

The Guadalupe River: Mapping Boundary, Founding
Father, or Recurring Nightmare?

An Essay Presented to the California
Pioneers of Santa Clara County

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Introduction

"London has the Thames. Paris has the Seine. New York has the Hudson. These rivers define their cities. Majestic government buildings are built along their shores. These rivers end up on post cards. And San Jose, well, San Jose has the Guadalupe." (1) Although it is not exactly post card material, it definitely deserves more respect than it has received in the past. The Guadalupe River has more impact on our city than we realize. Not only does it provide a special recreation area that is unique to San Jose, but the quiet, small stream facade can change into a raging torrent in as little as two days. All the citizens of San Jose and the rest of the Santa Clara Valley should respect and fear the Guadalupe River, for it can turn on us at any moment.

Many people find the Guadalupe to be a beautiful place in spite of the man-made trash floating in the river. "Frogs and small fish swim in the slowly moving stream. A mallard family paddles by. Egrets wade on stilt-thin legs as fall leaves drift past." (2) This description ignores the trash, focusing instead on the Guadalupe River's potential beauty. The Guadalupe has much potential, but it will take the help of Santa Clara County's residents to transform the Guadalupe back to the beautiful river it once was.

Mapping Boundary

The Guadalupe River serves many purposes. It was, and still is, commonly used as a mapping boundary for different areas of San Jose. As early as 1777, the Guadalupe formed the boundary between the Santa Clara Mission and pueblo lands until the American occupation of California. Willow Glen is often defined by the Guadalupe; its boundaries have been defined as "east to west roughly from the Guadalupe River to the Los Gatos Creek. (See map on page 15.)" (3) "The earliest known map of San Jose [dated November 1781] divides land along the east bank of the Guadalupe River. (See map on page 16.)" (4)

Early Settlers on the Guadalupe River

Any group of people that settled in California knew they must settle near a body of water; anything from the Pacific Ocean to the Guadalupe River. San Jose's earliest settlers, the Ohlone Indians, knew the importance of the Guadalupe; and they knew this more than 1,000 years before the first Hispanic and American settlers came to the area and realized water's importance.

Trout, salmon and sturgeon were plentiful in local streams. Wild berries, seeds and nuts found in the foliage along the waterways and foothills were fashioned into food and adornments. Villages were clustered along the creek banks for easy access to the foothills and the bay. The creeks were direct paths to the baylands, where oysters, clams and fish were collected. The creeks also led into the foothills, where the Ohlone hunted deer, rabbits and other game that flourished in the uninhabited hillsides. (5)

Although the Ohlone were greatly aided by the Guadalupe River, they also respected its power. Periodically, annual flooding of the Guadalupe River forced the Ohlone settlements to temporarily move to higher ground.

Juan Bautista de Anza and a few soldiers were among the first foreigners to come to the usually peaceful river. In March 1776, this group set out to "check out"

the San Francisco Bay, which Portola had spotted years before. When they came through, they "camped by a roaring stream and named it the Guadalupe River," after Our Lady of Guadalupe, Mexico's protectress. (6) However, "Guadalupe" was not the only name given to the river.

When Mexico's governor, Felipe de Neve, visited California in 1777, he took note of many of its streams and their flow. This was a deciding factor in sites for civil settlements, especially San Jose's location on the Guadalupe River. Felipe de Neve sent Joseph Ygnacio Archuleta and sixty-five others to settle along the Guadalupe's banks. These "original settlers" of San Jose called the river "rio de la saca de agua", or river from which water was taken. (It is not quite clear how they can be the original, when the Ohlone were there first, but for all intents and purposes, they will be referred to as the "original settlers.") (7)

These settlers established San Jose on November 29, 1777. They referred to it as "El Pueblo de San Jose de Guadalupe," or the City of Saint Joseph on the River. Joseph Ygnacio Archuleta was elected as the first "alcalde" (mayor) of California's first Hispanic civil settlement, or city. These people located their settlement on the river's east bank which today would be about where Market Street and San Fernando Street intersect, the center of San Jose's commercial downtown. The city's original purpose was to supply food to the soldiers at the San Francisco and Monterey presidios, but things did not always go according to plan. "It is known that those early settlers were too close to the Guadalupe. Their early attempts at farming, as well as their adobe houses, were flooded out by the river, which became a raging torrent during the winter rainy months." (8)

