultant helps to maintain objectivity in the analysis and preparation of the report. During the three year period covered by the report, one constituent (coliform bacteria) was detected above the federal MCLG, and one constituent (hexavalent chromium VI) was found a level higher than a California PHG.

Coliform Bacteria

Coliform bacteria, is a non-harmful indicator organism that triggers follow-up testing for the presence of any pathogens. The federal Maximum Contaminant Level (MCL) for total coliform bacteria is five percent (5%) positive samples of all samples collected each month. The MCLG is zero, while there is no California PHG for coliform bacteria. Each month the City collects at least 140 samples from sites located throughout the distribution system that are analyzed for the presence of coliform bacteria. It is not unusual for a water supply system to have an occasional positive sample for coliform bacteria.

During this reporting period such coliform testing for the City resulted in average monthly results of 0% to 2.8 % of samples testing positive, but in all cases follow up testing revealed negative results for E.coli or other harmful pathogens. Therefore, this detection does not trigger any further notification to public or action to remove the indicator organism from the water supply. Further, the City has implemented a vigilant monitoring and maintenance program that is intended to meet the requirements of the Total Coliform Rule and protect public health. A more detailed description of this testing, monitoring and maintenance program is presented in Attachment A. No further action is proposed or warranted at this time.

Hexavalent Chromium VI

The MCL for chromium VI is 10 parts per billion (ppb) which went into effect on July 14, 2014. The California PHG for chromium VI has been set at 0.02 ppb. Chromium VI can be naturally occurring and found in natural deposits throughout California. However, chromium VI was used in industrial and manufacturing operations, and past incidents have shown that its contaminated byproducts can migrate in groundwater supplies. Chromium VI has been categorized in the health risk category as being carcinogenic through inhalation and ingestions. The cancer risk at the MCL level of 10 ppb is one per 2000, and the risk at the California PHG level of 0.02 ppb is one per million.

The City's results for chromium VI for the six groundwater wells averaged 1.3 ppb. The levels are well below the MCL of 10 ppb. As such, the City will continue to monitor chromium VI levels in compliance with state and federal regulations. There are no plans to install treatment systems at affected wells due to being cost prohibitive with marginal/unknown benefit.

The PHG report also satisfies the requirements of the Health and Safety Code by presenting the following information:

- Public health risk categories and definitions of these categories for the constituents identified in excess of the PHG or MCLG;
- The Best Available Technology to remove or reduce the concentration of the identified constituents, if any;
- Recommended action for reduction of constituents exceeding PHGs and basis for that decision.

The report concluded that the City of Sunnyvale meets all drinking water standards

established by the state and federal governments to protect public health. No additional treatment is recommended in an effort to decrease the incidence of total coliform bacteria and hexavalent chromium.

FISCAL IMPACT

There is no fiscal impact in the review and consideration of the information included in the attached report, and there are no recommended actions that would require monetary expenditure.

PUBLIC CONTACT

Public contact was made by posting the Council agenda on the City's official-notice bulletin board outside City Hall, at the Sunnyvale Senior Center, Community Center and Department of Public Safety; and by making the agenda and report available at the Sunnyvale Public Library, the Office of the City Clerk and on the City's website.

ALTERNATIVES

1. Approve the City of Sunnyvale's 2016 Public Health Goal Report on Water Quality (2013-2015) and Direct Staff to file with the California State Water Resources Control Board Division of Drinking Water

2. Provide other direction to staff

STAFF RECOMMENDATION

..Recommendation
Alternative: Approve the City of Sunnyvale's 2016 Public Health Goal Report on Water Quality (2013-2015) and Direct Staff to file with the California State Water Resources Control Board Division of Drinking Water

..Staff
Prepared by: Mansour Nasser, Water and Sewer Division Manager
Reviewed by: John Stufflebean, Director, Environmental Services
Reviewed by: Kent Steffens, Assistant City Manager
Approved by: Deanna J. Santana, City Manager

ATTACHMENTS

1. City of Sunnyvale- 2016 Public Health Goals Report

CITY OF SUNNYVALE – 2016 PUBLIC HEALTH GOALS REPORT

BACKGROUND

The California Health and Safety Code, section 116470(b) (see **Attachment 1**) requires public water systems serving more than 10,000 service connections to prepare a report by July 1, 2016 if water quality monitoring results over the past three years exceed any California Public Health Goals (PHGs) and/or federal Maximum Contaminant Level Goals (MCLGs). PHGs are non-enforceable goals established by the California Environmental Protection Agency's Office of Environmental Health Hazard Assessment (OEHHA). MCLGs are goals that are adopted by USEPA, and only come into play if there is no California PHG. PHGs may not be more lenient that MCLGs.

Only constituents that have a California primary drinking water standard and for which either a PHG or MCLG has been set are to be addressed in the Report. **Attachment 2** contains a list of the regulated constituents and their respective PHGs or MCLGs. Total coliform and Chromium VI (hexavalent chromium) are the constituents which minimally exceeded the MCLG or PHG, but were still well below the MCL. There is no PHG for total coliform.

If a constituent was detected by a water supplier between January 1, 2013 and December 31, 2015 at a level exceeding an applicable PHG or MCLG, the Report shall contain the following information as required by the law:

- Numerical public health risk associated with the enforced Maximum Contaminant Level (MCL) and the PHG or MCLG;
- Category or type of risk to health that could be associated with each constituent;
- Best treatment technology available, if any, that could be used to remove or reduce the constituent to a level at or below the PHG or MCLG;
- Estimate of the cost to install that treatment and if it is appropriate and feasible; and
- Description of the actions, if any, the City intends to take to reduce the level of the constituent.

PHG/MCLG vs. MCL

PHGs are set by OEHHA (and MCLGs by USEPA) based solely on public health risk considerations. MCLs are set by USEPA or the California State Water Resources Control Board (SWRCB) Division of Drinking Water (DDW) as the contaminants maximum level which public water systems must not exceed. Violations of MCLs can result in fines, abatement orders, or closure of facilities. When the USEPA, or the DDW, adopts an MCL, they take into account such factors as (1) analytical methodologies, (2) effectiveness of available treatment technologies, and (3) health benefits versus costs. PHGs (and MCLGs) are not enforceable and are not required to be met by any public water system.

Water Quality Data Review for this Report

Water quality data collected by the City of Sunnyvale during the calendar years of 2013, 2014 and 2015 for purposes of determining compliance with drinking water standards were reviewed in order to prepare this Report. This data was summarized in our 2013, 2014 and 2015 Annual Water Quality Reports, also known as Consumer Confidence Reports, which were distributed to

all of our customers by July of the following year and is typically included in the summer issue of the City's Quarterly Report (see **Attachment 3** for copies of the 2013, 2014, and 2015 City of Sunnyvale Consumer Confidence Reports).

Guidelines Followed for Preparation of this Report

The Association of California Water Agencies (ACWA) formed a workgroup which prepared guidelines for water utilities to use in preparing required PHG Reports. These guidelines, titled "Suggested Guidelines for Preparation of Required Reports on PUBLIC HEALTH GOALS (PHGs) to satisfy requirements of California Health and Safety Code Section 116470(b)" were used in the preparation of this Report.

Best Available Treatment Technology and Cost Estimates

Both USEPA and DDW adopt Best Available Technologies (BATs), which are the best known methods of reducing contaminant levels below the MCL. This report also considers other commercially available BATs that may have the ability to further reduce constituent levels beyond the MCL to the PHG/MCLG level or below. While a BAT may identify a process that can reduce the presence of a constituent, the cost of implementation can be a major factor in deciding whether or not to adopt the process. For a system that is in compliance with MCL levels, striving to keep constituents below PHG/MCLG levels must be evaluated with costs in mind.

Costs were estimated for the implementation of BATs for each constituent exceeding PHGs or MCLGs. The PHGs/MCLGs are set much lower than the MCL, and it is not always possible or feasible to determine what treatment technology is able to further reduce a constituent to a level at or below the PHG/MCLG. In some cases, such as when the MCLG is set at zero, there may not be commercially available technology to reach that level. The issue is further complicated because it is often not possible to verify by analytical means that the constituent has been totally eliminated, as some laboratory analyses can detect constituents down to a DDW approved level with certainty and are unable to definitively identify the constituent at lower levels. In some cases, installing treatment to try and further reduce very low levels of one constituent may have adverse effects on other aspects of water quality. This report presents the required cost estimates to implement the BATs to reduce the constituent to a level at or below the PHG/MCLG.

CONSTITUENTS DETECTED THAT EXCEED A PHG OR MCLG

In reviewing water quality monitoring data collected during 2013, 2014 and 2015, City of Sunnyvale staff have concluded that a PHG Report is required that addresses the following constituents:

- Coliform bacteria
- Chromium VI (Hexavalent Chromium)

The following section presents a discussion of the constituent that was detected in the drinking water distribution system or at water supply wells at levels above the PHG or MCLG.

Coliform Bacteria

In 1989 EPA developed the Total Coliform Rule. The MCL for total coliforms is five percent (5%) positive samples of all samples collected in each month. The MCLG is zero (there is no PHG for coliform bacteria).

The reason for the coliform standard is to minimize the possibility for drinking water to contain pathogens. Pathogens are microorganisms that can cause disease if ingested. Coliform bacteria is an indicator organism that is not generally considered harmful, but is used to identify the potential presence of pathogens in the water. It is not unusual for a system to have an occasional positive sample. A positive sample serves as a trigger to prompt further investigation into the presence of other organisms, requiring additional sampling to be done immediately after it is discovered.

The monitoring of a non-harmful constituent (coliform bacteria) to indicate the possible presence of harmful pathogens makes for an inexact, but generally conservative process. Therefore, it is not possible to state a specific numerical health risk associated with a given level of coliform bacteria. EPA normally sets MCLGs "at a level where no known or anticipated adverse effects on persons would occur." When EPA published the final Total Coliform Rule they stated that it was not possible to determine such a level with coliform sampling. The absence of coliform bacteria is therefore the goal, and when that goal is not achieved, follow-up testing verifies whether an actual pathogen is present.

Best Available Technology Identified in the Total Coliform Rule

DDW identifies the best available technologies to meet the total coliform MCL in Title 22 of the California Code of Regulations Section 64447, which are as follows:

1. Protection of wells from coliform contamination by appropriate placement and construction;
2. Maintenance of a disinfectant residual throughout the distribution system;
3. Proper maintenance of the distribution system (e.g. including appropriate pipe replacement and repair procedures, main flushing programs, proper operation and maintenance of storage tanks and reservoirs, and continual maintenance of positive water pressure in all parts of the distribution system); and
4. Filtration and/or disinfection of surface water, in compliance with Section 64650, or disinfection of ground water

The City of Sunnyvale has implemented all of the above actions or processes, or obtains water from suppliers who implement these processes (such as filtration and chloramination). There is one method that may further reduce or eliminate the presence of total coliform, which is to increase the amount of disinfectant residual in the distribution system; however, the tradeoff includes the increased potential for the presence of cancer-causing disinfection byproducts. In the interest of protecting the public's health, the City would prefer to continue to implement the current technologies and monitoring and maintenance program. As such, there is no estimated cost associated with additional treatment to reduce the incidence of coliform bacteria.

Sunnyvale Total Coliform Rule Monitoring Results

Each month the City collects at least 140 samples from sites located throughout the distribution system that are analyzed for the presence of coliform bacteria. If a positive coliform sample is found, follow-up sampling is done for more specific indicators of bacterial contamination.

Over the last three years, the monthly average of positive samples for coliform bacteria ranged from 0% to 2.8 %. All instances where a positive coliform sample was initially found, follow-up samples were negative for E. coli bacteria. The data indicated that these were isolated incidents, and the quality of the water in the distribution system was never compromised.

The City of Sunnyvale works closely with our regional water suppliers, the Santa Clara Valley Water District (SCVWD) and the San Francisco Public Utilities Commission (SFPUC). Both SCVWD and SFPUC provide water with a chloramine residual in accordance with the Total Coliform Rule.

Other measures and programs that the City implements to protect the microbiological quality of the drinking water served include:

- flushing of all distribution system dead-ends as needed;
- flushing of all hydrants as needed;
- implementation of a cross-connection control program;
- monitoring of a disinfectant residual throughout the distribution system;
- ongoing microbiological monitoring and surveillance program of all groundwater sources and the distribution system;
- implementation of a tank cleaning program every five years; and
- maintenance of positive pressures throughout the distribution system at all times.

As stated above, monitoring for coliform bacteria to indicate the possible presence of harmful pathogens is a conservative, yet inexact process. As such, there is no specific numerical correlation to health risk. However, the City has implemented a vigilant monitoring and maintenance program that is intended to meet the requirements of the Total Coliform Rule and protect public health.

No additional actions are recommended at this time for coliform bacteria.

Chromium VI (Hexavalent Chromium)

On July 1, 2014, the new MCL of 10 ppb became effective for chromium VI. Previously chromium VI was regulated under the 50 ppb primary drinking water standard for total chromium established in California in 1977. The California PHG for chromium VI has been set at 0.02 ppb. The established detection limit for reporting results is 1 ppb meaning that lab results returned under 1 ppb can be unreliable due to the fact that equipment is not sensitive enough to detect levels under the 1 ppb level.

Chromium VI can be naturally occurring and found in natural deposits throughout California. However, chromium VI was used in industrial and manufacturing and contaminated waste can migrate into groundwater supplies. Chromium VI has been categorized in the health risk category as being carcinogenic through inhalation and ingestion. The cancer risk at the California MCL is 5×10^{-4}, or five per 10,000.and the risk at the PHG is 1×10^{-6} or one per million[1]

[1] Office of Environmental Health Hazard Assessment, Water Toxicology Section, Health Risk Information for Public Health Goal Exceedance Reports, February 2016

Best Available Technology Identified for Chromium VI

The approved technologies for removing chromium VI from drinking water include:

- Ion exchange
- Coagulation/Filtration
- Reverse osmosis

Two applications of treatment technologies have been tested in recent history and have reduced chromium-VI levels to 1 ppb. The estimated cost to install and operate such treatment systems are within the range of $1,580 to $9,950 per thousand gallons treated. Sunnyvale well capacities range from 500 to 1,900 gpm. The cost to implement treatment at each of the well sites would be approximately within the range of $790,000 to $4.98M for smaller capacity wells to as much as $3.0M to $18.9M for largest capacity wells. In addition, the treatment systems would have associated operations and maintenance costs that are unknown at this time. The result would be an assumed increase cost for each customer of up to $700 over the span of a typical loan payback time of 30 years and not including the continuous cost of O&M[2].

