

NOTICE AND AGENDA
SANTA CLARA CITY COUNCIL MEETING
Wednesday, August 23, 2023
Time: 5:00 p.m.

AGENDA

Public Notice is hereby given that the Santa Clara City Council will hold a Regular Meeting in the City Council Chambers, located at 2603 Santa Clara Drive, Santa Clara, Utah on Wednesday August 23, 2023 commencing at 5:00 PM. The meeting will be broadcast via You Tube linked on our website at <https://sccity.org/meetings>.

1. **Call to Order:**

2. **Opening Ceremony:**

- Pledge of Allegiance: Christa Hinton
- Opening Comments: Pastor Jill Doherty, New Promise Lutheran Church, St. George Interfaith Council.

3. **Conflicts and Disclosures:**

4. **Working Agenda:**

A. Public Hearing(s) 5:00 p.m.

1. Public Hearing to receive public comment regarding updates to the Santa Clara City Water Master Plan and Santa Clara City water rates.

B. Consent Agenda:

1. **Approval of Claims and Minutes:**

- August 9, 2023, City Council Meeting
- Claims through August 23, 2023

2. **Calendar of Events**

- August 30, 2023, Special City Council Work Meeting combined with Ivins City.
- Sept. 13, 2023, Regular City Council Meeting
- Sept. 20, 2023 City Council Work Meeting
- Sept. 27, 2023 City Council Regular Meeting.

C. General Business:

1. Discussion and action to consider approval of the Updated Santa Clara City Water Master Plan. Presented by Dustin Mouritsen, Public Works Director.
2. Discussion and Action to consider adoption of Resolution 2023-14R amending the Santa Clara City culinary & secondary water rates. Presented by Dustin Mouritsen, Public Works Director.
3. Discussion and action to consider a Partial Plat Amendment for the Viewpoint Subdivision (lots 4 & 5) located at 1854 & 1860 Red Mountain Drive. Applicant, Robin Linden. Presented by Jim McNulty, City Planner.

4. Consider approval of Agreement of New Prosecutor, Rick Erickson. Presented by Brock Jacobsen, City Manager.

5. **Reports:**

a. Mayor / Council Reports

6. **Executive Session**

7. **Adjournment**

Note: In compliance with the Americans with Disabilities Act, individuals needing special accommodation during this meeting should notify the city no later than 24 hours in advance of the meeting by calling 435-673-6712. In accordance with State Statute and Council Policy, one or more Council Members may be connected via speakerphone or may by two-thirds vote to go into a closed meeting.

Zoom Meeting Participants: Participants on the Zoom call are limited to City Staff, Council Members, and applicants on the agenda. Email calendar invitations will be sent out in advance of the meeting. Instructions for each meeting will include the meeting ID, and password to join. When joining the meeting your screen name must show your full name. Each applicant will be accepted into the meeting when their item is up for discussion. Please contact Chris Shelley at (435)673-6712 Ext. 203 with any questions regarding public meetings. .

The undersigned, duly appointed City Recorder does hereby certify that the above notice and agenda was posted within the Santa Clara City limits on this 17th day of August 2023 at Santa Clara City Hall, on the City Hall Notice Board, at the Santa Clara Post Office, on the Utah State Public Notice Website, and on the City Website at <http://www.sccity.org>. The 2021 meeting schedule was also provided to the Spectrum on January 3, 2023.

Chris Shelley – City Recorder

**SANTA CLARA CITY COUNCIL MEETING
WEDNESDAY, AUGUST 9, 2023
MINUTES**

THE CITY COUNCIL FOR THE CITY OF SANTA CLARA, WASHINGTON COUNTY, UTAH, met for a Regular Meeting on Wednesday, August 9, 2023, at 5:00 p.m. in the City Council Chambers of the Town Hall at 2603 Santa Clara Drive, Santa Clara, Utah. Notice of the time, place, and agenda of the meeting was provided to *The Spectrum* and each member of the governing body by emailing a copy of the Notice and Agenda to *The Spectrum* and also, along with any packet information, to the mayor and each council member, at least two days before the meeting. The meeting will be broadcast via YouTube linked on our website at <https://sccity.org/meetings>.

Present: Mayor Rick Rosenberg

Council Members: Christa Hinton
Leina Mathis
Jarrett Waite

City Recorder: Chris Shelley

City Manager: Brock Jacobsen

Others Present: Jim McNulty, Planning and Economic Development Manager
Gary Hall, Power Director
Ryan VonCannon, Parks, and Trails Director
Andrew Parker, Fire Chief
Cody Mitchell, Building Official

1. Call to Order.

Mayor Rick Rosenberg called the meeting to order at 5:03 p.m. and welcomed those present.

2. Opening Ceremony.

A. Pledge of Allegiance: Leina Mathis.

B. Opening Comments (Invocation): Linda VanWert, Buddhist Community, St. George Interfaith Council.

3. Conflicts and Disclosures.

There were no conflicts or disclosures.

4. Working Agenda.

A. Public Hearing.

Consent Agenda.

i. Approval of Claims and Minutes:

- **July 26, 2023, City Council Work Meeting.**
- **Claims through August 9, 2023.**

ii. Calendar of Events:

- **August 16, 2023, City Council Work Meeting - Cancelled.**
- **August 23, 2023, Regular City Council Meeting.**
- **August 30, 2023, Special City Council Work Meeting Combined with Ivins City Council.**

Council Member Waite moved to APPROVE the Consent Agenda, as presented. Council Member Mathis seconded the motion. Vote on Motion: Council Member Mathis-Aye; Council Member Hinton-Aye; Council Member Waite-Aye. The motion passed unanimously.

B. General Business.

i. Santa Clara/Ivins City Fire Department Badge Pinning. Andrew Parker, Fire Chief.

Fire Chief, Andrew Parker, reported that there are two vacancies in the Fire Department. As a result, there was an application process with a total of 48 applicants. There were both interviews and video-based testing. The top two candidates were present at the City Council Meeting and would be introduced. Timothy Mayhew was to begin this, and AJ Wear would begin the following week. One of the positions was full-time and the other part-time.

Chief Parker introduced Mr. Mayhew to the Council and explained that he is originally from the east coast. His family had been involved in the Fire Department in Washington, DC, for over 100 years. Mr. Mayhew wanted to follow in their footsteps but still forge his own path. In high school, he worked to obtain his Emergency Medical Technician (“EMT”) Basic Certification. He was able to obtain an athletic scholarship in his senior year. After high school, he volunteered his time with a local Fire Department until he was offered a paid position. Over the past nine years, he has worked for several agencies while practicing emergency medicine. Chief Parker shared some of the various locations and positions Mr. Mayhew had on his resume. While in Utah, he worked as a Firefighter/EMT Rescue Specialist and built a successful Wildland Program with the Cedar Mountain Fire Protection District and Dammeron Valley Fire and Rescue. While working with Dameon Valley Fire and Rescue, he became familiar with the Santa Clara/Ivins City Fire

Department. Mr. Mayhew was drawn to the professionalism and work ethic of the organization and wanted to be involved.

Mr. Wear was introduced to the Council. Chief Parker reported that he would fill the part-time position. Mr. Wear also worked for the Dammeron Valley Fire and Rescue on a part-time basis as a Firefighter/AEMT. He was born in northern California but moved to St. George as a child. Mr. Wear recently moved to Santa Clara and was learning more about the community. He prioritizes family and expresses gratitude for their support. It was noted that Mr. Wear initially joined the Santa Clara/Ivins City Fire Department as a Fire Explorer and became the Fire Explorer Chief. He worked alongside others in the organization and loved to learn from members. He planned to do everything possible to serve the community.

The badge pinning was done for Messrs. Mayhew and Wear. City Recorder, Chris Shelley performed the Oath of Office. The new employees were sworn in and photographs were taken.

ii. Discussion and Action to Consider Approval to Purchase a 2016 Sewer Camera Trailer for the Price of \$50,000 from Washington City. Presented by Dustin Mouritsen, Public Works Director.

Public Works Director, Dustin Mouritsen, reported that the agenda item relates to the purchase of a 2016 sewer camera trailer from Washington City. Currently, the City is spending \$30,000 per year to camera the sewer system. By comparison, the 2016 sewer camera is priced at \$50,000. Mr. Mouritsen suggested using \$30,000 in the current budget for sewer line camera work to pay for Washington City. The remaining \$20,000 will be paid to Washington City in the next budget year. It was clarified that Washington City is purchasing a new sewer camera trailer and gave Santa Clara the first option to purchase the used sewer camera trailer. Images of the trailer were reviewed. Mr. Mouritsen noted that there was a brand-new generator. The camera is mechanical and crawls down the sewer main. This particular camera has a lateral launch, which means it could go down the main line, but another camera could detach and go up the lateral at the same time. Images of the inside of the trailer were shared. The camera is run with a joystick after an operator outside of the trailer lowers the camera into the manhole. The person inside the trailer would record what is happening and look for any problems in the sewers. Mr. Mouritsen reported that the trailer also comes with a detached lateral camera. Additional images were shared.

Mr. Mouritsen noted that there were many advantages to the purchase of the sewer camera trailer. Not only would it save money overtime, but if there was an emergency, the City would not need to schedule someone to come in and look into the issue. Council Member Mathis asked about the lifespan of the sewer camera trailer. Mr. Mouritsen estimated that the sewer camera trailer would easily last another 10 years. Santa Clara is not the size of Washington City, which used the cameras daily. In Santa Clara, the cameras would be used a few times a month unless there is an emergency. Council Member Mathis asked if Santa Clara employees can do the work, which was confirmed. Mr. Mouritsen reported that two employees have been sent over to receive training. There was also some familiarity with the system already. The Council wondered why Washington City was willing to let go of the sewer camera trailer. Mr. Mouritsen explained that a city of their size with their budget can afford a new sewer camera trailer.

Council Member Mathis moved to APPROVE the Purchase of a 2016 Sewer Camera Trailer for the Price of \$50,000 (\$30,000 out of this budget year and \$20,000 out of the next budget year), from Washington City, as presented. Council Member Hinton seconded the motion. Vote on Motion: Council Member Mathis-Aye; Council Member Hinton-Aye; Council Member Waite-Aye. The motion passed with the unanimous consent of the Council.

iii. Discussion on New Culinary Water Rate. Presented by Dustin Mouritsen, Public Works Director.

Mr. Mouritsen reported that the above agenda item pertains to the new Culinary Water Rate. He reviewed a document that lists Wasatch Front Water Rates. The rates all start higher than in Santa Clara. Some ended lower and others higher. He thought it was important that Council Members look at what was being done elsewhere for comparison. Currently, Santa Clara is number five in the County in terms of water rates. With the proposed new rate, that position would move to number four. Washington, St. George, and Hurricane would have lower rates in that instance.

Mr. Mouritsen distributed a sheet that included the current rate information as well as the proposed rate information. He took the residential usage through three-quarter inch meters with the usage of July 2023. The intention was to show what each tier would pay based on the proposed rate increase. In Tier 1, there would be a \$0.02 increase. The revenue increase was listed as \$261. In Tier 2, there would be an increase of \$0.02, which would result in a revenue increase of \$167. In Tier 3, there would be an increase of \$0.02, which would result in a revenue increase of \$231. In Tier 4, there would be an increase of \$0.38. The revenue increase was listed at \$3,175. He explained that the revenue increase in water sales would be \$15,889. With the \$5.25 increase in the base rate, which would be \$15,445. The total would be approximately \$31,000. Mr. Mouritsen clarified that those numbers were only residential and did not include any commercial. He did not believe that the slight increase was asking too much from residents. Example scenarios were shared.

Information about connections was reviewed. Mr. Mouritsen reported that out of 3,255 connections, there was only one three-inch meter, 10 two-inch meters, 15 inch-and-a-half meters, and 27 one-inch meters. Everything else had a three-quarter-inch meter. Mayor Rosenberg asked where the one-inch meters were in residential. Mr. Mouritsen did not know that information off hand but offered to look into that and report back. He believed they were single-family homes.

City Manager, Brock Jacobsen, shared information about revenue, expense, and depreciation in the Water Department. He reported that revenues were much less than what was anticipated. That was good in the sense that the lower numbers might be related to conservation, but the revenue had been projected based on historical use. Only 72% was collected of what had been projected. For the last fiscal year, the expenditures were down as well and were at approximately 75% of the budget. As a whole, minus the operating income and impact fees, just under \$2.1 million was collected. Even with the operating expenditures down, the costs were still \$2.15 million. That meant there was still an operating loss of \$54,000. Mr. Jacobsen discussed depreciation and explained that funds need to be put away to replace aging infrastructure. If the Water Department were still operating at a loss, it would be a struggle to put away necessary funds for the future. Eventually, there would be a lot of lines to address, which would be difficult without being able to fully fund the depreciation. Mr. Jacobsen noted that the \$31,000 associated with the proposed

water rate would not even cover the \$54,000 operating loss. That being said, he acknowledged that it was a step in the right direction. He discussed the need for revenue.

Council Member Waite asked about the newly proposed base rate. He wondered if it would cover the fixed costs. Mr. Mouritsen explained that it would cover operations and maintenance costs. Council Member Waite pointed out that the base rate would be higher than in other communities. However, if it was covering the operations and maintenance, that made sense. Mr. Mouritsen pointed out that it covered operations and maintenance but did not address the necessary renewal and replacement. That was where the water rate would assist. He wanted the system to remain in good condition without failing pipes. It was noted that employees are fixing leaks several times a week. Council Member Waite loved the road plan for renewal and replacement, where the streets had been mapped out and there was a schedule in place. He wondered if it would be possible to do something similar for the water system. He thought it would be worthwhile to know what needed to be addressed as far as renewal and replacement needs and on what schedule. Mr. Mouritsen believed something like that could be put together.

Council Member Waite discussed the water use on his property. He went back to look at the use in the current year compared to the previous year. The two main changes he made in the current year had to do with the addition of a recirculation pump and watering one less day per week. He was able to drop 10,000 gallons per month with those changes. He would still be hit with the Tier 4 charges, but he made efforts to reduce water use. Council Member Waite believed residents would need to make some similar changes to avoid the higher rates. He was surprised to hear that 649 connections would be in Tier 6. He appreciated where the proposed rates were coming from, but expressed concern that depreciation was not covered. There was discussion about the depreciation issues and the operating loss numbers.

Council Member Hinton understood that July was a high month for usage. She wondered if too much would be collected throughout the year if the \$3,175 referenced earlier was a monthly number rather than an annual number. She did not want to over-collect but felt it was important to address infrastructure needs. There needed to be clarity about the numbers presented. Mr. Jacobsen believed that it was monthly. Council Member Waite noted that certain months would be higher than others. During the winter months, the main increase would be the result of the base rate. The Council discussed the need to cover replacement costs. Council Member Waite believed the rates would encourage residents to make changes and reduce water use. There needs to be balance because removing too much turf could increase the heat index. It is important to conserve but still consider other factors. Mr. Mouritsen pointed out that the water rate would need to be revisited annually. Corrections could be made if there was not enough or too much collected.

Council Member Waite referenced the sheet that had been distributed to the Council. Tiers 4, 5, and 6, have higher rates. He wondered if Tier 4 was the cut-off where new construction needed to be under a certain amount. Mr. Mouritsen clarified that Tier 4 was between 24,000 to 30,000 gallons. There was discussion were had about surcharges from the water district. Council Member Waite explained that currently, there is a surcharge from the district if the use was over 36,000 gallons. He asked if this was a blend between what the water district recommended for current users versus new users. The current proposal is something he believed would result in turf removal

in the City. That might be fine, but if there was a desire to maintain turf, Tier 5 would need to have more of an increase than Tier 4. It was not difficult to reach Tier 4 on a large lot.

Mayor Rosenberg asked if there was data about those in Tier 4 and those in Tier 5. Council Member Waite noted that there was connection information on the handout. Mr. Mouritsen explained that the information is based on existing usage. Currently, there are still Tiers 7 and 8. That was rolled into Tier 6 to show a comparison of revenue that would be generated. The 640 connections listed were Tier 6, Tier 7, and Tier 8, rolled together.

Mayor Rosenberg thought it made sense to continue to encourage some form of landscape reduction. It would be nice to be able to wean off of the water district because that is the highest-priced water that the City bought on the wholesale side. The City could produce water at just under \$0.40, but when it was purchased from the water district, it was more than that. Conservation needs to be encouraged. If the community as a whole can conserve, the costs for the water will be less overall. He wanted people in the City to look into different ways to conserve water use. Mr. Mouritsen pointed out that there is a lot of leniency for people in the first three tiers. There are low water rates in the first three tiers, which he felt was an important way to encourage conservation. Council Member Mathis noted that 52% of users fell into the first three tiers.

There was discussion about the proposed rates and the differences between each one. Mayor Rosenberg pointed out that whenever a tweak is made, it impacts the revenue numbers. Those numbers need to be taken into consideration before an adjustment is made. Mayor Rosenberg stressed the importance of residents finding ways to reduce their water consumption. Council Member Waite agreed that there were different ways to reduce the amount used. It was a lot more in the control of residents than something like power use was. Council Member Waite referenced residents who had above-ground swimming pools. It could be filled during low water use months as a way to avoid adding 5,000 gallons or 10,000 gallons to a summer month. There were a lot of different solutions that could be considered by residents to reduce water use overall and during peak months. He felt it would be ideal to even out the jumps between some of the tiers.

It was suggested that the numbers be added to a spreadsheet so it would be possible to compare the different numbers between tiers. Council Member Waite believed the City was close to reaching something final. Mayor Rosenberg agreed but felt some additional tweaking needed to be done to the numbers. Additional discussions were had about the different tiers and the proposed rates. Council Member Waite pointed out that budgets are tight for a lot of residents. If it were possible to soften the blow for families who have tighter budgets but go into Tier 4 during the summer months, that would be beneficial. It was important to consider perceptions as well. Council Member Waite noted that one-fifth of the City is in the higher tiers. He wondered what the reasons for that might be. Mr. Mouritsen explained that a lot had to do with outdoor water use.

There was a significant jump from Tier 3 to Tier 4 and a smaller jump from Tier 4 to Tier 5. Council Member Waite was not certain that made the most sense. There was support to change that to \$2.35. Tier 5 could remain at \$3.00 and more could be added to Tier 6, making it \$4.30. It was possible to look into the numbers further and make some additional refinements. The Council discussed water rates in other communities. Council Member Mathis shared a minor correction for the tier levels. Minor adjustments needed to be made to the numbers. It was noted that the item

would not be voted on during the current meeting. Mr. Jacobsen explained that if the Council is comfortable with what had been proposed and discussed, there would be a public hearing on August 26, 2023. That will need to be noticed tomorrow in order to meet the noticing guidelines. Council Members were supportive of that path forward for the item.

iv. Discussion and Action to Consider Approval for a Customer Cellular Web Portal for Water and Power Usage. Presented by Dustin Mouritsen, Public Works Director.

Mr. Mouritsen reported that the above agenda item relates to consideration for a customer cellular web portal for water and power usage in the amount of \$28,000. \$13,500 would be a one-time set-up fee and \$14,500 would be an annual fee for the software itself. If there was a desire to continue to have the software, \$14,500 would need to be added to the budget annually. Mr. Mouritsen suggested putting something in the utility bill and adding information to the website so residents would be aware of the customer cellular web portal. In order for it to become popular and used by a lot of residents, there would need to be an educational component. Mayor Rosenberg thought it would be beneficial for Staff and Council to use the portal and receive feedback. From there, it would be possible to determine whether it was beneficial and user-friendly.

Council Member Hinton moved to TABLE Item #4, Considering Approval for a Customer Cellular Web Portal for Water and Power Usage. Council Member Mathis seconded the motion. Vote on Motion: Council Member Hinton-Aye; Council Member Mathis-Aye; Council Member Waite-Aye. The motion passed unanimously.

5. Reports.

A. Mayor/Council Reports.

Council Member Mathis reported that the first Youth City Council Meeting took place the previous Wednesday. She was able to meet all five of the young adults. All of the Council Members were excited. She could have them come to a City Council Meeting to introduce themselves.

Council Member Mathis stated that the Heritage Commission met last week. There were discussions about establishing design guidelines for commercial projects within the Historic District. There were approximately 10 residents who came to the meeting to listen. She noted that there would be another meeting in a week to continue that process. There were some design guidelines from a few other cities, such as Park City and Salt Lake, that would be examined. Mayor Rosenberg wondered if there was a desire to have those discussions before there was a meeting with the Planning Commission and City Council. Council Member Mathis explained that the next meeting would start the discussions. From there, a joint meeting could be held.

Planning and Economic Development Manager, Jim McNulty, reported that Heber City has guidelines that reference both "shall" and "should." It explained that "shall" was a requirement whereas "should" was considered to be a suggestion. Something similar could be done in the City. Council Member Waite noted that a resident had asked him about the current design guidelines, but he had never seen a digital version of those. There was no search function on the current City

website, so it made it difficult to find the information. Council Member Mathis believed that could be added. It would be easy enough to scan that document and share it with Council Members.

Council Member Hinton met about Swiss Days and the puzzle unveiling. There was a request that the Council and Mayor handle the artist and dancers that day. Additionally, there had been discussions about how the puzzles would be sold from a logistical perspective. The artist would stay to be in the Parade on Saturday. A determination needed to be made about the puzzle types being ordered. She wondered if the Council Members were interested in any 100-piece puzzles. It was noted that there was a preference for 500 and 1,000-piece puzzles.

Council Member Waite had nothing to report to the City Council.

Mayor Rosenberg reported that there was a design meeting on the Graveyard Wash. It did not look like it would be bid until the end of the year as some issues were still being worked out. A Water Group Meeting was scheduled for August 24, 2023. He believed the conservation standards were approved recently, so that was still moving forward. Mayor Rosenberg asked what needed to be discussed before the combined meeting takes place. It was noted that there would be discussions about House Bill ("H.B.") 392. There were a few Zoom calls with the Hurricane Fire District and the communities involved in the H.B. 392 effort with the County. There were some questions about the Legislation and an attempt was being made to provide answers. He noted that there were still some unknowns about how much flexibility members would have.

Mr. Mouritsen had a question about the Water Master Plan update. He wondered when the impact fee would be put into effect. He thought October 1 would be best. Council Members believed it made sense for it to be effective immediately. Mayor Rosenberg asked if there was a time period that needed to pass before the rate could be implemented. Mr. Jacobsen believed it was 90 days from the day of approval. As for the water rates, that date could be chosen. It was suggested that water rates be done based on the date of approval and that there be 90 days for the impact fees. Council Member Waite suggested making it clean and having it at the start of a billing cycle.

Mr. Jacobsen reported that Ms. Shelley received an email from someone with the County elections. It was requested that there not be a polling location in Santa Clara. All of the election workers are now employees of the County and they do not have the staff or equipment to have a polling location within the City. There was a desire to have everything done at the Dixie Center. He reiterated that it was suggested that the polling location in Santa Clara be given up. The justification was that it was a Federal election, and it would only be done for this year. However, he noted that there was a Federal election in two years as well. He was not supportive of the request but understood the rationale behind it. There was discussion about what was suggested and whether other cities were asked to do the same. Mr. Jacobsen stated that he would find out whether cities with polling locations had been approached with the request as well.

6. Executive Session.

There was no Executive Session.

7. **Adjournment.**

Council Member Waite moved to ADJOURN the City Council Meeting. Council Member Mathis seconded the motion. The motion passed with the unanimous consent of the Council.

The City Council Meeting adjourned at 6:26 p.m.

Chris Shelley
City Recorder

Approved: _____

**City of Santa Clara
Check Register
All Bank Accounts - 08/09/2023 to 08/09/2023**

Payee Name	Reference Number	Invoice Number	Invoice Ledger Date	Payment Date	Amount	Description	Ledger Account	Activity Code
BUCKS ACE SANTA CLARA	70560	2598	08/02/2023	08/09/2023	35.58	HAND TOOLS	535310-250 - OPERATING SUPPLIES	
BUCKS ACE SANTA CLARA	70560	2608	08/03/2023	08/09/2023	58.45	SPRINKLER REPAIR PARTS FOR VICTORS STRE	535310-250 - OPERATING SUPPLIES	
					\$94.03			
					\$94.03			
CHILD SUPPORT SERVICES	70561	080823-873789	08/08/2023	08/09/2023	206.77	CASEY-C000873789 PAY PERIOD 08/09/2023	102595-000 - GARNISMENTS PAYABL	
					\$206.77			
CITY OF ST GEORGE - UTILITIES	70562	080823-SC SNW	07/31/2023	08/09/2023	1,533.26	SANTA CLARA SNW CYN	515110-275 - SNOW CANYON OP CO	
CITY OF ST GEORGE - UTILITIES	70562	080823-SC WELL	07/31/2023	08/09/2023	6,466.32	SNOW CANYON WELL #6	515110-271 - WELLS UTILITY COSTS	
CITY OF ST GEORGE - UTILITIES	70562	080823-SC WELL	07/31/2023	08/09/2023	4,847.50	SNOW CANYON WELL #7	515110-271 - WELLS UTILITY COSTS	
CITY OF ST GEORGE - UTILITIES	70562	080823-WTR TA	07/31/2023	08/09/2023	32,690.91	WATER TANK AT THE MOUTH	515110-275 - SNOW CANYON OP CO	
					\$45,537.99			
					\$45,537.99			
DEERE CREDIT INC	70563	2802943	07/16/2023	08/09/2023	371.37	Bill Thru PropTax acct 030-0067583-000	104410-253 - VEH/EQUIP REPAIR	
					\$371.37			
HAM Productions, Inc.	70564	080823-RAPTAX	08/08/2023	08/09/2023	14,000.00	FY 23-24 RAP TAX AWARD	104652-416 - RAP TAX	
					\$14,000.00			
LIFEMED SAFETY, INC.	70565	23-560	08/05/2023	08/09/2023	807.50	TEMPUS PRO-MASIMO SET M -LNCS	104230-400 - EMERGENCY MEDICAL	
					\$807.50			
MOUNT OLYMPUS WATERS (1385	70566	10221385 072723	07/27/2023	08/09/2023	49.97	COOLER RENT & 5 GAL WATERS	104130-260 - BUILDING MAINTENAN	
MOUNT OLYMPUS WATERS (1385	70566	10221385 072723	07/27/2023	08/09/2023	72.95	COOLER RENT & 5 GAL WATERS	104410-260 - BUILDING MAINTENAN	
MOUNT OLYMPUS WATERS (1385	70566	10221385 072723	07/27/2023	08/09/2023	78.00	COOLER RENT & 5 GAL WATERS	104240-260 - BUILDING MAINTENAN	
MOUNT OLYMPUS WATERS (1385	70566	10221385 072723	07/27/2023	08/09/2023	194.61	COOLER RENT & 5 GAL WATERS	104230-775 - STATIONS OPERATION	
MOUNT OLYMPUS WATERS (1385	70566	10221385 072723	07/27/2023	08/09/2023	316.27	COOLER RENT & 5 GAL WATERS	104510-260 - BUILDING MAINTENAN	
					\$711.80			
					\$711.80			
PETRO WEST INC	70567	160147	08/07/2023	08/09/2023	602.56	PUMP LABOR - DIESEL REPAIR	104230-250 - VEHICLE OPERATIONS	
PETRO WEST INC	70567	160147	08/07/2023	08/09/2023	602.56	PUMP LABOR - DIESEL REPAIR	104510-251 - FUEL	
PETRO WEST INC	70567	160147	08/07/2023	08/09/2023	602.57	PUMP LABOR - DIESEL REPAIR	515110-251 - FUEL	
PETRO WEST INC	70567	160147	08/07/2023	08/09/2023	602.57	PUMP LABOR - DIESEL REPAIR	535310-251 - FUEL	
					\$2,410.26			
					\$2,410.26			
RANDY A. FREI CONSTRUCTION I	70568	807	07/28/2023	08/09/2023	3,585.20	TAPE & PLASTIC WALLS-MATERIALS LABOR-PO	104240-260 - BUILDING MAINTENAN	
					\$3,585.20			
ROBINSON, DALE	70569	080923-BAIL RE	08/09/2023	08/09/2023	146.66	BAIL REFUND FOR CASE#215200144	102560-000 - BAIL & RESTITUTION	
					\$146.66			
STRIVE WORKPLACE SOLUTIONS	70570	OE-47123-1	08/03/2023	08/09/2023	262.85	OFFICE TONERS	104130-240 - OFFICE SUPPLIES	
STRIVE WORKPLACE SOLUTIONS	70570	OE-47123-2	08/04/2023	08/09/2023	62.12	OFFICE TONER	104130-240 - OFFICE SUPPLIES	
					\$324.97			
					\$324.97			
SUSANNAH NILSSON	70572	080823-RAP TAX	08/08/2023	08/09/2023	1,000.00	FY 23-24 RAP TAX AWARD	104652-416 - RAP TAX	
					\$1,000.00			

**City of Santa Clara
Check Register
All Bank Accounts - 08/09/2023 to 08/09/2023**

<u>Payee Name</u>	<u>Reference Number</u>	<u>Invoice Number</u>	<u>Invoice Ledger Date</u>	<u>Payment Date</u>	<u>Amount</u>	<u>Description</u>	<u>Ledger Account</u>	<u>Activity Code</u>
THOMAS CREATIVE APPAREL INC	70573	160351	08/03/2023	08/09/2023	392.85	JUDICIAL ROBE	104120-370 - PROFESSIONAL SERVI	
					\$392.85			
WESTERN UNITED ELECTRIC SU	70574	6093262	08/01/2023	08/09/2023	5,015.85	POLE TOP TRANSFORMERS	535310-466 - POWER LINES/POLES/	
WESTERN UNITED ELECTRIC SU	70574	6093263	08/01/2023	08/09/2023	162.25	#2 COPPER	535310-466 - POWER LINES/POLES/	
					\$5,178.10			
					\$5,178.10			
WILKINSON SUPPLY	70575	427172	08/04/2023	08/09/2023	35,247.00	CAPITAL EQUIPMENT	104510-740 - CAPITAL EQUIPMENT	
					\$35,247.00			
					\$110,014.50			

**City of Santa Clara
Check Register
All Bank Accounts - 08/17/2023 to 08/17/2023**

Payee Name	Reference Number	Invoice Number	Invoice Ledger Date	Payment Date	Amount	Description	Ledger Account	Activity Code
BUCKS ACE SANTA CLARA	70576	2662	08/09/2023	08/17/2023	43.22	SHOP SUPPLIES	535310-260 - BUILDING MAINTENAN	
BUCKS ACE SANTA CLARA	70576	2683	08/14/2023	08/17/2023	62.25	TRAP GOPHER VICTOR	104510-260 - BUILDING MAINTENAN	
					\$105.47			
					\$105.47			
BUSINESS SOLUTIONS GROUP LL	70577	16370	08/14/2023	08/17/2023	176.00	CITY THANK YOU CARDS	104130-240 - OFFICE SUPPLIES	
					\$176.00			
COLORLAND SALES & SERVICE, I	70578	163833	08/15/2023	08/17/2023	22,857.00	MOWER- DUMP INSTALL-BUSHEL COMFORT SE	104510-740 - CAPITAL EQUIPMENT	
					\$22,857.00			
EXPRESS LUBE	70579	72594	07/17/2023	08/17/2023	84.14	PARKS-2022 CHEV.SILVERADO 3500 HD OIL CHA	104510-253 - VEH/EQUIP REPAIR	
EXPRESS LUBE	70579	73003	07/31/2023	08/17/2023	47.69	PW- 2019 FORD F-150 OIL CHANGE	104410-253 - VEH/EQUIP REPAIR	
					\$131.83			
					\$131.83			
GOOD, DEBBIE	70580	081623-PARK RE	08/16/2023	08/17/2023	25.00	PARK DEPOSIT REFUND B ROCK & CANYONVIE	103474-000 - B ROCK & CANYONVIE	
					\$25.00			
PRESTON'S OFFICE SOLUTIONS	70581	116169	08/10/2023	08/17/2023	700.00	2 VERSALINK B400 B/W PRINTER	104130-240 - OFFICE SUPPLIES	
					\$700.00			
SCHONLE, DETTE	70582	081523-LOT REP	08/14/2023	08/17/2023	285.00	LOT 2500 CITY REPURCHASE	103481-000 - SALE OF CEMETERY B	
SCHONLE, DETTE	70582	081523-LOT REP	08/14/2023	08/17/2023	285.00	LOT 2500 CITY REPURCHASE	103482-000 - PERPETUAL CARE	
					\$570.00			
					\$570.00			
STAR SIGN & BANNER INC	70583	152699	08/11/2023	08/17/2023	500.83	SWISS DAYS 5K AWARDS - 2023	104610-008 - ADVERTISING/MARKET	
					\$500.83			
STUTZ, EMLYN	70584	081523-PAGEAN	08/15/2023	08/17/2023	35.86	MISS SANTA CLARA ATTENDANT JUMPSUIT	104610-023 - MISS SANTA CLARA PA	
STUTZ, EMLYN	70584	081523-PAGEAN	08/15/2023	08/17/2023	45.00	MISS SANTA CLARA ATTENDANT GOWN HEMMI	104610-023 - MISS SANTA CLARA PA	
STUTZ, EMLYN	70584	081523-PAGEAN	08/15/2023	08/17/2023	65.47	MISS SANTA CLARA ATTENDANT GOWN	104610-023 - MISS SANTA CLARA PA	
					\$146.33			
					\$146.33			
SUNRISE ENGINEERING, INC.	70585	0135909	08/15/2023	08/17/2023	300.00	SANTA CLARA CITY-MISC.ENGINEERING ON-CA	515110-320 - ENGINEERING SERVIC	
SUNRISE ENGINEERING, INC.	70585	0135909	08/15/2023	08/17/2023	862.00	SANTA CLARA CITY-MISC.ENGINEERING ON-CA	104410-320 - ENGINEERING SERVIC	
SUNRISE ENGINEERING, INC.	70585	0135914	08/04/2023	08/17/2023	321.75	SANTA CLARA CULINARY & IRRIGATION MASTE	515110-320 - ENGINEERING SERVIC	
					\$1,483.75			
					\$1,483.75			
TLH HARDWOODS LLC	70586	1118	08/16/2023	08/17/2023	550.00	INSTALL BASE BOARD	104240-260 - BUILDING MAINTENAN	
					\$550.00			
WASHINGTON COUNTY SOLID WA	70587	148896	07/31/2023	08/17/2023	12,637.80	2920 UNITS-GARBAGE @ 12.83 & 2124 BLUCAN	103445-000 - RECYCLING CHARGE	
WASHINGTON COUNTY SOLID WA	70587	148896	07/31/2023	08/17/2023	37,463.60	2920 UNITS-GARBAGE @ 12.83 & 2124 BLUCAN	104130-311 - SOLID WASTE DISPOS	
					\$50,101.40			
					\$50,101.40			
WESTERN UNITED ELECTRIC SU	70588	6093981	08/10/2023	08/17/2023	636.19	PAD MOUNT TRANSFORMER BARS	535310-466 - POWER LINES/POLES/	
					\$636.19			

City of Santa Clara
Check Register
All Bank Accounts - 08/17/2023 to 08/17/2023

<u>Payee Name</u>	<u>Reference Number</u>	<u>Invoice Number</u>	<u>Invoice Ledger Date</u>	<u>Payment Date</u>	<u>Amount</u>	<u>Description</u>	<u>Ledger Account</u>	<u>Activity Code</u>
WHITAKER CONSTRUCTION CO.	70589	34985	07/01/2023	08/17/2023	114,443.01	VINEYARD DR. RECONSTRUCTION	104410-730 - IMPROVEMENTS	
					<u>\$114,443.01</u>			
					<u>\$192,426.81</u>			

Mayor

Rick Rosenberg

City Manager

Brock Jacobsen



City Council

Denny Drake

Leina Mathis

Ben Shakespeare

Jarett Waite

Christa Hinton

CITY COUNCIL

Meeting Date: 23/Aug/23

Agenda Item: 1

Applicant: N/A

Requested by: Dustin Mouritsen

Subject: Water Master Plan Update

Description:

Consider approval of the 2023 Culinary and Secondary Water Master Plan update with water rate and impact fee.