The Guadalupe River as the Center of the Valley

Mission Santa Clara was first established near the Guadalupe in 1777, and Mission San Jose eventually followed in 1795. The valley's first flour mill, built by Pedro Sansebian in 1844, was located on the Guadalupe's banks. Throughout the history of San Jose, "the Guadalupe has always been the center of this valley. Pilots are guided to their landings at the airport by the same waterway that Father Serra gathered sapplings from to plant along the Alameda." (9) The history of San Jose is based, in large part, on the Guadalupe and its periodic flooding. Flooding along the river has caused some unusual events, everything from causing the legislators to move the capitol of California out of San Jose in 1851, to causing the first National Hockey League "rainout" in 1995. (10)

The Guadalupe River and its Devastating Floods

The first people for whom flooding of the Guadalupe caused problems were the Ohlone, but the original settlers soon found the "quiet creek" to be a nightmare. Floods forced the pueblo to move from the original site (near the Civic Center) to higher ground in 1797. Even then, annual rainfall and flooding threatened their homes and crops.

California's first state Legislature met in San Jose in 1851. Unfortunately that winter was one of the wettest on record. The "streets turned to muck," and legislators found themselves in "leaky, flea-infested tents." (11) Needless to say, the Legislature moved to Vallejo the following year.

The Guadalupe has flooded countless times over the years. The following are just a few examples of its rage. When the Guadalupe flooded in 1871, seven cottages in the River Street area were swept 600 yards downstream. (12) January 1911 proved

to be extremely wet, the only January in San Jose history when rainfall totaled in the double digits - 12.38 inches. (13) From November 13 through December 15, 1950, San Jose was drenched. November 18 had a total of 7.3 inches of rain. (14)

During the winter of 1951-1952, the Guadalupe River kept a section of land from Montague Road to the San Francisco Bay under water for over a month. (15) Kathryn Philp, a long-time San Jose resident, remembers well one evening during this period. "My parents woke us (three girls) up around midnight and drove us to the bridge at St. John's Street [near the confluence of the Guadalupe River and Los Gatos Creek] where we carefully stood and watched the water literally under our feet." (16)

Eight thousand, three hundred acres and \$1,300,000 were the total damages from flooding in December 1955, when the Guadalupe overflowed its banks. (17) On December 23, 1955, the river could be touched, at the Santa Clara Street Bridge, simply by leaning over the railing. (18) In a 1993 article, San Jose Mercury News writer, Frank Sweeney, said the floods of 1955 were the worst San Jose had seen since before World War II. He also points out this was not a 100-year flood (a flood with damage that is so horrendous that it occurs, on average, once every 100 years). In 1985 the U.S. Army Corps of Engineers stated if "such an event were to occur today the damage to existing buildings and their contents in the Guadalupe Basin would amount to approximately \$13,700,000." (19)

The totals for the floods of 1983 were as follows: \$20,839,000 in damage to private property, \$1,542,000. in damage to public property, 1900 people evacuated, one death, 466 damaged homes, two destroyed houses, and 160 damaged businesses. (20) The major periods of flooding were January 22-30, February 5-8, and February 28-March 4. After the initial (January) flood, the governor issued a state of emergency, and the President issued a Declaration of a Major Disaster for Public Assistance. The issues had inclusive dates from January 21 through March 30. On

January 24, the Guadalupe overbanked the eastern levee, upstream of Alma Street, and the east and west levees downstream of Alma. At the Alma Street and Willow Street undercrossings of the Southern Pacific Railroad, there was about ten feet of water. The peak flow also occurred on January 24; it was measured at about 8,400 cfs (cubic feet per second), which corresponds to a seventeen-year flood, which is a flood that will occur about every seventeen years. (21) The water hit Alviso at hightide, and Alviso was under six inches of water for a little more than two weeks.