Sunnyvale Chromium VI Monitoring Results

The City has one year of results collected for chromium VI with results averaging 1.3 ppb from the six groundwater wells operated within and by the City. The City is well below the MCL of 10 ppb and just above the 1 ppb level that treatment systems can reliably detect. As such, the City will continue to monitor results and has no plans currently to install treatment systems at affected wells due to the increased cost and marginal/unknown benefit.

SUMMARY AND CONCLUSION

The drinking water for the City of Sunnyvale meets all standards established by DDW and USEPA to protect public health. No additional treatment is recommended in an effort to decrease the incidence of total coliform and hexavalent chromium in system water testing. The level of total coliform and hexavalent chromium detected is well below the MCL, and elimination may be impossible. Therefore, no additional actions are proposed at this time for reducing coliform bacteria and hexavalent chromium. The City and its water suppliers will continue to implement the BATs for total coliform as well as the monitoring and maintenance program. Hexavalent chromium will continue to be monitored as required by DDW.

Attachments:

1. Excerpt from California Health & Safety Code: Section 116470 (b)
2. Table of Regulated Constituents with MCLs, PHGs or MCLGs
3. Consumer Confidence Reports for 2013, 2014 and 2015.

[2] Costs for BATs come from the 2016 PHG Report Guidance to Water Systems, ACWA, February 2016

ATTACHMENT NO. 1

CALIFORNIA HEALTH AND SAFETY CODE

Section §116470. Public Health Goal Report

(b) On or before July 1, 1998, and every three years thereafter, public water systems serving more than 10,000 service connections that detect one or more contaminants in drinking water that exceed the applicable public health goal, shall prepare a brief written report in plain language that does all of the following:

(1) Identifies each contaminant detected in drinking water that exceeds the applicable public health goal.

(2) Discloses the numerical public health risk, determined by the office, associated with the maximum contaminant level for each contaminant identified in paragraph (1) and the numerical public health risk determined by the office associated with the public health goal for that contaminant.

(3) Identifies the category of risk to public health, including, but not limited to, carcinogenic, mutagenic, teratogenic, and acute toxicity, associated with exposure to the contaminant in drinking water, and includes a brief plainly worded description of these terms.

(4) Describes the best available technology, if any is then available on a commercial basis, to remove the contaminant or reduce the concentration of the contaminant. The public water system may, solely at its own discretion, briefly describe actions that have been taken on its own, or by other entities, to prevent the introduction of the contaminant into drinking water supplies.

(5) Estimates the aggregate cost and the cost per customer of utilizing the technology described in paragraph (4), if any, to reduce the concentration of that contaminant in drinking water to a level at or below the public health goal.

(6) Briefly describes what action, if any, the local water purveyor intends to take to reduce the concentration of the contaminant in public drinking water supplies and the basis for that decision.

ATTACHMENT NO. 2

MCLs, DLRs and PHGs for Regulated Drinking Water Contaminants

Last Update: December 29, 2015

Prepared and provided by the Association of California Water Agencies (ACWA).

ATTACHMENT NO. 2

2016 PHG Triennial Report: Calendar Years 2013-2014-2015

MCLs, DLRs, and PHGs for Regulated Drinking Water Contaminants

(Units are in milligrams per liter (mg/L), unless otherwise noted.)

Last Update: December 29, 2015

(Reference last update 9/23/2015: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/MCLsandPHGs.shtml)

This table includes:

- DDW's maximum contaminant levels (MCLs)
- DDW's detection limits for purposes of reporting (DLRs)
- Public health goals (PHGs) from the Office of Environmental Health Hazard Assessment (OEHHA)
- PHGs for NDMA and 1,2,3-Trichloropropane (both are unregulated) are at the bottom of this table
- The federal MCLG for chemicals without a PHG, microbial contaminants, and the DLR for 1,2,3-TCP

Constituent	MCL	DLR	PHG or (MCLG)	Date of PHG
Chemicals with MCLs in 22 CCR §64431—Inorganic Chemicals				
Aluminum	1	0.05	0.6	2001
Antimony	0.006	0.006	0.02	1997
Antimony	--	--	0.0007	2009 draft
Arsenic	0.010	0.002	0.000004	2004
Asbestos (MFL = million fibers per liter; for fibers >10 microns long)	7 MFL	0.2 MFL	7 MFL	2003
Barium	1	0.1	2	2003
Beryllium	0.004	0.001	0.001	2003
Cadmium	0.005	0.001	0.00004	2006
Chromium, Total - OEHHA withdrew the 1999 0.0025 mg/L PHG in Nov 2001	0.05	0.01	(0.100)	
Chromium, Hexavalent (Chromium-6)	0.01	0.001	0.00002	2011
Cyanide	0.15	0.1	0.15	1997
Fluoride	2	0.1	1	1997
Mercury (inorganic)	0.002	0.001	0.0012	1999 (rev2005)*
Nickel	0.1	0.01	0.012	2001
Nitrate (as N)	10 as N	0.4	45 as NO3 (=10 as N)	1997
Nitrite (as N)	1 as N	0.4	1 as N	1997
Nitrate + Nitrite (as N)	10 as N	0.4	10 as N	1997
Perchlorate	0.006	0.004	0.001	2015
Selenium	0.05	0.005	0.03	2010
Thallium	0.002	0.001	0.0001	1999 (rev2004)
Copper and Lead, 22 CCR §64672.3				
Values referred to as MCLs for lead and copper are not actually MCLs; instead, they are called "Action Levels" under the lead and copper rule				
Copper	1.3	0.05	0.3	2008
Lead	0.015	0.005	0.0002	2009

ATTACHMENT NO. 2

Constituent	MCL	DLR	PHG or (MCLG)	Date of PHG
Radionuclides with MCLs in 22 CCR §64441 and §64443 —Radioactivity [units are picocuries per liter (pCi/L), unless otherwise stated; n/a = not applicable]				
Gross alpha particle activity - OEHHA concluded in 2003 that a PHG was not practical	15	3	(zero)	n/a
Gross beta particle activity - OEHHA concluded in 2003 that a PHG was not practical	4 mrem/yr	4	(zero)	n/a
Radium-226	--	1	0.05	2006
Radium-228	--	1	0.019	2006
Radium-226 + Radium-228	5	--	(zero)	--
Strontium-90	8	2	0.35	2006
Tritium	20,000	1,000	400	2006
Uranium	20	1	0.43	2001
Chemicals with MCLs in 22 CCR §64444 —Organic Chemicals				
(a) Volatile Organic Chemicals (VOCs)				
Benzene	0.001	0.0005	0.00015	2001
Carbon tetrachloride	0.0005	0.0005	0.0001	2000
1,2-Dichlorobenzene	0.6	0.0005	0.6	1997 (rev2009)
1,4-Dichlorobenzene (p-DCB)	0.005	0.0005	0.006	1997
1,1-Dichloroethane (1,1-DCA)	0.005	0.0005	0.003	2003
1,2-Dichloroethane (1,2-DCA)	0.0005	0.0005	0.0004	1999 (rev2005)
1,1-Dichloroethylene (1,1-DCE)	0.006	0.0005	0.01	1999
cis-1,2-Dichloroethylene	0.006	0.0005	0.1	2006
trans-1,2-Dichloroethylene	0.01	0.0005	0.06	2006
Dichloromethane (Methylene chloride)	0.005	0.0005	0.004	2000
1,2-Dichloropropane	0.005	0.0005	0.0005	1999
1,3-Dichloropropene	0.0005	0.0005	0.0002	1999 (rev2006)
Ethylbenzene	0.3	0.0005	0.3	1997
Methyl tertiary butyl ether (MTBE)	0.013	0.003	0.013	1999
Monochlorobenzene	0.07	0.0005	0.07	2014
Styrene	0.1	0.0005	0.0005	2010
1,1,2,2-Tetrachloroethane	0.001	0.0005	0.0001	2003
Tetrachloroethylene (PCE)	0.005	0.0005	0.00006	2001
Toluene	0.15	0.0005	0.15	1999
1,2,4-Trichlorobenzene	0.005	0.0005	0.005	1999
1,1,1-Trichloroethane (1,1,1-TCA)	0.2	0.0005	1	2006
1,1,2-Trichloroethane (1,1,2-TCA)	0.005	0.0005	0.0003	2006
Trichloroethylene (TCE)	0.005	0.0005	0.0017	2009
Trichlorofluoromethane (Freon 11)	0.15	0.005	1.3	2014
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	1.2	0.01	4	1997 (rev2011)
Vinyl chloride	0.0005	0.0005	0.00005	2000
Xylenes	1.75	0.0005	1.8	1997

ATTACHMENT NO. 2

Constituent	MCL	DLR	PHG or (MCLG)	Date of PHG
(b) Non-Volatile Synthetic Organic Chemicals (SOCs)				
Alachlor	0.002	0.001	0.004	1997
Atrazine	0.001	0.0005	0.00015	1999
Bentazon	0.018	0.002	0.2	1999 (rev2009)
Benzo(a)pyrene	0.0002	0.0001	0.000007	2010
Carbofuran	0.018	0.005	0.0017	2000
Carbofuran	--	--	0.0007	2015 draft
Chlordane	0.0001	0.0001	0.00003	1997 (rev2006)
Dalapon	0.2	0.01	0.79	1997 (rev2009)
1,2-Dibromo-3-chloropropane (DBCP)	0.0002	0.00001	0.0000017	1999
2,4-Dichlorophenoxyacetic acid (2,4-D)	0.07	0.01	0.02	2009
Di(2-ethylhexyl)adipate	0.4	0.005	0.2	2003
Di(2-ethylhexyl)phthalate (DEHP)	0.004	0.003	0.012	1997
Dinoseb	0.007	0.002	0.014	1997 (rev2010)
Diquat	0.02	0.004	0.015	2000
Diquat	--	--	0.006	2015 draft
Endrin	0.002	0.0001	0.0018	1999 (rev2008)
Endrin	--	--	0.0003	2015 draft
Endothal	0.1	0.045	0.094	2014
Ethylene dibromide (EDB)	0.00005	0.00002	0.00001	2003
Glyphosate	0.7	0.025	0.9	2007
Heptachlor	0.00001	0.00001	0.000008	1999
Heptachlor epoxide	0.00001	0.00001	0.000006	1999
Hexachlorobenzene	0.001	0.0005	0.00003	2003
Hexachlorocyclopentadiene	0.05	0.001	0.002	2014
Lindane	0.0002	0.0002	0.000032	1999 (rev2005)
Methoxychlor	0.03	0.01	0.00009	2010
Molinate	0.02	0.002	0.001	2008
Oxamyl	0.05	0.02	0.026	2009
Pentachlorophenol	0.001	0.0002	0.0003	2009
Picloram	0.5	0.001	0.5	1997
Picloram	--	--	0.166	2015 draft
Polychlorinated biphenyls (PCBs)	0.0005	0.0005	0.00009	2007
Simazine	0.004	0.001	0.004	2001
2,4,5-TP (Silvex)	0.05	0.001	0.003	2014
2,3,7,8-TCDD (dioxin)	$3x10^{-8}$	$5x10^{-9}$	$5x10^{-11}$	2010
Thiobencarb	0.07	0.001	0.07	2000
Thiobencarb	--	--	0.042	2015 draft
Toxaphene	0.003	0.001	0.00003	2003

ATTACHMENT NO. 2

Constituent	MCL	DLR	PHG or (MCLG)	Date of PHG
Chemicals with MCLs in 22 CCR §64533—Disinfection Byproducts				
Total Trihalomethanes	0.080	--		
Total Trihalomethanes	--	--	0.0008	2010 draft
Bromodichloromethane	--	0.0010	(zero)	--
Bromoform	--	0.0010	(zero)	--
Chloroform	--	0.0010	(0.07)	--
Dibromochloromethane	--	0.0010	(0.06)	--
Haloacetic Acids (five) (HAA5)	0.060	--	--	--
Monochloroacetic Acid	--	0.0020	(0.07)	--
Dichloroacetic Adic	--	0.0010	(zero)	--
Trichloroacetic Acid	--	0.0010	(0.02)	--
Monobromoacetic Acid	--	0.0010	--	--
Dibromoacetic Acid	--	0.0010	--	--
Bromate	0.010	0.0050 or 0.0010[a]	0.0001	2009
Chlorite	1.0	0.020	0.05	2009
Microbiological Contaminants (TT = Treatment Technique)				
Coliform % positive samples	%	5	(zero)	
*Cryptosporidium***		TT	(zero)	
*Giardia lamblia***		TT	(zero)	
*Legionella***		TT	(zero)	
Viruses**		TT	(zero)	
Chemicals with PHGs established in response to DDW requests. These are not currently regulated drinking water contaminants.				
N-Nitrosodimethylamine (NDMA)	--	--	0.000003	2006
1,2,3-Trichloropropane	--	0.000005	0.0000007	2009

Notes:

[a] DDW will maintain a 0.0050 mg/L DLR for bromate to accommodate laboratories that are using EPA Method 300.1. However, laboratories using EPA Methods 317.0 Revision 2.0, 321.8, or 326.0 must meet a 0.0010 mg/L MRL for bromate and should report results with a DLR of 0.0010 mg/L per Federal requirements.