Recommendation: Approval

Attachments: N/A

Cost: 0

Legal Approval: Yes

Finance Approval: Yes

Budget Approval: N/A

2603 Santa Clara Drive, Santa Clara, Utah 84765

Phone (435) 673-6712 Fax (435) 628-7338



SANTA CLARA CITY, UTAH

Water System Impact Fee Facilities Plan & Impact Fee Analysis

August 2023

PREPARED BY:

SUNRISE ENGINEERING, INC.

11 North 300 West
Washington, UT 84780
TEL: 435-652-8450



Water System Impact Fee Facilities Plan & Impact Fee Analysis

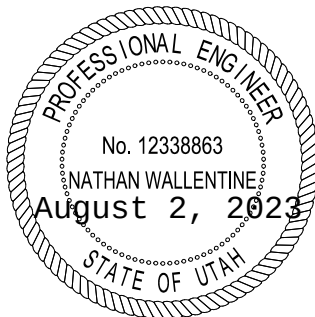
May 2023

INCLUDES:

**FIVE POINT SYSTEM ANALYSIS
RECOMMENDED SYSTEM IMPROVEMENTS
SYSTEM FINANCING PLAN
IMPACT FEE FACILITIES PLAN
IMPACT FEE ANALYSIS**

MAYOR----- Rick Rosenberg
COUNCIL MEMBER----- Jarett Waite
COUNCIL MEMBER----- Christa Hinton
COUNCIL MEMBER----- Ben Shakespeare
COUNCIL MEMBER----- Leina Mathis
COUNCIL MEMBER----- Denny Drake
CITY MANAGER----- Brock Jacobsen
PUBLIC WORKS DIRECTOR----- Dustin Mouritsen
RECORDER----- Chris Shelley

PREPARED BY:



Nathan Wallentine, P.E.
Project Engineer
State of Utah #12338863



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APPENDIX B - INFOWATER® ANALYSIS

APPENDIX C - WATER RIGHTS INVENTORY

APPENDIX D - OPINION OF PROBABLE COST

APPENDIX E - PROJECTED CASH FLOW

APPENDIX F - IMPACT FEE CERTIFICATION

I. INTRODUCTION

A. PREFACE

The City of Santa Clara (the city) has entered into an agreement with Sunrise Engineering, Inc. to prepare this Culinary and Irrigation Water Master Plan. The plan will provide council members with the information they need to make important decisions relating to water infrastructure as the city continues to grow and develop over the next 20 years. This plan will provide information regarding the existing culinary and irrigation water infrastructure, analyze these facilities for adequacy, and make recommendations in order to meet projected demands.

B. INTRODUCTION

This Water Master Plan has been prepared for Santa Clara City, located west of St. George in Washington County, Utah along Old Highway 91. An area map showing the location of the city has been included as Figure I.B-1.

Santa Clara City has experienced significant growth over the past 30 years. At times, this growth has been somewhat rapid and has required improvements and upgrades to much of the city's public infrastructure to meet the increased demands. The growth slowed in the 2008 recession and has since grown significantly. We are currently seeing a slight slowdown in growth, though it is projected that growth rates will level out over the next several years. This plan is intended to help the city evaluate their ability to meet the increasing demands placed on the system by development, and to identify and correct existing deficiencies in the water system.

The water system has been analyzed according to the Utah Division of Drinking Water regulations and includes a 5-point review of the system consisting of water rights, water source capacity, water storage capacity, water treatment, and water distribution.

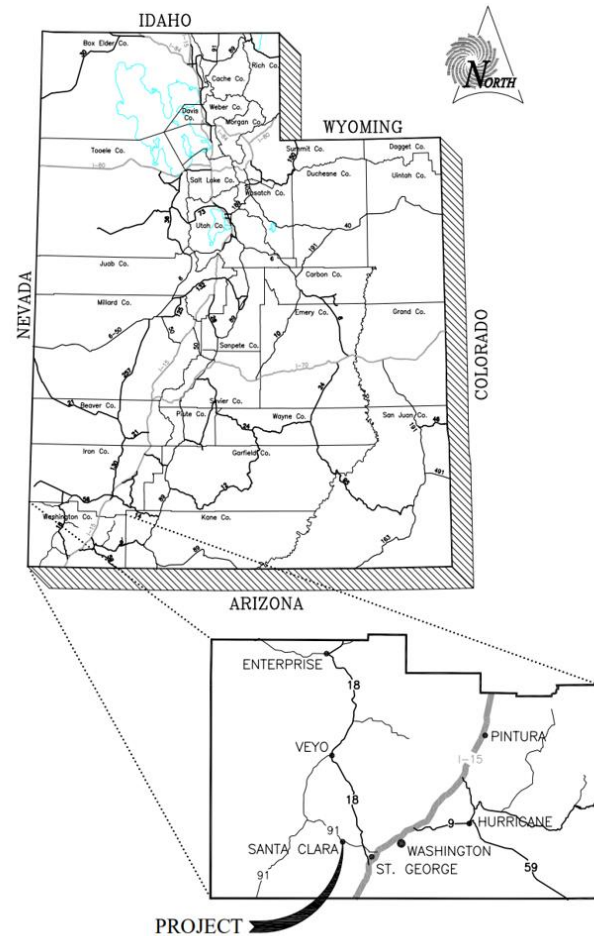


Figure I.B-1: Area Map

As part of the plan, Sunrise Engineering has recommended several improvements to the culinary water system and has developed a sample financing plan as a possible means to fund the recommended improvements.

The existing water rates and impact fees have also been analyzed as a possible means of supporting the recommended system improvements. The recommended water rates and impact fees are fair and reasonable and will allow the city to continue to maintain the level of service that is required of a public water system for the present time and over the planning period.

II. SYSTEM USERS ANALYSIS

A. PROJECTED GROWTH RATE

An important element in the development of a Water Master Plan is the projection of the population growth rate. This projection gives the planner an idea of the future demands on the system throughout the planning period.

Projecting future growth can be subjective but should be grounded in historical trends and current information as much as possible. Table II.A-1 below shows the city's historic growth rates based on official Census data from 1970 to 2010, and the latest population data the city had on record for 2020.

Table II.A-1: Historic Growth

Year	Source	Population	Growth Rate		ERUs
1970	Census	271	-	-	-
1980	Census	1,091	1970-1980	14.9%	-
1990	Census	2,311	1980-1990	7.8%	-
2000	Census	4,630	1990-2000	7.2%	-
2010	Census	6,003	2000-2010	2.6%	-
2020	City	8,685	2010-2020	3.8%	2713
2021	Estimate	9,206	2020-2021	6.0%	3424
2022	Estimate	9,758	2021-2022	6.0%	3629
2023	Estimate	10,149	2022-2023	4.0%	3775

The City of Santa Clara has grown significantly since 1970. During the 1970's it grew at almost 15% per year. During the 1980's and 1990's the city grew at over 7% per year. Despite this rapid population growth, there has been very little commercial development in Santa Clara. The city is primarily a residential community supporting the St. George area. Because it is bounded by lava flows, flood plains, environmentally sensitive areas, and other municipalities, it is not expected to grow as fast as it historically has.

As shown in Table II.A-1 above, the 2020 population was provided by Santa Clara City. This indicated a growth rate of 3.8% since 2010. Sunrise Engineering, Inc. projected the current 2023 population as 10,149 assuming a 6.0% average annual growth rate since 2020 based on the high growth rate recently experienced in the community and a 4.0% growth rate beginning this year.

Recent housing market trends in Southern Utah indicate that Santa Clara is only expected to grow rapidly for a short period. After which, growth will continue at a steady rate. The recent 2020 Santa Clara Public Safety IFFP used a growth rate of 4.0% and to remain consistent, the city chose to use the same growth rate projection for this report, with a slight adjustment to 2021-2022 being at 6.0%. A growth rate of 4.0% is projected through the end of the planning period after 2022. The future growth can be projected using the following compound interest formula:

SECTION II - SYSTEM USERS ANALYSIS

$$F = P(1+i)^N$$

F = Future Population

P = Present Population

i = Projected Growth Rate

N = Years

Table II.A-2 shown below gives the projected population and number of equivalent residential units (ERUs) throughout the 20-year and 40-year planning periods.

Table II.A-2: Projected Growth

Year	Source	Population	Growth Rate		ERUs
1970	Census	271	-	-	-
1980	Census	1,091	1970-1980	14.9%	-
1990	Census	2,311	1980-1990	7.8%	-
2000	Census	4,630	1990-2000	7.2%	-
2010	Census	6,003	2000-2010	2.6%	-
2020	City	8,685	2010-2020	3.8%	2713
2021	Estimate	9,206	2020-2021	6.0%	3424
2022	Estimate	9,758	2021-2022	6.0%	3629
2023	Estimate	10,149	2022-2023	4.0%	3775
2024	Estimate	10,555		4.0%	3926
2025	Estimate	10,977		4.0%	4083
2026	Estimate	11,416		4.0%	4246
2027	Estimate	11,873		4.0%	4416
2028	Estimate	12,348		4.0%	4592
2029	Estimate	12,841		4.0%	4776
2030	Estimate	13,355		4.0%	4967
2031	Estimate	13,889		4.0%	5166
2032	Estimate	14,445		4.0%	5372
2033	Estimate	15,023		4.0%	5587
2034	Estimate	15,624		4.0%	5811
2035	Estimate	16,249		4.0%	6043
2036	Estimate	16,899		4.0%	6285
2037	Estimate	17,574		4.0%	6536
2038	Estimate	18,277		4.0%	6798
2039	Estimate	19,009		4.0%	7070
2040	Estimate	19,769		4.0%	7353
2041	Estimate	20,560		4.0%	7647
2042	Estimate	21,382		4.0%	7953
2043	Estimate	22,237		4.0%	8271
2044	Estimate	23,127		4.0%	8601
2045	Estimate	24,052		4.0%	8946
2046	Estimate	25,014		4.0%	9303
2047	Estimate	26,014		4.0%	9675
2048	Estimate	27,055		4.0%	10063
2049	Estimate	28,137		4.0%	10465
2050	Estimate	29,263		4.0%	10884
2051	Estimate	30,433		4.0%	11319
2052	Estimate	31,651		4.0%	11772
2053	Estimate	32,917		4.0%	12243
2054	Estimate	34,233		4.0%	12732
2055	Estimate	35,603		4.0%	13242
2056	Estimate	37,027		4.0%	13771
2057	Estimate	38,508		4.0%	14322
2058	Estimate	40,048		4.0%	14895
2059	Estimate	41,650		4.0%	15491
2060	Estimate	43,316		4.0%	16110
2061	Estimate	45,049		4.0%	16755
2062	Estimate	46,851		4.0%	17425
2063	Estimate	48,725		4.0%	18122

Because the City of Santa Clara will eventually develop all its available land, build-out projections have also been considered in this study.

To determine build-out projections, several samples of existing densities were taken from established areas of the city. These samples were then utilized to estimate densities for other zoning types in the community that have not yet been developed. Table II.A-3 below indicates the densities assumed for each zoning type. The zones marked by an asterisk (*) represent the zoning types for which a sample was taken.

Table II.A-3: Zoning Types and Densities

Zone	Description	Density (DU/Acre)
R-1-10	*Single Family Residential	4.4
PDR	*Planned Development (Residential)	4.0
R-A	*Residential Agricultural	0.7
OS	Open Space	4.5
PDC	Planned Development (Commercial)	0
HDMU	Historic District/Mixed Use	0
R-1-6	*Single Family Residential (6,000 sf lots)	5.6
R-1-10/ML	*Single Family Residential (Mixed Lot)	4.0
COM	Commercial	0

These densities were utilized in conjunction with a current zoning map provided by Santa Clara City. Total areas of each zoning type left to develop were determined and multiplied by the densities to calculate a projected number of dwelling units (DUs) left to develop. The city also provided projected townhome development in areas not zoned for multi-family and these numbers were incorporated. Adding these values to the existing number of DUs resulted in 7,505 total projected DUs at build-out. Multiplying this number by 3.26 people per unit according to the 2020 Census figure, provides a total build-out population projection of 24,466 residents. An exhibit highlighting these zoning calculations can be found in Appendix A.

It is important to understand that projected growth rates are not the cornerstone of this plan. If the projected population is reached earlier or later than anticipated, then future improvements to support growth may either come earlier or later. Impact Fees should not be significantly affected if the actual rate of growth varies from the rate used in the plan.

B. LENGTH OF PLANNING PERIOD

This Water Master Plan uses a 20-year planning period beginning in the year 2023 and running through year 2043. Water rights will be evaluated until the anticipated year of build-out. These planning periods are consistent with standard practice and will allow an adequate evaluation of the system for potential infrastructure improvements or other needs. It is assumed build-out will occur approximately at 8,557 ERU's, which at the assumed 4.0% growth rate would occur between 2043-2044.

C. EXISTING WATER CONNECTIONS

Culinary Connections

As of 2021, the city had 3,424 Equivalent Residential Units (ERUs). An ERU value allows the comparison of water use between a residential connection and any other type of connection. For instance, if a business connection has an ERU of 2.5, then it uses 2.5 times the water of an average residential connection. The city is servicing connections separated into residential, commercial, and “other” units and it is assumed that one residential unit is equal to one ERU. Table II.C-1 shows the anticipated number of ERUs at different points of the planning horizon.

Table II.C-1: Culinary Water Connections

Year	Type of ERU			
	Residential	Commercial	Other	Total
Present (2023)	3311	227	237	3,775
10-Year (2033)	4900	336	351	5,587
20-Year (2043)	7254	498	519	8,271
Build-out (~2044)	7505	515	537	8,557

It should be noted that the “other” ERUs account for churches, schools, and city owned and operated facilities.

It should also be noted that while townhome connections are included in the residential connections total, they use approximately one-third the amount of water of a typical residential home. According to Santa Clara City estimates, townhomes will also account for approximately one-third of future residential development.

Irrigation Connections

The City also has an irrigation water system that is used for city owned properties such as the parks, cemeteries, and the town hall. The Rhone Subdivision near the river comprising of Vernon Street and Old Farm Road is also metered for residential use. All other areas of the city that have access to the irrigation system are operated by the Santa Clara Field Canal Company. The system does not feed the entire city, so all other connections use the culinary water system for outdoor use.

The Canal Company provided a sample of 10 residential meter readings from 2021 comprising of some 0.25 acre lots and some 0.5 acre lots. The total number of Canal Company connections was obtained using provided record drawings and it was assumed all these connections were in service. The average usage from this sample was determined to be equal to 1 ERU. With this information the number of ERUs owned and metered by the city was identified. There are currently seven “Other” connections which consist of parks and government properties and 10 residential connections in the Rhone subdivision. The average 2021 usage in the Rhone subdivision was found to be less than the average Canal Company usage. To be conservative the Canal Company

SECTION II - SYSTEM USERS ANALYSIS

usage was used as the basis for 1 ERU. Table II.C-2 shows the anticipated number of ERUs at different points of the planning horizon.

Table II.C-2: Irrigation Water Connections

Year	ERU's				
	Residential (Metered by Canal Co.)	Residential (Metered by City)	Other (Metered by City)	Total (Metered by City)	Total
Present (2023)	643	4	123	127	770
10-Year (2033) Projects 1-5, Solace	643	348	175	523	1166
20- Year (2043) Black Desert, 4.0% growth rate	643	2043	260	2303	2946

D. HISTORICAL WATER USAGE

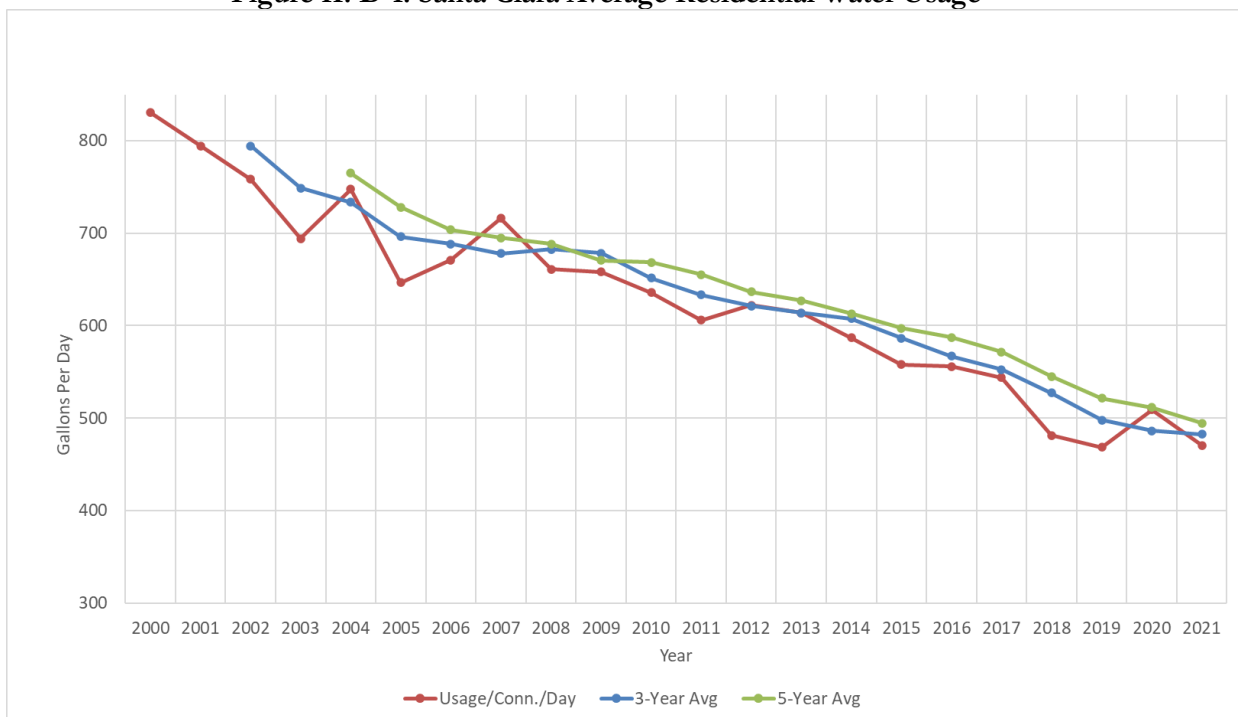
Culinary Usage

Culinary water usage data was also provided by the city for analysis. We were given total yearly water meter usage data from 2000 to 2021. The data has been tabulated and analyzed to determine usage trends for the city including the average usage per connection for the past 10, 5, and 3, years. The results of this analysis have been summarized in Table II.D-1 and Figure II.D-1.

Table II D-1: Average Culinary Water Usage

Residential	10 year Average	5 year Average	3 year Average
Usage (gallons)	475,287,750	500,683,800	510,887,333
Connections	2,386	2,781	2,900
Usage Per Connection (gal/year)	202,346	180,564	176,178
Daily Usage Per Connection (gal/day)	554	495	483
Commercial			
Usage (gallons)	14,430,000	22,314,800	27,273,667
Connections	54	36	39
Usage Per Connection (gal/year)	363,175	603,006	690,236
Daily Usage Per Connection (gal/day)	995	1,652	1,891
Equivalent Residential Unit	1.93	3.36	4.00
Non-Residential ERUs	76	125	155
Other			
Usage (gallons)	47,457,250	43,359,000	42,548,667
Connections	38	46	48
Usage Per Connection (gal/year)	1,573,890	940,419	897,140
Daily Usage Per Connection (gal/day)	4,312	2,576	2,458
Equivalent Residential Unit	7.54	5.21	5.00
Non-Residential ERUs	235	241	243
Total ERUs	2,696	3,147	3,297

Figure II. D-1: Santa Clara Average Residential Water Usage



The usage numbers presented above represent all uses of the culinary system, including outdoor usage for those who do not have irrigation access.

Typical trends in the area show that water usage per ERU has been trending down due to conservation efforts from individuals and usage rate structures promoting conservation. It has been found that Santa Clara usage has been trending down at a rate of approximately 2.5% each year on average.

The 3-year average of **483 gallons per ERU per day** from 2019-2021 shown in Table II.D-1 above will be used in this analysis for the estimated 2023 usage. Following this conservative estimate, future usage will decrease each year by the historic -2.5% trend for the next five years followed by a 0.5% reduction every five years following (resulting in 2.0% in 2027, 1.5% in 2032, etc.).

Water usage also varies significantly throughout the year. During winter months, water usage typically goes down as outside watering becomes unnecessary. Peak water usage generally corresponds to summer months when outdoor watering is at its peak. To remain consistent with common practice, the peak demand for this report will use a peaking factor of 2.0 to result in a peak day demand of **966 gallons per day** for 2023.

Irrigation Usage

Irrigation water usage was provided by the city for the city metered residential and City Owned (Other) connections for the year 2021. The Canal Company provided meter data for 10 of their connections, which ended up being higher than the 10 residential city metered connections by approximately 2.6 times. Because of this it was assumed each future residential connection will have the same average usage as the existing canal company metered residential connections rather than the existing city metered connections. The data has been analyzed to determine usage trends for the city including the average usage per connection. The results of this analysis have been summarized in Table II.D-2.

Table II D-2: Irrigation Water Usage

Canal Company Residential (Based on Sample)	2,021
Usage (gallons)	222,705,751
Connections	643
Usage Per Connection (gal/year)	346,354
Daily Usage Per Connection (gal/day)	949
City Owned Residential	
Usage (gallons)	1,312,000
Connections	10
Usage Per Connection (gal/year)	131,200
Daily Usage Per Connection (gal/day)	359
Equivalent Residential Unit	0.38
ERUs	4
City Owned "Other"	
Usage (gallons)	42,542,000
Connections	7
Usage Per Connection (gal/year)	6,077,429
Daily Usage Per Connection (gal/day)	16,650
Equivalent Residential Unit	17.55
Non-Residential ERUs	123
Total Irrigation ERUs (City Owned/Metered)	127
Total Irrigation ERUs	770

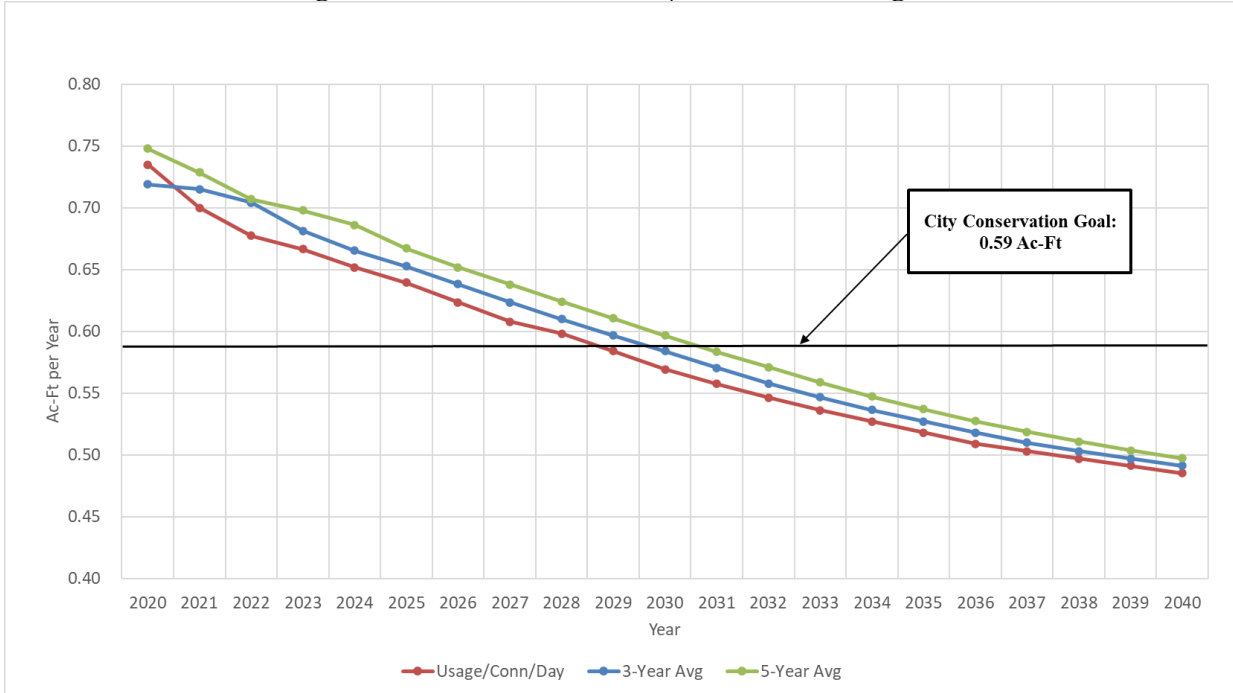
The average usage per residential connection is calculated to be **949 gallons per day**. This value is an average based on the number of active connections metered by the canal company in 2021. Future usage is assumed to follow the same negative trend of 2.5% as the culinary system.

Water usage also varies significantly throughout the year. During winter months, water usage typically goes down as outside watering becomes unnecessary. Peak water usage generally corresponds to summer months when outdoor watering is at its peak. To remain consistent with common practice, the peak demand for this report will use a peaking factor of 2.0 to result in a peak day demand of **1,898 gallons per day** for current irrigation water ERUs.

Combined Usage

The city has a goal to conserve usage to 0.59 ac-ft per connection per year for all culinary and irrigation usage. The 3-year average shows the current total usage to be 0.71 ac-ft per connection per year. With the population growth projection of 4.0% and the usage decrease of 2.5% for the next five years followed by a 0.5% reduction every five years following (resulting in a 2.0% in 2027, 1.5% in 2032, etc.), it is estimated the city goal should be reached by 2030. This is shown in Figure II.D-2 below.

Figure II. D-2: Santa Clara Projected Future Usage



The usage numbers presented above represent all uses of the culinary and irrigation systems, indoor and outdoor.

III. WATER RIGHTS ANALYSIS

A. EXISTING WATER RIGHT

The existing Santa Clara City water rights are identified in Table III.A-1 below. The water rights are listed according to number, source, and flow and separated between Culinary and irrigation sources. Santa Clara currently has an agreement with St. George City in regard to the Springs as a source. St. George has access to the springs for irrigation use, and in return Santa Clara receives a credit to access St. George culinary rights equal to the amount St. George uses in irrigation from the springs. St. George pulls from WR #81-742 and so the flow is not included in the total for this analysis.

Table III.A-1: Santa Clara Water Rights

Culinary Water Rights		Flow		
W.R. #	Source	gpm	cfs	AcFt.
81-782	Snow Canyon Compact	224.4	0.50	362.0
81-973	Snow Canyon Compact	439.8	0.98	709.5
81-893	Snow Canyon Wells # 6 & 7	897.6	2.00	1447.9
81-4123	Snow Canyon Wells # 6 & 7	1.7	0.00	2.7
81-4225	Snow Canyon Wells # 6 & 7	12.4	0.03	20.0
81-4226	Snow Canyon Wells # 6 & 7	5.2	0.01	8.4
	WCWCD Regional Supply Agreement			
Sub Total		1,581.2	3.5	2,550.6
81-149	Sheep Spring (Not in Use)	8.1	0.02	13.0
81-741	Miller, Beecham & Gray Springs (Not in Use)	54.7	0.12	88.3
81-742	Miller, Beecham & Gray Springs (St. George Agreement: Not Included in Total)	25.1	0.06	40.5
81-1061	Miller Springs (Not in Use)	4.9	0.01	8.0
Sub Total		67.7	0.2	109.3
Total Culinary		1581.2	3.52	2659.8
Secondary Water Rights		Flow		
W.R. #	Source	gpm	cfs	AcFt.
81-1496	J. Ross Hurst Entrada Well (Irrigation)	16.3	0.04	26.2
81-4189	Rex Jackson Sunbrook Well (Irrigation)	58.9	0.13	95.0
81-497	Crystal Lakes Sunbrook Well (Irrigation)	74.4	0.17	120.0
81-475	Ralph Hafen Well (Irrigation)	4.7	0.01	7.6
81-4184	McDermitt Well	93.0	0.21	150.0
Sub Total		247.2	0.6	398.8
	Irrigation Company 24 Shares (McDermitt)	0.0	0.00	96.0
	Irrigation Company 25.25 Shares (Santa Clara)	0.0	0.00	101.0
Sub Total		0.0	0.0	197.0
Total Secondary		247.2	0.6	595.8

The city currently participates in the Washington County Water Conservancy District (WCWCD) Regional Water Supply Agreement (RWSA) as a solution for additional culinary water sources. The city also has an agreement with the Santa Clara Field Canal Company as a solution for

additional irrigation water sources. Both agreements provide the mechanism for water to be supplied if there is not enough water right or source necessary for growth.