The 1995 floods brought devastation to an area which had recovered from a drought only a few years before. January's floods caused four million gallons of water per minute to rush under the Saint John Street Bridge [average flow 38,500 g/m (22)]. The damage estimate for January was \$380,000. (23)

As if January's flood was not bad enough, the skies opened again in March 1995 after a dry February, and produced even worse flooding. The Guadalupe turned the City of San Jose into Lake San Jose. From March 8-13, 3.23 inches fell on San Jose (about 23% of the city's annual yearly rainfall of 14.14 inches). (24) Levees broke in four spots, including Alma Street (flooding the Elks Lodge and the Highway 87 underpass), Virginia Street (where water ran down spillways onto Highway 87), Santa Clara Street, and Saint John Street (which flooded the restaurant Henry's World Famous Hi-Life). As of March 14, 1995, damage from the March flooding is estimated at \$5.5 million. (25) "It's certainly the worst rain we've seen on the Guadalupe River in forty years," city spokeswoman Lindsey Wolf said. (26) In downtown San Jose alone, 200 to 300 houses and buildings were flooded. "We've never seen the downtown flooded like this," San Jose's mayor Susan Hammer said of the floods. (27)

When San Jose resident Michael Barton wrote his 1993 letter to the editor of the San Jose Mercury News, he may have believed he was the first to realize the debris in

the Guadalupe River was causing some of its flooding problems; however, he was not. In their 1972 report on the Guadalupe's flood plain, the Department of the Army stated, "In many places the stream is choked with brush and has narrow constrictions." (28) It was not until 1993 that Barton expressed his belief that "discharge of nutrient-rich effluent from the San Jose sewage plant has encouraged a proliferation of reeds in the river. These reeds trap silt, which allows more reeds to grow, and quite soon the river turns to solid ground." (29) He did, however, predict what happened in March of 1995. He said, "Little islands have been forming in the river bed for some years, choking the channel. Water from the next 100-year flood will have no place to go except into downtown basements." (30) It was not until after March's floods that Larry Johnman, Associate Director of Evergreen Resources Conservation District, stated, "the main reason downtown San Jose flooded, I believe, is the debris dam near the railroad trestle..." (31)

Most cities in California were built beside a body of water; San Jose is no exception. The Guadalupe was the reason people decided to live in this area, and it is also the reason many of downtown San Jose's buildings are in danger. If a 100-year flood were to occur, much of downtown San Jose would be under water, including the County Administration Building, the Police Headquarters, part of San Jose State University's Campus, and the San Jose Arena. (Why would anyone build a brand new arena in a flood zone?) Details as to the extent of the possible damage are offered in San Jose Mercury News writer Frank Sweeney's articles: Three feet of water in the intersection of West Santa Clara Street and Almaden Avenue, entering the first floor of the Martin Luther King, Junior Main Library would require "diving equipment," the northern ends of the runways at San Jose International Airport would be under an inch

of water, and two inches of water would seep into the ground floor of City Hall. All in all, about 4,300 homes and businesses would be affected. Five hundred twenty million dollars in damage is an optimistic estimate. (32)

The Army Corps of Engineers, who have been working with the Guadalupe for almost fifty years, see no signs for improvement. They believe "the potential for additional flood damage is expected to increase as development continues in this highly urbanized area." (33) The city of San Jose currently has a population of 836,000; who knows what it could be in 1997, when the flood project is expected to be completed? (34) Nobody seems to be giving any positive news on the Guadalupe's flooding situation. Sweeney's article predicts the Guadalupe to be "one of the two biggest flood threats in the county." (35)

The Guadalupe has flooded what seems to be an infinite number of times. The chart on page 17 shows the major floods between 1931 and 1968, their gauge height in feet, and the quantity of cubic feet per second (cfs), just to give a brief idea of what kind of destruction the Guadalupe has brought before.

Why the Guadalupe River's Floods are so Terrible

One of the unique aspects (and biggest problem) of the Guadalupe is that it collects water from so many different areas. Some say as much as 800 square miles of land are drained by the Guadalupe River system. (36) Its tributaries are the Guadalupe, Alamitos, Los Gatos, and Saratoga Creeks, which bring down water from the Santa Cruz Mountains. Human water needs are contributing to our problems. The Guadalupe used to run directly from the redwood forests, to the tributaries, to the river itself, and out to sea. Now, the hill water is collected in the Guadalupe, Calero, Almaden, and

Lexington reservoirs, where it is held until the dry season, and is then let out in an even flow. This system works fine until the reservoirs fill up; then all four overflow during a storm and send even more water into the already swelling Guadalupe.

We can not completely blame the Guadalupe River, however. Half the problem we have brought upon ourselves. The buildings along the Guadalupe are flooded often and severely, partially because of their location extremely close to the Guadalupe.