*OEHHA's review of this chemical during the year indicated (rev20XX) resulted in no change in the PHG

** Surface water treatment = TT

ATTACHMENT NO. 3

City of Sunnyvale Consumer Confidence Reports:

- 2013 Water Quality Report
- 2014 Water Quality Report
- 2015 Water Quality Report

IMPORTANT CONTACT INFORMATION

CITY CONTACTS

City of Sunnyvale
456 West Olive Ave.
Sunnyvale, CA 94086
Tel: (408) 730-7415
TDD: (408) 730-7501
Fax: (408) 730-7286
sunnyvale.ca.gov

Hours of Operation:
8 a.m. to 5 p.m., M–F

Environmental Services Department (Leaks, Breaks, Water Quality Questions)
(408) 730-7400

Utility Division (Billing)
(408) 730-7400, Residential
(408) 730-7681, Commercial

Backflow and Cross-Connection Control Program
(408) 730-7574

SCVWD Water Conservation Hotline
(408) 630-2554

SCVWD Pollution Hotline
(888) 510-5151 (24 Hours)

WEB RESOURCES

Department of Public Health
cdph.ca.gov

US EPA
water.epa.gov/drink

Department of Water Resources
www.dwr.water.ca.gov

Emergency Preparedness
ready.gov

Bay Area Water Supply and Conservation Agency
bawsca.org

American Water Works Association
awwa.org or *DrinkTap.org*

SCVWD
valleywater.org

SFPUC
sfwater.org

TO GET INVOLVED

To provide input on decisions that affect drinking water quality, you are welcome to speak on any issue specifically coming before the City Council at a regularly scheduled council meeting. You can also speak on any topic you wish to bring to the Council's attention during the "Public Comments" portion of the meeting agenda. Alternatively, you can send a letter in advance of a meeting.

City Council Meetings
City Hall Council Chambers
456 West Olive Ave.
Sunnyvale, CA 94086
Tuesdays, 7 p.m.

A list of City Council meetings, agenda items and study issues can be obtained by visiting *sunnyvale.ca.gov* or by calling the City Clerk's office at (408) 730-7483.

HEALTH & EDUCATION INFORMATION

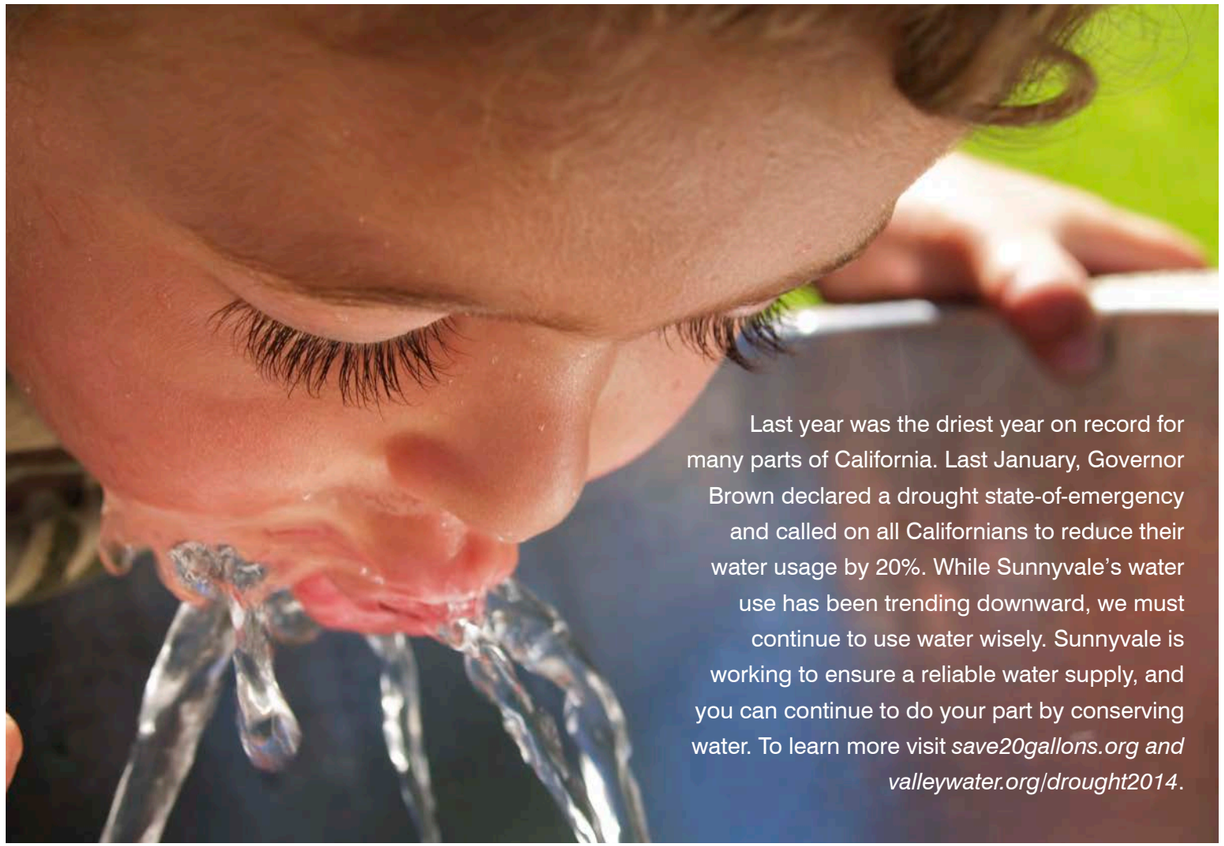
Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA Safe Drinking Water Hotline.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons, such as persons with cancer undergoing chemotherapy; persons who have undergone organ transplants; people with HIV/AIDS or other immune system disorders; some elderly; and infants can be particularly at risk from infections. These people should seek advice from their health care providers.

USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the USEPA Safe Drinking Water Hotline.

USEPA Safe Drinking Water Hotline ▶
(800) 426-4791

The City of Sunnyvale is replacing and upgrading aging water distribution infrastructure to ensure continued reliable water supply. The improvements will enhance water quality and improve operational efficiency. In the past year, the City has replaced over eight miles of water pipelines and upgraded one of our water pumping facilities. The City has also updated the water communications system to better manage and operate the water distribution system. If you have questions about an upcoming project along your street, contact us at (408) 730-7400.



Last year was the driest year on record for many parts of California. Last January, Governor Brown declared a drought state-of-emergency and called on all Californians to reduce their water usage by 20%. While Sunnyvale's water use has been trending downward, we must continue to use water wisely. Sunnyvale is working to ensure a reliable water supply, and you can continue to do your part by conserving water. To learn more visit *save20gallons.org and valleywater.org/drought2014*.

CITY OF SUNNYVALE 2013 WATER QUALITY REPORT

This report contains important information about your drinking water. Translate it, or speak with someone who understands it.

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.

Mahalaga ang impormasyong ito. Mangyaring ipasalin ito.

Chi tiết này thật quan trọng. Xin nhờ người dịch cho quý vị.

此份有關你的食水報告，內有重要資料和訊息，請找他人為你翻譯及解釋清楚。

この情報は重要です。翻訳を依頼してください。

이 소책자에는 식수수질 보고서의 내용을 요약한 당신의 수돗물에 관한 중요한 정보가 적혀져있습니다. 이 정보를 이해하실수 있는 분에게 번역을 부탁하십시요.

यह सूचना महत्वपूर्ण है ।
कृपा करके किसी से :सका अनुवाद करायें ।

Last year your tap water met all state and federal drinking water health standards

The City of Sunnyvale aims to provide superior service while delivering a reliable, high-quality drinking water supply to our customers. Last year, your tap water met all state and federal drinking water health standards. The City vigilantly safeguards its water supplies, and once again, we are proud to report that our system has met or exceeded water quality standards.

WHAT'S INSIDE ▶

Protecting your water supply

To ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (USEPA) and the California Department of Public Health (CDPH) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. CDPH regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include:

- **Microbial Contaminants** such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- **Inorganic Contaminants** such as salts and metals, that can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.
- **Pesticides and Herbicides** that may come from a variety of sources such as agriculture, urban stormwater runoff and residential uses.
- **Organic Chemical Contaminants** including synthetic and volatile organic chemicals that are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application and septic systems.
- **Radioactive Contaminants** that can be naturally-occurring or be the result of oil and gas production and mining activities.

Protection begins in the watersheds. Protecting the water supply is important to ensure that water is safe from contamination and aesthetically pleasing for use. Contamination requires treatment, which increases the cost to deliver water to your tap. Here are ways that you can help protect our watershed:

- Eliminate excess use of lawn and garden fertilizers and pesticides
- Pick up after your pets
- Take used motor oil and other recyclables to the SMaRT Station ®
- Dispose of pharmaceuticals at any Sunnyvale fire station. Medications should not to be flushed down drains or put in the garbage.
- Dispose of cleaners, chemicals and paints at a Household Hazardous Waste Drop-off Event
- Volunteer in your community. The Creek Connections Action Group works to protect the County's waterways. Visit *www.cleanacreek.org*.
- Participate in public meetings and forums. It allows decision-makers to hear your perspective and you to be involved in protecting your water supply.

More information about disposal and recycling ▶
Call (408) 730-7262

SMaRT Station ®
301 Carl Road, Sunnyvale, CA 94089
Open daily, 8 a.m. to 5 p.m., Tel: (408) 752-8530

Household Hazardous Waste Drop-off
164 Carl Road, Sunnyvale, CA 94089
Every 3rd Saturday, 8 a.m. to 1 p.m.

Where your water comes from

The City of Sunnyvale has three different sources of drinking water supply: local groundwater, treated surface water from the Santa Clara Valley Water District (SCVWD) and treated surface water from the San Francisco Public Utilities Commission (SFPUC). There are also pockets of Sunnyvale customers who receive water from the California Water Service Company (Cal Water); questions regarding the source and delivery of water provided by Cal Water can be directed to its local office at (650) 917-0152.

Local Groundwater

The City owns, operates and maintains eight deep wells. The wells are used to help supplement the imported water supplies during peak demands in the summer months and emergency situations. The City is always working to increase flexibility in local groundwater supplies, enhance water quality, reduce operating costs, and increase reliability. Recent groundwater improvements include water well connections, electrical upgrades and installation of an emergency generator. Groundwater pumped from these wells is taxed by SCVWD.

The City completed a Drinking Water Source Assessment Program (DWSAP) in January 2003 for these groundwater sources. The City's groundwater sources are considered most vulnerable to contamination by leaky underground fuel tanks, dry cleaning chemicals, sewer collection systems, old septic systems and machine shops.

The City's Drinking Water Source Assessment Program ▶
To view the City's DWSAP, visit *swap.ice.ucdavis.edu/tsinfo/tsintro.asp*, or call (408) 730-7510 to schedule an appointment to view it at 221 Commercial Street.

SFPUC Supply

The City purchases a blend of Hetch Hetchy water and treated water from SFPUC to serve the northern part of the city. Filtered water turbidity from SFPUC met the standard of 0.3 NTU or less, 95% of the time.

The Hetch Hetchy Watershed provides most of the SFPUC water supply, supplemented by the Alameda watershed. The major water source originates from spring snowmelt flowing down the Tuolumne River and is stored in the Hetch Hetchy Reservoir. Since this water source meets all federal and state standards for watershed protection, disinfection treatment practices, bacteriological quality monitoring and operations, the State has granted this water source a filtration exemption.

The Alameda Watershed spans more than 35,000 acres in Alameda and Santa Clara Counties. Surface water from rainfall and runoff is collected in the Calaveras and San Antonio Reservoirs. Prior to distribution, the water from these reservoirs is treated. Fluoridation, chloramination and corrosion control treatment are provided for the combined Hetch Hetchy and treated water. Fluoride is added to the naturally occurring level to help protect against tooth decay in consumers. The average fluoride levels in the treated water were maintained within a range of 0.7-1.4 mg/L as required by CDPH.

The SFPUC actively protects the water resources entrusted to its care. Its annual update of the Hetch Hetchy Watershed Sanitary Survey evaluates the sanitary conditions, water quality, potential contamination sources and the results of watershed management activities with partner agencies (such as the National Park Service and US Forest Service). The SFPUC also conducts sanitary surveys every five years to detect and track sanitary concerns for the Bay Area watersheds and the approved standby water sources in Early Intake Watershed, which includes Cherry Lake and Lake Eleanor. The latest 5-year surveys were completed in 2011 for the period of 2006-2010. These surveys identified wildlife, stock and human activities as potential contamination sources. They are available for review at the CDPH San Francisco District office.

More information on SFPUC ▶
Visit *sfwater.org*, or call CDPH (510) 620-3474

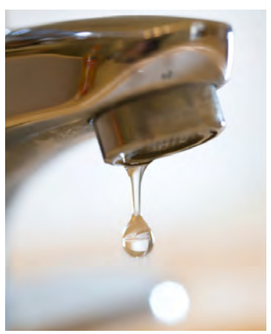
SCVWD Supply

The City purchases treated surface water from SCVWD and delivers it to the southern portion of the city. SCVWD imports more than half of its supply from the South Bay Aqueduct, Lake Del Valle and San Luis Reservoir, which all draw water from the Sacramento-San Joaquin Delta Watershed. SCVWD local surface water sources include Anderson and Calero Reservoirs. SCVWD source waters are vulnerable to potential contamination from a variety of land use practices such as agricultural and urban runoff, recreational activities, livestock grazing and residential and industrial development. Imported sources are vulnerable to wastewater treatment plant discharges, seawater intrusion and wildfires in watershed areas.

Local sources are also vulnerable to contamination from commercial stables and historic mining practices. No contaminant associated with any of these activities has been detected in SCVWD treated water. Water treatment plants provide multiple barriers for physical removal and disinfection of contaminants.

More information on SCVWD ▶
Visit *valleywater.org*

WATER CONSERVATION TIPS



Water Conservation Hotline ▶
SCVWD (408) 630-2554
valleywater.org

The City works cooperatively with our water wholesalers to provide residents with advice, assistance and access to programs. The following water-saving tips are simple ways to conserve water both indoors and out, and are provided jointly by the City and SCVWD.