B. EXISTING REQUIRED CULINARY WATER RIGHT

The State of Utah Public Administrative Rules for Public Drinking Water Systems, R309-510, states that a community should have adequate water right to supply each culinary ERU with 400 gallons per day for indoor water use, plus an amount for outdoor use as dictated by irrigated acreage and a consumptive use value obtained from the State guidelines. If adequate data exists, the provider is allowed to substitute historical usage data instead. The city historical average usage of 483 gallons per day per ERU will be used in this plan.

By multiplying the average water usage per ERU in the City by the number of existing ERUs, the current required amount of water rights can be determined as shown in Table III.B-1.

Table III.B-1: Current Required Water Right

Average Demand (Total Use)			
3,775 ERU's X	$\frac{483 \text{ gpd X hr}}{\text{ERU min.}}$	=	1,266 gpm
3,775 ERU's X	$\frac{483 \text{ gpd X Acft.}}{\text{ERU gal}}$	=	2,042 Acft
Total Required Water Right		2,042 Acft	1,266 gpm
Existing Culinary System Water Right Surplus		618 Acft	315 gpm

The existing water right surplus or deficit is determined by subtracting the current required water right demand of 2,042 ac-ft from the total available water right of 2,660 ac-ft, which yields a surplus of 618 ac-ft. The district currently has access to enough water rights to supply all of its existing culinary ERUs.

C. PROJECTED REQUIRED CULINARY WATER RIGHT

The projected amount of required water rights at the end of the 10-year planning period and at build-out can also be calculated by substituting the projected number of ERUs into the calculation for the current number of ERUs as shown in Table III.C-1 and Table III.C-2.

Table III.C-1: Projected 10-Year Required Water Right

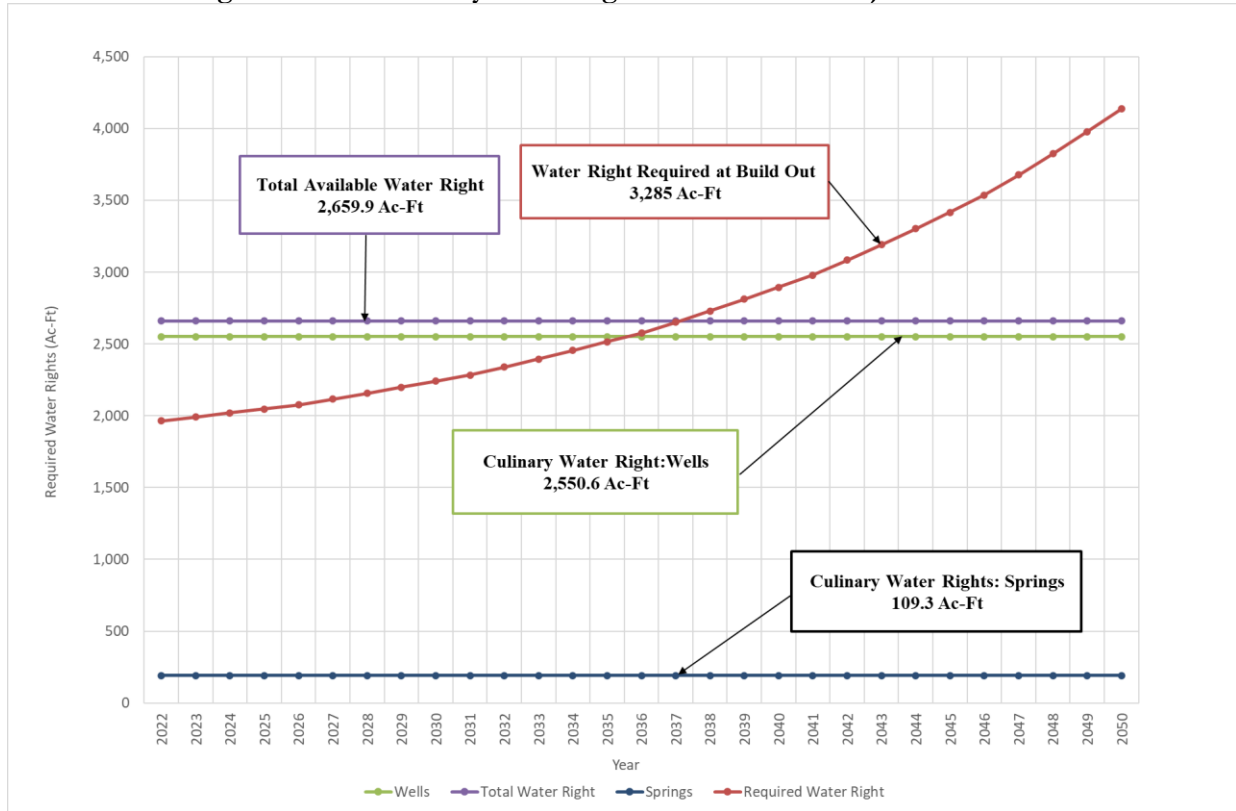
Average Demand (Total Use)				
5,587 ERU's X	$\frac{383 \text{ gpd X hr}}{\text{ERU min.}}$	=	1,485	gpm
5,587 ERU's X	$\frac{383 \text{ gpd X Acft.}}{\text{ERU gal}}$	=	2,396	Acft
Total Required Water Right			2,396	Acft 1,485 gpm
Existing Culinary System Water Right Surplus			264	Acft 96 gpm

Table III.C-2: Projected Build-Out Year Required Water Right

Average Demand (Total Use)				
8,557 ERU's X	$\frac{343 \text{ gpd X hr}}{\text{ERU min.}}$	=	2,036	gpm
8,557 ERU's X	$\frac{343 \text{ gpd X Acft.}}{\text{ERU gal}}$	=	3,285	Acft
Total Required Water Right			3,285	Acft 2,036 gpm
Existing Culinary System Water Right Deficit			(734)	Acft (455) gpm

The projected water right surplus or deficit is determined by subtracting the projected required water right from the total available water right. The 10-year projection results in a surplus of 264 ac-ft, and the build-out projection results in a deficit of 734 ac-ft. Figure III.C-1 shows the projected culinary water right demands vs. the City's existing available water right resources throughout the planning period.

Figure III.C-1: Culinary Water Right Resources vs. Projected Demand



D. EXISTING REQUIRED IRRIGATION WATER RIGHTS

Most of the irrigation system in Santa Clara is owned and operated by the Canal Company. Because of this, the city water rights will only need to service the connections owned by the city. By multiplying the average water usage per ERU in the City by the number of existing ERUs, the current required amount of water rights can be determined as shown in Table III.D-1.

Table III.D-1: Current Required Water Right

Average Demand (Total Use)				
127 ERU's X	$\frac{949 \text{ gpd} \times \text{hr}}{\text{ERU min.}}$	=	83 gpm	
127 ERU's X	$\frac{949 \text{ gpd} \times \text{Acft.}}{\text{ERU gal}}$	=	135 Acft	
Total Required Water Right			135 Acft	83 gpm
Existing Culinary System Water Right Surplus			461 Acft	164 gpm

The existing water right surplus or deficit is determined by subtracting the current required water right demand of 135 ac-ft from the total available water right of 596 ac-ft, which yields a surplus

of 461 ac-ft. The district currently has access to enough water rights to supply all of its existing ERUs.

E. PROJECTED REQUIRED IRRIGATION WATER RIGHTS

The projected amount of required water rights at the end of the 10-year planning period and at the end of the 20-year planning period can also be calculated by substituting the projected number of ERUs into the calculation for the current number of ERUs as shown in Table III.E-1 and Table III.E-2.

Table III.E-1: Projected 10-Year Required Water Right

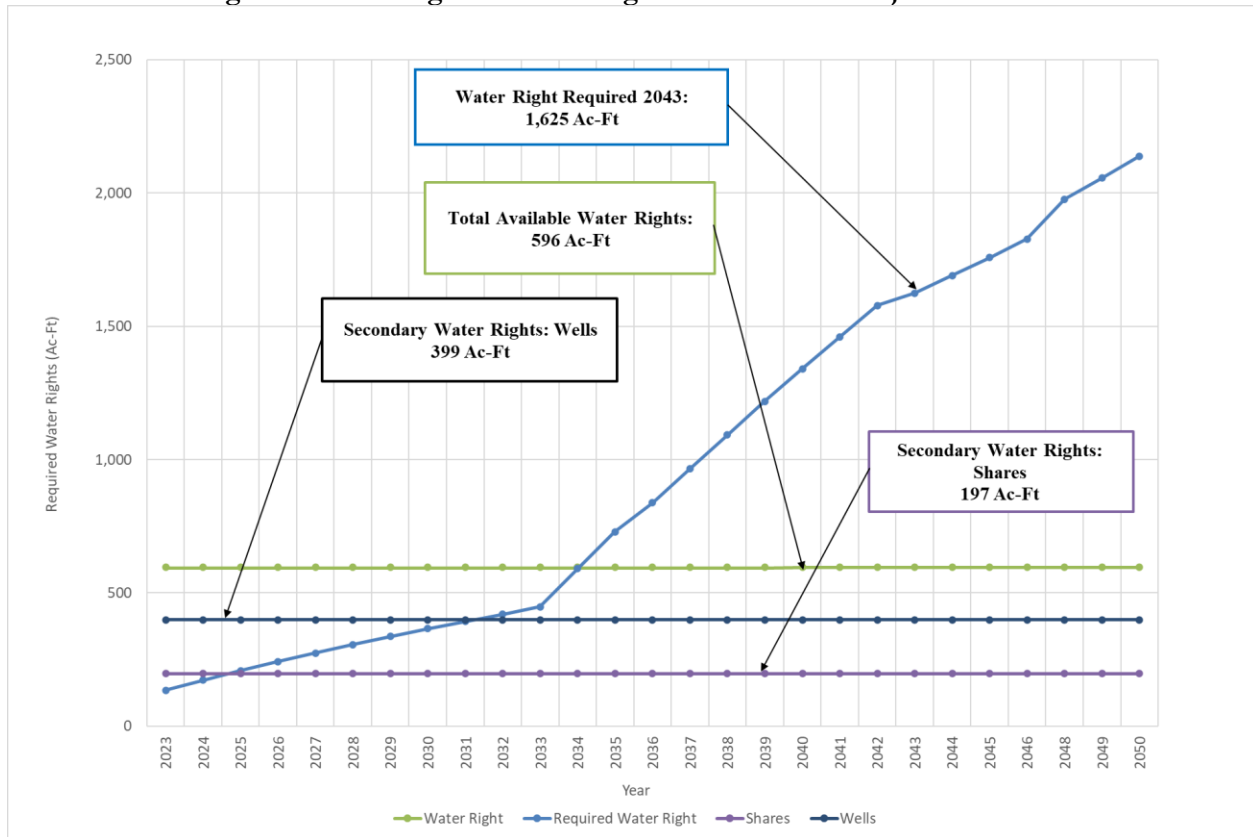
Average Demand (Total Use)				
523 ERU's X	$\frac{764 \text{ gpd X hr}}{\text{ERU min.}}$	=	278	gpm
523 ERU's X	$\frac{764 \text{ gpd X Acft.}}{\text{ERU gal}}$	=	448	Acft
Total Required Water Right			448	Acft
Existing Culinary System Water Right Surplus			148	Acft
			(30)	gpm

Table III.E-2: Projected 20- Year Required Water Right

Average Demand (Total Use)				
2,303 ERU's X	$\frac{630 \text{ gpd X hr}}{\text{ERU min.}}$	=	1,008	gpm
2,303 ERU's X	$\frac{630 \text{ gpd X Acft.}}{\text{ERU gal}}$	=	1,625	Acft
Total Required Water Right			1,625	Acft
Existing Culinary System Water Right Deficit			(1,029)	Acft
			(760)	gpm

The projected water right surplus or deficit is determined by subtracting the projected required water right from the total available water right. The 10-year projection results in a surplus of 148 ac-ft, and the 20-year projection results in a deficit of 1,029 ac-ft. Figure III.C-1 shows the projected irrigation water right demands vs. the City's existing available water right resources throughout the planning period.

Figure III.C-1: Irrigation Water Right Resources vs. Projected Demand



F. RECOMMENDED IRRIGATION WATER RIGHT IMPROVEMENTS

Culinary Recommendation

The projections in this analysis show that the City does not have sufficient water rights to meet the needs of customers over the next 20 years and through the projected year of build-out. However, the RWSA in place provides additional water to the city if needed. It is recommended that Santa Clara City protect all existing water rights not currently being used in their system. It is not in the scope of this report to derive specific recommendations for each individual right or provide detailed analysis of protections or strategies. However, a recent Water Right Report was performed, and the recommendations listed have been included below. Further consultations with a water rights professional to make sure that all the water rights and agreements are protected is recommended.

- WR #81-782: Update the Title from “Town of Santa Clara” to “City of Santa Clara”
- WR #81-973: Update the Title from “Town of Santa Clara” to “City of Santa Clara”
- WR #81-149: Update the Title from “Town of Santa Clara” to “City of Santa Clara”
- WR #81-741: Update the Title from “Town of Santa Clara” to “City of Santa Clara” and have the state update and correct flow rate error

- WR #81-742: Update the Title from “Town of Santa Clara” to “City of Santa Clara” and Proof of Beneficial Use
- WR #81-1061: Update the Title from “Town of Santa Clara” to “City of Santa Clara”

Irrigation Recommendation

The projections in this analysis show that the City has sufficient water rights to meet the needs of customers over the next 10 years if the well water rights are accessed. If the 49.25 shares are the only water rights utilized there are not sufficient water rights to meet the needs of the customers once city projects and planned developments are completed. If the City exceeds its water shares they can purchase water from the irrigation company, but it is recommended that the city obtain additional shares to mitigate the need for this. An opinion of probable cost for purchasing shares to cover growth has been included in the appendix of this report.

It is also recommended that Santa Clara City protect all existing water rights not currently being used in their system. It is not in the scope of this report to derive specific recommendations for each individual right or provide detailed analysis of protections or strategies. However, a recent Water Right Report was performed, and the recommendations listed have been included below. Further consultations with a water rights professional to make sure that all the water rights and agreements are protected is recommended.

- WR #81-475: File a change application for municipal use
- WR #81-497: File a change application for municipal use
- WR #81-1496: File a change application for municipal use
- WR #81-4184: Proof of Beneficial Use is past due
- WR #81-4189: File a change application for municipal use

IV. WATER SOURCE CAPACITY ANALYSIS

A. EXISTING CULINARY WATER SOURCE CAPACITY

To analyze source capacity, all available culinary water sources must first be identified. The City has several shared wells and an agreement that only allows them to have 24.7% of the capacity. Well flows were provided by the city and the total flow incorporating this percentage gives Santa Clara 2,662 gpm of source capacity as shown in Table IV.A-1 below.

Table IV.A-1: Santa Clara Culinary Water Source Capacity

Shared Wells	Total Flow	Santa Clara's 24.7%	
	gpm	CFS	gpm
Snow Canyon #3a	530	0.292	131
Snow Canyon #2	600	0.330	148
Snow Canyon #3	430	0.237	106
Snow Canyon #4	500	0.275	124
Snow Canyon #5	215	0.118	53
Sub-total Shared Wells =		1.252	562
Santa Clara Owned Sources		CFS	gpm
Snow Canyon Well #6		2.005	900
Snow Canyon Well #7		1.114	500
Regional Water Line / Wash. County water district ?		1.560	700
Sub-total Santa Clara Owned Water =		4.679	2,100
Total Culinary Water Source=		5.931	2,662

B. EXISTING REQUIRED CULINARY WATER SOURCE CAPACITY

The State of Utah Public Administrative Rules for Public Drinking Water Systems, R309-510, states that a water system should have an adequate water source capacity to supply peak day demand. This is implied to be twice the amount of average day demand. Doubling the historical usage results in a peak day demand of 966 gpd/ERU.

By multiplying the peak day culinary water usage per ERU by the number of existing ERUs, the existing required culinary water source capacity was determined. This calculation is shown below in Table IV.B-1.

Table IV.B-1: Current Required Culinary Water Source Capacity

Required Indoor/Outdoor Source					
3,775	ERU's X	966	gpd X	1 day X	1 hr
		ERU	24 hr	60 min.	
					= 2,532 gpm
Total Required Source Capacity					2,532 gpm
Existing Culinary System Source Capacity Surplus					130 gpm

The existing source capacity surplus or deficit is determined by subtracting the existing required source capacity of 2,532 gpm from the total available source capacity of 2,662 gpm (as limited by the water right and well share agreement), which yields a surplus of 130 gpm.

C. PROJECTED REQUIRED CULINARY WATER SOURCE CAPACITY

The projected amount of required source capacity at the end of the 10-year planning period and at build-out is determined from the same information and calculations explained in Part B, except the projected number of culinary water ERUs is substituted into the calculations for the current number of ERUs as shown in Table IV.C-1 and Table IV.C-2.

Table IV.C-1: Projected 10-Year Required Culinary Water Source Capacity

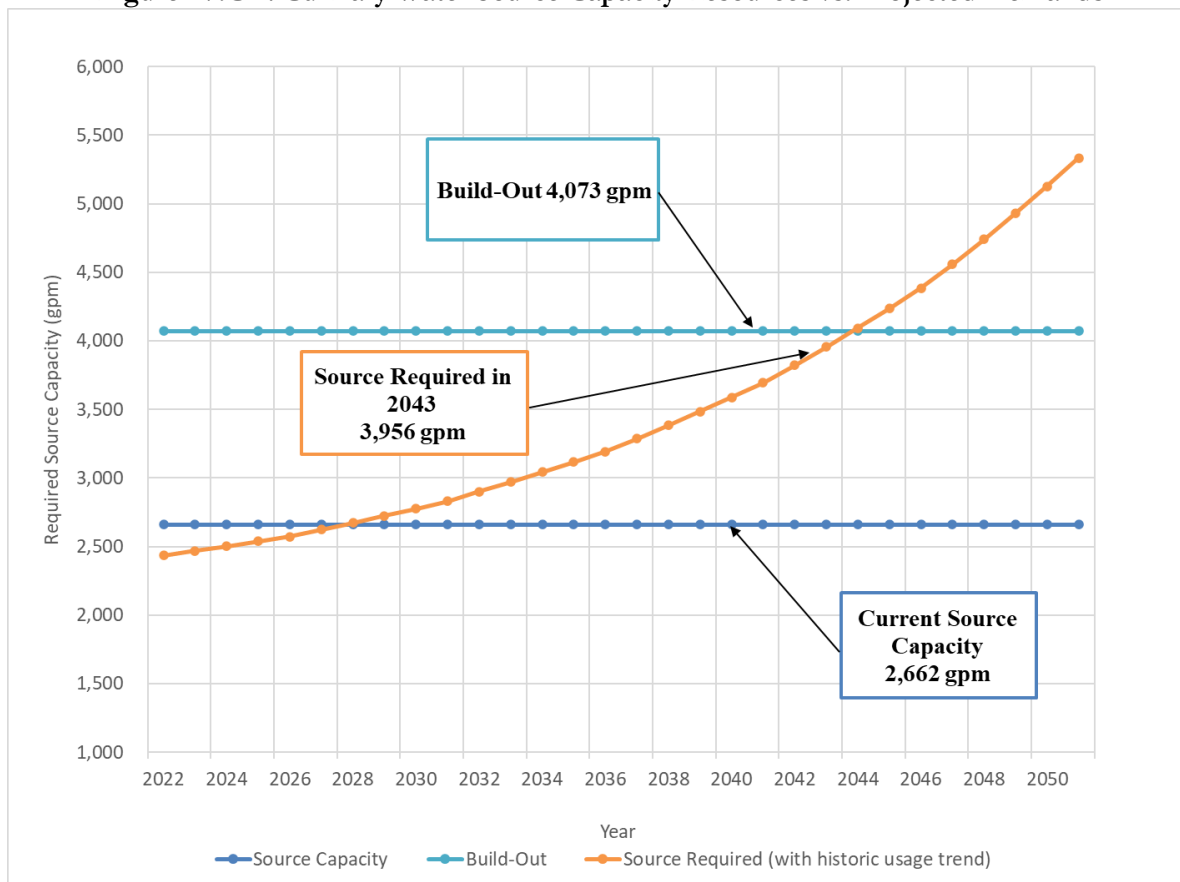
Required Indoor/Outdoor Source					
5,587	ERU's	X	766	gpd	X
			ERU	24 hr	X
					1 hr
					60 min.
					= 2,971 gpm
Total Required Source Capacity					2,971 gpm
Existing Culinary System Source Capacity Deficit					(309) gpm

Table IV.C-2: Projected Build-out Required Culinary Water Source Capacity

Required Indoor/Outdoor Source					
8,557	ERU's	X	685	gpd	X
			ERU	24 hr	X
					1 hr
					60 min.
					= 4,073 gpm
Total Required Source Capacity					4,073 gpm
Existing Culinary System Source Capacity Deficit					(1,411) gpm

The projected source capacity surplus or deficit is determined by subtracting the projected required source capacity from the total available source capacity. The 10-year projection results in a deficit of 309 ac-ft, and the build-out projection results in a deficit of 1,411 ac-ft. Figure IV.C-1 shows the projected culinary water source capacity demands vs. the City's existing available source capacity resources throughout the planning period.

Figure IV.C-1: Culinary Water Source Capacity Resources vs. Projected Demands



D. RECOMMENDED CULINARY WATER SOURCE CAPACITY IMPROVEMENTS

The projections in this analysis show that the City does not have sufficient source capacity to meet the needs of customers over the next 20 years and through the projected year of build-out. It is recommended that the city drill and equip a new well to increase their source capacity.

V. WATER STORAGE CAPACITY ANALYSIS

A. EXISTING CULINARY WATER STORAGE CAPACITY

To analyze storage capacity, all available culinary water storage must first be identified. The existing storage facilities consist of three concrete tanks. The total storage is 4,100,000 gallons as shown in Table V.A-1 below.

Table V.A-1: Santa Clara Culinary Water Storage Capacity

Existing Storage Capacity:	
Snow Canyon Compact tanks	600,000 gal.
Concrete tank at Snow Canyon	2,500,000 gal.
South Hills Tank	1,000,000 gal.
Total Existing Capacity =	4,100,000 gal.

B. EXISTING REQUIRED CULINARY WATER STORAGE CAPACITY

Water storage capacity requirements are found in the State of Utah Administrative Rules for Public Drinking Water Systems, R309-510. These regulations require storage for a community's culinary water system to meet one full day's use requirement for all water connections, plus the required fire flows for a minimum of one hour.

As shown in previous sections, the average water use per ERU is 483 gallons per day of culinary water for indoor and outdoor use. Storage requirements for fire protection vary slightly from community to community. In general, fire flow requirements are set by the local Fire Chief or are based on building size and type of construction. The Statewide minimum fire flow is 1,000 gpm for dwellings under 3,600 square feet and 1,500 gpm for larger dwellings. Based on the varying size of homes in the city a fire flow of 1,250 gpm will be used. Based on this information, the current required storage capacity is calculated as shown in Table V.B-1.

Table V.B-1: Current Required Culinary Water Storage Capacity

Required Culinary Water Storage Capacity						
	483 gpd	X	3,775 ERU	=		1,823,140 gpd
	ERU					
1,250 gpm	X	60 min	X	2 hr	=	150,000 gal.
		1 hr				
Total Existing Required Storage						1,973,140 gal.
Total Existing Capacity						4,100,000 gal.
Existing Capacity Surplus						2,126,860 gal.

SECTION V – WATER STORAGE CAPACITY ANALYSIS

The existing water storage capacity surplus or deficit is determined by subtracting the current required water storage capacity of 1,973,140 gallons from the total available water storage capacity of 4,100,000 gallons, which yields an existing surplus of 2,126,860 gallons.

C. PROJECTED REQUIRED CULINARY WATER STORAGE CAPACITY

The projected required culinary water storage capacity at the end of the 10-year planning period and build-out are determined from the same factors explained previously, but the projected number of culinary water ERUs is inserted into the calculations as shown in Table V.C-1 and Table V.C-2.

Table V.C-1: Projected 10-Year Required Culinary Water Storage Capacity

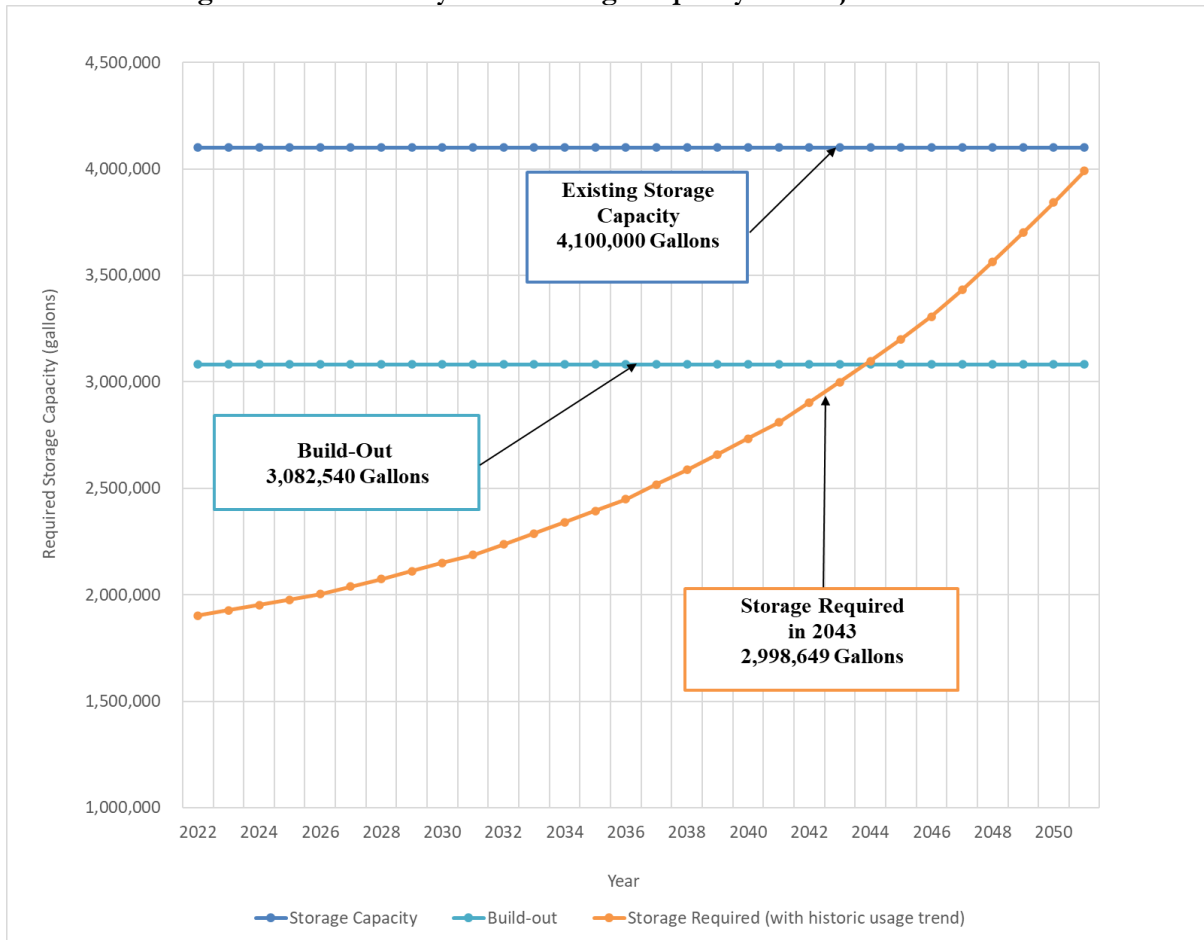
Required Culinary Water Storage Capacity						
	383 gpd	X	5,587 ERU	=		2,138,823 gpd
	ERU					
1,250 gpm	X	60 min	X	2 hr	=	150,000 gal.
		1 hr				
Total Existing Required Storage						2,288,823 gal.
Total Existing Capacity						4,100,000 gal.
Existing Capacity Surplus						1,811,177 gal.

Table V.C-2: Projected Build-out Required Culinary Water Storage Capacity

Required Culinary Water Storage Capacity						
	343 gpd	X	8,557 ERU	=		2,932,540 gpd
	ERU					
1,250 gpm	X	60 min	X	2 hr	=	150,000 gal.
		1 hr				
Total Required Storage						3,082,540 gal.
Total Existing Capacity						4,100,000 gal.
Future Capacity Surplus						1,017,460 gal.

The projected water storage capacity surplus or deficit is determined by subtracting the projected required water storage capacity. The 10-year projection results in a surplus of 1,811,177 gallons, and the build-out projections results in a surplus of 1,017,460 gallons. Figure V.C-1 shows the projected culinary water storage capacity demands vs. the City's existing available storage capacity resources throughout the planning period.

Figure V.C-1: Culinary Water Storage Capacity vs. Projected Demands



The district has adequate storage for emergency fire flow and average flows for the 20-year planning horizon and until estimated year of build-out.

D. EXISTING ELEVATION CONSTRAINTS

It should be mentioned that, based on minimum pressure requirements at the service connections, the existing tanks have limitations on the development elevations that the tanks can serve. Currently the areas in Santa Clara’s zoning map designated for future development do not raise any concerns. However, if the “South Hills” area currently zoned as “Open Space” is ever developed this area will require a new tank to accommodate the higher elevation.

E. RECOMMENDED CULINARY WATER STORAGE CAPACITY IMPROVEMENTS

The projections in this analysis show that the City has sufficient storage capacity to meet the needs of customers until build-out. It is recommended that the city continue to watch usage trends and population growth and prepare accordingly.

VI. WATER TREATMENT REQUIREMENTS

A. GENERAL REQUIREMENTS

Santa Clara City currently does not chlorinate its culinary water as it is already chlorinated by the Snow Canyon Compact. However, the tank facility in the South Hills was designed with the capability to generate and dose water in the tank with sodium hypochlorite should the chlorine level in the tank drop below acceptable levels.

The Snow Canyon Compact wells currently provide water that exceeds the maximum arsenic levels allowed by the E.P.A. for drinking water. The current practice is to treat this water as necessary by dilution with WCWCD Regional Water at the approximate ratio of 63:37 compact water to regional water and mixing with water from Wells 6 and 7. There are no plans to modify this procedure; however, the City of St. George has recently completed an arsenic treatment plant for the Gunlock Well Fields. This may provide an additional treated source for exchange or mixing. There are treatment options available if necessary.

B. RECOMMENDED WATER TREATMENT FACILITY IMPROVEMENTS

No additional water treatment is anticipated with the City's current system. However, continued vigilance is recommended to ensure that the chlorine residual is maintained at various points in the system. Should the water need a chlorine residual, there are several options that the city can consider. One option is to add a sodium hypochlorite plant to generate the chlorine onsite, which can then be injected into the system.

VII. WATER DISTRIBUTION SYSTEM ANALYSIS

A. EXISTING CULINARY DISTRIBUTION SYSTEM ANALYSIS

The State of Utah Administrative Rules for Public Drinking Water Systems, R309-510, require distribution systems to be sized to supply peak instantaneous flows, while maintaining a minimum system pressure of 30 psi. The rule also requires that distribution systems are able to supply peak day flows plus fire flows for a minimum of 1 hour, while maintaining a minimum system pressure of 20 psi. The system also needs to provide peak day flows while maintaining a minimum system pressure of 40 psi. As a general guideline, it is recommended that the system be able to provide a minimum static pressure of 50 psi at every point in the distribution system.