Asbestos

Flooding is not the only problem Santa Clara County residents have had with the Guadalupe River. Asbestos has caused some problems of its own. Asbestos contamination can be traced to the rocks in a levee built in 1983, to protect Alviso from floods. When the rocks broke down, asbestos went into the air and settled in the ground. This levee is scheduled to be removed sometime this year, but that cannot erase the damage it has already caused. (37)

The Guadalupe River Deserves Some Respect

The Guadalupe River and its man-made problems can cause some serious difficulties and destruction for Santa Clara County. Because of this, the Guadalupe's awesome power must be revered. Santa Clara County residents must learn to respect this river during all the seasons, especially the winter.

On an average ordinary day, one can find a ton of junk floating in the Guadalupe and along its shores. The waste from gutters goes into the Guadalupe, and in the water there are soap suds, paint, pesticides, and carpet cleaning rinse water. From cars and auto shops comes old motor oil, engine fluids, lead, cadmium, zinc, and

copper. As far as rejected garbage goes, the Guadalupe contains disposable diapers, dirty clothing, shopping carts, bed sheets, sleeping bags, scraps of shredded plastic, assorted car parts, and couches. (38)

What will stop people from using the Guadalupe as a garbage dump? Respect. "They must appreciate it, before they will stop throwing away unwanted furniture and automobiles into it." (39) Respect will be a little difficult for the Guadalupe to find, especially considering the views some people hold of it. The Guadalupe River has been referred to as "the over-enthusiastically named Guadalupe River (a creek to be truthful)." (40) Before one can analyze this statement, one must ask oneself the question, 'What exactly is a river?'

Webster's New World Dictionary defines a river as "a natural stream of water...emptying into an ocean, a lake, or another river." (41) Assuming that the San Francisco Bay is similar to the ocean, this would classify the Guadalupe River as a real and actual river, not a creek. "Let's get one thing straight. It is not a brook, a creek, a stream or a rivulet. It is not a sewer, a drainage ditch or a garbage dump, though it's been used for all three. It's a river. The Guadalupe River. Got it?" (42)

" 'This is a river?' [a] traveling musician asked. 'I thought it was a creek or a stream or something. I'm from Clinton, Iowa, right on the Mississippi.'" (43) It's not the Mississippi, but it is more than most cities have, and it does have a lot of potential.

One of the main reasons that the Guadalupe River has so much trouble finding respect, is that California has so many other, larger rivers. During an average February, the Guadalupe pumps out 115,000 gallons per minute. (44) That sounds like a lot, until it is compared with the 675,000 gallons that run through the American River every minute, in the dry season. (45)

"When there are no floods, who among us bothers to stop and watch the water? ...but a river has a way of making it clear that it is bigger than you. This is a truth

often forgotten about the Guadalupe, although every decade or so, the Guadalupe reminds us of it." (46) "The mighty Guadalupe, birthplace of San Jose,...runs through all our lives. But we have shown no respect. Until now." (47)

Chinook Salmon and Other Fish in the Guadalupe River

When the discovery of Chinook salmon in the Guadalupe became public knowledge, in 1986, some began to give the Guadalupe the respect it usually only receives when it engulfs houses. Chinook salmon are the largest of the salmon species; they grow as long as fifty-eight inches and weigh as much as fifty pounds. They spawn in rivers; up to 600 miles upstream. The female will discharge up to 5000 eggs, and the male will release his sperm nearby. Both the males and the females die soon after spawning. The babies hatch in about eight weeks, they then go out to sea, only to return to the river of their birth about four to eight years later, to spawn and die. (48)

The salmon were discovered by a San Jose State University biology professor around 1982, but knowledge of the fish was first made public around 1986, by self described "river-rat," Roger Castillo. (49) Since their discovery, the State Department of Fish and Game has requested fish ladders to be installed, and barriers, like a thirteen-foot drop near Blossom Hill Road, to be removed. They also are requesting that more trees be planted along the Guadalupe's banks to help lower the river's temperature, which would encourage the fish to travel further upstream and spawn.

Salmon are not the only fish that live or have lived in the river. Between 1953 and 1971, thirteen different species were spotted, including Rainbow trout, Threespine Stickleback (endangered), and Sacramento Blackfish. (50)

One of the two majors causes of concern for all the Guadalupe's fish is mercury. The mercury comes from the New Almaden mine's soil erosion, which

contaminates the water in the Guadalupe River, nearby reservoirs, and the San Francisco Bay, and makes the fish found there unsafe to eat. New Almaden made the Superfund List (the federal government's list of most contaminated hazardous waste dumps) in 1993, and a clean-up plan is in the works.