Steps to Save Water Indoors

- Turn off the faucet while you brush your teeth.
- Take shorter showers. You will save 2.5 gallons of water each minute.
- Install water-efficient faucet aerators and showerheads in your kitchen and bathrooms.
- Check toilets and faucets for leaks. Running toilets can waste two gallons a minute while leaky faucets can waste thousands of gallons.
- Do not use the toilet as a wastebasket.
- Only wash full loads of laundry and dishes.
- Rinse fruits and vegetables in a pan instead of using running water.
- Keep a pitcher of drinking water in the refrigerator. Running tap water to cool it off for drinking is wasteful.
- Replace your old top-loading clothes washer with a high-efficiency model. For information about rebates call the Water Conservation Hotline.
- If your toilet uses more than 3.5 gallons per flush, replace it with a high-efficiency toilet. New models use 70 percent less water. For information about rebates, call the Water Conservation Hotline.

Steps to Save Water Outdoors

- Plant native or drought-tolerant plants that require less watering. Native plants promote healthier local ecosystems.
- Use a broom to sweep off pavement. Using a hose to wash sidewalks, driveways and patios wastes money and water.
- Apply organic mulch around plants to reduce moisture loss, keep weed-growth down and promote healthier soil.
- Deeply soak your lawn to ensure moisture reaches the roots. Light sprinkle watering evaporates quickly and encourages shallow root systems that need more frequent watering.
- Check for leaks in pipes, sprinkler heads and valves.
- Water during cool parts of the day. Early morning is the best time because it helps prevent growth of fungus.
- Water your lawn only when it needs it. If the grass springs back up after stepping on it, it does not need watering.
- Avoid watering on windy days.
- Use drip irrigation in larger gardens with weather-based irrigation control. For information about rebates call the Water Conservation Hotline.

2013
WATER QUALITY TEST RESULTS

The City of Sunnyvale has instituted a comprehensive water quality monitoring program that encompasses City-owned wells and all water purchased from SFPUC and SCVWD. This program ensures that all of our customers receive water that complies with all regulatory criteria and that no maximum contaminant levels (MCLs) or maximum contaminant level goals (MCLGs) for regulated chemicals, bacteria or pollutants are exceeded.

In order to ensure water quality standards are met, drinking water samples are collected daily throughout Sunnyvale and analyzed for a variety of regulated and unregulated contaminants. Samples are tested by the City's certified laboratory and an independent certified laboratory using the latest testing procedures and equipment. We collect more samples than required by the CDPH to provide you with the highest quality of water at all times. In addition, the City's wholesalers, SCVWD and SFPUC, conduct their own testing before delivering water to the City. Such measures help us to continue meeting established water quality standards.

The table to the right shows the results of the distribution system and source water analyses conducted by the City, SCVWD and SFPUC. Water quality data are grouped by water source. Last year we conducted more than 20,000 tests for more than 80 parameters. We detected only 15 of these parameters, and none were found at levels higher than CDPH allows.

Only the parameters detected are shown. Other constituents were analyzed but are not listed because they were not detected. Additionally, unregulated parameters are shown to provide you with supplemental information.

Some data—although representative—were collected prior to 2013, as the CDPH requires monitoring for some constituents less than once per year since the concentrations of these constituents do not vary frequently or significantly.

More information ▶

For more information about this report or the City's water quality monitoring program, please contact:

John Ramirez
City of Sunnyvale
Water Operations Manager
Tel: (408) 730-7510
TDD: (408) 730-7501
jramirez@sunnyvale.ca.gov

PRIMARY DRINKING WATER STANDARDS (PUBLIC HEALTH RELATED STANDARDS)

				Groundwater Well		SCVWD		SFPUC		
PARAMETER	Unit	MCL, (AL), or [MRDL]	PHG, (MCLG), or [MRDLG]	Average or [Max]	Range	Average or [Max]	Range	Average or [Max]	Range	Typical Sources*
SOURCE WATER SAMPLING										
INORGANIC CHEMICALS										
Aluminum	ppm	1	0.6	ND	ND	ND	ND	ND	ND–0.052	3, 4
Barium	ppm	1	2	0.11	0.10–0.13	ND	ND	ND	ND	3, 21
Fluoride	ppm	2	1	0.20	0.14–0.24	ND	ND	0.4	ND–0.8	3, 5, 6
Selenium	ppb	50	30	0.4	ND–2.6	ND	ND	ND	ND	3, 22, 23, 24
Turbidity	NTU	TT	NA	0.23	ND–1.2	0.06	0.06	[3.6]$_a$	0.2–0.3$_b$	2
Nitrate	ppm	45	45	15	10–26	ND	ND–4	ND	ND	3, 7, 8
RADIOLOGICAL										
Gross Alpha Particle Activity	pCi/L	15	(0)	ND	ND	ND	ND	ND	ND–3.9	3
DISINFECTION BYPRODUCT PRECURSORS										
TOC (precursor control)	ppm	TT	NA			1.94	1.37–3.03	2.2	1.0–3.4	10
MICROBIOLOGICAL										
Giardia Lamblia	cyst/L	TT	(0)			ND	ND	ND	ND–0.04	1
DISTRIBUTION SYSTEM SAMPLING										
LEAD AND COPPER (SUNNYVALE 2013 AT-THE-TAP SAMPLING)				**90th Percentile**			**# of Samples Above AL**			
Lead	ppb	(15)	0.2	1			0 out of 53			3, 17, 19
Copper	ppm	(1.3)	0.3	0.079			0 out of 53			3, 17, 18
DISINFECTION RESIDUALS AND BYPRODUCTS				**Highest Location RAA**			**Range**			
Disinfectant Residual as Chlorine	ppm	[4]	[4]	1.95			0.01–3.10			20
Total Trihalomethanes	ppb	80	NA	48.6			30.8–61.8			9
Haloacetic Acids	ppb	60	NA	36.8			2.2–45.0			9
MICROBIOLOGICAL				**Average**			**Range**			
Total Coliform Bacteria	% pos / month	5.0%	(0)	0.7%			0.0–2.8%			1

SECONDARY DRINKING WATER STANDARDS (AESTHETIC STANDARDS)

PARAMETER	Unit	MCL	Average	Range	Average	Range	Average	Range	Sources*
Aluminum	ppb	200	ND	ND	ND	ND	ND	ND–52	3, 4
Chloride	ppm	500	44	34–64	83	76–88	10.2	ND–18	11, 12, 14
Color	CU	15	ND	ND	ND	ND	ND	ND–6	13
Copper	ppm	1	0.004	ND–0.011	ND	ND	ND	ND	3, 18
Iron	ppb	300	42	ND–190	ND	ND	ND	ND	12, 15
Odor — Threshold	TON	3	ND	ND	1	1	ND	ND	13
Specific Conductance	µS/cm	1600	665	590–760	558	522–593	169	29–258	14, 16
Sulfate	ppm	500	34	23–39	61	48–84	16.6	0.8–33	11, 12, 15
Total Dissolved Solids	ppm	1000	380	330–450	307	274–358	71	ND–109	11, 12

UNREGULATED PARAMETERS

PARAMETER	Unit	NL	Average	Range	Average	Range	Average	Range
Boron	ppb	1000	160	110–230	165	137–222	NA	NA
Chromium VI (Hexavalent Chromium)	ppb	NS	1.4	ND–3.1	ND	ND	NA	NA
Vanadium	ppb	50	6.7	4.3–22	ND	ND	NA	NA

OTHER WATER QUALITY PARAMETERS

PARAMETER	Unit	MCL	Average	Range	Average	Range	Average	Range
Hardness (as Calcium Carbonate)	ppm	NS	310	290–330	104	91–125	53	7–89
pH	Units	NS	8.7$_c$	7.0–9.7$_c$	7.7	7.6–7.8	8.4	6.5–9.4
Sodium	ppm	NS	29	22–41	67	62–70	12	3–18
Temperature	°C	NS	16$_c$	10–26$_c$	19	14–23	NA	NA

Important information about your water quality

Fluoride

Currently, all water from SFPUC is fluoridated while water from SCVWD, the City's other wholesale water provider is not. The City also does not fluoridate well water. As a result, some areas of Sunnyvale receive fluoridated water, other areas receive non-fluoridated water and some areas receive a mixture of both. A map showing the areas is found below. **According to the Centers for Disease Control and Prevention, if a child under the age of six months is exclusively consuming infant formula reconstituted with fluoridated water, there may be an increased chance of dental fluorosis. Consult your child's health care provider for more information.**

Lead

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The City is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to two minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at *water.epa.gov/drink/info/lead*.

Nitrate

Nitrate in drinking water at levels above 45 mg/L is a health risk for infants younger than six months of age. Such nitrate levels in drinking water can interfere with the capacity of the infant's blood to carry oxygen, resulting in serious illness; symptoms include shortness of breath and blueness of the skin. Nitrate levels above 45 mg/L may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant women and those with certain specific enzyme deficiencies. If you are caring for an infant, or you are pregnant, you should ask for advice from your health care provider.

Disinfection

Sunnyvale residents should know that the Sunnyvale system distributes water treated with chloramine and well water that is tested but not treated. Chloramine, a combination of chlorine and ammonia, is more stable than chlorine and offers a number of health benefits. Chloramine lasts longer in water to provide more protection against pathogens such as bacteria and viruses, and produces lower levels of disinfection byproducts such as trihalomethanes. State and federal regulations effective January 2002 lowered the allowable level of exposure to disinfection byproducts. The water provided by SFPUC and SCVWD is disinfected with chloramines, which can affect dialysis treatment. The City maintains contact with dialysis treatment centers in the service area. Residents on home dialysis should contact their physicians to discuss the impact on their treatment. The Western Pacific Renal Network, at (415) 897-2400, can provide more information about chloramines and dialysis. Fish and aquarium owners should check with their local pet stores to make sure they are using the correct equipment for chloramine removal of any concentration.

Hardness

Water hardness is determined mainly by the presence of calcium and magnesium salts. Although hard water does not pose a health risk, it may be considered undesirable for other reasons. Some benefits of water softening are reductions in soap usage, longer life for water heaters and a decrease in encrustation of pipes. Some disadvantages of water softening are an increase in sodium intake (depending on type of water softener used), an increase in maintenance and servicing requirements and potential adverse effects on salt-sensitive plants and landscaping. To convert hardness from ppm to grains per gallon, divide by 17.1. A hardness scale is provided below for your reference.

Hardness Classification	Grains per Gallon	mg/L or ppm
Soft	less than 1.0	less than 17.1
Slightly hard	1.0–3.5	17.1–60
Moderately hard	3.5–7.0	60–120
Hard	7.0–10.5	120–180
Very hard	over 10.5	over 180

HOW TO READ THIS CHART

DEFINITIONS OF KEY TERMS

Maximum Contaminant Level (MCL). The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste and appearance of drinking water. MCLs are established by USEPA and CDPH.

Maximum Contaminant Level Goal (MCLG). The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the USEPA.

Maximum Residual Disinfectant Level (MRDL). The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG). The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Notification Level (NL). Notification levels are health-based advisory levels established by CDPH for chemicals in drinking water that lack MCLs. When chemicals are found at concentrations greater than their notification levels, certain requirements and recommendations apply.

Primary Drinking Water Standard (PDWS). MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements and water treatment requirements.

Public Health Goal (PHG). The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Office of Environmental Health Hazard Assessment.

Regulatory Action Level (AL). The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

Treatment Technique (TT). A required process intended to reduce the level of a contaminant in drinking water.

Total Organic Carbon (TOC). TOC has no health effects. However, TOC provides a medium for the formation of disinfection byproducts including trihalomethanes and haloacetic acids. Drinking water containing disinfection byproducts in excess of the MCL may lead to adverse health effects, liver or kidney problems or nervous system effects and may lead to an increased risk of cancer.

Turbidity. Turbidity has no health effects. It is a measure of the clarity of the water and is monitored because it is a good indicator of water quality and the effectiveness of a filtration system. The MCL for turbidity is based on the TT. For unfiltered water, the MCL is 5.0 NTU. For filtered water, the MCL is ≤0.3 NTU 95% of the time.

Waiver. State permission to decrease the monitoring frequency for a particular contaminant.

ABBREVIATIONS

°C	Degrees Celsius
CDPH	California Department of Public Health
CU	Color unit
Max	Maximum
NA	Not applicable
ND	Not detected
NS	No standard
NTU	Nephelometric turbidity unit
ppb	parts per billion (micrograms per liter)
ppm	parts per million (milligrams per liter)
µS/cm	microSiemens per centimeter
% pos	% positive
RAA	Running annual average
SCVWD	Santa Clara Valley Water District
SFPUC	San Francisco Public Utilities Commission
TOC	Total organic carbon
TON	Threshold odor number
USEPA	United States Environmental Protection Agency

NOTES

a Single-highest sample result in 2013
b Range of monthly averages
c Levels in the distribution system

*TYPICAL SOURCES IN DRINKING WATER

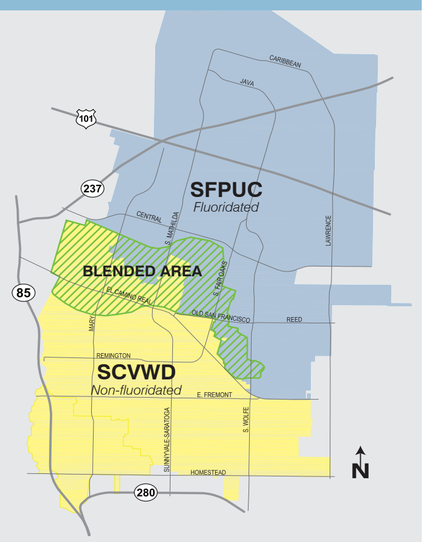
1 Naturally present in the environment
2 Soil runoff
3 Erosion of natural deposits
4 Residue from some surface water treatment processes
5 Water additive that promotes strong teeth
6 Discharge from fertilizer and aluminum factories
7 Runoff and leaching from fertilizer use
8 Leaching from septic tanks and sewage
9 By-product of drinking water disinfection
10 Various natural and man-made sources
11 Runoff from natural deposits
12 Leaching from natural deposits
13 Naturally-occurring organic materials
14 Seawater influence
15 Industrial wastes
16 Substances that form ions when in water
17 Internal corrosion of household plumbing systems
18 Leaching from wood preservatives
19 Discharges from industrial manufacturers
20 Drinking water disinfectant added for treatment
21 Discharges of oil drilling wastes and from metal refineries
22 Discharge from petroleum, glass, and metal refineries
23 Discharge from mines and chemical manufacturers
24 Runoff from livestock lots (feed additive)

SOURCE MAP

The adjacent map indicates which areas of the City are supplied by SFPUC, SCVWD or a mixture of the two. The colored regions correspond to the colored columns in the table above.