The indoor peak instantaneous demand equation (see Table VII.A-1) is found in the State of Utah Public Administrative Rules for Drinking Water Systems, R309-510. This rule also provides a flow requirement of 9.8 gpm per irrigated acre for use in determining the outdoor peak instantaneous demand. By taking a representative sample of homes/yards in Santa Clara and averaging the area of irrigated landscaping, an average area of 0.13 irrigated acres per ERU was determined and used to estimate the outdoor peak instantaneous demand. The number of outdoor ERUs represents the estimated number of existing ERUs using culinary water for irrigation. This was done by subtracting the number of irrigation ERUs from the total culinary ERUs.

Table VII.A-1: Current Required Distribution Demands

Indoor Peak Instantaneous Demand:					
Q=	10.8 X N ^{.64}	N= Number of ERU's			
Q=	10.8 X (3775) ^{.64}				
Q=		=	2,102	gpm	
Outdoor Peak Instantaneous Demand:					
	2,937 ERU. X	$\frac{0.13 \text{ acre}}{\text{ERU}}$	$\frac{9.8 \text{ gpm}}{\text{irr. acre}}$	=	3,742 gpm
Current Peak Instantaneous Demand				=	5,844 gpm
Peak Day Demand & Fire Flow					
3,775 ERU's X	$\frac{966 \text{ gpd}}{\text{ERU}}$	$\frac{1 \text{ day}}{24 \text{ hr}}$	$\frac{1 \text{ hr}}{60 \text{ min.}}$	=	2532 gpm
Fire Flow				=	1,250 gpm
Current Peak Day Demand + Fire Flow				=	3,782 gpm

As previously discussed, the peak day demand is twice the average amount of historical usage, or 966 gpd/ERU. The State regulation for fire flow requires a minimum of 1,000 gpm, but the City

SECTION VII – WATER DISTRIBUTION SYSTEM ANALYSIS

has identified 1,250 gpm as a goal for all hydrants throughout the City and therefore 1,250 gpm has been used for this analysis. State regulations require all fire hydrants to be served from 8-inch diameter or larger pipelines unless it can be proven through the use of modeling that 6-inch lines are sufficient.

The existing Santa Clara culinary water distribution system has been modeled for these demands using the computer program infowater® by Innovyze®. The main network of Santa Clara City's distribution system appears to be providing good service to the majority of connections. At the existing peak day demand, the model shows that all the junctions in the system are able to produce the required fire flows while maintaining the minimum required pressure of 20 psi at all other connections. The system was capable of maintaining pressures of 30 psi at all nodes while experiencing peak instantaneous demands and 40 psi while experiencing peak day demands.

B. PROJECTED CULINARY DISTRIBUTION SYSTEM ANALYSIS

The projected distribution system analysis is performed using the same assumptions as in the existing system analysis, except that the projected number of ERUs in 2043 are inserted into the calculations. Table VII.B-1 subtracts the projected number of irrigation ERUs in 2043 without the irrigation recommended improvements and Table VII.B-2 subtracts the projected number of irrigation ERUs in 2043 with the recommended irrigation improvement projects. These recommendations have been made to aid in conservation and can be seen in the following section VIII.

Table VII.B-1: Projected 20-Year Required Distribution Demands without Irrigation Projects

Indoor Peak Instantaneous Demand:					
Q=	10.8 X N ^{.64}	N= Number of ERU's			
Q=	10.8 X 8,271 ^{.64}				
Q=				=	3,473 gpm
Outdoor Peak Instantaneous Demand:					
3,162 ERU X	0.13 acre	X	9.8 gpm	=	4,028 gpm
	conn.		irr. acre		
Projected Peak Instantaneous Demand				=	7,501 gpm
Peak Day Demand & Fire Flow					
8,271 ERU's X	689 gpd X	1 day	1 hr	=	3,956 gpm
	ERU	24 hr	60 min.		
Fire Flow				=	1,250 gpm
Projected Peak Day Demand + Fire Flow				=	5,206 gpm

SECTION VII – WATER DISTRIBUTION SYSTEM ANALYSIS

Table VII.B-2: Projected 20-Year Required Distribution Demands with Irrigation Projects

Indoor Peak Instantaneous Demand:					
Q=	10.8 X N ^{.64}		N= Number of ERU's		
Q=	10.8 X 8,271 ^{.64}				
Q=				=	3,473 gpm
Outdoor Peak Instantaneous Demand:					
	2,714 ERU. X	0.13 acre X	9.8 gpm	=	3,457 gpm
		conn.	irr. acre		
Projected Peak Instantaneous Demand				=	6,930 gpm
Peak Day Demand & Fire Flow					
8,271 ERU's X	689 gpd X	1 day	1 hr	=	3,956 gpm
	ERU	24 hr	60 min.		
Fire Flow				=	1,250 gpm
Projected Peak Day Demand + Fire Flow				=	5,206 gpm

Modeling the future system without any improvements projected that the system is capable of maintaining pressures of 30 psi at all nodes while experiencing peak instantaneous demands and 40 psi while experiencing peak day demands. The system is also capable of providing the minimum required pressure of 20 psi while producing the required fire flow. However, there were areas in the system where pipe flow velocities are anticipated to be above 5 ft/s. Recommendations have been made to decrease flows in these areas.

A final model incorporating the recommended culinary distribution system improvements has also been created. This system was modeled using the projected 2043 system demands with and without irrigation improvements. With these modifications, the system will be able to meet all state requirements and protect pipes by decreasing velocity.

C. EXISTING IRRIGATION DISTRIBUTION SYSTEM ANALYSIS

Unlike Culinary water systems, there are no State irrigation system requirements regarding pressure. However, the same general guideline Sunrise recommends for culinary systems was used for the irrigation distribution system analysis. Namely, that the system be able to provide a minimum static pressure of 50 psi at every point in the distribution system.

The peak day demand, which is twice the average usage of 719 gpd/ERU has been used in this analysis and shown Table VII.C-1.

SECTION VII – WATER DISTRIBUTION SYSTEM ANALYSIS

Table VII.C-1: Current Required Distribution Demands

$$127 \text{ ERU's} \times \frac{1,898 \text{ gpd}}{\text{ERU}} \times \frac{1 \text{ day}}{24 \text{ hr}} \times \frac{1 \text{ hr}}{60 \text{ min.}} = 167 \text{ gpm}$$

The existing Santa Clara irrigation water distribution system has been modeled for these demands using the computer program infowater® by Innovyze®. The main network of Santa Clara City's distribution system appears to be providing sufficient service to all of the connections. At the existing average day demand and peak day demand, the model shows that all the junctions in the system are able to produce the recommended 50 psi.

D. PROJECTED IRRIGATION DISTRIBUTION SYSTEM ANALYSIS

The projected distribution system analysis is performed using the same assumptions as in the existing system analysis, except that the projected number of ERUs in 2043 are inserted into the calculations. The projected peak day demand is calculated in Table VII.D-1 below.

Table VII.D-1: Projected 20-Year Required Distribution Demands

$$2,303 \text{ ERU's} \times \frac{1,260 \text{ gpd}}{\text{ERU}} \times \frac{1 \text{ day}}{24 \text{ hr}} \times \frac{1 \text{ hr}}{60 \text{ min.}} = 2,015 \text{ gpm}$$

Modeling the future system with the included expansion projects shows that the system is capable of maintaining pressures of 50 psi at all nodes while experiencing peak demands. More infowater analysis information can be found in Appendix B.

E. RECOMMENDED DISTRIBUTION SYSTEM IMPROVEMENTS

In an effort to meet the State requirements for future demands and improve conservation efforts the following distribution system improvements are recommended. The recommendations exhibits are shown in Appendix A.

- New 12" line connecting North Hamblin Parkway to North Town Road
- 10" to 12" PRV Enlargement
- 12" Line to connect Wells 6/7 to the Snow Canyon Tank
- New 8" irrigation line along Riesling Avenue
- New of 8" irrigation line along Crestview Drive
- New 8" irrigation line to connect Villa Bonita subdivision
- New 8" line along North Town Road
- New 8" line along Sycamore Drive

VIII. SUMMARY OF RECOMMENDED SYSTEM IMPROVEMENTS

A. RECOMMENDED SYSTEM IMPROVEMENTS

Based on the findings from Sections III - VII, showing immediate system needs as well as requirements for growth projected over the next 20 years and build-out, it is recommended that the City proceed with a construction project to implement improvements as required to bring the system into conformance with State rules and maintain the same level of service. Table VIII.A-1 summarizes the recommended improvements.

Table VIII.A-1: Recommended System Improvements

RECOMMENDED WATER SYSTEM IMPROVEMENTS	
ANALYSIS	RECOMMENDED IMPROVEMENTS
1. Water Rights	Recommendations given in the Water Rights Report including: <ol style="list-style-type: none"> 1. Application changes 2. Title changes 3. Proof of Beneficial Use 4. State flow correction 5. Purchase additional Water Shares
2. Water Source Capacity	A new well
3. Water Storage Capacity	No Improvements
4. Water Treatment	Continue to monitor chlorine residual in system
5. Distribution System	<ol style="list-style-type: none"> 1. New 12" line connecting North Hamblin Parkway to North Town Road 2. 10" to 12" PRV Enlargement 3. New 12" Line to connect Wells 6/7 to the Snow Canyon Tank 4. New 8" irrigation line along Riesling Avenue 5. New of 8" irrigation line along Crestview Drive 6. New 8" irrigation line to connect Villa Bonita subdivision 7. New 8" line along North Town Road 8. New 8" line along Sycamore Drive

B. PRELIMINARY ENGINEER’S OPINION OF PROBABLE COST

An Engineer’s Opinion of Probable Cost (EOPC) for the recommended water system improvements has been provided in Appendix D.

The EOPC includes all anticipated construction costs, contingency budgets, and all other normal project costs such as survey, administration, engineering, legal services, fiscal costs, rights-of-way, etc. A summary of the project cost estimates is included in Table VIII.B-1.

Table VIII.B-1: Project Cost Summary

Project Description	Total Cost
Culinary: Water Right Recommendations	\$ 18,000
Culinary: North Hamblin Pkwy to North Town Rd 12" Line	\$ 292,400
Culinary: 10" to 12" PRV Enlargement	\$ 208,550
Culinary: 12" Line Well Connection to Snow Canyon Tank	\$ 4,170,000
Culinary: New Well	\$ 2,114,350
Irrigation: Riesling Avenue 8" Line	\$ 136,140
Irrigation: Crestview Drive 8" Line	\$ 505,230
Irrigation: Villa Bonita 8" Line	\$ 99,900
Irrigation: North Town Road 8" Line	\$ 579,665
Irrigation: Sycamore Drive 8" Line	\$ 124,470
Irrigation: Claude Drive 8" Line	\$ 124,470
Irrigation: Additional Water Share Purchase	\$ 363,600
TOTAL PROJECT COSTS	\$ 8,736,775

C. PROPOSED FINANCING PLAN

The City plans to self-fund the proposed projects. Table VIII.C-1 outlines a sample financing scenario for the recommended improvements starting in fiscal year 2024/25. It is assumed that no grants will be received and that all projects will be completed within 14 years.

SECTION VIII – SUMMARY OF RECOMMENDED SYSTEM IMPROVEMENTS

TABLE VIII.C-1 PROPOSED FINANCING PLAN			
PROJECT COST 2024/25		\$	624,055
FY 2024/25 EXPENSES			
Proposed Funding:	Rate	Term in Yrs.	Principal
Self Participation			624,055
TOTAL PROJECT FUNDING:			\$624,055
EXPENSES: (First Year of New Debt Serv. Pmt.)			
Salaries, Wages, & Benefits (100's)			\$659,545
Materials & Supplies (200's)			\$444,095
Professional & Technical Services (300's)			\$51,577
Special Dept. Materials & Supplies (400's)			\$70,481
Other Charges (500's)			\$28,411
Capital Expenses (700's)			\$178,115
Others (900's)			\$658,344
Subtotal Operations and Maintenance:			\$2,090,567
EXISTING DEBT SERVICE	Not Impact Fee Eligible		
Debt Payment to Water District	58%		\$36,888
All other Debt			\$165,719
Subtotal Existing Annual Debt Service:			\$202,607
Renewal and Replacement Fund			\$156,349
GRAND TOTAL EXPENSES:			\$3,073,578
ANNUAL INCOME			
Other Operating Revenues			58,460.89
Interest Income			41,554.41
Connection Fees			36,885.00
Impact Fees			480,022.65
Total Number Of ERU's			3,926
Average Monthly Water User Rate/ERU (Without WCWCD Surcharge)			\$52.15
WCWCD Surcharge			\$1.75
Average Monthly Water User Rate/ERU (With WCWCD Surcharge)			\$53.90
TOTAL ANNUAL INCOME:			\$3,073,578

IX. WATER RATE ANALYSIS

A. GENERAL

Generally, water rates are a combination of base rates and overage rates wherein a base amount of water is provided for the base rate charge. The base rate is charged to all connections in the system whether or not water is used and should cover all fixed costs of the system. Overage rates are normally set to encourage water conservation but should always cover all variable costs of the system. The City has established the following service fee rate structures shown in Table IX.A-1 and Table IX.A-2:

Table IX.A-1: Existing Culinary Water Rates

Current Overage Rates (Per 1,000 Gallons)		Monthly Base Rate	
		Meter Size	\$/month
5001-9000	\$ 0.90	5/8" & 3/4"	\$ 32.00
9001-16000	\$ 1.43	1"	\$ 57.60
16001-23000	\$ 1.68	1-1/2"	\$ 128.00
23001-30000	\$ 2.12	2"	\$ 224.00
30001-45000	\$ 2.56	3"	\$ 512.00
45001-60000	\$ 3.12	4"	\$ 928.00
60001 & UP	\$ 3.12	6"	\$ 2,048.00

Table IX.A-2: Existing Irrigation Water Rates

Current Overage Rates (Per 1,000 Gallons)		Monthly Base Rate	
		Meter Size	\$/month
9000-16,000	\$ 0.74	All Meters	\$ 22.00
16,001-23,000	\$ 0.92		
23,000-30,000	\$ 1.23		
30,001 & UP	\$ 1.46		

B. AVERAGE RATE DETERMINATION FOR FY2024

Culinary Rate

Table IX.B-1 shows a method used to determine the average water rate per ERU which should be divided among all system customers. The table uses data for the year of the new debt service (2024) and uses the existing and new debt service as part of the equation.

Annual revenues must be sufficient to cover the expenses incurred by the construction, maintenance, and administration of the water system. These expenses could include items such as debt service, personnel services, operation & maintenance, insurance, and other supplies & expenses. It is strongly recommended that the city maintain a funded depreciation account or a replacement fund to provide the money necessary for replacement and repair of water department facilities and pipelines.

SECTION IX - WATER RATE ANALYSIS

Based on the calculations shown in Table VIII.C-1, the average water rate per residential connection (1 ERU) for any newly adopted rate structure for the year 2024 would need to be approximately \$52.15. It should be noted that this assumes that the system has grown to 3,926 ERUs and that the district has chosen to pursue construction of the proposed improvements. It is estimated that this rate would allow the city to pay the debt and operations costs associated with the culinary water system. The existing average monthly user rate revenue per residential connection in 2021 was calculated to be \$41.45 and determined to be insufficient to meet the \$52.15 per ERU that was calculated. A rate increase of \$10.70 is estimated to be needed to cover the anticipated expenses; however, rates should be looked at annually as expenses increase in a typical year.

Table IX.B-1: Culinary Fixed Rate Analysis

FIXED RATE ANALYSIS			
Estimated FY 2024 Expenses	Fixed	Variable	Total
Salaries, Wages, & Benefits (100's)	\$ 461,682	\$ 197,864	\$ 659,545
Materials & Supplies (200's)	\$ 310,867	\$ 133,229	\$ 444,095
Professional & Technical Services (300's)	\$ 36,104	\$ 15,473	\$ 51,577
Special Dept. Materials & Supplies (400's)	\$ 49,337	\$ 21,144	\$ 70,481
Other Charges (500's)	\$ 19,888	\$ 8,523	\$ 28,411
Capital Expenses (700's)	\$ 124,680	\$ 53,434	\$ 178,115
Others (900's)	\$ 460,841	\$ 197,503	\$ 658,344
EXISTING DEBT SERVICE	\$ -		
Debt Payment to Water District	\$ 36,888	\$ -	\$36,888
All other Debt	\$ 165,719	\$ -	\$165,719
	\$ -		
NEW DEBT SERVICE	\$ -		
Division of Water Resources	\$ -	\$ -	\$ -
Revenue Bond Reserves 10%	\$ -	\$ -	\$ -
Estimated FY 2024 Revenue (Excluding User Fees)			
Other Operating Revenues	\$ 40,923	\$ 17,538	\$ 58,461
Connection Fees	\$ 9,221	\$ 27,664	\$ 36,885
Impact Fees	\$ 120,006	\$ 360,017	\$ 480,023
Interest Income	\$ 10,589	\$ 31,767	\$ 42,356
Total Expenses:	\$ 2,165,248	\$ 908,330	\$ 3,073,578
Total Revenue:	\$ 180,738	\$ 436,986	\$ 617,724
Total Projected System ERUs in FY2024	3,926		3,926
Monthly Cost/ERU in FY2024	<u>\$42.15</u>	<u>\$10.01</u>	<u>\$52.15</u>

Irrigation Rate

A similar method to determine culinary water rates was used for irrigation. However, all the proposed projects for the irrigation system have been included as culinary projects because they minimize future culinary outdoor usage. Because of this, the only costs incorporated in the irrigation system rate determination is an anticipated cost of \$50,000 for maintaining and operating the system. This value was assumed based on comparison of the city culinary system expenses and size in relation to the irrigation system size. Because the usage between residential and “other” connections is so different in the irrigation system, rates were also determined based on connection type rather than ERUs. This is shown in Table IX.B-2 below.

Table IX.B-2: Irrigation Fixed Rate Analysis

FIXED RATE ANALYSIS			
Estimated Annual Expenses FY			
2023/24	Fixed	Variable	Total
Operating Expenses	\$ 40,000	\$ 10,000	\$50,000
Project Cost	\$ -	\$ -	\$ -
Renewal and Replacement Fund	\$ -	\$ 2,500	\$2,500
Total Expenses:	\$ 40,000	\$ 12,500	\$ 52,500
Estimated Annual Revenue FY 2023/24			
Residential Connections			54
"Other" Connections			8
Monthly Cost/Res Connection	<u>\$17.15</u>	<u>\$5.36</u>	<u>\$22.51</u>
Monthly Cost/"Other" Connection	<u>\$300.93</u>	<u>\$94.04</u>	<u>\$394.97</u>

C. BASE AND OVERAGE RATE DETERMINATION

This study includes separating the average user rate into base and overage rates and investigates possible rate structures that would promote conservation and work hand-in-hand with drought management policies. In order to determine a base and overage schedule, the projected expenses of the water system for 2024 have been separated into fixed and variable expenses (Table IX.B-1). It is recommended that the base rate should cover the fixed expenses of the system. Tables IX.B-1 and XI.B-2 above suggest possible scenarios for determining base and overage rates for the city. Fixed costs are covered by the base rate and variable costs are covered by the overage rates. This rate scenario simply identifies base and overage rates that should satisfy the revenue requirements based on estimated operation and maintenance (O&M) expenses and on projected water usage. The city is able to set the rate structure to any amount it deems to be fair. However, the rates should be such that the system remains financially viable. The city may decide to lower the base rate and increase variable costs in order to promote further conservation.

The city should have a rate schedule that will result in revenues that will provide the necessary culinary water system improvements as recommended in this Plan and maintain the current level of O&M. The base and overage rates should be examined each year to ensure that enough revenue is being generated to cover the expenses.

D. POSSIBLE RATE STRUCTURE

Culinary Rate Structure

Table IX.D-1 illustrates a possible rate structure based on the base and overage rates suggested in Section C and city council preference. This rate structure is designed to have an average bill of \$52.15+ per ERU each month. The average bill was determined using the average monthly water use of approximately 14,700 gallons which is based on the historical average usage of 483 gpd. The way to confirm that the average rate produced will cover annual expenses is to implement the structure and evaluate the results after a full year of use.

Calculations based on the City's financial data show that the proposed rate structures should provide an average rate revenue sufficient to sustain the system. It is recommended that, if in a given year there are excess funds generated by the existing rate, these funds be saved in an interest-bearing Renewal and Replacement account for expenditures on future projects.

Table IX.D-1: Possible Culinary Rate Structure with no Water Included

Proposed Overage Rates (Per 1,000 Gallons)		Monthly Base Rate		Average Rate Based on Usage
		Meter Size	\$/month	
0000-9000	\$ 0.92	5/8" & 3/4"	\$ 37.25	\$ 53.80
9001-16000	\$ 1.45	1"	\$ 62.85	\$ 217.69
16001-23000	\$ 1.70	1-1/2"	\$ 133.25	\$ 288.09
23001-30000	\$ 2.50	2"	\$ 229.25	\$ 455.71
30001-36000	\$ 3.00	3"	\$ 517.25	\$ 743.71
36001-& UP	\$ 4.14	4"	\$ 933.25	\$ 1,159.71

Irrigation Rate Structure

Tables IX.D-2 illustrates a possible rate structure based on the base and overage rates suggested in Section C and city council preference. The overage rate structures are stepped to promote conservation by charging a higher amount for excessive water usage. The structure has also been split by meter size. This was done to better monitor high users (classified as "other" ERUs) because one residential ERU is equivalent to 17.55 "other" ERUs and it is predicted that they will contribute to more than half of the ERUs, but only 10 actual meters by 2033. Because of this, the current average of \$313.52/month per "other" connection is not sufficient and will need to be increased to \$394.97/month.

Table IX.D-2: Possible Irrigation Rate Structure

Meter Size	Base Rate	Tiered Rate above Base (per 1,000 gal)	Gallon Range for Tiered Rate	Max Rate Per Range	Average Rate Based on Usage
3/4"-1"	\$ 20.00	\$ 0.25	0 to 5000	\$ 21.25	\$ 24.43
		\$ 0.50	5000 to 10000	\$ 23.75	
		\$ 0.75	10001 to 15000	\$ 27.50	
		\$ 1.00	15001 to 20000	\$ 32.50	
		\$ 1.25	20001 & UP	\$ 32.50 +	
1 1/2"	\$ 20.00	\$ 0.30	0 to 5000	\$ 21.50	\$ 309.00
		\$ 0.40	5000 to 10000	\$ 23.50	
		\$ 0.50	10001 to 15000	\$ 26.00	
		\$ 0.60	15001 to 20000	\$ 29.00	
		\$ 0.70	20001 & UP	\$ 29.00 +	
2"	\$ 22.00	\$ 0.30	0 to 10000	\$ 25.00	\$ 368.70
		\$ 0.40	10001 to 15000	\$ 27.00	
		\$ 0.50	15001 to 20000	\$ 29.50	
		\$ 0.60	20001 to 30000	\$ 35.50	
		\$ 0.70	30001 & UP	\$ 35.50 +	
3"	\$ 50.00	\$ 0.30	0 to 10000	\$ 53.00	\$ 396.70
		\$ 0.40	10001 to 15000	\$ 55.00	
		\$ 0.50	15001 to 20000	\$ 57.50	
		\$ 0.60	20001 to 30000	\$ 63.50	
		\$ 0.70	30001 & UP	\$ 63.50 +	
4"	\$ 100.00	\$ 0.30	0 to 10000	\$ 103.00	\$ 444.60
		\$ 0.40	10001 to 15000	\$ 105.00	
		\$ 0.50	15001 to 20000	\$ 107.50	
		\$ 0.60	20001 to 30000	\$ 113.50	
		\$ 0.70	30001 & UP	\$ 113.50 +	

Calculations based on the City's financial data show that the proposed rate structures should provide an average rate revenue sufficient to sustain the system. It is recommended that, if in a given year there are excess funds generated by the existing rate, these funds be saved in an interest-bearing Renewal and Replacement account for expenditures on future projects.

E. POSSIBLE DROUGHT RATE STRUCTURES

Culinary Drought Rate Structure

WCWCD has implemented a drought contingency plan consisting of 5 stages: Conserve, Caution, Concern, Crisis, and Catastrophic. Each of these stages represent increasing degrees of drought severity and identify how a city should act in each stage. For example, in the "Catastrophic" Stage all outdoor water usage should be halted, and indoor usage should be reduced by 30%. The "Conserve" stage is assumed to be the current Santa Clara stage and the proposed rate structure represents these efforts. Should the other 4 stages ever be implemented in the city the following rate structures are recommended. This will ensure the city still receives the necessary funds to maintain and operate the system even with the reduction in water usage.

Table IX.E-1: Possible Culinary Drought Rate Structure- Caution Stage

SECTION IX - WATER RATE ANALYSIS

Proposed Overage Rates (Per 1,000 Gallons)		Monthly Base Rate		Average Rate Based on Usage
		Meter Size	\$/month	
0000-9000	\$ 1.03	5/8" & 3/4"	\$ 37.25	\$ 52.18
9001-16000	\$ 1.56	1"	\$ 62.85	\$ 200.68
16001-23000	\$ 1.81	1-1/2"	\$ 133.25	\$ 271.08
23001-30000	\$ 3.25	2"	\$ 229.25	\$ 431.68
30001-36000	\$ 3.69	3"	\$ 517.25	\$ 719.68
36001-& UP	\$ 4.25	4"	\$ 933.25	\$ 1,135.68

Table IX.E-2: Possible Culinary Drought Rate Structure- Concern Stage

Proposed Overage Rates (Per 1,000 Gallons)		Monthly Base Rate		Average Rate Based on Usage
		Meter Size	\$/month	
0000-9000	\$ 1.35	5/8" & 3/4"	\$ 37.25	\$ 52.22
9001-16000	\$ 1.88	1"	\$ 62.85	\$ 174.51
16001-23000	\$ 2.13	1-1/2"	\$ 133.25	\$ 244.91
23001-30000	\$ 3.57	2"	\$ 229.25	\$ 397.12
30001-36000	\$ 4.01	3"	\$ 517.25	\$ 685.12
36001-& UP	\$ 4.57	4"	\$ 933.25	\$ 1,101.12

Table IX.E-3: Possible Culinary Drought Rate Structure- Crisis Stage

Proposed Overage Rates (Per 1,000 Gallons)		Monthly Base Rate		Average Rate Based on Usage
		Meter Size	\$/month	
0000-9000	\$ 2.57	5/8" & 3/4"	\$ 37.25	\$ 52.16
9001-16000	\$ 3.10	1"	\$ 62.85	\$ 123.09
16001-23000	\$ 3.35	1-1/2"	\$ 133.25	\$ 193.49
23001-30000	\$ 4.79	2"	\$ 229.25	\$ 316.21
30001-36000	\$ 5.23	3"	\$ 517.25	\$ 604.21
36001-& UP	\$ 5.79	4"	\$ 933.25	\$ 1,020.21

Table IX.E-4: Possible Culinary Drought Rate Structure- Catastrophic Stage

Proposed Overage Rates (Per 1,000 Gallons)		Monthly Base Rate		Average Rate Based on Usage
		Meter Size	\$/month	
0000-9000	\$ 3.93	5/8" & 3/4"	\$ 37.25	\$ 52.18
9001-16000	\$ 4.46	1"	\$ 62.85	\$ 124.53
16001-23000	\$ 4.71	1-1/2"	\$ 133.25	\$ 194.93
23001-30000	\$ 6.15	2"	\$ 229.25	\$ 311.85
30001-36000	\$ 6.59	3"	\$ 517.25	\$ 599.85
36001-& UP	\$ 7.15	4"	\$ 933.25	\$ 1,015.85

Irrigation Drought Rate Structure

SECTION IX - WATER RATE ANALYSIS

The irrigation rate structures recommended in a drought follow the same stages as the culinary system. The “Conserve” stage is assumed to be the current Santa Clara stage and the proposed rate structure represents these efforts. Should the other 4 stages ever be implemented in the city the following rate structures are recommended. This will ensure the city still receives the necessary funds to maintain and operate the system even with the reduction in water usage.