Redevelopment and Flood Control

The other major concerns for the fish are San Jose's redevelopment plans and flood control project. "The Final Environmental Impact Statement [for the Guadalupe River] was filed in October 1986," which was before the news of the salmon became widely known. (51) In fact, the only controversy stated in the Army Corps preliminary report from 1985, was with preserving the existing vegetation. (52) However, the Redevelopment Agency's plans to widen the channels, landscape, and build a scenic walk have been complicated by the Army Corps' flood work and the environmental concerns of the so-called "occasional salmon."

Three different plans were proposed by the Army Corps: no action; a Highway 17 to Park Avenue plan that included channel widening, which "would meet the flood control objectives and mitigate for fish and wildlife impacts;" and a Highway 17 to Highway 280 plan which includes "channel widening and a covered channel bypass," which would also "address both flood control and redevelopment objectives." The Highway 17 to Highway 280 plan was chosen because of its "responsiveness to the identified public concern and planning objectives and its greater net positive contributions to the goals of National Economic Development, as defined by the U.S. Water Resources Council." (53) The flood control work began in the later part of 1992 along a section north of downtown on one side of the river, but both banks were reinforced in 1993. As of January 1, 1995, the project was about forty percent completed. (54)

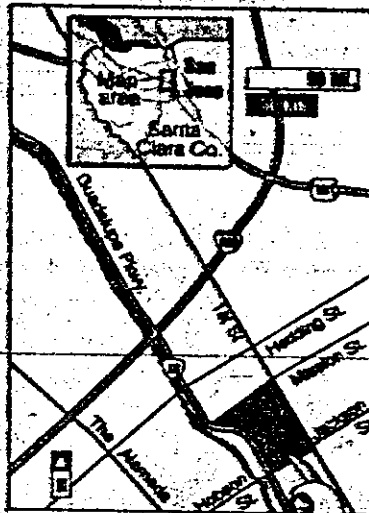
In 1985, the Highway 17 to Highway 280 plan had an estimated cost of \$44,056,000, (55) but as of 1995, the total estimated cost is around \$137,770,000. (56) However, the plan is in serious jeopardy due to the White House's proposed cuts. (57) The Upper Guadalupe is in danger of losing its federal funding (about \$63,300,000) (58) because the Clinton Administration does not wish to pay for flood control projects that do not affect a large group of people. To keep its federal funding, a river would have to run across at least one state border, but because of the Sierra Nevada Mountains, most of California's rivers do not cross any borders. But there is hope. After the March floods, White House Chief of Staff, Leon Panetta, promised to plead for full funding for the Guadalupe. Leon Panetta has a home in the Guadalupe's area, but it was not damaged by the storm. (59)

Big Neighbors and A Lot of Respect

"If you're a downtown river, you have to expect big neighbors." (60) A river that runs through the heart of one of the largest cities in California has to expect large buildings to be built near its shores. However, this same river should also expect some respect from the people who live near it. Partially due to its flooding, partially due to the discovery of the salmon, and partially because of Santa Clara County's residents opening their eyes, the Guadalupe River is finally getting the respect it deserves.

The earliest known map of San Jose divides land along the east bank of the Guadalupe River — "rio de la saca de agua" or river from which water was taken — among 10 settlers. Each settler received two plots 550 feet square, a total of about 14 acres per settler.

The top of the historic map is pointing south.



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de S.^a Fern.^{do} Cortez en el año de la caída
del Sr. D.ⁿ y se entregaron a los
nos el día 12 de Abril de 1711 S.^a
fian.^{co} 1.^o de Junio de 180.