Groundwater wells, which are not shown on this map, are located throughout the City. Local groundwater is blended with surface water supplies from SFPUC and SCVWD.

SFPUC water is fluoridated but SCVWD and groundwater supplies are not.



IMPORTANT CONTACT INFORMATION

CITY CONTACTS

City of Sunnyvale
456 West Olive Ave.
Sunnyvale, CA 94086
Tel: (408) 730-7415
TDD: (408) 730-7501
Fax: (408) 730-7286
sunnyvale.ca.gov

Hours of Operation:
8 a.m. to 5 p.m., M–F

Environmental Services Department (Leaks, Breaks, Water Quality Questions)
(408) 730-7900

Utility Division (Billing)
(408) 730-7400, Residential
(408) 730-7681, Commercial

Backflow and Cross-Connection Control Program
(669) 600-7322

SCVWD Water Conservation Hotline
(408) 630-2554

To report water waste
(408) 630-2000

SCVWD Pollution Hotline
(888) 510-5151 (24 Hours)

WEB RESOURCES

Division of Drinking Water
waterboards.ca.gov/drinking_water/

US EPA
water.epa.gov/drink

Department of Water Resources
www.dwr.water.ca.gov

Bay Area Water Supply and Conservation Agency
bawsca.org

American Water Works Association
awwa.org or *DrinkTap.org*

SCVWD
valleywater.org

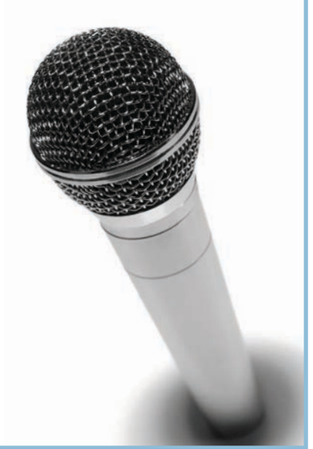
SFPUC
sfwater.org

TO GET INVOLVED

To provide input on decisions that affect drinking water quality, you are welcome to speak on any issue specifically coming before the City Council at a regularly scheduled council meeting. You can also speak on any topic you wish to bring to the Council's attention during the "Public Comments" portion of the meeting agenda. Alternatively, you can send a letter in advance of a meeting.

City Council Meetings
City Hall Council Chambers
456 West Olive Ave.
Sunnyvale, CA 94086
Tuesdays, 7 p.m.

A list of City Council meetings, agenda items and study issues can be obtained by visiting *sunnyvale.ca.gov* or by calling the City Clerk's office at (408) 730-7483.



HEALTH & EDUCATION INFORMATION

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA Safe Drinking Water Hotline.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons, such as persons with cancer undergoing chemotherapy; persons who have undergone organ transplants; people with HIV/AIDS or other immune system disorders; some elderly; and infants can be particularly at risk from infections. These people should seek advice from their health care providers.

USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the USEPA Safe Drinking Water Hotline.

USEPA Safe Drinking Water Hotline ▶
(800) 426-4791

Water System Improvements

The City of Sunnyvale is continuously replacing and upgrading aging water distribution infrastructure to ensure continued reliable water supply. The improvements will enhance water quality and improve operational efficiency. In the past year, the City has replaced over 5,000 feet of water pipelines and is planning upgrades to another one of our water pumping facilities. If you have questions about an upcoming project along your street, contact us at (408) 730-7900.

Recycled Water Project Approved

The City has collaborated with the SCVWD, California Water Service Company, the DWR, and Apple to fund and implement an exciting new project to extend the recycled water pipeline network. As part of the project, a booster pump station and 13,300 feet of recycled water pipeline will be constructed along Wolfe Road to funnel water from Sunnyvale's water recycling facility to serve many new customers, including the new Apple Campus 2 in Cupertino. The SCVWD expects construction to begin this fall.

Last year was one of the driest years on record for many parts of California. In January 2014, Governor Brown declared a drought state-of-emergency and called on all Californians to reduce their water usage by 20%. While Sunnyvale's water use has been trending downward, we must continue to use water wisely. Sunnyvale is working to ensure a reliable water supply, and you can continue to do your part by conserving water. To learn more visit *save20gallons.org, valleywater.org/drought, and saveourwater.com*.

The San Luis Reservoir is one of the supply reservoirs serving the SCVWD. Record low levels in this, and other supply reservoirs are prompting the State to implement water use restrictions throughout California.

CITY OF SUNNYVALE 2014 WATER QUALITY REPORT

This report contains important information about your drinking water. Translate it, or speak with someone who understands it.

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.

Mahalaga ang impormasyong ito. Mangyaring ipasalin ito.

Chi tiết này thật quan trọng. Xin nhờ người dịch cho quý vị.

此份有關你的食水報告，內有重要資料和訊息，請找他人為你翻譯及解釋清楚。

この情報は重要です。翻訳を依頼してください。

이 소책자에는 식수수질 보고서의 내용을 요약한 당신의 수돗물에 관한 중요한 정보가 적혀져있습니다. 이 정보를 이해하실수 있는 분에게 번역을 부탁하십시요.

यह सूचना महत्वपूर्ण है ।
कृपा करके किसी से :सका अनुवाद करायें ।

Last year your tap water met all state and federal drinking water health standards

The City of Sunnyvale aims to provide superior service while delivering a reliable, high-quality drinking water supply to our customers. Last year, your tap water met all state and federal drinking water health standards. The City vigilantly safeguards its water supplies, and once again, we are proud to report that our system has met or exceeded water quality standards.

WHAT'S INSIDE ▶

Protecting your water supply

To ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (USEPA) and the State Water Resources Control Board (State Board) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. State Board regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include:

- **Microbial Contaminants** such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- **Inorganic Contaminants** such as salts and metals, that can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.
- **Pesticides and Herbicides** that may come from a variety of sources such as agriculture, urban stormwater runoff and residential uses.
- **Organic Chemical Contaminants** including synthetic and volatile organic chemicals that are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application and septic systems.
- **Radioactive Contaminants** that can be naturally-occurring or be the result of oil and gas production and mining activities.

Protection begins in the watersheds. Protecting the water supply is important to ensure that water is safe from contamination and aesthetically pleasing for use. Contamination requires treatment, which increases the cost to deliver water to your tap. Here are ways that you can help protect our watershed:

- Eliminate excess use of lawn and garden fertilizers and pesticides
- Pick up after your pets
- Take used motor oil and other recyclables to the SMaRT Station ®
- Dispose of pharmaceuticals at any Sunnyvale fire station. Medications should not to be flushed down drains or put in the garbage.
- Dispose of cleaners, chemicals and paints at a Household Hazardous Waste Drop-off Event
- Volunteer in your community. The Creek Connections Action Group works to protect the County's waterways. Visit *www.cleanacreek.org*.
- Participate in public meetings and forums. It allows decision-makers to hear your perspective and you to be involved in protecting your water supply.

More information about disposal and recycling ▶
Call (408) 730-7262

SMaRT Station ®
301 Carl Road, Sunnyvale, CA 94089
Open daily, 8 a.m. to 5 p.m., Tel: (408) 752-8530

Household Hazardous Waste Drop-off
164 Carl Road, Sunnyvale, CA 94089
Every 3rd Saturday, 8 a.m. to 1 p.m.

Where your water comes from

The City of Sunnyvale has three different sources of drinking water supply: local groundwater, treated surface water from the Santa Clara Valley Water District (SCVWD) and treated surface water from the San Francisco Public Utilities Commission (SFPUC). There are also pockets of Sunnyvale customers who receive water from the California Water Service Company (Cal Water); questions regarding the source and delivery of water provided by Cal Water can be directed to its local office at (650) 917-0152.

Local Groundwater

The City owns, operates and maintains seven deep wells. The wells are used to help supplement the imported water supplies during peak demands in the summer months and emergency situations. The City is always working to increase flexibility in local groundwater supplies, enhance water quality, reduce operating costs, and increase reliability. Recent groundwater improvements include water well connections, electrical upgrades and installation of an emergency generator. Groundwater pumped from these wells is taxed by SCVWD.

The City completed a Drinking Water Source Assessment Program (DWSAP) in January 2003 for these groundwater sources. The City's groundwater sources are considered most vulnerable to contamination by leaky underground fuel tanks, dry cleaning chemicals, sewer collection systems, old septic systems and machine shops.

The City's Drinking Water Source Assessment Program ▶
To view the City's DWSAP, visit *swap.ice.ucdavis.edu/tsinfo/tsintro.asp*, or call (408) 730-7510 to schedule an appointment to view it at 221 Commercial Street.

SFPUC Supply

The City purchases a blend of Hetch Hetchy water and treated water from SFPUC to serve the northern part of the city. Filtered water turbidity from SFPUC met the standard of 0.3 NTU or less, 95% of the time.

The Hetch Hetchy Watershed provides most of the SFPUC water supply, supplemented by the Alameda watershed. The major water source originates from spring snowmelt flowing down the Tuolumne River and is stored in the Hetch Hetchy Reservoir. Since this water source meets all federal and state standards for watershed protection, disinfection treatment practices, bacteriological quality monitoring and operations, the State has granted this water source a filtration exemption.

The Alameda Watershed spans more than 35,000 acres in Alameda and Santa Clara Counties. Surface water from rainfall and runoff is collected in the Calaveras and San Antonio Reservoirs. Prior to distribution, the water from these reservoirs is treated. Fluoridation, chloramination and corrosion control treatment are provided for the combined Hetch Hetchy and treated water. Fluoride is added to the naturally occurring level to help protect against tooth decay. In 2014, average fluoride levels in the treated water were maintained within a range of 0.6-1.2 mg/L as required by the State Board. Since May 2015, water has been fluoridated at the new optimum level of 0.7 mg/L.

The SFPUC actively protects the water resources entrusted to its care. Its annual update of the Hetch Hetchy Watershed Sanitary Survey evaluates the sanitary conditions, water quality, potential contamination sources and the results of watershed management activities with partner agencies (such as the National Park Service and US Forest Service). The SFPUC also conducts sanitary surveys every five years to detect and track sanitary concerns for the Bay Area watersheds and the approved standby water sources in Early Intake Watershed, which includes Cherry Lake and Lake Eleanor. The latest 5-year surveys were completed in 2011 for the period of 2006-2010. These surveys identified wildlife, stock and human activities as potential contamination sources. They are available for review at the DDW San Francisco District office.

More information on SFPUC ▶
Visit *sfwater.org*, or call
DDW (510) 620-3474

SCVWD Supply

The City purchases treated surface water from SCVWD and delivers it to the southern portion of the city. SCVWD imports more than half of its supply from the South Bay Aqueduct,

Dyer Reservoir, Lake Del Valle and San Luis Reservoir, which all draw water from the Sacramento-San Joaquin Delta Watershed. SCVWD local surface water sources include Anderson and Calero Reservoirs. SCVWD source waters are vulnerable to potential contamination from a variety of land use practices such as agricultural and urban runoff, recreational activities, livestock grazing and residential and industrial development. Imported sources are vulnerable to wastewater treatment plant discharges, seawater intrusion and wildfires in watershed areas. Local sources are also vulnerable to contamination from commercial stables and historic mining practices. No contaminant associated with any of these activities has been detected in SCVWD treated water. Water treatment plants provide multiple barriers for physical removal and disinfection of contaminants.

More information on SCVWD ▶
Visit *valleywater.org*

DROUGHT DECLARATION

In response to the ongoing drought and actions by the Governor and the State Water Board, the Sunnyvale City Council took several actions in June 2014 by declaring a Water Shortage Emergency and setting a 15% water reduction goal for 2014 as compared to 2013 use. Most recently in May 2015, following the worst snow pack on record and worsening drought conditions, the Council expanded the Water Shortage Emergency actions by calling for a 30% water reduction as compared to 2013 use, restricting watering days, and approving enforcement staffing and actions through June of 2016.