Table IX.E-5: Possible Irrigation Drought Rate Structure- Caution Stage

Meter Size	Base Rate	Tiered Rate above Base (per 1,000 gal)	Gallon Range for Tiered Rate	Max Rate Per Range	Average Rate Based on Usage
3/4"-1"	\$ 20.00	\$ 0.35	0 to 5000	\$ 21.75	\$ 23.97
		\$ 0.60	5000 to 10000	\$ 24.75	
		\$ 0.85	10001 to 15000	\$ 29.00	
		\$ 1.10	15001 to 20000	\$ 34.50	
		\$ 1.35	20001 & UP	\$ 34.50 +	
1 1/2"	\$ 20.00	\$ 0.40	0 to 5000	\$ 22.00	\$ 283.80
		\$ 0.50	5000 to 10000	\$ 24.50	
		\$ 0.60	10001 to 15000	\$ 27.50	
		\$ 0.70	15001 to 20000	\$ 31.00	
		\$ 0.80	20001 & UP	\$ 31.00 +	
2"	\$ 22.00	\$ 0.40	0 to 10000	\$ 26.00	\$ 338.34
		\$ 0.50	10001 to 15000	\$ 28.50	
		\$ 0.60	15001 to 20000	\$ 31.50	
		\$ 0.70	20001 to 30000	\$ 38.50	
		\$ 0.80	30001 & UP	\$ 38.50 +	
3"	\$ 50.00	\$ 0.40	0 to 10000	\$ 54.00	\$ 366.34
		\$ 0.50	10001 to 15000	\$ 56.50	
		\$ 0.60	15001 to 20000	\$ 59.50	
		\$ 0.70	20001 to 30000	\$ 66.50	
		\$ 0.80	30001 & UP	\$ 66.50 +	
4"	\$ 100.00	\$ 0.40	0 to 10000	\$ 104.00	\$ 414.42
		\$ 0.50	10001 to 15000	\$ 106.50	
		\$ 0.60	15001 to 20000	\$ 109.50	
		\$ 0.70	20001 to 30000	\$ 116.50	
		\$ 0.80	30001 & UP	\$ 116.50 +	

Table IX.E-6: Possible Irrigation Drought Rate Structure- Concern Stage

SECTION IX - WATER RATE ANALYSIS

Meter Size	Base Rate	Tiered Rate above Base (per 1,000 gal)	Gallon Range for Tiered Rate	Max Rate Per Range	Average Rate Based on Usage
3/4"-1"	\$ 20.00	\$ 0.50	0 to 5000	\$ 22.50	\$ 23.63
		\$ 0.75	5000 to 10000	\$ 26.25	
		\$ 1.00	10001 to 15000	\$ 31.25	
		\$ 1.25	15001 to 20000	\$ 37.50	
		\$ 1.50	20001 & UP	\$ 37.50 +	
1 1/2"	\$ 20.00	\$ 0.65	0 to 5000	\$ 23.25	\$ 279.60
		\$ 0.75	5000 to 10000	\$ 27.00	
		\$ 0.85	10001 to 15000	\$ 31.25	
		\$ 0.95	15001 to 20000	\$ 36.00	
		\$ 1.05	20001 & UP	\$ 36.00 +	
2"	\$ 22.00	\$ 0.65	0 to 10000	\$ 28.50	\$ 333.28
		\$ 0.75	10001 to 15000	\$ 32.25	
		\$ 0.85	15001 to 20000	\$ 36.50	
		\$ 0.95	20001 to 30000	\$ 46.00	
		\$ 1.05	30001 & UP	\$ 46.00 +	
3"	\$ 50.00	\$ 0.65	0 to 10000	\$ 56.50	\$ 361.28
		\$ 0.75	10001 to 15000	\$ 60.25	
		\$ 0.85	15001 to 20000	\$ 64.50	
		\$ 0.95	20001 to 30000	\$ 74.00	
		\$ 1.05	30001 & UP	\$ 74.00 +	
4"	\$ 100.00	\$ 0.65	0 to 10000	\$ 106.50	\$ 409.39
		\$ 0.75	10001 to 15000	\$ 110.25	
		\$ 0.85	15001 to 20000	\$ 114.50	
		\$ 0.95	20001 to 30000	\$ 124.00	
		\$ 1.05	30001 & UP	\$ 124.00 +	

Table IX.E-7: Possible Irrigation Drought Rate Structure- Crisis Stage

Meter Size	Base Rate	Tiered Rate above Base (per 1,000 gal)	Gallon Range for Tiered Rate	Max Rate Per Range	Average Rate Based on Usage
3/4"-1"	\$ 20.00	\$ 2.50	0 to 5000	\$ 32.50	\$ 22.75
		\$ 2.75	5000 to 10000	\$ 46.25	
		\$ 3.00	10001 to 15000	\$ 61.25	
		\$ 3.25	15001 to 20000	\$ 77.50	
		\$ 3.50	20001 & UP	\$ 77.50 +	
1 1/2"	\$ 20.00	\$ 5.00	0 to 5000	\$ 45.00	\$ 289.00
		\$ 5.50	5000 to 10000	\$ 72.50	
		\$ 6.00	10001 to 15000	\$ 102.50	
		\$ 6.50	15001 to 20000	\$ 135.00	
		\$ 7.00	20001 & UP	\$ 135.00 +	
2"	\$ 22.00	\$ 5.00	0 to 10000	\$ 72.00	\$ 338.70
		\$ 5.50	10001 to 15000	\$ 99.50	
		\$ 6.00	15001 to 20000	\$ 129.50	
		\$ 6.50	20001 to 30000	\$ 194.50	
		\$ 7.00	30001 & UP	\$ 194.50 +	
3"	\$ 50.00	\$ 5.00	0 to 10000	\$ 100.00	\$ 366.70
		\$ 5.50	10001 to 15000	\$ 127.50	
		\$ 6.00	15001 to 20000	\$ 157.50	
		\$ 6.50	20001 to 30000	\$ 222.50	
		\$ 7.00	30001 & UP	\$ 222.50 +	
4"	\$ 100.00	\$ 5.00	0 to 10000	\$ 150.00	\$ 414.60
		\$ 5.50	10001 to 15000	\$ 177.50	
		\$ 6.00	15001 to 20000	\$ 207.50	
		\$ 6.50	20001 to 30000	\$ 272.50	
		\$ 7.00	30001 & UP	\$ 272.50 +	

Table IX.E-8: Possible Irrigation Drought Rate Structure- Catastrophic Stage

SECTION IX - WATER RATE ANALYSIS

Meter Size	Base Rate	Tiered Rate above Base (per 1,000 gal)	Gallon Range for Tiered Rate	Max Rate Per Range	Average Rate Based on Usage
3/4"-1"	\$ 22.50	\$ 2.50	0 to 5000	\$ 35.00	\$ 22.50
		\$ 2.75	5000 to 10000	\$ 48.75	
		\$ 3.00	10001 to 15000	\$ 63.75	
		\$ 3.25	15001 to 20000	\$ 80.00	
		\$ 3.50	20001 & UP	\$ 80.00 +	
1 1/2"	\$ 200.00	\$ 5.00	0 to 5000	\$ 225.00	\$ 200.00
		\$ 5.50	5000 to 10000	\$ 252.50	
		\$ 6.00	10001 to 15000	\$ 282.50	
		\$ 6.50	15001 to 20000	\$ 315.00	
		\$ 7.00	20001 & UP	\$ 315.00 +	
2"	\$ 250.00	\$ 5.00	0 to 10000	\$ 300.00	\$ 250.00
		\$ 5.50	10001 to 15000	\$ 327.50	
		\$ 6.00	15001 to 20000	\$ 357.50	
		\$ 6.50	20001 to 30000	\$ 422.50	
		\$ 7.00	30001 & UP	\$ 422.50 +	
3"	\$ 400.00	\$ 5.00	0 to 10000	\$ 450.00	\$ 400.00
		\$ 5.50	10001 to 15000	\$ 477.50	
		\$ 6.00	15001 to 20000	\$ 507.50	
		\$ 6.50	20001 to 30000	\$ 572.50	
		\$ 7.00	30001 & UP	\$ 572.50 +	
4"	\$ 500.00	\$ 5.00	0 to 10000	\$ 550.00	\$ 500.00
		\$ 5.50	10001 to 15000	\$ 577.50	
		\$ 6.00	15001 to 20000	\$ 607.50	
		\$ 6.50	20001 to 30000	\$ 672.50	
		\$ 7.00	30001 & UP	\$ 672.50 +	

The drought rate structures only change the overage rates from the proposed rate structure with the exception of the irrigation “Catastrophic” stage. This stage completely eliminates any outdoor usage, so changing overage rates would be ineffective and so Base rates were updated to ensure necessary funds can still be obtained.

F. SUMMARY

Based on the District’s financial data and the information presented in this Plan, the existing rates have been determined to be insufficient to meet the \$52.15 per culinary ERU and \$394.97 per irrigation “other” connection that is needed per the Financing Plan. A rate increase of \$10.70 and \$81.45, respectively, is estimated to be needed to cover the anticipated expenses. Water rates and fees should be reviewed by the city periodically to ensure that they keep up with inflation rates and increased costs for system maintenance. The Cash Flow Projection included in Appendix E assumes a yearly rate increase of 1.25% based on inflation.

The city does not have to adopt the amounts shown in the rate analysis. However, the rates suggested are calculated to be enough to ensure that the water fund remains viable while paying for the existing debt service and the projected debt based on the recommendations in this plan.

X. IMPACT FEES

A. IMPACT FEE

This report constitutes a capital fee facilities plan to determine the public facilities requirement to serve development resulting from new development activity. An impact fee that is charged by a community may be used to pay for the debt service associated with surplus capacity built into the system. The surplus capacity in the water system has been designed for growth, and for this reason, impact fees should pay for that portion of the debt service associated with the system surplus capacity. The impact fee should also be used to pay for the cost of improvements to the system that are required to support new growth as new connections are added to the system.

B. CULINARY & IRRIGATION COMBINED CALCULATION

The total cost that is eligible for the impact fee assessment is equal to the existing debt service from previous water improvements projects that can be attributed to new growth plus the portion of any planned water improvements project that will be constructed to accommodate new growth. The combined total cost that is due to new growth is divided by the projected number of new ERUs that will be added to the system within the service area.

Currently the system meets all requirements and community demands for a culinary system except for the Water Right analysis recommendations which are needed regardless of new growth. This means that all other improvements are recommended to benefit new growth and are therefore 100% impact fee eligible. The impact fee calculation resulting from culinary and irrigation projects being analyzed together can be found in Table X.B-1.

TABLE X.B-1**IMPACT FEE ANALYSIS FY2023/2024****WATER MASTER PLAN****SANTA CLARA CITY**

22-May-23

EXISTING DEBT SERVICE

	P&I	% Eligible	% Water Dept.	Eligible
Debt Payment to Water District	\$ 1,272,000	58%		\$ 737,760
All other Debt	\$ 5,714,440	58%		\$ 3,314,375

Existing/Past Projects Impact Fee Eligible Costs: **\$ 4,052,135**

PROPOSED IMPROVEMENT PROJECTS

	Total Cost	% Eligible	Impact Fee Eligible
Culinary: Water Right Recommendations	\$ 18,000	0%	\$ -
Culinary: North Hamblin Pkwy to North Town Rd 1	\$ 292,400	100%	\$292,400
Culinary: 10" to 12" PRV Enlargement	\$ 208,550	100%	\$208,550
Culinary: 12" Line Well Connection to Snow Canyon	\$ 4,170,000	100%	\$4,170,000
Culinary: New Well	\$ 2,114,350	100%	\$2,114,350
Irrigation: Riesling Avenue 8" Line	\$ 136,140	100%	\$136,140
Irrigation: Crestview Drive 8" Line	\$ 505,230	100%	\$505,230
Irrigation: Villa Bonita 8" Line	\$ 99,900	100%	\$99,900
Irrigation: North Town Road 8" Line	\$ 579,665	100%	\$579,665
Irrigation: Sycamore Drive 8" Line	\$ 124,470	100%	\$124,470
Irrigation: Claude Drive 8" Line	\$ 124,470	100%	\$124,470
Irrigation: Additional Water Share Purchase	\$ 363,600	100%	\$363,600

Total Estimated New Project Cost **\$ 8,736,775** **99.8%** **\$ 8,718,775**

% Of New Projects Cost Due to New Growth **\$ 8,718,775**

Impact Fee Eligible Cost **\$ 8,718,775**

No. of ERUs (2023/2024) **3,775**

20-Year Projected ERUs **7,953**

No. of New ERUs Due to Growth **4,178**

Total Impact Fee Eligible Cost **\$ 12,770,910**

Maximum Water Impact Fee = Total Eligible Cost / New ERU's **\$ 3,056.75 /ERU.**

Proposed Water Impact Fee for Santa Clara (2023/2024) = **\$ 3,057 /ERU.**

WCWCD Impact Fee (2023) **\$ 8,417 /ERU.**

Total Potential Culinary Water Impact Fee (2023) **\$ 11,474 /ERU.**

Meter Size	X-Sectional Area (in²)	% Area Increase	Impact Fee
3/4"	0.44	0%	\$ 3,057
1"	0.79	80%	\$ 5,489
1 1/2"	1.77	302%	\$ 12,297
2"	3.14	614%	\$ 21,816
3"	7.07	1507%	\$ 49,120
4"	12.57	2757%	\$ 87,333
6"	28.27	6325%	\$ 196,412

P:\Santa Clara City\08401 Water & Irrigation IFFPA & IFA\06 Design\Financial- Culinary.xlsx\Impact Fee

Table X.B-1 shows that the maximum impact fee that the city may assess each new ERU is \$3,057. The current fee is \$1,973, resulting in a potential increase of \$1,084.

New Connections will also pay an additional WCWCD fee, currently \$8,417 for a total of \$11,474.

It is important to note that these impact fees are for the improvements suggested in Section VII and do not provide for the district to design and build anything beyond the proposed projects.

All new additions to the system will need to be considered in the impact fee calculations. Otherwise, the developer should be required to make the improvements.

C. VARYING IMPACT FEE CALCULATION

Because water usage traditionally varies based on the size and type of the residential unit, the city requested further analysis of impact fee dues based on different dwelling unit impact, specifically apartments.

Apartment Complex Impact Fee Analysis

Usage data was not obtained for apartment buildings, but estimated usage should be provided by developers before city approval. This usage can then be used to identify how many ERUs the complex will account for. For example, if the developer estimates a total usage of 15,000 gpd one would simply divide this by the average usage of 483 gpd to find that this complex is equivalent to approximately 31 ERUs. Therefore, they should be charged 31 times the traditional ERU impact fee. Table X.C-2 shows some theoretical fees assuming 200 gpd per unit using this method.

Table X.C-2: Example Apartment Impact Fee

With ERU IF of \$3,057				
Number of Units	Example Usage per Unit (gpd)	Usage for Complex (gpd)	ERUs	Impact Fee
10	*200	2,000	4.14	\$ 12,658
25	*200	5,000	10.35	\$ 31,646
50	*200	10,000	20.70	\$ 63,292
75	*200	15,000	31.06	\$ 94,938
100	*200	20,000	41.41	\$ 126,584
150	*200	30,000	62.11	\$ 189,876

* Usage per apartment unit is an estimate, actual apartment gpd calculations will be submitted by developer and used to calculate impact fee.

D. IMPACT FEE CERTIFICATION

The Impact Fee Certification is included as Appendix F.

E. IMPACT FEE RELATED ITEMS

There are a few items related to Impact Fees that City council should keep in mind when planning for, collecting, and expending Impact Fees.

Generally, it is a good idea to update this plan at least every five years, or more frequently if occasion arises.

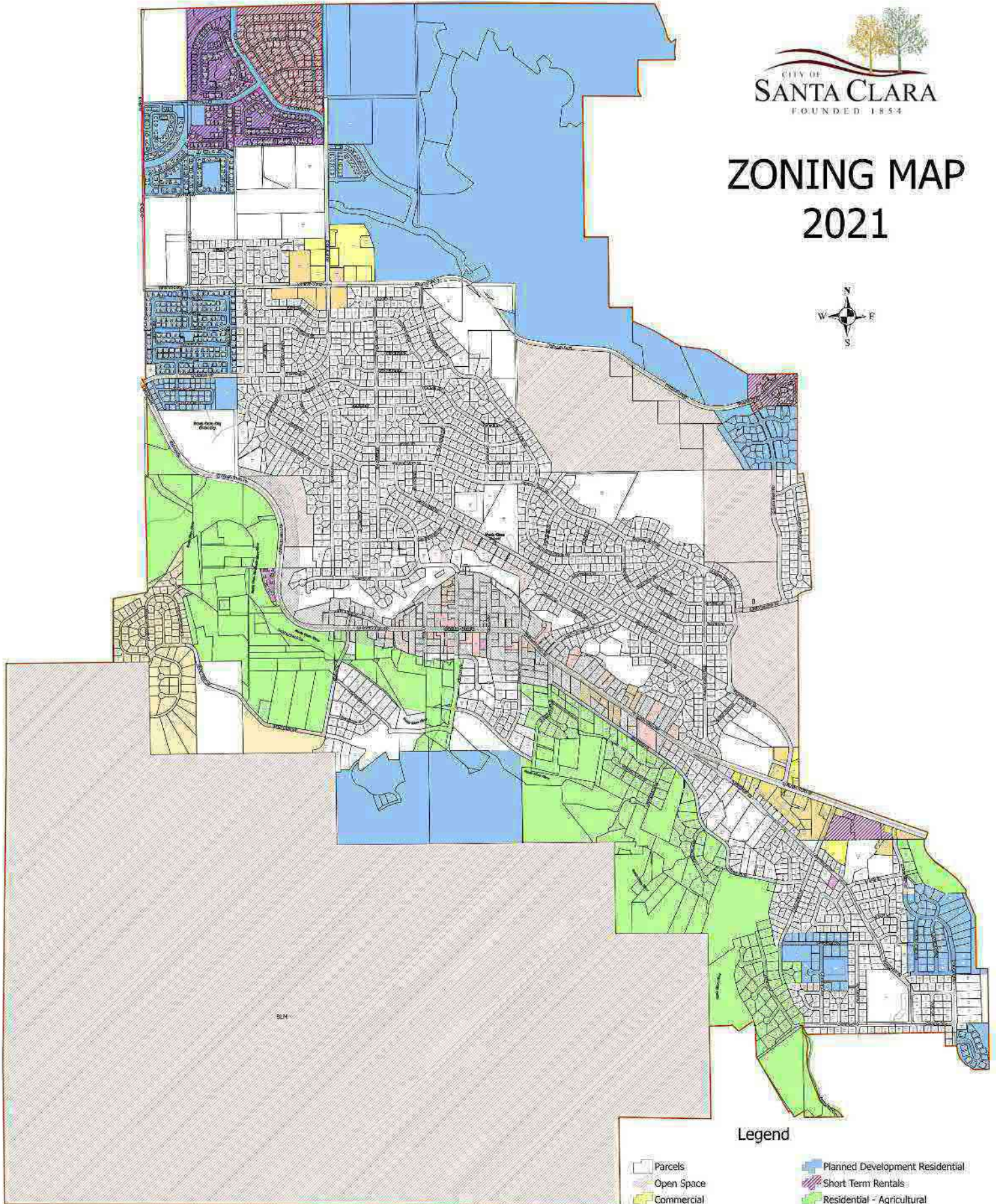
Council members should be made aware that, in conformance with Utah Code 11-36a-602, Impact Fees can generally only be expended for a system improvement that is identified in the Impact Fee Facilities Plan and that is for the specific public facility type for which the fee was collected (i.e. transportation impact fees cannot be used for water or sewer projects). Also, Impact Fees in Utah must be expended or encumbered for a permissible use within six years of their receipt unless 11-36a-602(2)(b) applies.

City Council members should also ensure that proper accounting of the Impact Fees occurs (track each fee in and out). See Utah Code 11-36a-601.

APPENDIX A

MAPS

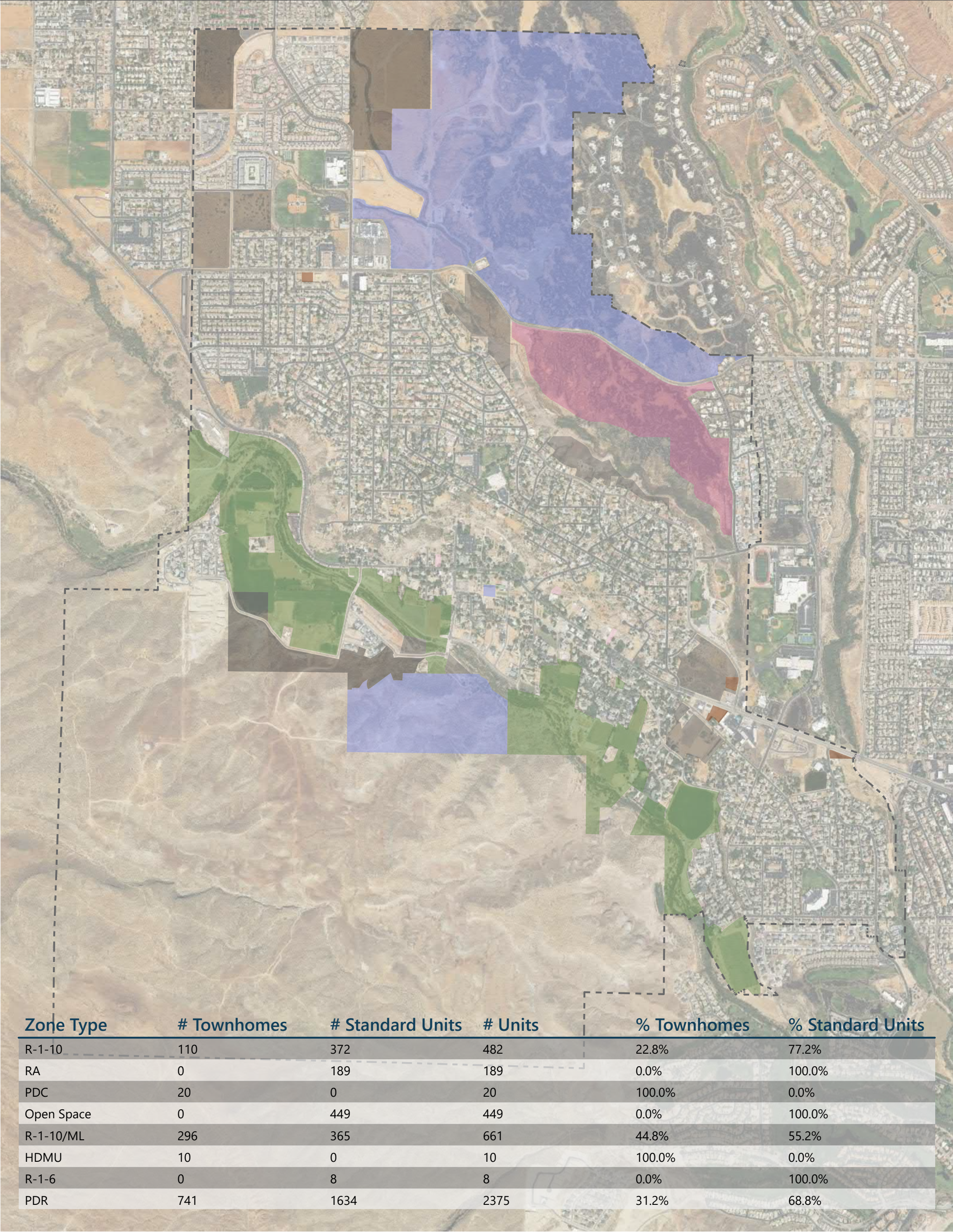
ZONING MAP 2021



Legend

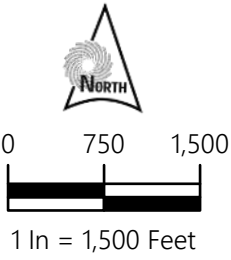
- | | |
|----------------------------------|---------------------------------|
| Parcels | Planned Development Residential |
| Open Space | Short Term Rentals |
| Commercial | Residential - Agricultural |
| Historical District Overlay Zone | Residential - Single Family |
| Multi Family - Residential | Mixed Lot Size |
| Mixed Use | Municipal Boundary |
| Planned Development Commercial | |

POTENTIAL FUTURE DEVELOPMENT



Zone Type	# Townhomes	# Standard Units	# Units	% Townhomes	% Standard Units
R-1-10	110	372	482	22.8%	77.2%
RA	0	189	189	0.0%	100.0%
PDC	20	0	20	100.0%	0.0%
Open Space	0	449	449	0.0%	100.0%
R-1-10/ML	296	365	661	44.8%	55.2%
HDMU	10	0	10	100.0%	0.0%
R-1-6	0	8	8	0.0%	100.0%
PDR	741	1634	2375	31.2%	68.8%

MAP LEGEND

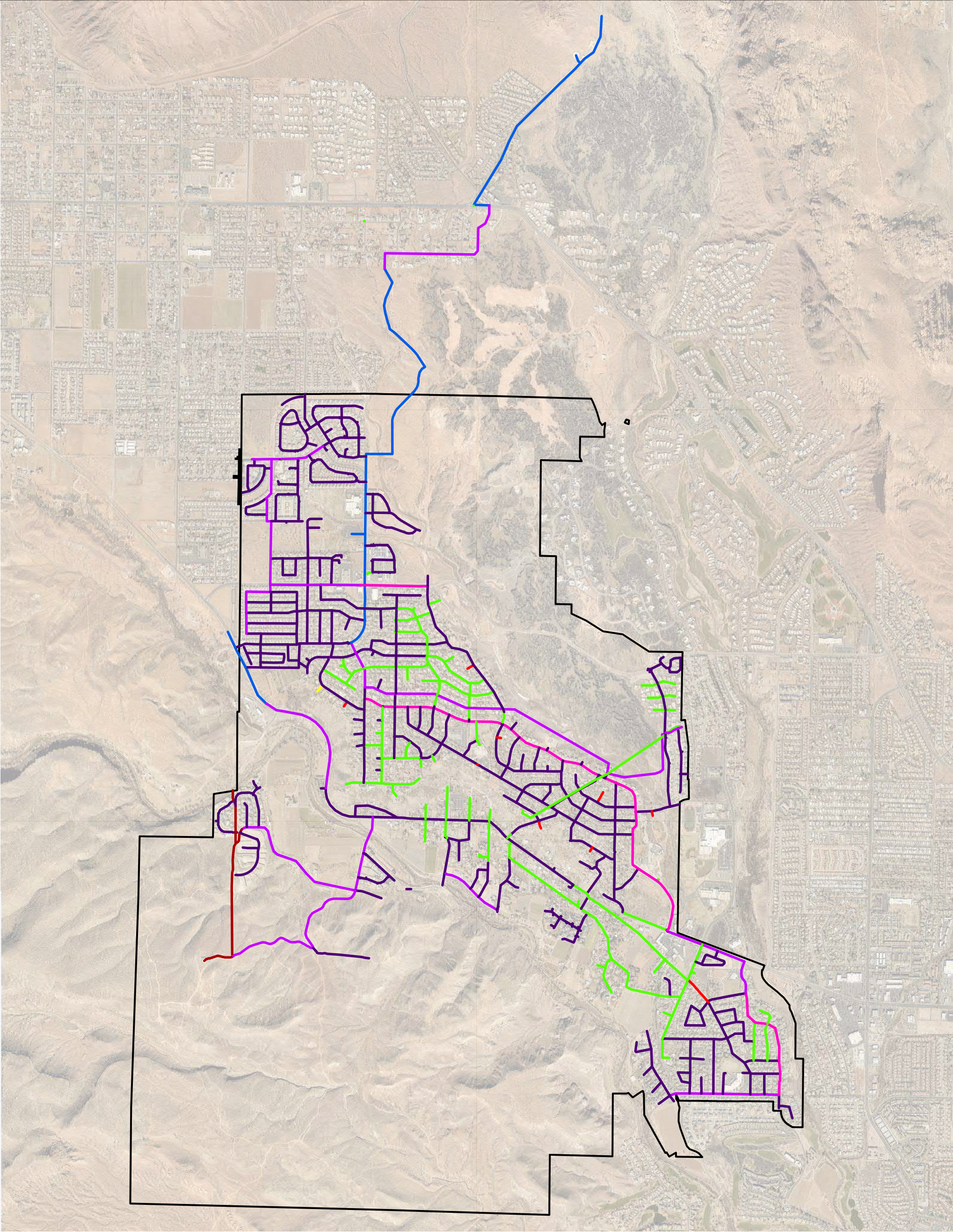


- OS - OPEN SPACE
- HDMU - HISTORIC DISTRICT/MIXED USE
- PDC - PLANNED DEVELOPMENT COMMERCIAL
- PDR - PLANNED DEVELOPMENT RESIDENTIAL
- RA - RESIDENTIAL AGRICULTURE

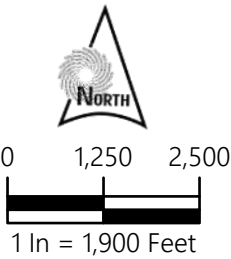
- R-1-6 - SINGLE-FAMILY RESIDENTIAL
- R-1-10 - SINGLE-FAMILY RESIDENTIAL
- R-1-10/ML - MIXED LOT SIZE
- Santa Clara City Boundary



EXISTING SANTA CLARA WATER SYSTEM



MAP LEGEND



Water Mains

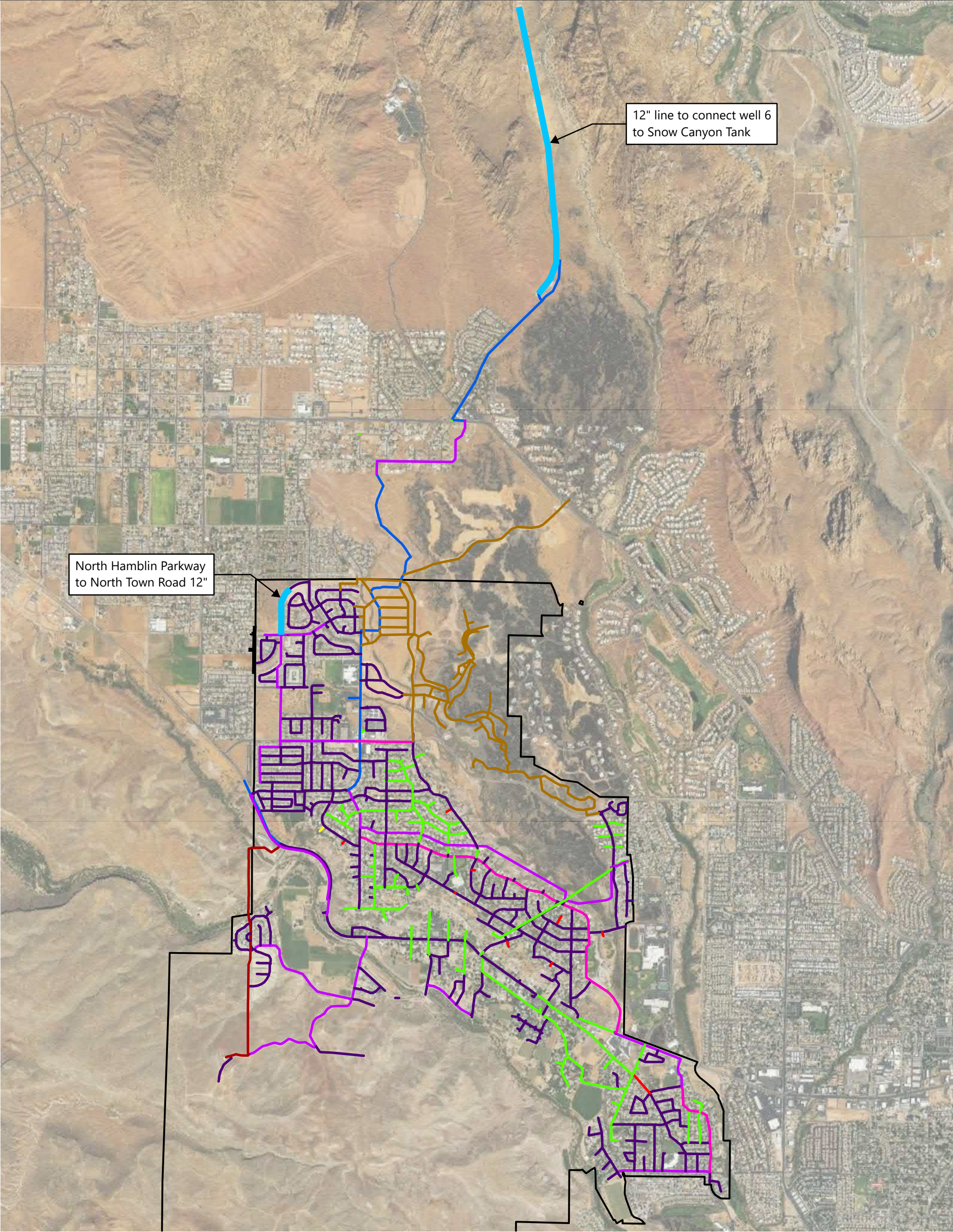
- 2"
- 4"
- 6"
- 8"
- 10"

- 12"
- 16"
- 20"
- Unknown
- City Boundary



Map Date: 12/14/2022

PROPOSED FUTURE PROJECTS



MAP LEGEND



0 1,250 2,500
1 in = 2,250 Feet

Water Mains

- 2"
- 4"
- 6"
- 8"
- 10"
- 12"

- 16"
- 20"
- Unknown
- Proposed Future Projects
- Developer Proposed
- City Boundary



Map Date: 3/8/2023

Existing Santa Clara Irrigation System

N



City Boundary

DIAMETER

- 2
- 4
- 6
- 8
- 10
- 12
- 16
- 24

0 0.15 0.3 0.6 0.9 1.2
Miles

Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

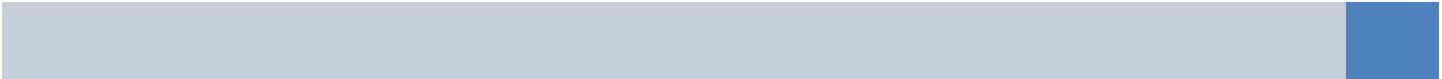
Future Santa Clara Irrigation System



-  City Boundary
-  Canal Company Owned
-  Santa Clara Owned
-  St. George Owned
-  Developer Proposed
-  Santa Clara Proposed