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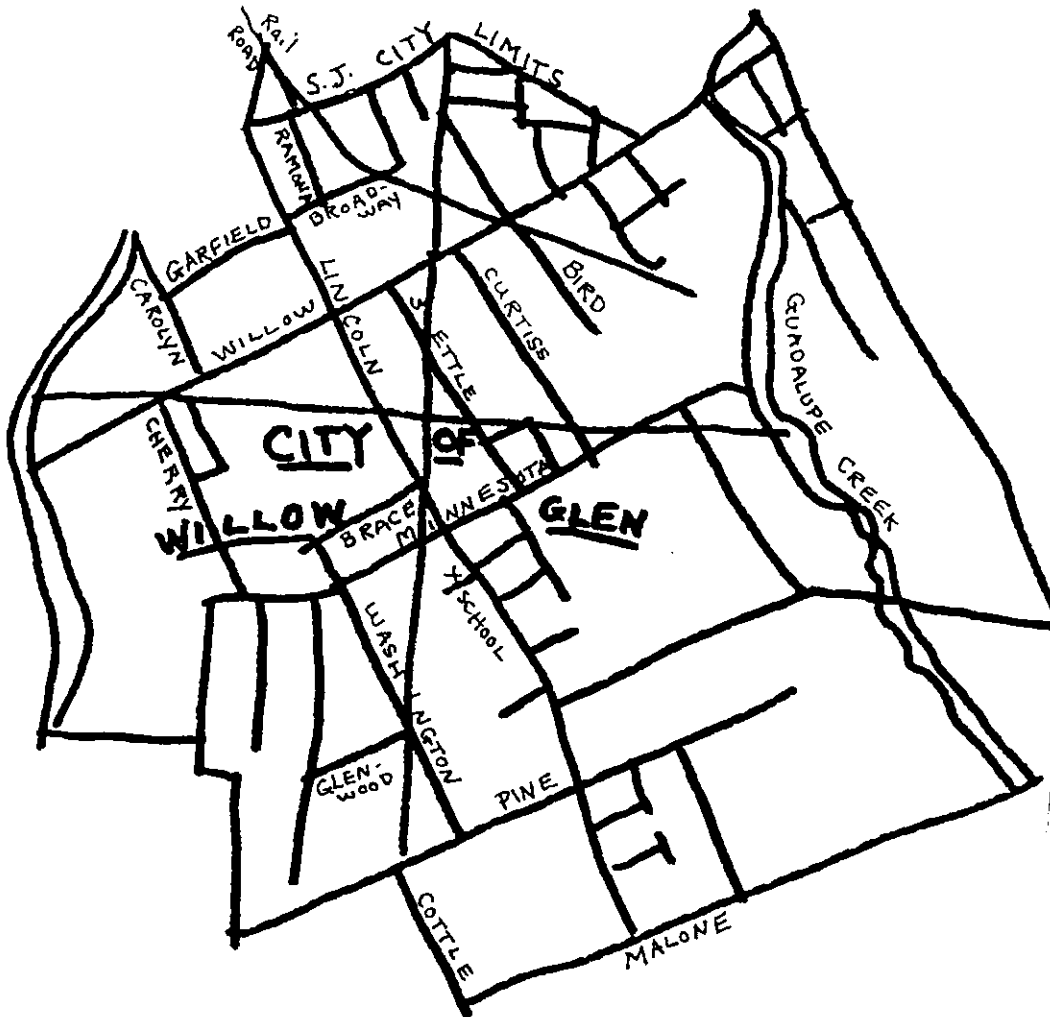
Dept Manager

18th August 1946

WECKLEY MEMO

Joanne Grant, "Early San Jose Settlers Fought Floods", 2-16-93, p. 5B.

Willow Glen boundaries at the time were recorded as Los Gatos Creek on the west, Guadalupe Creek on the east, and a "series of jogs" on the south composed of Hicks Avenue, Pine, Cottle, and Malone Road.



map from S.C. County Board of Supervisors - 1927

Elizabeth Giarratana, Old Willow Glen: Photographic Sketchbook (Palo Alto, California: Consolidated Publications, Inc., 1977), p. 14.

Major floods on the Guadalupe River

December 1931 - January 1968

Date	Gauge Ht. in Ft.	Quantity cfs*
12/27/31	11.12	6700
2/13/37	9.64	6070
12/11/37	9.8	6660
2/27/40	11.88	8680
4/4/41	9.5	6330
1/23/43	10.68	6350
2/4/45	11.25	6600
1/12/52	15.2	8000
12/23/55	13.94	5570
4/2/58	16.55	9150
10/13/62	10.86	6300
3/6/67	11.55	6760
1/30/68	9.28	5170

*cfs=cubic feet
per second

Information From:

Flood Plain Information: Guadalupe River, Santa Clara County, California

Department of the Army San Francisco, Ca

January 1972

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Willow Glen High School

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