Prohibited water use in Sunnyvale:

- Washing down sidewalks, driveways, and other paved services
- Watering outdoor landscapes in a manner that causes excess runoff into gutters, streets, or stormdrains
- Washing a motor vehicle with a hose, unless the hose is fitted with a shut-off nozzle
- Operating a fountain or decorative water feature, unless the water is part of a recirculating system
- Allowing leaking plumbing or irrigation systems to go unfixed.
- Irrigating with spriklers is prohibited between 9 a.m. – 6 p.m. when daylight savings time is in effect. Each station is limited to no more than 15 minutes of irrigation time

Additional City prohibitions affecting commercial businesses:

- Restaurants and other food service establishments can only serve water to customers on request
- Operators of hotels and motels must provide guests with the option to not have towels and linens laundered daily and prominently display notice of this option

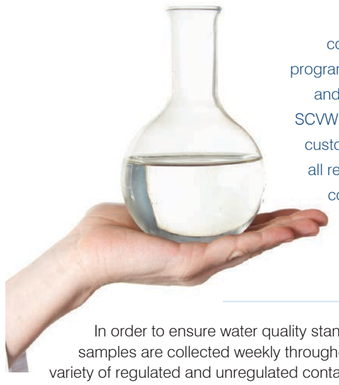
New water use restrictions and enforcement

Sunnyvale worked closely with the Water District and neighboring water retailers to implement a consistent county-wide approach to new water use reductions and restrictions. On May 12, 2015, the City Council adopted the following measures:

- Set the following irrigation schedule:
  - Even Address – Tuesday and Friday
  - Odd Address / No Address – Monday and Thursday
- Prohibited Irrigating turf or ornamental landscapes within 48 hours following measurable precipitation
- Adopted the following enforcement actions for water restriction violations:
  - First violation: written warning
  - Second violation: written warning
  - Third violation: $250 citation
  - Forth and subsequent violations: $500 citation

To stay up-to-date on water conservation efforts, requirements, rebate programs, and water saving tips, visit WaterConservation.inSunnyvale.com or, the SCVWD at valleywater.org. Please report water waste at (408) 630-2000 or by email at drought@valleywater.org.

2014
WATER QUALITY TEST RESULTS



The City of Sunnyvale has instituted a comprehensive water quality monitoring program that encompasses City-owned wells and all water purchased from SFPUC and SCVWD. This program ensures that all of our customers receive water that complies with all regulatory criteria and that no maximum contaminant levels (MCLs) or maximum contaminant level goals (MCLGs) for regulated chemicals, bacteria or pollutants are exceeded.

In order to ensure water quality standards are met, drinking water samples are collected weekly throughout Sunnyvale and analyzed for a variety of regulated and unregulated contaminants. Samples are tested by the City's certified laboratory and by an independent certified laboratory using the latest testing procedures and equipment. We collect more samples than required by the State Board to provide you with the highest quality of water at all times. In addition, the City's wholesalers, SCVWD and SFPUC, conduct their own testing before delivering water to the City. Such measures help us to continue meeting established water quality standards.

The table to the right shows the results of the distribution system and source water analyses conducted by the City, SCVWD and SFPUC. Water quality data are grouped by water source. Last year we conducted more than 20,000 tests for more than 80 parameters. We detected only 14 of these parameters, and none were detected at levels higher than the State Board allows.

Only the parameters detected are shown. Other constituents were analyzed but are not listed because they were not detected. Additionally, unregulated parameters are shown to provide you with supplemental information.

Some data—although representative—were collected prior to 2014, as the State Board requires monitoring for some constituents less than once per year since the concentrations of these constituents do not vary frequently or significantly.

More information ►

For more information about this report or the City's water quality monitoring program, please contact:

John Ramirez
City of Sunnyvale
Water Operations Manager
Tel: (408) 730-7900
TDD: (408) 730-7501
jramirez@sunnyvale.ca.gov

PRIMARY DRINKING WATER STANDARDS (PUBLIC HEALTH RELATED STANDARDS)

PARAMETER	Unit	MCL, (AL), or [MRDL]	PHG, (MCLG), or [MRDLG]	Groundwater Well Average or [Max]	Groundwater Well Range	SCVWD Average or [Max]	SCVWD Range	SFPUC Average or [Max]	SFPUC Range	Typical Sources*
SOURCE WATER SAMPLING										
INORGANIC CHEMICALS										
Aluminum	ppm	1	0.6	ND	ND	ND	ND–0.070	ND	ND	3, 4
Barium	ppm	1	2	0.11	0.10–0.13	ND	ND	ND	ND	3, 21
Fluoride	ppm	2	1	0.20	0.14–0.24	ND	ND–0.1	0.4	ND–0.8	3, 5, 6
Chromium VI (Hexavalent Chromium)	ppb	10	0.02	1.3	ND–3.6	ND	ND	ND	ND	3, 18, 19, 22
Turbidity	NTU	TT	NA	0.2	ND–1.2	0.07	0.06–0.08	[2.8]$_a$	0.2–0.6$_b$	2
Nitrate	ppm	45	45	16	11–27	ND	ND–5	ND	ND	3, 7, 8
DISINFECTION BYPRODUCT PRECURSORS										
TOC (precursor control)	ppm	TT	NA			2.03	1.86–2.19	1.9	1.3–2.8	10
MICROBIOLOGICAL										
Giardia Lamblia	cyst/L	TT	(0)			ND	ND	ND	ND–0.04	1
DISTRIBUTION SYSTEM SAMPLING										
LEAD AND COPPER RULE STUDY (SUNNYVALE 2013 AT-THE-TAP SAMPLING)				**90th Percentile**			**# of Samples Above AL**			
Lead	ppb	(15)	0.2	1			0 out of 53			3, 17, 19
Copper	ppm	(1.3)	0.3	0.079			0 out of 53			3, 17, 18
DISINFECTION RESIDUALS AND BYPRODUCTS				**Highest Location RAA**			**Range**			
Disinfectant Residual as Chlorine	ppm	[4]	[4]	2.17			0.01–3.3			20
Total Trihalomethanes	ppb	80	NA	59.5			ND–74.8			9
Haloacetic Acids	ppb	60	NA	29			ND–32			9
MICROBIOLOGICAL				**Average**			**Range**			
Total Coliform Bacteria	% pos / month	5.0%	(0)	0.16%			0–0.7%			1

SECONDARY DRINKING WATER STANDARDS (AESTHETIC STANDARDS)

PARAMETER	Unit	MCL	Groundwater Well Average	Groundwater Well Range	SCVWD Average	SCVWD Range	SFPUC Average	SFPUC Range	Sources*
Aluminum	ppb	200	ND	ND	ND	ND–70	ND	ND	3, 4
Chloride	ppm	500	44	34–64	115	95–166	9	ND–15	11, 12, 14
Copper	ppm	1	0.004	ND–0.011	ND	ND	ND	ND	3, 18
Iron	ppb	300	42	ND–190	ND	ND	ND	ND	12, 15
Odor — Threshold	TON	3	ND	ND	1	1–2	ND	ND–1	13
Specific Conductance	µS/cm	1600	665	590–760	731	650–964	151	32–222	14, 16
Sulfate	ppm	500	34	23–39	76.7	56.4–111	17	0.9–32	11, 12, 15
Total Dissolved Solids	ppm	1000	380	330–450	424	360–540	81	31–120	11, 12

UNREGULATED PARAMETERS FOR UCMR[3]

PARAMETER	Unit	NL	Average	Range	Average	Range	Average	Range
Chlorate	ppb	800	81	45–130	129	95–160	314	34–740
Chlorodifluoromethane (HCFC-22)	ppb	NS	0.52	ND–2.2	NA	NA	NA	NA
Molybdenum	ppb	NS	1.2	ND–1.6	2	1–3	NA	NA
Strontium	ppb	NS	404	280–500	NA	NA	NA	NA
Vanadium	ppb	50	1.6	ND–5.2	ND	ND	NA	NA

OTHER WATER QUALITY PARAMETERS

PARAMETER	Unit	MCL	Average	Range	Average	Range	Average	Range
Hardness (as Calcium Carbonate)	ppm	NS	310	290–330	149	130–178	46	7–77
pH	Units	NS	8.4$_c$	7.1–9.6$_c$	7.7	7.6–7.8	9.3	6.9–10.2
Sodium	ppm	NS	29	22–41	64	ND–121	10	2.4–16
Temperature	°C	NS	18$_c$	10–26$_c$	19	14–22	NA	NA

Important information about your water quality

Fluoride

Currently, all water from SFPUC is fluoridated while water from SCVWD, the City's other wholesale water provider is not. The City also does not fluoridate well water. As a result, some areas of Sunnyvale receive fluoridated water, other areas receive non-fluoridated water and some areas receive a mixture of both. A map showing the areas is found below. **According to the Centers for Disease Control and Prevention, if a child under the age of six months is exclusively consuming infant formula reconstituted with fluoridated water, there may be an increased chance of dental fluorosis. Consult your child's health care provider for more information.**

Lead

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The City is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to two minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at *water.epa.gov/drink/info/lead*.

Nitrate

Nitrate in drinking water at levels above 45 mg/L is a health risk for infants younger than six months of age. Such nitrate levels in drinking water can interfere with the capacity of the infant's blood to carry oxygen, resulting in serious illness; symptoms include shortness of breath and blueness of the skin. Nitrate levels above 45 mg/L may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant women and those with certain specific enzyme deficiencies. If you are caring for an infant, or you are pregnant, you should ask for advice from your health care provider.

Chromium-6

On July 1, 2014, the new MCL of 10 ppb became effective for Chromium-6. Until then, chromium-6 was regulated under the 50 ppb primary drinking water standard for total chromium, which was established in California in 1977. The City is pleased to report that there have been no detections exceeding the new MCL.

Disinfection

The Sunnyvale system distributes water disinfected with chloramine and well water that is tested but not treated. Chloramine, a combination of chlorine and ammonia, lasts longer in water to provide more protection against pathogens such as bacteria and viruses, and produces lower levels of disinfection byproducts such as trihalomethanes. The water provided by SFPUC and SCVWD is disinfected with chloramines, which can affect dialysis treatment. Residents on home dialysis should contact their physicians to discuss the impact on their treatment. The Western Pacific Renal Network, at (415) 897-2400, can provide more information about chloramines and dialysis. Fish and aquarium owners should check with their local pet stores for information on chloramine removal.

Hardness

Water hardness is determined mainly by the presence of calcium and magnesium salts. Although hard water does not pose a health risk, it may be considered undesirable for other reasons. Some benefits of water softening are reductions in soap usage, longer life for water heaters and a decrease in encrustation of pipes; disadvantages are an increase in sodium intake, an increase in maintenance and servicing and potential adverse effects on salt-sensitive plants. To convert hardness from ppm to grains per gallon, divide by 17.1. A hardness scale is provided below for your reference.

Hardness Classification	Grains per Gallon	mg/L or ppm
Soft	less than 1.0	less than 17.1
Slightly hard	1.0–3.5	17.1–60
Moderately hard	3.5–7.0	60–120
Hard	7.0–10.5	120–180
Very hard	over 10.5	over 180

HOW TO READ THIS CHART

DEFINITIONS OF KEY TERMS

Maximum Contaminant Level (MCL). The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste and appearance of drinking water. MCLs are established by USEPA and the State Board.

Maximum Contaminant Level Goal (MCLG). The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the USEPA.

Maximum Residual Disinfectant Level (MRDL). The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG). The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Notification Level (NL). Notification levels are health-based advisory levels established by the State Board for chemicals in drinking water that lack MCLs. When chemicals are found at concentrations greater than their notification levels, certain requirements and recommendations apply.

Primary Drinking Water Standard (PDWS). MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements and water treatment requirements.

Public Health Goal (PHG). The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Office of Environmental Health Hazard Assessment.

Regulatory Action Level (AL). The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

Treatment Technique (TT). A required process intended to reduce the level of a contaminant in drinking water.

Total Organic Carbon (TOC). TOC has no health effects. However, TOC provides a medium for the formation of disinfection byproducts including trihalomethanes and haloacetic acids. Drinking water containing disinfection byproducts in excess of the MCL may lead to adverse health effects, liver or kidney problems or nervous system effects and may lead to an increased risk of cancer.

Turbidity. Turbidity has no health effects. It is a measure of the clarity of the water and is monitored because it is a good indicator of water quality and the effectiveness of a filtration system. The MCL for turbidity is based on the TT. For unfiltered water, the MCL is 5.0 NTU. For filtered water, the MCL is ≤0.3 NTU 95% of the time.

UCMR. Unregulated Contaminant Monitoring Rule requires monitoring for contaminants not currently regulated. This monitoring provides a basis for future regulatory actions to protect public health.

Waiver. State permission to decrease the monitoring frequency for a particular contaminant.

ABBREVIATIONS

°C	Degrees Celsius
CU	Color unit
DDW	Division of Drinking Water
Max	Maximum
NA	Not applicable
ND	Not detected
NS	No standard
NTU	Nephelometric turbidity unit
ppb	parts per billion (micrograms per liter)
ppm	parts per million (milligrams per liter)
µS/cm	microSiemens per centimeter
% pos	% positive
RAA	Running annual average
SCVWD	Santa Clara Valley Water District
SFPUC	San Francisco Public Utilities Commission
TOC	Total organic carbon
TON	Threshold odor number
USEPA	United States Environmental Protection Agency

NOTES

[a] Single-highest sample result in 2014
[b] Range of monthly averages
[c] Levels in the distribution system

*TYPICAL SOURCES IN DRINKING WATER

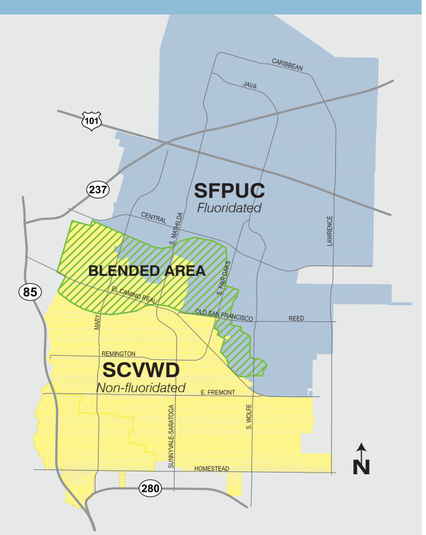
1 Naturally present in the environment
2 Soil runoff
3 Erosion of natural deposits
4 Residue from some surface water treatment processes
5 Water additive that promotes strong teeth
6 Discharge from fertilizer and aluminum factories
7 Runoff and leaching from fertilizer use
8 Leaching from septic tanks and sewage
9 By-product of drinking water disinfection
10 Various natural and man-made sources
11 Runoff from natural deposits
12 Leaching from natural deposits
13 Naturally-occurring organic materials
14 Seawater influence
15 Industrial wastes
16 Substances that form ions when in water
17 Internal corrosion of household plumbing systems
18 Leaching from wood preservatives
19 Discharges from industrial manufacturers
20 Drinking water disinfectant added for treatment
21 Discharges of oil drilling wastes and from metal refineries
22 Discharge from mines and chemical manufacturers

SOURCE MAP

The adjacent map indicates which areas of the City are supplied by SFPUC, SCVWD or a mixture of the two. The colored regions correspond to the colored columns in the table above.