0 0.125 0.25 0.5 0.75 1 Miles

Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



APPENDIX B

INFOWATER® ANALYSIS

Average Day Demand

		ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
1	☐	J-100FH	4.11	2,876.00	3,041.25	71.60
2	☐	J-101	4.11	2,865.00	3,094.67	99.51
3	☐	J-102FH	4.11	2,868.00	3,094.80	98.27
4	☐	J-103FH	4.11	2,871.00	3,094.85	96.99
5	☐	J-104	4.11	2,839.00	3,041.71	87.83
6	☐	J-105FH	4.11	2,875.00	3,094.90	95.28
7	☐	J-106FH	4.11	2,877.00	3,094.70	94.33
8	☐	J-107FH	4.11	2,936.00	3,096.14	69.39
9	☐	J-108	4.11	2,876.00	3,094.80	94.81
10	☐	J-109FH	4.11	2,875.00	3,094.85	95.26
11	☐	J-10FH	4.11	2,741.00	2,934.30	83.76
12	☐	J-110	4.11	2,879.00	3,094.90	93.55
13	☐	J-111	4.11	2,899.50	3,094.99	84.70
14	☐	J-112	4.11	2,879.00	3,094.99	93.59
15	☐	J-113	4.11	2,885.00	3,095.22	91.09
16	☐	J-114FH	4.11	2,885.50	3,095.01	90.78
17	☐	J-115	4.11	2,885.00	3,095.01	91.00
18	☐	J-116FH	4.11	2,881.00	3,095.68	93.02
19	☐	J-117	4.11	2,897.00	3,095.04	85.81
20	☐	J-118FH	4.11	2,891.00	3,095.20	88.48
21	☐	J-119FH	4.11	2,889.00	3,095.36	89.42
22	☐	J-11FH	4.11	2,740.00	2,934.20	84.15
23	☐	J-12	4.11	2,766.00	2,934.51	73.02
24	☐	J-120	4.11	2,887.00	3,095.56	90.37
25	☐	J-1208	4.11	2,822.00	3,043.12	95.81
26	☐	J-121	4.11	2,878.00	3,095.88	94.41
27	☐	J-1210	3.54	2,760.00	3,212.46	196.05
28	☐	J-122FH	4.11	2,880.00	3,095.98	93.58
29	☐	J-123	4.11	2,870.00	3,095.88	97.87
30	☐	J-124	4.11	2,892.00	3,095.59	88.22
31	☐	J-125	4.11	2,892.00	3,095.59	88.22
32	☐	J-1254	3.54	3,000.00	3,166.00	71.93
33	☐	J-1268	3.54	3,200.00	3,298.26	42.57
34	☐	J-1269	3.54	3,200.00	3,300.95	43.74
35	☐	J-126FH	4.11	2,901.00	3,095.70	84.37
36	☐	J-127	4.11	2,901.00	3,095.81	84.41
37	☐	J-1273	4.11	2,823.00	3,212.45	168.75
38	☐	J-128FH	4.11	2,935.00	3,096.14	69.82
39	☐	J-129	4.11	2,899.00	3,095.54	85.16
40	☐	J-13	4.11	2,751.00	3,040.66	125.51
41	☐	J-130	4.11	2,932.00	3,096.14	71.12
42	☐	J-131FH	4.11	2,901.00	3,095.36	84.22
43	☐	J-132FH	4.11	2,925.00	3,096.13	74.15
44	☐	J-133FH	4.11	2,903.00	3,095.17	83.27
45	☐	J-134FH	4.11	2,927.00	3,096.13	73.29
46	☐	J-135	4.11	2,905.00	3,095.06	82.35
47	☐	J-136FH	4.11	2,910.00	3,094.96	80.15
48	☐	J-137	4.11	2,901.00	3,094.96	84.04
49	☐	J-138FH	4.11	2,902.00	3,094.96	83.61
50	☐	J-139FH	4.11	2,877.00	3,094.97	94.44

Average Day Demand

		ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
51	☐	J-140	4.11	2,885.00	3,094.85	90.93
52	☐	J-141FH	4.11	2,900.00	3,094.85	84.43
53	☐	J-142	4.11	2,885.00	3,094.85	90.93
54	☐	J-143FH	4.11	2,890.00	3,094.80	88.74
55	☐	J-144FH	4.11	2,897.00	3,094.68	85.65
56	☐	J-145FH	4.11	2,889.00	3,094.68	89.12
57	☐	J-146	4.11	2,888.00	3,094.67	89.55
58	☐	J-147FH	4.11	2,891.00	3,094.66	88.25
59	☐	J-148	4.11	2,908.00	3,094.81	80.94
60	☐	J-149FH	4.11	2,905.00	3,094.67	82.18
61	☐	J-14FH	4.11	2,750.00	2,935.00	80.16
62	☐	J-150	4.11	2,909.00	3,094.67	80.45
63	☐	J-151FH	4.11	2,893.00	3,094.67	87.38
64	☐	J-152	4.11	2,874.00	3,041.24	72.46
65	☐	J-153FH	4.11	2,892.50	3,094.61	87.58
66	☐	J-154	4.11	2,892.00	3,094.61	87.79
67	☐	J-155	4.11	2,894.00	3,094.59	86.91
68	☐	J-156FH	4.11	2,894.00	3,094.59	86.91
69	☐	J-157	4.11	2,870.00	3,094.54	97.29
70	☐	J-158FH	4.11	2,900.00	3,094.59	84.31
71	☐	J-159	4.11	2,896.00	3,094.58	86.04
72	☐	J-15FH	4.11	2,753.00	2,934.99	78.86
73	☐	J-160FH	4.11	2,903.50	3,094.59	82.80
74	☐	J-161FH	4.11	2,897.00	3,094.57	85.61
75	☐	J-162FH	4.11	2,880.00	3,094.50	92.94
76	☐	J-163	4.11	2,885.00	3,094.43	90.75
77	☐	J-164FH	4.11	2,910.00	3,094.66	80.01
78	☐	J-165FH	4.11	2,915.00	3,094.63	77.83
79	☐	J-166	4.11	2,915.00	3,094.62	77.83
80	☐	J-167FH	4.11	2,909.00	3,094.82	80.51
81	☐	J-168FH	4.11	2,917.00	3,094.83	77.05
82	☐	J-169FH	4.11	2,921.00	3,096.13	75.88
83	☐	J-16FH	4.11	2,640.00	2,935.32	127.96
84	☐	J-170FH	4.11	2,917.00	3,095.68	77.42
85	☐	J-171	4.11	2,916.00	3,094.62	77.39
86	☐	J-172	4.11	2,909.00	3,094.82	80.51
87	☐	J-173FH	4.11	2,920.00	3,094.34	75.54
88	☐	J-174	4.11	2,921.00	3,094.34	75.11
89	☐	J-175FH	4.11	2,915.00	3,093.78	77.46
90	☐	J-176	4.11	2,915.00	3,093.78	77.46
91	☐	J-177FH	4.11	2,929.00	3,094.93	71.90
92	☐	J-178	4.11	2,920.00	3,094.92	75.79
93	☐	J-179	4.11	2,920.00	3,094.95	75.81
94	☐	J-17FH	4.11	2,638.00	2,935.31	128.82
95	☐	J-18	4.11	2,637.00	2,935.31	129.26
96	☐	J-180	4.11	2,933.00	3,094.87	70.14
97	☐	J-181	4.11	2,915.00	3,094.63	77.83
98	☐	J-182	4.11	2,915.00	3,094.44	77.75
99	☐	J-183FH	4.11	2,915.00	3,094.44	77.75
100	☐	J-184FH	4.11	2,915.00	3,092.99	77.12

Average Day Demand

		ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
101	☐	J-185	4.11	2,920.00	3,093.90	75.35
102	☐	J-186FH	4.11	2,910.00	3,094.65	80.01
103	☐	J-187	4.11	2,915.00	3,095.09	78.03
104	☐	J-188	4.11	2,909.00	3,094.32	80.30
105	☐	J-189FH	4.11	2,915.00	3,093.67	77.42
106	☐	J-191	4.11	2,915.00	3,095.12	78.04
107	☐	J-192	4.11	2,910.00	3,095.13	80.22
108	☐	J-193FH	4.11	2,917.00	3,095.12	77.18
109	☐	J-194	4.11	2,917.00	3,094.53	76.93
110	☐	J-195	4.11	2,916.50	3,094.53	77.14
111	☐	J-196	4.11	2,909.00	3,094.48	80.37
112	☐	J-197	4.11	2,908.00	3,094.48	80.80
113	☐	J-198FH	4.11	2,900.00	3,094.44	84.25
114	☐	J-199	4.11	2,902.00	3,094.37	83.35
115	☐	J-19FH	4.11	2,636.00	2,935.31	129.69
116	☐	J-1FH	4.11	2,720.00	2,934.25	92.83
117	☐	J-2	4.11	2,720.00	2,934.25	92.83
118	☐	J-200	4.11	2,895.00	3,094.45	86.42
119	☐	J-201	4.11	2,890.00	3,094.43	88.58
120	☐	J-202	4.11	2,892.00	3,094.42	87.71
121	☐	J-203	4.11	2,883.00	3,094.41	91.61
122	☐	J-204FH	4.11	2,880.00	3,094.43	92.91
123	☐	J-205	4.11	2,885.00	3,094.36	90.72
124	☐	J-206	4.11	2,890.00	3,094.36	88.55
125	☐	J-207	4.11	2,883.00	3,094.36	91.58
126	☐	J-208	4.11	2,939.00	3,094.87	67.54
127	☐	J-209	4.11	2,825.00	3,048.10	96.67
128	☐	J-20FH	4.11	2,745.00	2,936.82	83.12
129	☐	J-21	4.11	2,745.00	2,936.55	83.00
130	☐	J-210	4.11	2,937.00	3,095.80	68.81
131	☐	J-211FH	4.11	2,830.00	3,048.10	94.50
132	☐	J-212FH	4.11	2,824.00	3,048.10	97.10
133	☐	J-213	4.11	2,825.00	3,051.04	97.94
134	☐	J-214FH	4.11	2,835.00	3,051.04	93.61
135	☐	J-215FH	4.11	2,825.00	3,051.04	97.94
136	☐	J-216	4.11	2,830.00	3,054.20	97.15
137	☐	J-217	4.11	2,830.00	3,055.96	97.91
138	☐	J-218FH	4.11	2,838.00	3,054.20	93.68
139	☐	J-219	4.11	2,830.00	3,054.20	97.14
140	☐	J-22	4.11	2,920.00	3,094.71	75.70
141	☐	J-220	4.11	2,924.00	3,094.39	73.83
142	☐	J-221FH	4.11	2,748.00	2,937.13	81.95
143	☐	J-222FH	4.11	2,732.00	2,937.39	89.00
144	☐	J-223	4.11	2,720.00	2,937.12	94.08
145	☐	J-224	4.11	2,750.00	2,937.54	81.26
146	☐	J-225FH	4.11	2,752.00	2,937.69	80.46
147	☐	J-226	4.11	2,740.00	2,937.67	85.65
148	☐	J-227FH	4.11	2,845.00	3,041.24	85.03
149	☐	J-228	4.11	2,755.00	2,937.69	79.16
150	☐	J-229FH	4.11	2,753.00	2,937.91	80.12

Average Day Demand

		ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
151	☐	J-23	4.11	2,751.00	3,040.98	125.65
152	☐	J-230	4.11	2,755.00	2,937.91	79.26
153	☐	J-231	4.11	2,750.00	2,937.92	81.43
154	☐	J-232FH	4.11	2,755.00	2,938.15	79.36
155	☐	J-233	4.11	2,750.00	2,937.97	81.45
156	☐	J-234	4.11	2,770.00	2,938.15	72.86
157	☐	J-235FH	4.11	2,765.00	2,938.46	75.16
158	☐	J-236	4.11	2,768.00	2,938.46	73.86
159	☐	J-237	4.11	2,765.00	2,938.46	75.16
160	☐	J-238	4.11	2,778.00	2,938.72	69.64
161	☐	J-24	4.11	2,800.00	3,041.04	104.44
162	☐	J-240	4.11	2,778.00	2,938.76	69.66
163	☐	J-241	4.11	2,780.00	2,938.64	68.74
164	☐	J-242	4.11	2,760.00	2,939.48	77.77
165	☐	J-243	4.11	2,924.00	3,094.65	73.94
166	☐	J-244	4.11	2,770.00	2,939.48	73.44
167	☐	J-245	4.11	2,770.00	2,939.48	73.44
168	☐	J-246	4.11	2,878.00	3,041.24	70.73
169	☐	J-247FH	4.11	2,857.50	3,041.24	79.62
170	☐	J-248	4.11	2,920.00	3,093.41	75.14
171	☐	J-249	4.11	2,920.00	3,093.25	75.07
172	☐	J-250FH	4.11	2,750.00	2,937.97	81.45
173	☐	J-251	4.11	2,750.00	2,937.95	81.44
174	☐	J-252	4.11	2,750.00	2,937.94	81.43
175	☐	J-253	4.11	2,745.00	2,937.94	83.60
176	☐	J-254	4.11	2,735.00	2,936.24	87.20
177	☐	J-255FH	4.11	2,728.00	2,936.23	90.22
178	☐	J-256	4.11	2,728.00	2,936.22	90.22
179	☐	J-257	4.11	2,725.00	2,934.25	90.67
180	☐	J-258FH	4.11	2,735.00	2,934.18	86.30
181	☐	J-259	4.11	2,735.00	2,934.15	86.29
182	☐	J-25FH	4.11	2,758.00	3,041.02	122.63
183	☐	J-26	4.11	2,760.00	3,041.02	121.76
184	☐	J-260FH	4.11	2,735.00	2,934.14	86.29
185	☐	J-261	4.11	2,735.00	2,934.14	86.29
186	☐	J-262	4.11	2,735.00	2,934.13	86.28
187	☐	J-263	4.11	2,720.00	2,934.13	92.78
188	☐	J-264	4.11	2,710.00	2,934.11	97.11
189	☐	J-265	4.11	2,700.00	2,934.04	101.41
190	☐	J-266FH	4.11	2,700.00	2,934.04	101.41
191	☐	J-267FH	4.11	2,751.00	2,934.62	79.56
192	☐	J-268	4.11	2,700.00	2,934.07	101.42
193	☐	J-269FH	4.11	2,700.00	2,934.07	101.42
194	☐	J-27	4.11	2,770.00	3,041.05	117.44
195	☐	J-270FH	4.11	2,700.00	2,934.11	101.44
196	☐	J-271FH	4.11	2,735.00	2,934.14	86.29
197	☐	J-272	4.11	2,824.00	3,043.49	95.11
198	☐	J-273FH	4.11	2,705.00	2,934.15	99.29
199	☐	J-274FH	4.11	2,705.00	2,934.16	99.29
200	☐	J-275FH	4.11	2,785.00	3,040.86	110.86

Average Day Demand

		ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
201	☐	J-277	4.11	2,920.00	3,093.67	75.25
202	☐	J-278FH	4.11	2,740.00	2,934.42	84.24
203	☐	J-279FH	4.11	2,730.00	2,934.35	88.54
204	☐	J-28	4.11	2,807.00	3,041.16	101.46
205	☐	J-280FH	4.11	2,741.00	2,934.33	83.77
206	☐	J-281FH	4.11	2,703.00	2,934.16	100.16
207	☐	J-282	4.11	2,720.00	2,934.17	92.80
208	☐	J-283FH	4.11	2,715.00	2,934.17	94.97
209	☐	J-284FH	4.11	2,720.00	2,934.21	92.82
210	☐	J-285	4.11	2,720.00	2,934.17	92.80
211	☐	J-286	4.11	2,720.00	2,934.21	92.82
212	☐	J-287	4.11	2,720.00	2,934.23	92.83
213	☐	J-288FH	4.11	2,720.00	2,934.17	92.80
214	☐	J-289	4.11	2,720.00	2,934.18	92.81
215	☐	J-290	4.11	2,720.00	2,934.18	92.81
216	☐	J-291FH	4.11	2,921.00	3,095.36	75.55
217	☐	J-292FH	4.11	2,705.00	2,934.16	99.30
218	☐	J-293FH	4.11	2,755.00	3,040.76	123.82
219	☐	J-294	4.11	2,913.00	3,100.10	81.07
220	☐	J-295	4.11	2,946.00	3,165.32	95.03
221	☐	J-296	3.54	2,990.00	3,165.43	76.01
222	☐	J-297FH	4.11	2,705.00	2,934.16	99.30
223	☐	J-298	4.11	2,760.00	2,939.15	77.63
224	☐	J-299	4.11	2,770.00	2,939.46	73.43
225	☐	J-29FH	4.11	2,815.00	3,041.24	98.03
226	☐	J-3	4.11	2,730.00	2,934.34	88.54
227	☐	J-300	4.11	2,915.00	3,093.67	77.42
228	☐	J-301FH	4.11	2,800.00	3,092.19	126.61
229	☐	J-302FH	4.11	2,705.00	2,934.16	99.30
230	☐	J-303FH	4.11	2,730.00	2,934.18	88.47
231	☐	J-304	3.54	3,000.00	3,165.83	71.85
232	☐	J-305FH	4.11	2,877.50	3,041.25	70.95
233	☐	J-306	4.11	2,877.50	3,094.71	94.12
234	☐	J-307FH	4.11	2,740.00	2,934.19	84.14
235	☐	J-308	3.54	3,042.00	3,089.00	20.37
236	☐	J-309	4.11	2,760.00	2,939.50	77.78
237	☐	J-30FH	4.11	2,816.00	3,041.32	97.63
238	☐	J-31	4.11	2,815.00	3,041.39	98.10
239	☐	J-310	4.11	2,930.00	3,095.62	71.76
240	☐	J-311	44.15	2,925.00	3,102.23	76.79
241	☐	J-312	4.11	2,870.00	3,096.79	98.27
242	☐	J-313	4.11	2,800.00	3,041.71	104.73
243	☐	J-314	4.11	2,780.00	3,041.77	113.42
244	☐	J-315FH	4.11	2,930.00	3,096.14	71.99
245	☐	J-316	4.11	2,843.00	3,041.24	85.90
246	☐	J-317FH	4.11	2,902.00	3,094.36	83.35
247	☐	J-318FH	4.11	2,922.00	3,093.35	74.25
248	☐	J-319FH	4.11	2,924.00	3,093.92	73.62
249	☐	J-32	4.11	2,800.00	3,041.66	104.71
250	☐	J-320	4.11	2,922.00	3,094.06	74.55

Average Day Demand

		ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
251	☐	J-321FH	4.11	2,924.00	3,094.32	73.80
252	☐	J-322FH	4.11	2,936.00	3,095.28	69.02
253	☐	J-323FH	4.11	2,930.00	3,094.84	71.43
254	☐	J-324FH	4.11	2,926.00	3,094.65	73.08
255	☐	J-325FH	4.11	2,924.00	3,094.39	73.83
256	☐	J-326FH	4.11	2,928.00	3,094.48	72.14
257	☐	J-327FH	4.11	2,928.00	3,094.84	72.29
258	☐	J-328FH	4.11	2,933.00	3,094.95	70.17
259	☐	J-329FH	4.11	2,934.00	3,094.94	69.74
260	☐	J-330	4.11	2,934.00	3,094.84	69.69
261	☐	J-331	4.11	2,923.00	3,094.31	74.23
262	☐	J-333	4.11	2,885.00	3,094.36	90.72
263	☐	J-334	4.11	2,885.00	3,094.36	90.72
264	☐	J-335	4.11	2,745.00	2,936.88	83.14
265	☐	J-336	4.11	2,745.00	2,936.88	83.14
266	☐	J-33FH	4.11	2,820.00	3,041.45	95.96
267	☐	J-34	4.11	2,830.00	3,041.48	91.63
268	☐	J-35	4.11	2,827.00	3,041.35	92.88
269	☐	J-36	4.11	2,820.00	3,041.36	95.92
270	☐	J-37	4.11	2,825.00	3,041.30	93.72
271	☐	J-38FH	4.11	2,821.00	3,041.24	95.43
272	☐	J-39FH	4.11	2,836.00	3,041.32	88.97
273	☐	J-4	4.11	2,729.00	2,934.34	88.97
274	☐	J-40	4.11	2,839.00	3,041.32	87.66
275	☐	J-41	4.11	2,837.00	3,041.31	88.53
276	☐	J-42	4.11	2,835.00	3,041.28	89.38
277	☐	J-43	4.11	2,833.00	3,041.24	90.23
278	☐	J-44FH	4.11	2,805.00	3,041.16	102.33
279	☐	J-45	4.11	2,805.00	3,041.17	102.33
280	☐	J-46	4.11	2,780.00	3,041.16	113.16
281	☐	J-47	4.11	2,760.00	3,041.16	121.82
282	☐	J-48	4.11	2,780.00	3,041.16	113.16
283	☐	J-49	4.11	2,801.00	3,041.21	104.08
284	☐	J-5	4.11	2,751.00	2,934.45	79.49
285	☐	J-50	4.11	2,803.00	3,041.17	103.20
286	☐	J-51	4.11	2,800.00	3,041.21	104.51
287	☐	J-52	4.11	2,839.00	3,041.56	87.77
288	☐	J-53	4.11	2,842.00	3,041.46	86.43
289	☐	J-54	4.11	2,920.00	3,095.09	75.87
290	☐	J-55	4.11	2,842.00	3,041.45	86.42
291	☐	J-56	4.11	2,847.00	3,041.37	84.22
292	☐	J-57	4.11	2,850.00	3,041.37	82.92
293	☐	J-58	4.11	2,837.00	3,041.32	88.53
294	☐	J-59	4.11	2,860.00	3,092.00	100.52
295	☐	J-6	4.11	2,757.00	2,934.48	76.90
296	☐	J-61	4.11	2,847.00	3,041.31	84.19
297	☐	J-63FH	4.11	2,839.00	3,041.31	87.66
298	☐	J-64	4.11	2,839.00	3,041.28	87.65
299	☐	J-65	4.11	2,851.50	3,041.29	82.24
300	☐	J-66FH	4.11	2,847.00	3,041.27	84.18

Average Day Demand

		ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
301	☐	J-67	4.11	2,842.00	3,041.27	86.34
302	☐	J-68FH	4.11	2,839.00	3,041.27	87.64
303	☐	J-69FH	4.11	2,839.00	3,041.25	87.63
304	☐	J-7	4.11	2,754.00	2,934.47	78.20
305	☐	J-70	4.11	2,837.00	3,041.25	88.50
306	☐	J-71	4.11	2,839.50	3,041.25	87.42
307	☐	J-73FH	4.11	2,830.00	3,041.24	91.53
308	☐	J-74	4.11	2,843.00	3,041.25	85.90
309	☐	J-75	4.11	2,845.00	3,041.25	85.04
310	☐	J-76	4.11	2,849.00	3,041.25	83.30
311	☐	J-77FH	4.11	2,914.00	3,096.40	79.04
312	☐	J-78	4.11	2,940.00	3,095.62	67.43
313	☐	J-79	4.11	2,842.00	3,041.24	86.33
314	☐	J-80FH	4.11	2,940.00	3,096.14	67.65
315	☐	J-81FH	4.11	2,841.00	3,041.24	86.76
316	☐	J-82	4.11	2,921.00	3,096.13	75.88
317	☐	J-83	4.11	2,760.00	2,937.54	76.93
318	☐	J-84	4.11	2,760.00	3,041.24	121.86
319	☐	J-85FH	4.11	2,849.50	3,041.26	83.09
320	☐	J-86	4.11	2,851.50	3,041.26	82.22
321	☐	J-87	4.11	2,852.00	3,041.26	82.01
322	☐	J-88	4.11	2,854.00	3,041.25	81.14
323	☐	J-89	4.11	2,857.00	3,041.27	79.84
324	☐	J-8FH	4.11	2,752.00	2,934.47	79.06
325	☐	J-9	4.11	2,757.00	2,934.49	76.91
326	☐	J-90	4.11	2,857.00	3,041.27	79.84
327	☐	J-91	4.11	2,857.00	3,041.26	79.84
328	☐	J-92	4.11	2,861.00	3,041.25	78.10
329	☐	J-93FH	4.11	2,858.00	3,041.25	79.40
330	☐	J-94	4.11	2,857.00	3,041.25	79.83
331	☐	J-95	4.11	2,863.50	3,041.25	77.02
332	☐	J-956	3.54	2,847.00	3,063.94	94.00
333	☐	J-958	3.54	2,856.00	3,067.09	91.46
334	☐	J-96	4.11	2,863.00	3,041.25	77.24
335	☐	J-97FH	4.11	2,936.00	3,096.14	69.39
336	☐	J-98	4.11	2,866.75	3,041.25	75.61
337	☐	J-99	4.11	2,866.50	3,041.25	75.72
338	☐	J1000	3.54	2,903.00	3,098.54	84.73
339	☐	J1002	3.54	2,892.00	3,098.46	89.46
340	☐	J1004	3.54	2,939.00	3,097.74	68.78
341	☐	J1006	3.54	2,937.00	3,097.73	69.65
342	☐	J1008	3.54	2,940.00	3,097.74	68.35
343	☐	J100FH	4.11	2,933.00	3,094.15	69.83
344	☐	J1010	3.54	2,941.00	3,097.74	67.91
345	☐	J1012	3.54	2,941.00	3,097.76	67.92
346	☐	J1014	3.54	2,942.00	3,097.76	67.49
347	☐	J1016	3.54	2,943.00	3,097.72	67.04
348	☐	J1018	3.54	2,940.00	3,097.74	68.35
349	☐	J1020	3.54	2,944.00	3,098.88	67.11
350	☐	J1022	3.54	2,947.00	3,098.88	65.81

Average Day Demand

		ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
351	☐	J1024	3.54	2,941.00	3,098.88	68.41
352	☐	J1026	3.54	2,953.00	3,089.30	59.06
353	☐	J1028	3.54	2,868.00	3,089.30	95.89
354	☐	J102FH	4.11	2,936.00	3,095.40	69.07
355	☐	J1030	3.54	2,890.00	3,089.30	86.36
356	☐	J1032	3.54	2,873.00	3,089.30	93.72
357	☐	J1034	3.54	2,915.00	3,089.30	75.52
358	☐	J1036	3.54	2,761.00	2,934.49	75.17
359	☐	J1038	3.54	2,764.00	2,934.48	73.87
360	☐	J1040	3.54	2,764.00	2,934.49	73.87
361	☐	J1042	3.54	2,766.00	2,934.48	73.00
362	☐	J1044	3.54	2,768.00	2,934.48	72.14
363	☐	J1048	3.54	3,000.00	3,165.84	71.86
364	☐	J104FH	4.11	2,929.00	3,095.90	72.32
365	☐	J1050	3.54	2,861.00	3,212.44	152.28
366	☐	J1054	0.00	2,940.00	3,118.39	77.30
367	☐	J1056	0.00	2,929.50	3,099.67	73.73
368	☐	J1058	0.00	3,007.70	3,211.75	88.42
369	☐	J1062	0.00	3,000.00	3,165.43	71.68
370	☐	J1064	0.00	2,935.51	3,109.31	75.31
371	☐	J1068	3.54	3,138.90	3,166.00	11.74
372	☐	J106FH	4.11	2,923.00	3,095.89	74.91
373	☐	J108FH	4.11	2,921.00	3,096.24	75.93
374	☐	J10FH	4.11	2,845.00	3,058.51	92.51
375	☐	J110FH	4.11	2,914.00	3,096.10	78.91
376	☐	J112FH	4.11	2,934.00	3,094.78	69.67
377	☐	J114FH	4.11	2,932.00	3,094.82	70.55
378	☐	J116FH	4.11	2,925.00	3,095.34	73.81
379	☐	J118FH	4.11	2,929.00	3,094.47	71.70
380	☐	J12	4.11	2,845.00	3,058.73	92.61
381	☐	J120FH	4.11	2,930.00	3,094.68	71.36
382	☐	J122FH	4.11	2,930.00	3,094.76	71.39
383	☐	J124FH	4.11	2,922.00	3,095.53	75.19
384	☐	J126FH	32.49	2,899.00	3,096.55	85.60
385	☐	J128FH	4.11	2,902.00	3,095.81	83.98
386	☐	J130FH	32.49	2,881.00	3,096.70	93.46
387	☐	J132FH	4.11	2,887.00	3,095.95	90.54
388	☐	J134FH	4.11	2,894.00	3,095.63	87.37
389	☐	J136FH	4.11	2,898.00	3,095.55	85.60
390	☐	J138FH	4.11	2,924.00	3,095.09	74.13
391	☐	J140FH	4.11	2,920.00	3,095.08	75.86
392	☐	J142FH	4.11	2,923.00	3,094.95	74.51
393	☐	J144FH	4.11	2,808.00	3,092.19	123.14
394	☐	J146FH	4.11	2,810.00	3,092.20	122.28
395	☐	J148FH	4.11	2,816.00	3,092.20	119.68
396	☐	J14FH	4.11	2,845.00	3,058.11	92.34
397	☐	J150FH	4.11	2,868.00	3,091.91	97.02
398	☐	J152FH	4.11	2,932.00	3,093.26	69.87
399	☐	J154FH	4.11	2,929.00	3,094.06	71.52
400	☐	J156FH	4.11	2,929.00	3,094.11	71.54

Average Day Demand

		ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
401	☐	J158FH	4.11	2,928.00	3,094.64	72.20
402	☐	J16	4.11	2,849.00	3,058.10	90.60
403	☐	J160FH	4.11	2,912.00	3,094.52	79.08
404	☐	J162FH	4.11	2,918.00	3,094.84	76.62
405	☐	J164FH	4.11	2,911.00	3,094.80	79.64
406	☐	J166FH	4.11	2,911.00	3,095.06	79.75
407	☐	J168FH	4.11	2,905.00	3,095.18	82.40
408	☐	J170FH	4.11	2,882.00	3,095.41	92.47
409	☐	J172FH	4.11	2,884.00	3,095.17	91.50
410	☐	J174FH	4.11	2,877.00	3,095.03	94.47
411	☐	J176FH	4.11	2,881.00	3,094.92	92.69
412	☐	J178FH	4.11	2,888.00	3,094.85	89.63
413	☐	J180FH	4.11	2,880.00	3,094.80	93.07
414	☐	J182FH	4.11	2,863.00	3,094.80	100.44
415	☐	J184FH	4.11	2,863.00	3,094.70	100.40
416	☐	J186	4.11	2,788.00	2,939.48	65.64
417	☐	J188FH	4.11	2,775.00	2,939.48	71.27
418	☐	J18FH	4.11	2,844.00	3,058.10	92.77
419	☐	J190FH	4.11	2,893.00	3,094.36	87.25
420	☐	J192FH	4.11	2,766.00	2,939.49	75.17
421	☐	J194FH	4.11	2,780.00	2,939.39	69.06
422	☐	J196FH	4.11	2,763.00	2,939.38	76.42
423	☐	J198FH	4.11	2,776.00	2,939.26	70.74
424	☐	J200FH	4.11	2,783.00	2,938.82	67.52
425	☐	J202FH	4.11	2,760.00	2,938.46	77.33
426	☐	J204FH	4.11	2,777.00	2,938.15	69.82
427	☐	J206FH	4.11	2,889.00	3,094.36	88.98
428	☐	J208FH	4.11	2,879.00	3,094.40	93.33
429	☐	J20FH	4.11	2,850.00	3,058.10	90.17
430	☐	J210FH	4.11	2,892.00	3,094.44	87.72
431	☐	J212FH	4.11	2,881.00	3,094.46	92.49
432	☐	J214FH	4.11	2,738.00	2,937.94	86.63
433	☐	J216FH	4.11	2,743.00	2,937.67	84.35
434	☐	J218FH	4.11	2,722.00	2,937.12	93.21
435	☐	J22	4.11	2,852.00	3,058.10	89.30
436	☐	J220FH	4.11	2,725.00	2,937.12	91.91
437	☐	J222FH	4.11	2,732.00	2,937.12	88.88
438	☐	J224	4.11	2,730.00	2,937.12	89.75
439	☐	J226FH	4.11	2,736.00	2,937.12	87.15
440	☐	J228FH	4.11	2,738.00	2,936.95	86.21
441	☐	J230FH	4.11	2,747.00	2,937.18	82.41
442	☐	J232FH	4.11	2,723.00	2,936.22	92.39
443	☐	J234FH	4.11	2,728.00	2,936.22	90.22
444	☐	J236FH	4.11	2,738.00	2,936.70	86.09
445	☐	J238FH	4.11	2,745.00	2,936.97	83.18
446	☐	J240FH	4.11	2,720.00	2,934.91	93.12
447	☐	J242FH	4.11	2,742.00	2,935.44	83.82
448	☐	J244FH	4.11	2,755.00	3,040.71	123.80
449	☐	J246FH	4.11	2,835.00	3,054.20	94.98
450	☐	J248FH	4.11	2,740.00	2,936.11	84.97

Average Day Demand

		ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
451	☐	J24FH	4.11	2,842.00	3,058.10	93.64
452	☐	J250FH	4.11	2,749.00	2,936.65	81.31
453	☐	J252FH	4.11	2,743.00	2,936.18	83.70
454	☐	J254FH	4.11	2,743.00	2,936.04	83.65
455	☐	J256FH	4.11	2,804.00	3,041.18	102.77
456	☐	J258FH	4.11	2,778.00	3,041.16	114.03
457	☐	J260FH	4.11	2,797.00	3,041.11	105.77
458	☐	J262FH	4.11	2,796.00	3,041.04	106.18
459	☐	J264FH	4.11	2,799.00	3,041.00	104.86
460	☐	J266FH	4.11	2,812.00	3,041.24	99.33
461	☐	J268FH	4.11	2,810.00	3,041.22	100.19
462	☐	J26FH	4.11	2,849.00	3,058.10	90.60
463	☐	J270FH	4.11	2,807.00	3,041.16	101.46
464	☐	J272FH	4.11	2,824.00	3,041.38	94.19
465	☐	J274FH	4.11	2,804.00	3,041.42	102.87
466	☐	J276FH	4.11	2,818.00	3,041.24	96.73
467	☐	J278FH	4.11	2,824.00	3,041.28	94.15
468	☐	J28	4.11	2,922.00	3,093.67	74.39
469	☐	J280FH	4.11	2,819.00	3,041.29	96.32
470	☐	J282FH	4.11	2,841.00	3,041.43	86.85
471	☐	J284FH	4.11	2,843.00	3,041.35	85.94
472	☐	J286FH	4.11	2,844.00	3,041.28	85.48
473	☐	J288FH	4.11	2,849.00	3,041.26	83.31
474	☐	J290FH	4.11	2,794.00	3,041.24	107.13
475	☐	J292FH	4.11	2,856.00	3,041.24	80.27
476	☐	J294FH	4.11	2,845.00	3,041.25	85.03
477	☐	J296FH	4.11	2,843.00	3,041.25	85.90
478	☐	J298FH	4.11	2,852.00	3,041.25	82.00
479	☐	J300FH	4.11	2,875.00	3,041.24	72.03
480	☐	J302FH	4.11	2,871.00	3,041.24	73.76
481	☐	J304FH	4.11	2,872.00	3,041.24	73.33
482	☐	J306FH	4.11	2,864.00	3,041.25	76.80
483	☐	J308FH	4.11	2,858.00	3,041.25	79.40
484	☐	J310FH	4.11	2,752.00	2,934.40	79.03
485	☐	J312FH	4.11	2,739.00	2,934.21	84.59
486	☐	J314FH	4.11	2,743.00	2,934.34	82.91
487	☐	J316FH	4.11	2,734.00	2,934.27	86.78
488	☐	J318FH	4.11	2,720.00	2,934.21	92.82
489	☐	J320FH	4.11	2,716.00	2,934.19	94.54
490	☐	J322FH	4.11	2,721.00	2,934.19	92.38
491	☐	J324FH	4.11	2,727.00	2,934.20	89.78
492	☐	J326FH	4.11	2,729.00	2,934.19	88.91
493	☐	J328FH	4.11	2,736.00	2,934.16	85.86
494	☐	J330FH	4.11	2,727.00	2,934.16	89.76
495	☐	J332FH	4.11	2,736.00	2,934.17	85.87
496	☐	J334FH	4.11	2,739.00	2,934.18	84.57
497	☐	J336FH	4.11	2,733.00	2,934.29	87.22
498	☐	J338FH	4.11	2,725.00	2,934.22	90.65
499	☐	J340FH	4.11	2,739.00	2,934.29	84.62
500	☐	J342FH	4.11	2,728.00	2,934.36	89.41

Average Day Demand

		ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
501	☐	J344FH	4.11	2,736.00	2,934.29	85.92
502	☐	J346FH	4.11	2,740.00	2,934.30	84.19
503	☐	J348FH	4.11	2,746.00	2,934.39	81.63
504	☐	J34FH	4.11	2,922.00	3,093.54	74.33
505	☐	J350FH	4.11	2,746.00	2,934.40	81.63
506	☐	J352FH	4.11	2,735.00	2,934.47	86.43
507	☐	J354FH	4.11	2,749.00	2,934.58	80.41
508	☐	J356FH	4.11	2,721.00	2,934.57	92.54
509	☐	J358FH	4.11	2,733.00	2,934.46	87.29
510	☐	J36	4.11	2,906.00	3,092.80	80.94
511	☐	J360FH	4.11	2,705.00	2,934.05	99.25
512	☐	J362FH	4.11	2,705.00	2,934.09	99.26
513	☐	J364FH	4.11	2,718.00	2,934.14	93.65
514	☐	J366FH	4.11	2,721.00	2,934.14	92.35
515	☐	J368FH	4.11	2,717.00	2,934.13	94.08
516	☐	J370FH	4.11	2,731.00	2,934.15	88.02
517	☐	J372FH	4.11	2,731.00	2,934.15	88.02
518	☐	J374FH	4.11	2,704.00	2,934.16	99.73
519	☐	J376FH	4.11	2,705.00	2,934.16	99.30
520	☐	J380FH	4.11	2,947.00	3,097.19	65.08
521	☐	J382FH	4.11	2,948.00	3,097.15	64.63
522	☐	J384FH	4.11	2,945.00	3,097.11	65.91
523	☐	J388	4.11	2,946.00	3,097.02	65.44
524	☐	J38FH	4.11	2,913.00	3,094.35	78.58
525	☐	J392	4.11	2,952.00	3,097.02	62.84
526	☐	J394	4.11	2,945.00	3,096.97	65.85
527	☐	J396	4.11	2,942.00	3,097.35	67.31
528	☐	J398FH	4.11	2,943.00	3,097.26	66.84
529	☐	J40	4.11	2,916.00	3,094.35	77.28
530	☐	J400	4.11	2,902.00	3,097.74	84.82
531	☐	J402FH	32.49	2,912.00	3,097.52	80.39
532	☐	J404FH	4.11	2,917.00	3,097.38	78.16
533	☐	J406FH	4.11	2,921.00	3,097.42	76.44
534	☐	J408	4.11	2,918.00	3,097.42	77.74
535	☐	J410FH	4.11	2,922.00	3,097.18	75.90
536	☐	J412FH	4.11	2,929.00	3,096.76	72.69
537	☐	J414	4.11	2,928.00	3,093.85	71.86
538	☐	J416FH	4.11	2,928.00	3,093.38	71.66
539	☐	J418FH	4.11	2,926.00	3,093.38	72.52
540	☐	J420FH	4.11	2,918.00	3,093.31	75.96
541	☐	J422FH	4.11	2,928.00	3,093.48	71.70
542	☐	J424FH	4.11	2,928.00	3,093.47	71.70
543	☐	J426FH	4.11	2,927.00	3,093.46	72.13
544	☐	J42FH	4.11	2,919.00	3,094.34	75.98
545	☐	J430	4.11	2,923.00	3,093.28	73.78
546	☐	J432	4.11	2,924.00	3,093.28	73.35
547	☐	J434FH	4.11	2,926.00	3,093.28	72.48
548	☐	J436	4.11	2,922.00	3,093.28	74.21
549	☐	J438	4.11	2,923.00	3,093.28	73.78
550	☐	J440FH	4.11	2,925.00	3,093.46	72.99

Average Day Demand

		ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
551	☐	J442FH	4.11	2,926.00	3,093.42	72.54
552	☐	J444FH	4.11	2,930.00	3,094.08	71.10
553	☐	J446	4.11	2,909.00	3,093.12	79.78
554	☐	J448	4.11	2,923.00	3,093.31	73.80
555	☐	J44FH	4.11	2,918.00	3,094.35	76.41
556	☐	J450FH	4.11	2,918.00	3,099.05	78.45
557	☐	J452FH	32.49	2,915.00	3,098.43	79.48
558	☐	J454	4.11	2,841.00	3,041.25	86.77
559	☐	J456FH	4.11	2,706.00	2,934.02	98.80
560	☐	J458FH	4.11	2,709.00	2,934.02	97.50
561	☐	J46	4.11	2,896.00	3,094.36	85.95
562	☐	J460FH	4.11	2,713.00	2,934.02	95.77
563	☐	J462FH	4.11	2,713.00	2,934.02	95.77
564	☐	J464	4.11	2,711.00	2,934.02	96.64
565	☐	J466	4.11	2,707.00	2,934.02	98.37
566	☐	J468	4.11	2,712.00	2,934.02	96.20
567	☐	J470	4.11	2,712.00	2,934.03	96.21
568	☐	J472	4.11	2,712.00	2,934.02	96.20
569	☐	J474	4.11	2,712.00	2,934.02	96.20
570	☐	J476	3.54	2,815.00	3,085.36	117.15
571	☐	J478FH	4.11	2,816.00	3,085.45	116.75
572	☐	J48	4.11	2,900.00	3,094.45	84.26
573	☐	J480FH	4.11	2,796.00	3,086.12	125.71
574	☐	J482FH	63.98	2,796.00	3,086.87	126.03
575	☐	J484FH	4.11	2,811.00	3,087.65	119.87
576	☐	J486FH	4.11	2,840.00	3,088.73	107.77
577	☐	J488FH	4.11	2,820.00	3,088.78	116.46
578	☐	J490FH	4.11	2,818.00	3,088.84	117.36
579	☐	J492FH	4.11	2,820.00	3,088.90	116.52
580	☐	J494FH	63.98	2,818.00	3,088.88	117.37
581	☐	J496FH	4.11	2,815.00	3,089.09	118.76
582	☐	J500FH	4.11	2,823.00	3,089.28	115.38
583	☐	J508FH	4.11	2,847.00	3,089.31	104.99
584	☐	J50FH	4.11	2,695.00	2,934.16	103.63
585	☐	J510FH	4.11	2,856.00	3,089.35	101.11
586	☐	J512	4.11	2,872.00	3,089.35	94.18
587	☐	J514FH	4.11	2,869.00	3,089.39	95.49
588	☐	J516	4.11	2,867.00	3,089.40	96.37
589	☐	J518FH	4.11	2,865.00	3,089.44	97.25
590	☐	J52	4.11	2,742.00	2,934.29	83.32
591	☐	J522FH	4.11	2,824.00	3,089.28	114.95
592	☐	J524	4.11	2,815.00	3,089.24	118.83
593	☐	J526FH	4.11	2,840.00	3,089.33	108.04
594	☐	J528FH	4.11	2,854.00	3,089.39	102.00
595	☐	J532FH	4.11	2,858.00	3,089.46	100.29
596	☐	J534	4.11	2,860.00	3,089.48	99.43
597	☐	J536	778.30	2,914.00	3,085.35	74.25
598	☐	J538	0.00	3,052.00	2,888.57	-70.82
599	☐	J54	4.11	2,738.00	2,934.29	85.05
600	☐	J540	44.15	2,927.00	3,102.70	76.13

Average Day Demand

		ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
601	☐	J542	0.00	3,125.00	2,888.57	-102.45
602	☐	J544	0.00	2,949.00	2,888.57	-26.19
603	☐	J546	3.54	2,760.00	3,212.46	196.05
604	☐	J548	3.54	2,760.00	3,212.45	196.05
605	☐	J550	3.54	2,760.00	3,212.44	196.04
606	☐	J552	3.54	2,760.00	3,212.44	196.04
607	☐	J554	3.54	2,760.00	3,212.45	196.05
608	☐	J556	3.54	2,760.00	3,212.45	196.05
609	☐	J558	3.54	2,760.00	3,212.45	196.05
610	☐	J560	4.11	2,875.00	3,094.66	95.18
611	☐	J562	3.54	2,865.00	3,094.67	99.52
612	☐	J564	4.11	2,820.00	3,041.24	95.86
613	☐	J566FH	4.11	2,922.00	3,099.88	77.08
614	☐	J568FH	4.11	2,928.00	3,099.61	74.36
615	☐	J56FH	4.11	2,740.00	2,934.23	84.16
616	☐	J570FH	4.11	2,929.00	3,099.61	73.93
617	☐	J572	4.11	2,939.00	3,099.21	69.42
618	☐	J574	4.11	2,937.00	3,099.34	70.34
619	☐	J576	4.11	2,942.00	3,099.18	68.10
620	☐	J578	4.11	2,940.00	3,099.05	68.92
621	☐	J580FH	4.11	2,939.00	3,099.05	69.35
622	☐	J582	4.11	2,922.00	3,099.85	77.06
623	☐	J584FH	4.11	2,842.00	3,089.06	107.05
624	☐	J586	4.11	2,865.00	3,089.30	97.19
625	☐	J588	4.11	2,857.00	3,089.31	100.66
626	☐	J58FH	4.11	2,734.00	2,934.20	86.75
627	☐	J590FH	4.11	2,833.00	3,089.05	110.95
628	☐	J594FH	4.11	2,826.00	3,089.05	113.98
629	☐	J596FH	4.11	2,803.00	3,088.88	123.87
630	☐	J60	4.11	2,728.00	2,934.19	89.34
631	☐	J600FH	4.11	2,846.00	3,089.35	105.44
632	☐	J602	4.11	2,846.00	3,089.35	105.44
633	☐	J604	4.11	2,945.00	3,099.10	66.77
634	☐	J606FH	4.11	2,950.00	3,099.01	64.57
635	☐	J608	4.11	2,943.00	3,099.10	67.64
636	☐	J610FH	4.11	2,936.00	3,099.56	70.87
637	☐	J612FH	4.11	2,931.00	3,099.73	73.11
638	☐	J614	4.11	2,931.00	3,099.62	73.06
639	☐	J616	44.15	2,933.00	3,099.58	72.18
640	☐	J618	3.54	3,143.00	3,169.29	11.39
641	☐	J62	4.11	2,723.00	2,934.19	91.51
642	☐	J620	4.11	2,865.00	3,041.25	76.37
643	☐	J622FH	4.11	2,826.00	3,043.12	94.08
644	☐	J624FH	4.11	2,835.00	3,043.11	90.18
645	☐	J626FH	4.11	2,805.00	3,042.60	102.95
646	☐	J630FH	4.11	2,825.00	3,043.11	94.51
647	☐	J634FH	4.11	2,831.00	3,043.11	91.91
648	☐	J638FH	4.11	2,790.00	3,042.28	109.31
649	☐	J64	4.11	2,742.00	2,934.18	83.27
650	☐	J640FH	4.11	2,930.00	3,099.57	73.47

Average Day Demand

		ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
651	☐	J642FH	4.11	2,929.00	3,099.65	73.94
652	☐	J646FH	4.11	2,934.00	3,099.58	71.74
653	☐	J648FH	4.11	2,799.00	3,084.75	123.81
654	☐	J650FH	4.11	2,790.00	3,084.50	127.61
655	☐	J652FH	4.11	2,774.00	3,084.17	134.40
656	☐	J654FH	4.11	2,772.00	3,084.29	135.32
657	☐	J656FH	4.11	2,779.00	3,084.43	132.34
658	☐	J658FH	4.11	2,784.00	3,084.45	130.19
659	☐	J660FH	4.11	2,774.00	3,084.44	134.51
660	☐	J662FH	71.73	2,765.00	3,084.40	138.40
661	☐	J664FH	4.11	2,784.00	3,084.53	130.22
662	☐	J666FH	4.11	2,792.00	3,084.65	126.81
663	☐	J668	71.73	2,805.00	3,084.53	121.12
664	☐	J66FH	4.11	2,733.00	2,934.14	87.15
665	☐	J670	4.11	2,746.42	2,937.67	82.87
666	☐	J672FH	4.11	2,747.00	2,937.67	82.62
667	☐	J674	4.11	2,931.48	3,097.04	71.74
668	☐	J676FH	4.11	2,935.42	3,097.06	70.04
669	☐	J678FH	4.11	2,934.28	3,097.15	70.57
670	☐	J680FH	4.11	2,931.09	3,097.25	72.00
671	☐	J682	4.11	2,926.25	3,097.31	74.12
672	☐	J684FH	4.11	2,930.42	3,097.26	72.29
673	☐	J686FH	4.11	2,929.00	3,097.16	72.86
674	☐	J688	4.11	2,924.95	3,097.15	74.61
675	☐	J68FH	4.11	2,743.00	2,934.14	82.82
676	☐	J690	4.11	2,925.00	3,097.15	74.59
677	☐	J692FH	4.11	2,932.10	3,097.09	71.49
678	☐	J694	4.11	2,923.00	3,097.41	75.57
679	☐	J696	4.11	2,935.00	3,098.26	70.74
680	☐	J698	4.11	2,929.52	3,097.98	72.99
681	☐	J700FH	4.11	2,936.95	3,097.98	69.77
682	☐	J702	4.11	2,925.68	3,097.54	74.47
683	☐	J704FH	4.11	2,926.37	3,097.54	74.17
684	☐	J706FH	4.11	2,934.71	3,097.54	70.55
685	☐	J708FH	4.11	2,930.45	3,097.98	72.59
686	☐	J70FH	4.11	2,731.00	2,934.15	88.03
687	☐	J710FH	4.11	2,935.73	3,098.19	70.39
688	☐	J712	4.11	2,721.80	2,936.22	92.91
689	☐	J714FH	4.11	2,726.17	2,936.22	91.02
690	☐	J716	4.11	2,720.00	2,936.22	93.69
691	☐	J718FH	4.11	2,723.42	2,936.22	92.21
692	☐	J72	4.11	2,724.00	2,936.22	91.96
693	☐	J720FH	4.11	2,781.00	3,041.98	113.08
694	☐	J724	4.11	2,934.00	3,098.99	71.49
695	☐	J728	4.11	2,932.00	3,099.00	72.36
696	☐	J730FH	4.11	2,932.00	3,099.00	72.36
697	☐	J732	4.11	2,930.00	3,099.06	73.25
698	☐	J736	4.11	2,922.00	3,099.34	76.84
699	☐	J738FH	4.11	2,924.00	3,099.26	75.94
700	☐	J74	4.11	2,911.00	3,095.81	80.08

Average Day Demand

		ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
701	☐	J740FH	4.11	2,916.00	3,099.54	79.53
702	☐	J742FH	4.11	2,938.00	3,098.87	69.71
703	☐	J744	4.11	2,942.00	3,098.70	67.90
704	☐	J746	4.11	2,944.00	3,098.91	67.12
705	☐	J748	44.15	2,950.00	3,098.89	64.51
706	☐	J750FH	4.11	2,941.00	3,098.90	68.42
707	☐	J752	44.15	2,946.00	3,098.88	66.24
708	☐	J754	4.11	2,944.00	3,098.90	67.12
709	☐	J756	4.11	2,948.00	3,099.01	65.43
710	☐	J758	4.11	2,952.00	3,099.01	63.70
711	☐	J76	4.11	2,886.00	3,096.12	91.05
712	☐	J774	4.11	2,738.00	2,934.14	84.99
713	☐	J776	4.11	2,736.00	2,934.14	85.86
714	☐	J778	4.11	2,771.00	3,084.35	135.78
715	☐	J780	4.11	2,770.00	3,084.35	136.21
716	☐	J782	4.11	2,812.00	3,041.40	99.40
717	☐	J784FH	4.11	2,774.00	3,084.19	134.40
718	☐	J786FH	4.11	2,781.00	3,041.94	113.06
719	☐	J788FH	4.11	2,921.00	3,096.13	75.88
720	☐	J78FH	4.11	2,932.00	3,095.92	71.03
721	☐	J790FH	4.11	2,926.00	3,099.10	75.01
722	☐	J792	44.15	2,943.00	3,097.80	67.08
723	☐	J794	403.93	2,907.00	3,103.56	85.17
724	☐	J796	43.58	2,889.00	3,098.43	90.75
725	☐	J798	67.62	2,955.00	3,084.73	56.21
726	☐	J800	0.00	2,913.00	3,084.67	74.39
727	☐	J802	4.11	2,774.00	2,940.15	71.99
728	☐	J804	4.11	2,799.00	3,084.92	123.89
729	☐	J806	0.00	2,757.00	3,084.40	141.86
730	☐	J80FH	4.11	2,925.00	3,095.88	74.04
731	☐	J814	3.54	2,981.00	3,212.48	100.30
732	☐	J816	3.54	2,963.00	3,099.01	58.93
733	☐	J818	3.54	2,954.00	3,099.01	62.83
734	☐	J820	0.00	2,960.45	3,204.14	105.59
735	☐	J822	0.00	2,966.52	3,207.90	104.59
736	☐	J824	0.00	2,980.76	3,210.29	99.46
737	☐	J826	0.00	2,987.71	3,210.07	96.35
738	☐	J828	0.00	2,996.13	3,210.50	92.88
739	☐	J82FH	4.11	2,917.00	3,095.78	77.47
740	☐	J830	0.00	2,995.21	3,210.38	93.23
741	☐	J832	0.00	2,990.88	3,210.19	95.03
742	☐	J834	0.00	3,009.18	3,211.69	87.75
743	☐	J836	0.00	3,002.40	3,210.38	90.12
744	☐	J838	3.54	3,004.53	3,211.88	89.84
745	☐	J840	0.00	2,944.90	3,209.06	114.46
746	☐	J842	0.00	2,940.71	3,209.06	116.28
747	☐	J844	0.00	2,968.00	3,210.17	104.93
748	☐	J846	0.00	2,967.45	3,210.15	105.16
749	☐	J848	0.00	2,961.29	3,210.09	107.81
750	☐	J84FH	4.11	2,922.00	3,095.78	75.30

Average Day Demand

		ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
751	☐	J850	0.00	2,960.78	3,210.07	108.02
752	☐	J852	0.00	2,968.68	3,210.34	104.71
753	☐	J854	0.00	2,975.04	3,210.32	101.94
754	☐	J856	0.00	2,978.19	3,210.31	100.58
755	☐	J858	0.00	2,888.43	3,073.45	80.17
756	☐	J86	4.11	2,925.00	3,095.34	73.81
757	☐	J860	0.00	2,898.05	3,081.12	79.32
758	☐	J862	0.00	2,899.49	3,084.16	80.02
759	☐	J864	0.00	2,884.62	3,081.12	85.14
760	☐	J866	0.00	2,902.06	3,088.37	80.73
761	☐	J868	0.00	2,926.83	3,092.62	71.84
762	☐	J870	0.00	2,920.55	3,091.94	74.26
763	☐	J872	0.00	2,903.55	3,091.85	81.59
764	☐	J874	0.00	2,922.53	3,091.85	73.36
765	☐	J876	0.00	2,923.74	3,091.85	72.84
766	☐	J878	0.00	2,918.62	3,091.85	75.06
767	☐	J88	4.11	2,916.00	3,095.09	77.60
768	☐	J880	0.00	2,905.87	3,091.85	80.58
769	☐	J882	0.00	2,896.80	3,091.94	84.55
770	☐	J884	0.00	2,893.57	3,098.02	88.59
771	☐	J886	0.00	2,911.70	3,098.02	80.73
772	☐	J888	0.00	2,908.12	3,098.36	82.43
773	☐	J890	0.00	2,912.56	3,098.32	80.49
774	☐	J892	0.00	2,899.90	3,098.36	85.99
775	☐	J894	0.00	2,919.68	3,098.40	77.44
776	☐	J896	0.00	2,914.64	3,097.79	79.36
777	☐	J898	0.00	2,915.94	3,097.82	78.81
778	☐	J90	4.11	2,922.00	3,095.34	75.11
779	☐	J900	0.00	2,920.41	3,097.82	76.87
780	☐	J902	0.00	2,916.53	3,098.26	78.74
781	☐	J904	0.00	2,942.70	3,098.17	67.37
782	☐	J906	0.00	2,941.03	3,098.19	68.10
783	☐	J908	0.00	2,927.52	3,098.20	73.96
784	☐	J910	0.00	2,938.15	3,098.20	69.35
785	☐	J912	0.00	2,933.82	3,098.20	71.23
786	☐	J914	0.00	2,941.49	3,098.20	67.90
787	☐	J916	0.00	2,940.75	3,098.20	68.22
788	☐	J918	0.00	2,962.00	3,098.17	59.00
789	☐	J920	0.00	2,963.07	3,098.17	58.54
790	☐	J922	0.00	2,951.49	3,098.17	63.56
791	☐	J924	0.00	2,964.29	3,098.17	58.01
792	☐	J926	0.00	2,943.69	3,098.17	66.94
793	☐	J928	0.00	2,951.57	3,098.17	63.52
794	☐	J92FH	4.11	2,948.00	3,094.99	63.69
795	☐	J930	0.00	2,951.82	3,098.17	63.41
796	☐	J932	0.00	2,948.36	3,098.17	64.91
797	☐	J934	0.00	2,944.53	3,098.17	66.57
798	☐	J936	0.00	2,942.91	3,098.17	67.28
799	☐	J938	0.00	2,918.30	3,103.21	80.12
800	☐	J940	0.00	2,926.09	3,103.21	76.74

Average Day Demand

		ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
801	☐	J942	3.54	2,907.00	3,098.85	83.13
802	☐	J944	0.00	2,929.59	3,209.06	121.10
803	☐	J946	3.54	2,983.37	3,211.95	99.04
804	☐	J948	3.54	2,946.00	3,118.39	74.70
805	☐	J94FH	4.11	2,950.00	3,095.84	63.19
806	☐	J950	0.00	2,937.89	3,116.36	77.33
807	☐	J952	0.00	2,939.75	3,119.05	77.69
808	☐	J954	3.54	2,847.00	3,062.25	93.27
809	☐	J960	3.54	2,851.00	3,065.05	92.75
810	☐	J962	3.54	2,855.00	3,066.61	91.69
811	☐	J964	3.54	2,861.00	3,068.66	89.98
812	☐	J966	3.54	2,861.00	3,070.00	90.56
813	☐	J968	3.54	2,915.00	3,100.10	80.21
814	☐	J96FH	4.11	2,941.00	3,095.06	66.76
815	☐	J970	3.54	2,924.00	3,099.87	76.20
816	☐	J972	3.54	2,917.00	3,100.55	79.53
817	☐	J974	3.54	2,919.00	3,100.11	78.48
818	☐	J976	3.54	2,926.00	3,099.87	75.34
819	☐	J978	3.54	2,934.00	3,103.51	73.45
820	☐	J980	3.54	2,934.00	3,103.40	73.40
821	☐	J982	3.54	2,928.00	3,103.13	75.88
822	☐	J984	3.54	2,944.00	3,113.94	73.63
823	☐	J986	3.54	2,923.00	3,107.98	80.15
824	☐	J988	3.54	2,921.00	3,105.33	79.87
825	☐	J98FH	4.11	2,936.00	3,094.42	68.65
826	☐	J990	3.54	2,916.00	3,104.03	81.47
827	☐	J992	3.54	2,923.00	3,103.54	78.23
828	☐	J994	3.54	2,946.00	3,119.05	74.98
829	☐	J996	3.54	2,910.00	3,098.97	81.88
830	☐	J998	3.54	2,908.00	3,098.46	82.52

Peak Day Demand

		ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
1	☐	J-100FH	8.25	2,876.00	2,995.23	51.66
2	☐	J-101	8.25	2,865.00	3,028.74	70.95
3	☐	J-102FH	8.25	2,868.00	3,036.53	73.03
4	☐	J-103FH	8.25	2,871.00	3,037.36	72.08
5	☐	J-104	8.25	2,839.00	2,987.87	64.51
6	☐	J-105FH	8.25	2,875.00	3,037.98	70.62
7	☐	J-106FH	8.25	2,877.00	3,032.56	67.40
8	☐	J-107FH	8.25	2,936.00	3,046.41	47.84
9	☐	J-108	8.25	2,876.00	3,036.63	69.60
10	☐	J-109FH	8.25	2,875.00	3,037.43	70.38
11	☐	J-10FH	8.25	2,741.00	2,930.90	82.28
12	☐	J-110	8.25	2,879.00	3,037.98	68.88
13	☐	J-111	8.25	2,899.50	3,038.73	60.33
14	☐	J-112	8.25	2,879.00	3,038.72	69.21
15	☐	J-113	8.25	2,885.00	3,040.61	67.43
16	☐	J-114FH	8.25	2,885.50	3,039.68	66.80
17	☐	J-115	8.25	2,885.00	3,039.67	67.02
18	☐	J-116FH	8.25	2,881.00	3,041.87	69.71
19	☐	J-117	8.25	2,897.00	3,039.97	61.95
20	☐	J-118FH	8.25	2,891.00	3,040.67	64.85
21	☐	J-119FH	8.25	2,889.00	3,041.29	65.99
22	☐	J-11FH	8.25	2,740.00	2,930.55	82.56
23	☐	J-12	8.25	2,766.00	2,932.79	72.27
24	☐	J-120	8.25	2,887.00	3,041.80	67.08
25	☐	J-1208	8.25	2,822.00	2,989.07	72.39
26	☐	J-121	8.25	2,878.00	3,042.28	71.18
27	☐	J-1210	7.10	2,760.00	3,155.99	171.58
28	☐	J-122FH	8.25	2,880.00	3,042.48	70.40
29	☐	J-123	8.25	2,870.00	3,042.28	74.65
30	☐	J-124	8.25	2,892.00	3,041.94	64.97
31	☐	J-125	8.25	2,892.00	3,041.94	64.97
32	☐	J-1254	7.10	3,000.00	3,165.47	71.70
33	☐	J-1268	7.10	3,200.00	3,300.58	43.58
34	☐	J-1269	7.10	3,200.00	3,300.99	43.76
35	☐	J-126FH	8.25	2,901.00	3,042.41	61.27
36	☐	J-127	8.25	2,901.00	3,042.49	61.31
37	☐	J-1273	8.25	2,823.00	3,149.17	141.33
38	☐	J-128FH	8.25	2,935.00	3,046.38	48.26
39	☐	J-129	8.25	2,899.00	3,041.81	61.88
40	☐	J-13	8.25	2,751.00	2,978.68	98.65
41	☐	J-130	8.25	2,932.00	3,046.35	49.55
42	☐	J-131FH	8.25	2,901.00	3,041.30	60.79
43	☐	J-132FH	8.25	2,925.00	3,046.16	52.50
44	☐	J-133FH	8.25	2,903.00	3,040.86	59.73
45	☐	J-134FH	8.25	2,927.00	3,046.16	51.63
46	☐	J-135	8.25	2,905.00	3,040.39	58.67
47	☐	J-136FH	8.25	2,910.00	3,039.75	56.22
48	☐	J-137	8.25	2,901.00	3,039.68	60.09
49	☐	J-138FH	8.25	2,902.00	3,039.68	59.66
50	☐	J-139FH	8.25	2,877.00	3,039.58	70.45