Groundwater wells, which are not shown on this map, are located throughout the City. Local groundwater is blended with surface water supplies from SFPUC and SCVWD.

SFPUC water is fluidated but SCVWD and groundwater supplies are not.



IMPORTANT CONTACT INFORMATION

CITY CONTACTS

City of Sunnyvale
456 West Olive Ave.
Sunnyvale, CA 94086
Tel: (408) 730-7415
TDD: (408) 730-7501
Fax: (408) 730-7286
sunnyvale.ca.gov

Hours of Operation:
8 a.m. to 5 p.m., M–F

Environmental Services Department (Leaks, Breaks, Water Quality Questions)
(408) 730-7900

Utility Division (Billing)
(408) 730-7400, Residential
(408) 730-7681, Commercial

Backflow and Cross-Connection Control Program
(669) 600-7322

SCVWD Water Conservation Hotline
(408) 630-2554

To report water waste
(408) 630-2000

SCVWD Pollution Hotline
(888) 510-5151 (24 Hours)

WEB RESOURCES

Division of Drinking Water
waterboards.ca.gov/drinking_water/

US EPA
water.epa.gov/drink

Department of Water Resources
www.dwr.water.ca.gov

Bay Area Water Supply and Conservation Agency
bawsca.org

American Water Works Association
awwa.org or *DrinkTap.org*

SCVWD
valleywater.org

SFPUC
sfwater.org

TO GET INVOLVED

To provide input on decisions that affect drinking water quality, you are welcome to speak on any issue specifically coming before the City Council at a regularly scheduled council meeting. You can also speak on any topic you wish to bring to the Council's attention during the "Oral Communications" portion of the meeting agenda. Alternatively, you can send a letter in advance of a meeting.

City Council Meetings
City Hall Council Chambers
456 West Olive Ave.
Sunnyvale, CA 94086
Tuesdays, 7 p.m.

A list of City Council meetings, agenda items and study issues can be obtained by visiting *sunnyvale.ca.gov* or by calling the City Clerk's office at (408) 730-7483.

HEALTH AND EDUCATION INFORMATION

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA Safe Drinking Water Hotline.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons, such as persons with cancer undergoing chemotherapy; persons who have undergone organ transplants; people with HIV/AIDS or other immune system disorders; some elderly; and infants can be particularly at risk from infections. These people should seek advice from their health care providers.

USEPA/Centers for Disease Control guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the USEPA Safe Drinking Water Hotline.

USEPA Safe Drinking Water Hotline ▶
(800) 426-4791

Water Conservation Rebate Programs

Residential High-Efficiency Clothes Washer Rebate Program. The Santa Clara Valley Water District has a rebate program for purchasing and installing a qualifying Energy Star Most Efficient clothes washer. Santa Clara County residents may be eligible to receive up to $150 for a combined water agency and PG&E rebate while funding is available. For information, visit *valleywater.org/Programs/High-EfficiencyClothesWasherRebate.aspx*

Turf Replacement Rebate Program. The Department of Water Resources has a rebate program for removing turf and replacing it with landscapes that require little water at California single-family residences to support the State's drought response. Up to $2 per square foot of removed and replaced turf will be rebated per eligible household. For information visit *saveourwaterrebates.com*

Toilet Replacement Rebate Program. The Department of Water Resources has a rebate program that provides rebates for replacing toilets at California single-family residences to support the State's drought response. Up to $100 will be rebated for purchase and installation of one qualified high-efficiency toilet (1.28 gallons per flush or less) per household that replaces a less-efficient toilet (using more than 1.6 gallons per flush). For information visit *saveourwaterrebates.com*

Sunnyvale has three City-operated swimming pools and one contracted pool available to the public. With summer fast approaching and water conservation on the mind, considering keeping a cover on your pool and using one of our public pools. We offer aquatic programs at each facility including recreational swim, swim lessons for all ages, water exercise classes and various American Red Cross courses such as Lifeguard Training and First Aid and CPR. Lifeguards are on duty during recreation swim hours. For more information about pool locations, hours and programs, visit *sunnyvale.ca.gov/Departments/CommunityServices/SwimmingandAquatics.aspx*

CITY OF SUNNYVALE 2015 WATER QUALITY REPORT

This report contains important information about your drinking water. Translate it, or speak with someone who understands it.

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.

Mahalaga ang impormasyong ito. Mangyaring ipasalin ito.

Chi tiết này thật quan trọng. Xin nhờ người dịch cho quý vị.

此份有關你的食水報告，內有重要資料和訊息，請找他人為你翻譯及解釋清楚。

この情報は重要です。 翻訳を依頼 してください。

이 소책자에는 식수수질 보고서의 내용을 요약한 당신의 수돗물에 관한 중요한 정보가 적혀져있습니다. 이 정보를 이해하실수 있는 분에게 번역을 부탁하십시요.

यह सूचना महत्वपूर्ण है ।
कृपा करके किसी से :सका अनुवाद करायें ।

Last year your tap water met all state and federal drinking water health standards

The City of Sunnyvale aims to provide superior service while delivering a reliable, high-quality drinking water supply to our residents. Last year, your tap water met all state and federal drinking water health standards. The City vigilantly safeguards its water supplies, and once again, we are proud to report that our system has met or exceeded water quality standards.

WHAT'S INSIDE ▶

Protecting your water supply

To ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (USEPA) and the State Water Resources Control Board (State Board) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. State Board regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include:

- **Microbial Contaminants** such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- **Inorganic Contaminants** such as salts and metals, that can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.
- **Pesticides and Herbicides** that may come from a variety of sources such as agriculture, urban stormwater runoff and residential uses.
- **Organic Chemical Contaminants** including synthetic and volatile organic chemicals that are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application and septic systems.
- **Radioactive Contaminants** that can be naturally-occurring or be the result of oil and gas production and mining activities.

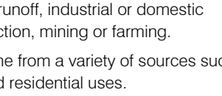
Protection begins in the watersheds. Protecting the water supply is important to ensure that water is safe from contamination and aesthetically pleasing for use. Contamination requires treatment, which increases the cost to deliver water to your tap. Here are ways that you can help protect our watershed:

- Eliminate excess use of lawn and garden fertilizers and pesticides.
- Pick up after your pets.
- Take used motor oil and other recyclables to the SMaRT Station.
- Dispose of pharmaceuticals at any Sunnyvale fire station. Medications should not to be flushed down drains or put in the garbage.
- Dispose of cleaners, chemicals and paints at a Household Hazardous Waste Drop-off Event.
- Volunteer in your community. The Creek Connections Action Group works to protect the County's waterways. Visit *www.cleanacreek.org*.
- Participate in public meetings and forums. It allows decision-makers to hear your perspective and you to be involved in protecting your water supply.

More information about disposal and recycling ▶
Call (408) 730-7262

SMaRT Station
301 Carl Road, Sunnyvale, CA 94089
Open daily, 8 a.m. to 5 p.m., Tel: (408) 752-8530

Household Hazardous Waste Drop-off
164 Carl Road, Sunnyvale, CA 94089
Every 3rd Saturday, 8 a.m. to 1 p.m.



Where your water comes from

The City of Sunnyvale has three different sources of drinking water supply: local groundwater, treated surface water from the Santa Clara Valley Water District (SCVWD) and treated surface water from the San Francisco Public Utilities Commission (SFPUC). There are also pockets of Sunnyvale customers who receive water from the California Water Service Company (Cal Water); questions regarding the source and delivery of water provided by Cal Water can be directed to its local office at (650) 917-0152.

Local Groundwater

The City owns, operates and maintains six deep wells. The wells are used to help supplement the imported water supplies during peak demands in the summer months and emergency situations. The City is always working to increase flexibility in local groundwater supplies, enhance water quality, reduce operating costs and increase reliability. Recent groundwater improvements include water well connections, electrical upgrades and installation of an emergency generator. Groundwater pumped from these wells is taxed by SCVWD.

The City completed a Drinking Water Source Assessment Program (DWSAP) in January 2003 for these groundwater sources. The City's groundwater sources are considered most vulnerable to contamination by leaky underground fuel tanks, dry cleaning chemicals, sewer collection systems, old septic systems and machine shops.

The City's Drinking Water Source Assessment Program ▶
Visit *waterboards.ca.gov/drinking_water/certlic/drinkingwater/DWSAP.shtml* for more information, or call (408) 730-7400 to schedule an appointment to view it.

SFPUC Supply

The City purchases a blend of Hetch Hetchy water and treated water from SFPUC to serve the northern part of the city. Filtered water turbidity from SFPUC met the standard of 0.3 NTU or less, 95% of the time.

The Hetch Hetchy Watershed provides most of the SFPUC water supply, supplemented by the Alameda watershed. The major water source originates from spring snowmelt flowing down the Tuolumne River and is stored in the Hetch Hetchy Reservoir. Since this water source meets all federal and state standards for watershed protection, disinfection treatment practices, bacteriological quality monitoring and operations, the State has granted this water source a filtration exemption.

The Alameda Watershed spans more than 35,000 acres in Alameda and Santa Clara counties. Surface water from rainfall and runoff is collected in the Calaveras and San Antonio Reservoirs. Prior to distribution, the water from these reservoirs is treated. Fluoridation, chloramination and corrosion control treatment are provided for the combined Hetch Hetchy and treated water. Fluoride is added to the naturally occurring level to help protect against tooth decay. In 2015, average fluoride levels in the treated water were maintained within a range of 0.6-1.0 mg/L as required by the State Board. Since May 2015, water has been fluoridated at the new optimum level of 0.7 mg/L.

The SFPUC actively protects the water resources entrusted to its care. Its annual update of the Hetch Hetchy Watershed Sanitary Survey evaluates the sanitary conditions, water quality, potential contamination sources and the results of watershed management activities with partner agencies (such as the National Park Service and US Forest Service). The SFPUC also conducts sanitary surveys every five years to detect and track sanitary concerns for the Bay Area watersheds and the approved standby water sources in Early Intake Watershed, which includes Cherry Lake and Lake Eleanor. The latest 5-year surveys were completed in 2011 for the period of 2006-2010. These surveys identified wildlife, stock and human activities as potential contamination sources. To review them at the District office, contact DDW at (510) 620-3474.

More information on SFPUC ▶
Visit *sfwater.org*

SCVWD Supply

The City purchases treated surface water from SCVWD and delivers it to the southern portion of the city. SCVWD imports more than half of its supply from the South Bay Aqueduct, Dyer Reservoir, Lake Del Valle and San Luis Reservoir, which all draw

water from the Sacramento-San Joaquin Delta Watershed. SCVWD local surface water sources include Anderson and Calero Reservoirs. SCVWD source waters are vulnerable to potential contamination from a variety of land use practices such as agricultural and urban runoff, recreational activities, livestock grazing, and residential and industrial development. Imported sources are vulnerable to wastewater treatment plant discharges, seawater intrusion and wildfires in watershed areas. Local sources are also vulnerable to contamination from commercial stables and historic mining practices. No contaminant associated with any of these activities has been detected in SCVWD treated water. Water treatment plants provide disinfection and multiple barriers for physical removal of contaminants. To review the DWSAP, contact DDW at (510) 620-3474.

More information on SCVWD ▶
Visit *valleywater.org*

WATER CONSERVATION

While water supply conditions have improved after four years of drought, continued water conservation efforts are critical until state and local water reservoirs are back to normal levels. Below is a list of ongoing prohibited water use in Sunnyvale.

Prohibited water use in Sunnyvale:

- Watering outdoor landscapes in a manner that causes excess runoff into gutters, streets, or stormdrains
- Washing a motor vehicle with a hose, unless the hose is fitted with a shut-off nozzle
- Allowing leaking plumbing or irrigation systems to go unfixed.
- Irrigating with spriklers is prohibited between 9 a.m. – 6 p.m. when daylight savings time is in effect. Each station is limited to no more than 15 minutes of irrigation time.

Addititional City prohibitions affecting commercial businesses:

- Restaurants and other food service establishments can only serve water to customers on request
- Operators of hotels and motels must provide guests with the option to not have towels and linens laundered daily and prominently display notice of this option

To stay up-to-date on water conservation efforts, requirements, rebate programs and water saving tips, visit *WaterConservation.inSunnyvale.com* or, the SCVWD at *valleywater.org*. Please report water waste at (408) 630-2000 or by email at *drought@valleywater.org*.

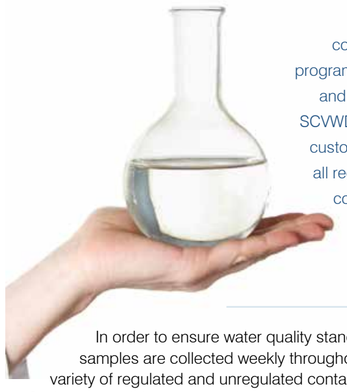
Steps to Save Water Indoors

- Check toilets and faucets for leaks. You could save thousands of gallons.
- Install water-efficient faucet aerators and showerheads in your kitchen and bathrooms.
- Take shorter showers. You will save 2.5 gallons of water each minute.
- Only wash full loads of laundry and dishes.
- Replace your old top-loading clothes washer with a high-efficiency model.

Steps to Save Water Outdoors

- Plant native or drought-tolerant plants that require less watering.
- Apply organic mulch around plants to reduce moisture loss, keep weed-growth down and promote healthier soil.
- Water during cool parts of the day and deeply soak your lawn to ensure moisture reaches the roots.
- Water your lawn only when it needs it.
- Use a broom to sweep off pavement. Using a hose wastes money and water.

2015
WATER QUALITY TEST RESULTS



The City of Sunnyvale has instituted a comprehensive water quality monitoring program that encompasses City-owned wells and all water purchased from SFPUC and SCVWD. This program ensures that all of our customers receive water that complies with all regulatory criteria and that no maximum contaminant levels (MCLs) or maximum contaminant level goals (MCLGs) for regulated chemicals, bacteria or pollutants are exceeded.

In order to ensure water quality standards are met, drinking water samples are collected weekly throughout Sunnyvale and analyzed for a variety of regulated and unregulated contaminants. Samples are tested by the City's certified laboratory and by an independent certified laboratory using the latest testing procedures and equipment. We collect more samples than required by the State Board to provide you with the highest quality of water at all times. In addition, the City's wholesalers, SCVWD and SFPUC, conduct their own testing before delivering water to the City. Such measures help us to continue meeting established water quality standards.

The table to the right shows the results of the distribution system and source water analyses conducted by the City, SCVWD and SFPUC. Water quality data are grouped by water source. Last year we conducted more than 20,000 tests for more than 80 parameters. We detected only 14 of these parameters, and none were detected at levels higher than the State Board allows.

Only the parameters detected are shown. Other constituents were analyzed but are not listed because they were not detected. Additionally, unregulated parameters are shown to provide you with supplemental information.

Some data—although representative—were collected prior to 2015, as the State Board requires monitoring for some constituents less than once per year since the concentrations of these constituents do not vary frequently or significantly.

More information ▶

For more information about this report or the City's water quality monitoring program, please contact:

John Ramirez
City of Sunnyvale
Water Operations Manager
Tel: (408) 730-7900
TDD: (408) 730-7501
jramirez@sunnyvale.ca.gov

PRIMARY DRINKING WATER STANDARDS (PUBLIC HEALTH RELATED STANDARDS)

PARAMETER	Unit	MCL, (AL), or [MRDL]	PHG, (MCLG), or [MRDLG]	Groundwater Well Average or [Max]	Groundwater Well Range	SCVWD Average or [Max]	SCVWD Range	SFPUC Average or [Max]	SFPUC Range	Typical Sources*
SOURCE WATER SAMPLING										
INORGANIC CHEMICALS										
Barium	ppm	1	2	0.10	ND–0.13	ND	ND	ND	ND	3, 21
Fluoride	ppm	2	1	0.14	0.13–0.16	ND	ND–0.1	0.3	ND–0.8	3, 5, 6
Chromium VI (Hexavalent Chromium)	ppb	10	0.02	1.3	ND–3.6	ND	ND	ND	ND	3, 18, 19, 22
Nitrate (as Nitrogen)	ppm	10	10	3.7	2.5–6.3	ND	ND–5	ND	ND	3, 7, 8
RADIONUCLIDES										
Uranium	pCi/L	20	0.43	ND	ND	ND	ND–1.0	ND	ND	3
DISINFECTION BYPRODUCT PRECURSORS										
TOC (precursor control)	ppm	TT	NA			2.69	1.90–3.07	2.1	1.4–5.2	10
MICROBIOLOGICAL										
Giardia Lamblia	cyst/L	TT	(0)			ND	ND	0.01	ND–0.08	1
Turbidity	NTU	TT[a]	NA			[0.60]	99.9%[b]	[3.1]	97–100%[b]	2
DISTRIBUTION SYSTEM SAMPLING										
LEAD AND COPPER RULE STUDY (SUNNYVALE 2013 AT-THE-TAP SAMPLING)				**90th Percentile**			**# of Samples Above AL**			
Lead	ppb	(15)	0.2	1			0 out of 53			3, 17, 19
Copper	ppm	(1.3)	0.3	0.079			0 out of 53			3, 17, 18
DISINFECTION RESIDUALS AND BYPRODUCTS				**Highest Location RAA**			**Range**			
Disinfectant Residual as Chlorine	ppm	[4]	[4]	1.79			0.02–4.6			20
Total Trihalomethanes	ppb	80	NA	60.7			25.7–60.8			9
Haloacetic Acids	ppb	60	NA	28.8			10.0–35.0			9
MICROBIOLOGICAL				**Average**			**Range**			
Total Coliform Bacteria	% pos / month	5.0%	(0)	0.17%			0–0.7%			1

SECONDARY DRINKING WATER STANDARDS (AESTHETIC STANDARDS)

PARAMETER	Unit	MCL	Groundwater Well Average	Groundwater Well Range	SCVWD Average	SCVWD Range	SFPUC Average	SFPUC Range	Sources*
Chloride	ppm	500	47	36–68	103	87–120	8.4	ND–16	11, 12, 14
Odor — Threshold	TON	3	ND	ND	1	1	ND	ND	13
Specific Conductance	µS/cm	1600	677	610–740	696	636–749	144	34–213	14, 16
Sulfate	ppm	500	37	28–42	72.1	66.0–79.3	15	1.2–30	11, 12, 15
Total Dissolved Solids	ppm	1000	395	360–430	381	330–424	54	ND–93	11, 12
Zinc	ppm	5	0.07	ND–0.09	ND	ND	ND	ND	11, 12, 15

UNREGULATED PARAMETERS FOR UCMR[3]

PARAMETER	Unit	NL	Average	Range	Average	Range	Average	Range
Chlorate	ppb	800	81	45–130	116	62–160	157	39–280
Chlorodifluoromethane (HCFC-22)	ppb	NS	0.52	ND–2.2	NA	NA	NA	NA
Molybdenum	ppb	NS	1.2	ND–1.6	2	2	NA	NA
Strontium	ppb	NS	404	280–500	NA	NA	NA	NA
Vanadium	ppb	50	1.6	ND–5.2	ND	ND	NA	NA

OTHER WATER QUALITY PARAMETERS

PARAMETER	Unit	MCL	Average	Range	Average	Range	Average	Range
Hardness (as Calcium Carbonate)	ppm	NS	322	300–340	144	133–163	42	13–65
pH	Units	NS	8.7[c]	7.1–9.9[c]	7.7	7.5–8.0	9.0	7.1–9.9
Sodium	ppm	NS	29	23–42	75	64–90	13	2.9–19
Temperature	°C	NS	18[c]	7–26[c]	17	15–20	NA	NA

Important information about your water quality

Fluoride

Currently, all water from SFPUC is fluoridated while water from SCVWD, the City's other wholesale water provider is not. The City also does not fluoridate well water. As a result, some areas of Sunnyvale receive fluoridated water, other areas receive non-fluoridated water and some areas receive a mixture of both. A map showing the areas is found below. **According to the Centers for Disease Control and Prevention, if a child under the age of six months is exclusively consuming infant formula reconstituted with fluoridated water, there may be an increased chance of dental fluorosis. Consult your child's health care provider for more information.**

Lead

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The City is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to two minutes before using water for drinking or cooking. If you do so, you may wish to collect the flushed water and use it for another purpose, such as watering plants. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline at (800) 426-4791 or at *water.epa.gov/lead*.

Chromium-6

On July 1, 2014, the new MCL of 10 ppb became effective for Chromium-6. Until then, chromium-6 was regulated under the 50 ppb primary drinking water standard for total chromium, which was established in California in 1977. The City is pleased to report that there have been no detections exceeding the new MCL.

Nitrate

Nitrate in drinking water at levels above 10 mg/L is a health risk for infants younger than six months of age. Such nitrate levels in drinking water can interfere with the capacity of the infant's blood to carry oxygen, resulting in serious illness; symptoms include shortness of breath and blueness of the skin. Nitrate levels above 10 mg/L may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant women and those with certain specific enzyme deficiencies. If you are caring for an infant, or you are pregnant, you should ask for advice from your health care provider.

Disinfection

The Sunnyvale system distributes water disinfected with chloramine and well water that is tested but not treated. Chloramine, a combination of chlorine and ammonia, lasts longer in water to provide more protection against pathogens such as bacteria and viruses, and produces lower levels of disinfection byproducts such as trihalomethanes. The water provided by SFPUC and SCVWD is disinfected with chloramines, which can affect dialysis treatment. Residents on home dialysis should contact their physicians to discuss the impact on their treatment. The Western Pacific Renal Network, at (415) 897-2400, can provide more information about chloramines and dialysis. Fish and aquarium owners should check with their local pet stores for information on chloramine removal.

Hardness

Water hardness is determined mainly by the presence of calcium and magnesium salts. Although hard water does not pose a health risk, it may be considered undesirable for other reasons. Some benefits of water softening are reductions in soap usage, longer life for water heaters and a decrease in encrustation of pipes; disadvantages are an increase in sodium intake, an increase in maintenance and servicing and potential adverse effects on salt-sensitive plants. To convert hardness from ppm to grains per gallon, divide by 17.1. A hardness scale is provided below for your reference.

Hardness Classification	Grains per Gallon	mg/L or ppm
Soft	less than 1.0	less than 17.1
Slightly hard	1.0–3.5	17.1–60
Moderately hard	3.5–7.0	60–120
Hard	7.0–10.5	120–180
Very hard	over 10.5	over 180

HOW TO READ THIS CHART

DEFINITIONS OF KEY TERMS

Maximum Contaminant Level (MCL). The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste and appearance of drinking water. MCLs are established by USEPA and the State Board.

Maximum Contaminant Level Goal (MCLG). The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the USEPA.

Maximum Residual Disinfectant Level (MRDL). The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG). The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Notification Level (NL). Notification levels are health-based advisory levels established by the State Board for chemicals in drinking water that lack MCLs. When chemicals are found at concentrations greater than their notification levels, certain requirements and recommendations apply.

Primary Drinking Water Standard (PDWS). MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements and water treatment requirements.

Public Health Goal (PHG). The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Office of Environmental Health Hazard Assessment.

Regulatory Action Level (AL). The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

Treatment Technique (TT). A required process intended to reduce the level of a contaminant in drinking water.

Total Organic Carbon (TOC). TOC has no health effects. However, TOC provides a medium for the formation of disinfection byproducts including trihalomethanes and haloacetic acids. Drinking water containing disinfection byproducts in excess of the MCL may lead to adverse health effects, liver or kidney problems or nervous system effects and may lead to an increased risk of cancer.

Turbidity. Turbidity has no health effects. It is a measure of the clarity of the water and is monitored because it is a good indicator of water quality and the effectiveness of a filtration system. The MCL for turbidity is based on the TT. For unfiltered water, the MCL is 5.0 NTU. For filtered water, the MCL is ≤0.3 NTU 95% of the time.

UCMR. Unregulated Contaminant Monitoring Rule requires monitoring for contaminants not currently regulated. This monitoring provides a basis for future regulatory actions to protect public health.

Waiver. State permission to decrease the monitoring frequency for a particular contaminant.

ABBREVIATIONS

°C	Degrees Celsius
CU	Color unit
DDW	Division of Drinking Water
Max	Maximum
NA	Not applicable
ND	Not detected
NS	No standard
NTU	Nephelometric turbidity unit
ppb	parts per billion (micrograms per liter)
ppm	parts per million (milligrams per liter)
µS/cm	microSiemens per centimeter
% pos	% positive
RAA	Running annual average
SCVWD	Santa Clara Valley Water District
SFPUC	San Francisco Public Utilities Commission
TOC	Total organic carbon
TON	Threshold odor number
USEPA	United States Environmental Protection Agency

NOTES

a. For unfiltered water, the MCL is 5.0 NTU. For filtered water, the MCL is ≤0.3 NTU 95% of the time.

b. Percent of time ≤0.3 NTU.

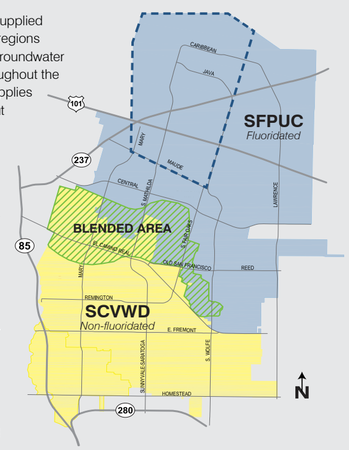
c. Levels in the distribution system.

*TYPICAL SOURCES IN DRINKING WATER

1 Naturally present in the environment
2 Soil runoff
3 Erosion of natural deposits
4 Residue from some surface water treatment processes
5 Water additive that promotes strong teeth
6 Discharge from fertilizer and aluminum factories
7 Runoff and leaching from fertilizer use
8 Leaching from septic tanks and sewage
9 By-product of drinking water disinfection
10 Various natural and man-made sources
11 Runoff from natural deposits
12 Leaching from natural deposits
13 Naturally-occurring organic materials
14 Seawater influence
15 Industrial wastes
16 Substances that form ions when in water
17 Internal corrosion of household plumbing systems
18 Leaching from wood preservatives
19 Discharges from industrial manufacturers
20 Drinking water disinfectant added for treatment
21 Discharges of oil drilling wastes and from metal refineries
22 Discharge from mines and chemical manufacturers

WATER SUPPLY MAP

The adjacent map indicates which areas of the City are supplied by SFPUC, SCVWD or a mixture of the two. The colored regions correspond to the colored columns in the table above. Groundwater wells, which are not shown on this map, are located throughout the City. Local groundwater is blended with surface water supplies from SFPUC and SCVWD. SFPUC water is fluoridated but SCVWD and groundwater supplies are not.



TREATMENT VIOLATION

On March 3, 2015, at approximately 4:50 p.m., due to an operational error, SFPUC Regional Water System staff accidentally operated the valves at the Sunol Valve Lot allowing untreated water from San Antonio Reservoir to enter the Regional Water System for an estimated 20 minutes. The City does not provide treatment; however, we obtain treated water from the Regional Water System. As a result, a blend of treated and untreated water may have been served to some Sunnyvale customers on March 4, 2015. Affected customers (shown within the dashed blue boundary) were notified. Inadequately treated surface water may contain disease-causing organisms that can cause diarrhea, nausea, cramps and associated headaches.