Peak Day Demand

		ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
51	☐	J-140	8.25	2,885.00	3,037.67	66.15
52	☐	J-141FH	8.25	2,900.00	3,037.67	59.65
53	☐	J-142	8.25	2,885.00	3,037.52	66.09
54	☐	J-143FH	8.25	2,890.00	3,037.06	63.72
55	☐	J-144FH	8.25	2,897.00	3,034.57	59.61
56	☐	J-145FH	8.25	2,889.00	3,033.55	62.63
57	☐	J-146	8.25	2,888.00	3,034.45	63.46
58	☐	J-147FH	8.25	2,891.00	3,033.46	61.73
59	☐	J-148	8.25	2,908.00	3,038.10	56.37
60	☐	J-149FH	8.25	2,905.00	3,034.98	56.32
61	☐	J-14FH	8.25	2,750.00	2,931.23	78.53
62	☐	J-150	8.25	2,909.00	3,035.49	54.81
63	☐	J-151FH	8.25	2,893.00	3,034.90	61.48
64	☐	J-152	8.25	2,874.00	3,001.37	55.19
65	☐	J-153FH	8.25	2,892.50	3,034.24	61.42
66	☐	J-154	8.25	2,892.00	3,034.24	61.63
67	☐	J-155	8.25	2,894.00	3,034.81	61.01
68	☐	J-156FH	8.25	2,894.00	3,034.88	61.04
69	☐	J-157	8.25	2,870.00	3,034.89	71.45
70	☐	J-158FH	8.25	2,900.00	3,035.24	58.60
71	☐	J-159	8.25	2,896.00	3,035.24	60.33
72	☐	J-15FH	8.25	2,753.00	2,931.23	77.23
73	☐	J-160FH	8.25	2,903.50	3,035.55	57.22
74	☐	J-161FH	8.25	2,897.00	3,035.53	60.02
75	☐	J-162FH	8.25	2,880.00	3,035.00	67.16
76	☐	J-163	8.25	2,885.00	3,035.39	65.17
77	☐	J-164FH	8.25	2,910.00	3,036.41	54.77
78	☐	J-165FH	8.25	2,915.00	3,036.84	52.79
79	☐	J-166	8.25	2,915.00	3,037.76	53.19
80	☐	J-167FH	8.25	2,909.00	3,038.82	56.25
81	☐	J-168FH	8.25	2,917.00	3,039.45	53.06
82	☐	J-169FH	8.25	2,921.00	3,046.15	54.23
83	☐	J-16FH	8.25	2,640.00	2,930.68	125.95
84	☐	J-170FH	8.25	2,917.00	3,044.14	55.09
85	☐	J-171	8.25	2,916.00	3,038.09	52.90
86	☐	J-172	8.25	2,909.00	3,038.82	56.25
87	☐	J-173FH	8.25	2,920.00	3,038.12	51.18
88	☐	J-174	8.25	2,921.00	3,037.81	50.61
89	☐	J-175FH	8.25	2,915.00	3,039.46	53.93
90	☐	J-176	8.25	2,915.00	3,039.45	53.93
91	☐	J-177FH	8.25	2,929.00	3,045.79	50.60
92	☐	J-178	8.25	2,920.00	3,041.05	52.45
93	☐	J-179	8.25	2,920.00	3,041.31	52.56
94	☐	J-17FH	8.25	2,638.00	2,930.66	126.81
95	☐	J-18	8.25	2,637.00	2,930.66	127.24
96	☐	J-180	8.25	2,933.00	3,046.93	49.37
97	☐	J-181	8.25	2,915.00	3,042.48	55.24
98	☐	J-182	8.25	2,915.00	3,042.61	55.29
99	☐	J-183FH	8.25	2,915.00	3,042.61	55.29
100	☐	J-184FH	8.25	2,915.00	3,041.69	54.89

Peak Day Demand

		ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
101	☐	J-185	8.25	2,920.00	3,043.23	53.40
102	☐	J-186FH	8.25	2,910.00	3,043.58	57.88
103	☐	J-187	8.25	2,915.00	3,041.13	54.65
104	☐	J-188	8.25	2,909.00	3,045.14	58.99
105	☐	J-189FH	8.25	2,915.00	3,051.58	59.18
106	☐	J-191	8.25	2,915.00	3,041.02	54.60
107	☐	J-192	8.25	2,910.00	3,040.96	56.74
108	☐	J-193FH	8.25	2,917.00	3,041.02	53.74
109	☐	J-194	8.25	2,917.00	3,036.55	51.80
110	☐	J-195	8.25	2,916.50	3,036.55	52.02
111	☐	J-196	8.25	2,909.00	3,036.39	55.20
112	☐	J-197	8.25	2,908.00	3,036.39	55.63
113	☐	J-198FH	8.25	2,900.00	3,036.30	59.06
114	☐	J-199	8.25	2,902.00	3,036.57	58.31
115	☐	J-19FH	8.25	2,636.00	2,930.66	127.67
116	☐	J-1FH	8.25	2,720.00	2,930.45	91.19
117	☐	J-2	8.25	2,720.00	2,930.45	91.19
118	☐	J-200	8.25	2,895.00	3,035.74	60.98
119	☐	J-201	8.25	2,890.00	3,035.67	63.12
120	☐	J-202	8.25	2,892.00	3,035.67	62.25
121	☐	J-203	8.25	2,883.00	3,035.65	66.14
122	☐	J-204FH	8.25	2,880.00	3,035.39	67.33
123	☐	J-205	8.25	2,885.00	3,036.00	65.43
124	☐	J-206	8.25	2,890.00	3,036.25	63.37
125	☐	J-207	8.25	2,883.00	3,035.97	66.28
126	☐	J-208	8.25	2,939.00	3,047.79	47.14
127	☐	J-209	8.25	2,825.00	2,991.89	72.31
128	☐	J-20FH	8.25	2,745.00	2,931.35	80.75
129	☐	J-21	8.25	2,745.00	2,931.02	80.60
130	☐	J-210	8.25	2,937.00	3,046.26	47.34
131	☐	J-211FH	8.25	2,830.00	2,991.89	70.15
132	☐	J-212FH	8.25	2,824.00	2,991.89	72.75
133	☐	J-213	8.25	2,825.00	2,998.90	75.35
134	☐	J-214FH	8.25	2,835.00	2,998.90	71.02
135	☐	J-215FH	8.25	2,825.00	2,998.90	75.35
136	☐	J-216	8.25	2,830.00	3,006.87	76.64
137	☐	J-217	8.25	2,830.00	3,011.54	78.66
138	☐	J-218FH	8.25	2,838.00	3,006.86	73.17
139	☐	J-219	8.25	2,830.00	3,006.86	76.63
140	☐	J-22	8.25	2,920.00	3,045.49	54.37
141	☐	J-220	8.25	2,924.00	3,049.66	54.45
142	☐	J-221FH	8.25	2,748.00	2,931.26	79.41
143	☐	J-222FH	8.25	2,732.00	2,931.60	86.49
144	☐	J-223	8.25	2,720.00	2,931.21	91.52
145	☐	J-224	8.25	2,750.00	2,931.41	78.60
146	☐	J-225FH	8.25	2,752.00	2,931.23	77.66
147	☐	J-226	8.25	2,740.00	2,931.15	82.82
148	☐	J-227FH	8.25	2,845.00	2,986.81	61.44
149	☐	J-228	8.25	2,755.00	2,931.23	76.36
150	☐	J-229FH	8.25	2,753.00	2,931.05	77.15

Peak Day Demand

		ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
151	☐	J-23	8.25	2,751.00	2,981.08	99.69
152	☐	J-230	8.25	2,755.00	2,931.04	76.28
153	☐	J-231	8.25	2,750.00	2,931.00	78.43
154	☐	J-232FH	8.25	2,755.00	2,930.92	76.22
155	☐	J-233	8.25	2,750.00	2,930.94	78.40
156	☐	J-234	8.25	2,770.00	2,930.89	69.72
157	☐	J-235FH	8.25	2,765.00	2,930.80	71.84
158	☐	J-236	8.25	2,768.00	2,930.79	70.54
159	☐	J-237	8.25	2,765.00	2,930.78	71.83
160	☐	J-238	8.25	2,778.00	2,930.72	66.17
161	☐	J-24	8.25	2,800.00	2,982.78	79.20
162	☐	J-240	8.25	2,778.00	2,930.71	66.17
163	☐	J-241	8.25	2,780.00	2,930.28	65.11
164	☐	J-242	8.25	2,760.00	2,930.56	73.91
165	☐	J-243	8.25	2,924.00	3,047.15	53.36
166	☐	J-244	8.25	2,770.00	2,930.56	69.57
167	☐	J-245	8.25	2,770.00	2,930.56	69.57
168	☐	J-246	8.25	2,878.00	3,001.36	53.45
169	☐	J-247FH	8.25	2,857.50	2,994.38	59.31
170	☐	J-248	8.25	2,920.00	3,055.47	58.70
171	☐	J-249	8.25	2,920.00	3,056.40	59.10
172	☐	J-250FH	8.25	2,750.00	2,930.94	78.40
173	☐	J-251	8.25	2,750.00	2,930.95	78.41
174	☐	J-252	8.25	2,750.00	2,930.96	78.41
175	☐	J-253	8.25	2,745.00	2,930.95	80.57
176	☐	J-254	8.25	2,735.00	2,930.77	84.83
177	☐	J-255FH	8.25	2,728.00	2,930.72	87.84
178	☐	J-256	8.25	2,728.00	2,930.71	87.83
179	☐	J-257	8.25	2,725.00	2,930.46	89.02
180	☐	J-258FH	8.25	2,735.00	2,930.39	84.66
181	☐	J-259	8.25	2,735.00	2,930.31	84.63
182	☐	J-25FH	8.25	2,758.00	2,982.11	97.11
183	☐	J-26	8.25	2,760.00	2,982.11	96.24
184	☐	J-260FH	8.25	2,735.00	2,930.28	84.62
185	☐	J-261	8.25	2,735.00	2,930.28	84.61
186	☐	J-262	8.25	2,735.00	2,930.27	84.61
187	☐	J-263	8.25	2,720.00	2,930.24	91.10
188	☐	J-264	8.25	2,710.00	2,930.18	95.40
189	☐	J-265	8.25	2,700.00	2,929.92	99.63
190	☐	J-266FH	8.25	2,700.00	2,929.92	99.63
191	☐	J-267FH	8.25	2,751.00	2,934.42	79.48
192	☐	J-268	8.25	2,700.00	2,930.02	99.67
193	☐	J-269FH	8.25	2,700.00	2,930.02	99.67
194	☐	J-27	8.25	2,770.00	2,982.78	92.20
195	☐	J-270FH	8.25	2,700.00	2,930.18	99.74
196	☐	J-271FH	8.25	2,735.00	2,930.29	84.62
197	☐	J-272	8.25	2,824.00	2,989.28	71.62
198	☐	J-273FH	8.25	2,705.00	2,930.37	97.65
199	☐	J-274FH	8.25	2,705.00	2,930.38	97.66
200	☐	J-275FH	8.25	2,785.00	2,980.85	84.86

Peak Day Demand

		ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
201	☐	J-277	8.25	2,920.00	3,051.58	57.02
202	☐	J-278FH	8.25	2,740.00	2,931.92	83.16
203	☐	J-279FH	8.25	2,730.00	2,931.41	87.27
204	☐	J-28	8.25	2,807.00	2,984.49	76.91
205	☐	J-280FH	8.25	2,741.00	2,931.00	82.33
206	☐	J-281FH	8.25	2,703.00	2,930.38	98.53
207	☐	J-282	8.25	2,720.00	2,930.45	91.19
208	☐	J-283FH	8.25	2,715.00	2,930.48	93.37
209	☐	J-284FH	8.25	2,720.00	2,930.66	91.28
210	☐	J-285	8.25	2,720.00	2,930.48	91.20
211	☐	J-286	8.25	2,720.00	2,930.67	91.28
212	☐	J-287	8.25	2,720.00	2,930.79	91.33
213	☐	J-288FH	8.25	2,720.00	2,930.46	91.19
214	☐	J-289	8.25	2,720.00	2,930.49	91.21
215	☐	J-290	8.25	2,720.00	2,930.49	91.21
216	☐	J-291FH	8.25	2,921.00	3,043.81	53.21
217	☐	J-292FH	8.25	2,705.00	2,930.42	97.67
218	☐	J-293FH	8.25	2,755.00	2,979.81	97.41
219	☐	J-294	8.25	2,913.00	3,045.00	57.19
220	☐	J-295	8.25	2,946.00	3,098.20	65.95
221	☐	J-296	7.10	2,990.00	3,109.24	51.67
222	☐	J-297FH	8.25	2,705.00	2,930.40	97.67
223	☐	J-298	8.25	2,760.00	2,930.63	73.93
224	☐	J-299	8.25	2,770.00	2,930.56	69.57
225	☐	J-29FH	8.25	2,815.00	2,985.03	73.67
226	☐	J-3	8.25	2,730.00	2,930.58	86.91
227	☐	J-300	8.25	2,915.00	3,051.58	59.18
228	☐	J-301FH	8.25	2,800.00	3,066.09	115.30
229	☐	J-302FH	8.25	2,705.00	2,930.40	97.67
230	☐	J-303FH	8.25	2,730.00	2,930.46	86.86
231	☐	J-304	7.10	3,000.00	3,149.64	64.84
232	☐	J-305FH	8.25	2,877.50	2,996.23	51.44
233	☐	J-306	8.25	2,877.50	3,030.10	66.12
234	☐	J-307FH	8.25	2,740.00	2,930.48	82.53
235	☐	J-308	7.10	3,042.00	3,086.44	19.25
236	☐	J-309	8.25	2,760.00	2,930.57	73.91
237	☐	J-30FH	8.25	2,816.00	2,985.59	73.48
238	☐	J-31	8.25	2,815.00	2,985.80	74.01
239	☐	J-310	8.25	2,930.00	3,047.22	50.79
240	☐	J-311	89.12	2,925.00	3,045.49	52.21
241	☐	J-312	8.25	2,870.00	3,043.90	75.35
242	☐	J-313	8.25	2,800.00	2,987.87	81.40
243	☐	J-314	8.25	2,780.00	2,985.79	89.17
244	☐	J-315FH	8.25	2,930.00	3,046.17	50.34
245	☐	J-316	8.25	2,843.00	2,986.81	62.31
246	☐	J-317FH	8.25	2,902.00	3,036.61	58.33
247	☐	J-318FH	8.25	2,922.00	3,055.27	57.75
248	☐	J-319FH	8.25	2,924.00	3,052.59	55.72
249	☐	J-32	8.25	2,800.00	2,985.79	80.50
250	☐	J-320	8.25	2,922.00	3,051.99	56.32

Peak Day Demand

		ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
251	☐	J-321FH	8.25	2,924.00	3,050.31	54.73
252	☐	J-322FH	8.25	2,936.00	3,047.96	48.51
253	☐	J-323FH	8.25	2,930.00	3,048.75	51.46
254	☐	J-324FH	8.25	2,926.00	3,049.76	53.62
255	☐	J-325FH	8.25	2,924.00	3,050.71	54.90
256	☐	J-326FH	8.25	2,928.00	3,049.89	52.82
257	☐	J-327FH	8.25	2,928.00	3,049.16	52.50
258	☐	J-328FH	8.25	2,933.00	3,048.56	50.07
259	☐	J-329FH	8.25	2,934.00	3,048.53	49.63
260	☐	J-330	8.25	2,934.00	3,048.62	49.66
261	☐	J-331	8.25	2,923.00	3,050.31	55.16
262	☐	J-333	8.25	2,885.00	3,035.98	65.42
263	☐	J-334	8.25	2,885.00	3,035.98	65.42
264	☐	J-335	8.25	2,745.00	2,931.37	80.76
265	☐	J-336	8.25	2,745.00	2,931.37	80.76
266	☐	J-33FH	8.25	2,820.00	2,986.78	72.26
267	☐	J-34	8.25	2,830.00	2,987.04	68.05
268	☐	J-35	8.25	2,827.00	2,986.25	69.00
269	☐	J-36	8.25	2,820.00	2,986.23	72.03
270	☐	J-37	8.25	2,825.00	2,985.76	69.66
271	☐	J-38FH	8.25	2,821.00	2,985.25	71.17
272	☐	J-39FH	8.25	2,836.00	2,986.32	65.13
273	☐	J-4	8.25	2,729.00	2,930.58	87.35
274	☐	J-40	8.25	2,839.00	2,986.30	63.83
275	☐	J-41	8.25	2,837.00	2,986.38	64.73
276	☐	J-42	8.25	2,835.00	2,986.17	65.50
277	☐	J-43	8.25	2,833.00	2,985.72	66.17
278	☐	J-44FH	8.25	2,805.00	2,984.57	77.81
279	☐	J-45	8.25	2,805.00	2,984.84	77.93
280	☐	J-46	8.25	2,780.00	2,984.56	88.64
281	☐	J-47	8.25	2,760.00	2,984.56	97.30
282	☐	J-48	8.25	2,780.00	2,984.56	88.64
283	☐	J-49	8.25	2,801.00	2,985.27	79.84
284	☐	J-5	8.25	2,751.00	2,930.77	77.89
285	☐	J-50	8.25	2,803.00	2,984.84	78.79
286	☐	J-51	8.25	2,800.00	2,985.27	80.28
287	☐	J-52	8.25	2,839.00	2,987.75	64.45
288	☐	J-53	8.25	2,842.00	2,987.83	63.19
289	☐	J-54	8.25	2,920.00	3,042.71	53.17
290	☐	J-55	8.25	2,842.00	2,987.74	63.15
291	☐	J-56	8.25	2,847.00	2,988.80	61.44
292	☐	J-57	8.25	2,850.00	2,988.80	60.14
293	☐	J-58	8.25	2,837.00	2,986.80	64.91
294	☐	J-59	8.25	2,860.00	3,066.09	89.30
295	☐	J-6	8.25	2,757.00	2,931.05	75.42
296	☐	J-61	8.25	2,847.00	2,986.80	60.57
297	☐	J-63FH	8.25	2,839.00	2,986.80	64.04
298	☐	J-64	8.25	2,839.00	2,986.80	64.04
299	☐	J-65	8.25	2,851.50	2,989.76	59.91
300	☐	J-66FH	8.25	2,847.00	2,989.64	61.80

Peak Day Demand

		ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
301	☐	J-67	8.25	2,842.00	2,987.98	63.25
302	☐	J-68FH	8.25	2,839.00	2,986.87	64.07
303	☐	J-69FH	8.25	2,839.00	2,986.65	63.98
304	☐	J-7	8.25	2,754.00	2,930.74	76.58
305	☐	J-70	8.25	2,837.00	2,985.87	64.51
306	☐	J-71	8.25	2,839.50	2,986.89	63.86
307	☐	J-73FH	8.25	2,830.00	2,984.38	66.89
308	☐	J-74	8.25	2,843.00	2,987.52	62.62
309	☐	J-75	8.25	2,845.00	2,987.66	61.81
310	☐	J-76	8.25	2,849.00	2,988.02	60.24
311	☐	J-77FH	8.25	2,914.00	3,044.43	56.52
312	☐	J-78	8.25	2,940.00	3,047.22	46.46
313	☐	J-79	8.25	2,842.00	2,985.55	62.20
314	☐	J-80FH	8.25	2,940.00	3,046.69	46.23
315	☐	J-81FH	8.25	2,841.00	2,986.23	62.93
316	☐	J-82	8.25	2,921.00	3,046.16	54.23
317	☐	J-83	8.25	2,760.00	2,931.41	74.27
318	☐	J-84	8.25	2,760.00	2,977.52	94.25
319	☐	J-85FH	8.25	2,849.50	2,990.75	61.21
320	☐	J-86	8.25	2,851.50	2,990.75	60.34
321	☐	J-87	8.25	2,852.00	2,991.94	60.64
322	☐	J-88	8.25	2,854.00	2,992.93	60.20
323	☐	J-89	8.25	2,857.00	2,991.28	58.18
324	☐	J-8FH	8.25	2,752.00	2,930.74	77.45
325	☐	J-9	8.25	2,757.00	2,931.23	75.49
326	☐	J-90	8.25	2,857.00	2,991.28	58.18
327	☐	J-91	8.25	2,857.00	2,991.98	58.49
328	☐	J-92	8.25	2,861.00	2,994.13	57.69
329	☐	J-93FH	8.25	2,858.00	2,992.93	58.47
330	☐	J-94	8.25	2,857.00	2,994.16	59.43
331	☐	J-95	8.25	2,863.50	2,995.18	57.06
332	☐	J-956	7.10	2,847.00	3,021.96	75.81
333	☐	J-958	7.10	2,856.00	3,024.47	73.00
334	☐	J-96	8.25	2,863.00	2,995.18	57.27
335	☐	J-97FH	8.25	2,936.00	3,046.45	47.86
336	☐	J-98	8.25	2,866.75	2,995.55	55.81
337	☐	J-99	8.25	2,866.50	2,995.55	55.92
338	☐	J1000	7.10	2,903.00	3,044.67	61.39
339	☐	J1002	7.10	2,892.00	3,044.51	66.08
340	☐	J1004	7.10	2,939.00	3,044.75	45.82
341	☐	J1006	7.10	2,937.00	3,044.75	46.69
342	☐	J1008	7.10	2,940.00	3,044.75	45.39
343	☐	J100FH	8.25	2,933.00	3,051.33	51.27
344	☐	J1010	7.10	2,941.00	3,044.75	44.95
345	☐	J1012	7.10	2,941.00	3,044.75	44.95
346	☐	J1014	7.10	2,942.00	3,044.75	44.52
347	☐	J1016	7.10	2,943.00	3,044.76	44.09
348	☐	J1018	7.10	2,940.00	3,044.75	45.39
349	☐	J1020	7.10	2,944.00	3,043.58	43.15
350	☐	J1022	7.10	2,947.00	3,043.59	41.85

Peak Day Demand

		ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
351	☐	J1024	7.10	2,941.00	3,043.58	44.45
352	☐	J1026	7.10	2,953.00	3,075.75	53.19
353	☐	J1028	7.10	2,868.00	3,075.75	90.02
354	☐	J102FH	8.25	2,936.00	3,046.89	48.05
355	☐	J1030	7.10	2,890.00	3,075.75	80.48
356	☐	J1032	7.10	2,873.00	3,075.75	87.85
357	☐	J1034	7.10	2,915.00	3,075.75	69.65
358	☐	J1036	7.10	2,761.00	2,932.26	74.21
359	☐	J1038	7.10	2,764.00	2,932.36	72.95
360	☐	J1040	7.10	2,764.00	2,932.28	72.92
361	☐	J1042	7.10	2,766.00	2,932.33	72.07
362	☐	J1044	7.10	2,768.00	2,932.31	71.19
363	☐	J1048	7.10	3,000.00	3,150.49	65.21
364	☐	J104FH	8.25	2,929.00	3,044.99	50.26
365	☐	J1050	7.10	2,861.00	3,104.18	105.37
366	☐	J1054	0.00	2,940.00	3,089.20	64.65
367	☐	J1056	0.00	2,929.50	3,044.82	49.97
368	☐	J1062	0.00	3,000.00	3,109.24	47.33
369	☐	J1068	0.00	3,138.90	3,165.89	11.69
370	☐	J106FH	8.25	2,923.00	3,044.60	52.69
371	☐	J108FH	8.25	2,921.00	3,044.83	53.65
372	☐	J10FH	8.25	2,845.00	3,017.77	74.86
373	☐	J110FH	8.25	2,914.00	3,044.30	56.46
374	☐	J112FH	8.25	2,934.00	3,048.12	49.45
375	☐	J114FH	8.25	2,932.00	3,046.97	49.82
376	☐	J116FH	8.25	2,925.00	3,044.77	51.90
377	☐	J118FH	8.25	2,929.00	3,049.32	52.13
378	☐	J12	8.25	2,845.00	3,017.94	74.94
379	☐	J120FH	8.25	2,930.00	3,047.11	50.74
380	☐	J122FH	8.25	2,930.00	3,045.54	50.07
381	☐	J124FH	8.25	2,922.00	3,043.98	52.86
382	☐	J126FH	65.58	2,899.00	3,044.13	62.89
383	☐	J128FH	8.25	2,902.00	3,042.48	60.87
384	☐	J130FH	65.58	2,881.00	3,043.96	70.61
385	☐	J132FH	8.25	2,887.00	3,042.62	67.43
386	☐	J134FH	8.25	2,894.00	3,042.12	64.18
387	☐	J136FH	8.25	2,898.00	3,041.81	62.31
388	☐	J138FH	8.25	2,924.00	3,042.04	51.15
389	☐	J140FH	8.25	2,920.00	3,040.91	52.39
390	☐	J142FH	8.25	2,923.00	3,040.92	51.10
391	☐	J144FH	8.25	2,808.00	3,066.09	111.83
392	☐	J146FH	8.25	2,810.00	3,066.09	110.96
393	☐	J148FH	8.25	2,816.00	3,066.09	108.37
394	☐	J14FH	8.25	2,845.00	3,017.47	74.73
395	☐	J150FH	8.25	2,868.00	3,066.10	85.83
396	☐	J152FH	8.25	2,932.00	3,040.88	47.18
397	☐	J154FH	8.25	2,929.00	3,043.96	49.81
398	☐	J156FH	8.25	2,929.00	3,042.96	49.38
399	☐	J158FH	8.25	2,928.00	3,042.87	49.77
400	☐	J16	8.25	2,849.00	3,017.45	72.99

Peak Day Demand

		ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
401	☐	J160FH	8.25	2,912.00	3,036.50	53.95
402	☐	J162FH	8.25	2,918.00	3,038.44	52.19
403	☐	J164FH	8.25	2,911.00	3,037.63	54.87
404	☐	J166FH	8.25	2,911.00	3,040.31	56.03
405	☐	J168FH	8.25	2,905.00	3,040.79	58.84
406	☐	J170FH	8.25	2,882.00	3,041.12	68.95
407	☐	J172FH	8.25	2,884.00	3,040.21	67.69
408	☐	J174FH	8.25	2,877.00	3,039.09	70.24
409	☐	J176FH	8.25	2,881.00	3,038.35	68.18
410	☐	J178FH	8.25	2,888.00	3,037.49	64.77
411	☐	J180FH	8.25	2,880.00	3,036.79	67.94
412	☐	J182FH	8.25	2,863.00	3,036.59	75.22
413	☐	J184FH	8.25	2,863.00	3,031.69	73.09
414	☐	J186	8.25	2,788.00	2,930.56	61.77
415	☐	J188FH	8.25	2,775.00	2,930.56	67.40
416	☐	J18FH	8.25	2,844.00	3,017.45	75.16
417	☐	J190FH	8.25	2,893.00	3,035.97	61.95
418	☐	J192FH	8.25	2,766.00	2,930.56	71.31
419	☐	J194FH	8.25	2,780.00	2,930.57	65.24
420	☐	J196FH	8.25	2,763.00	2,930.59	72.62
421	☐	J198FH	8.25	2,776.00	2,930.59	66.98
422	☐	J200FH	8.25	2,783.00	2,930.70	64.00
423	☐	J202FH	8.25	2,760.00	2,930.78	74.00
424	☐	J204FH	8.25	2,777.00	2,930.90	66.68
425	☐	J206FH	8.25	2,889.00	3,036.30	63.82
426	☐	J208FH	8.25	2,879.00	3,035.75	67.92
427	☐	J20FH	8.25	2,850.00	3,017.45	72.56
428	☐	J210FH	8.25	2,892.00	3,035.69	62.26
429	☐	J212FH	8.25	2,881.00	3,035.21	66.82
430	☐	J214FH	8.25	2,738.00	2,930.95	83.61
431	☐	J216FH	8.25	2,743.00	2,931.17	81.53
432	☐	J218FH	8.25	2,722.00	2,931.21	90.65
433	☐	J22	8.25	2,852.00	3,017.45	71.69
434	☐	J220FH	8.25	2,725.00	2,931.22	89.35
435	☐	J222FH	8.25	2,732.00	2,931.23	86.33
436	☐	J224	8.25	2,730.00	2,931.22	87.19
437	☐	J226FH	8.25	2,736.00	2,931.22	84.59
438	☐	J228FH	8.25	2,738.00	2,931.16	83.70
439	☐	J230FH	8.25	2,747.00	2,931.50	79.95
440	☐	J232FH	8.25	2,723.00	2,930.71	90.00
441	☐	J234FH	8.25	2,728.00	2,930.71	87.83
442	☐	J236FH	8.25	2,738.00	2,931.06	83.65
443	☐	J238FH	8.25	2,745.00	2,931.41	80.77
444	☐	J240FH	8.25	2,720.00	2,930.69	91.29
445	☐	J242FH	8.25	2,742.00	2,931.25	82.00
446	☐	J244FH	8.25	2,755.00	2,979.25	97.17
447	☐	J246FH	8.25	2,835.00	3,006.86	74.47
448	☐	J248FH	8.25	2,740.00	2,930.75	82.65
449	☐	J24FH	8.25	2,842.00	3,017.45	76.02
450	☐	J250FH	8.25	2,749.00	2,931.33	79.00

Peak Day Demand

		ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
451	☐	J252FH	8.25	2,743.00	2,931.29	81.58
452	☐	J254FH	8.25	2,743.00	2,931.28	81.58
453	☐	J256FH	8.25	2,804.00	2,984.98	78.42
454	☐	J258FH	8.25	2,778.00	2,984.56	89.50
455	☐	J260FH	8.25	2,797.00	2,983.76	80.92
456	☐	J262FH	8.25	2,796.00	2,982.78	80.93
457	☐	J264FH	8.25	2,799.00	2,982.35	79.45
458	☐	J266FH	8.25	2,812.00	2,985.43	75.15
459	☐	J268FH	8.25	2,810.00	2,985.02	75.84
460	☐	J26FH	8.25	2,849.00	3,017.45	72.99
461	☐	J270FH	8.25	2,807.00	2,984.09	76.73
462	☐	J272FH	8.25	2,824.00	2,986.44	70.38
463	☐	J274FH	8.25	2,804.00	2,986.37	79.02
464	☐	J276FH	8.25	2,818.00	2,985.76	72.69
465	☐	J278FH	8.25	2,824.00	2,986.34	70.34
466	☐	J28	8.25	2,922.00	3,051.59	56.15
467	☐	J280FH	8.25	2,819.00	2,985.90	72.32
468	☐	J282FH	8.25	2,841.00	2,988.13	63.75
469	☐	J284FH	8.25	2,843.00	2,989.05	63.28
470	☐	J286FH	8.25	2,844.00	2,990.41	63.44
471	☐	J288FH	8.25	2,849.00	2,991.96	61.95
472	☐	J290FH	8.25	2,794.00	2,979.09	80.20
473	☐	J292FH	8.25	2,856.00	2,990.32	58.20
474	☐	J294FH	8.25	2,845.00	2,987.71	61.83
475	☐	J296FH	8.25	2,843.00	2,987.92	62.79
476	☐	J298FH	8.25	2,852.00	2,992.66	60.95
477	☐	J300FH	8.25	2,875.00	3,007.80	57.54
478	☐	J302FH	8.25	2,871.00	3,003.74	57.52
479	☐	J304FH	8.25	2,872.00	3,001.36	56.05
480	☐	J306FH	8.25	2,864.00	2,994.39	56.50
481	☐	J308FH	8.25	2,858.00	2,994.14	58.99
482	☐	J310FH	8.25	2,752.00	2,931.80	77.91
483	☐	J312FH	8.25	2,739.00	2,930.58	83.01
484	☐	J314FH	8.25	2,743.00	2,931.24	81.56
485	☐	J316FH	8.25	2,734.00	2,930.99	85.35
486	☐	J318FH	8.25	2,720.00	2,930.67	91.28
487	☐	J320FH	8.25	2,716.00	2,930.58	92.98
488	☐	J322FH	8.25	2,721.00	2,930.57	90.81
489	☐	J324FH	8.25	2,727.00	2,930.60	88.22
490	☐	J326FH	8.25	2,729.00	2,930.51	87.32
491	☐	J328FH	8.25	2,736.00	2,930.34	84.21
492	☐	J330FH	8.25	2,727.00	2,930.33	88.10
493	☐	J332FH	8.25	2,736.00	2,930.37	84.22
494	☐	J334FH	8.25	2,739.00	2,930.44	82.95
495	☐	J336FH	8.25	2,733.00	2,930.88	85.74
496	☐	J338FH	8.25	2,725.00	2,930.43	89.01
497	☐	J340FH	8.25	2,739.00	2,930.88	83.14
498	☐	J342FH	8.25	2,728.00	2,930.62	87.79
499	☐	J344FH	8.25	2,736.00	2,930.88	84.44
500	☐	J346FH	8.25	2,740.00	2,930.88	82.71

Peak Day Demand

		ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
501	☐	J348FH	8.25	2,746.00	2,931.08	80.19
502	☐	J34FH	8.25	2,922.00	3,053.26	56.87
503	☐	J350FH	8.25	2,746.00	2,931.09	80.20
504	☐	J352FH	8.25	2,735.00	2,930.74	84.81
505	☐	J354FH	8.25	2,749.00	2,931.23	78.96
506	☐	J356FH	8.25	2,721.00	2,930.72	90.87
507	☐	J358FH	8.25	2,733.00	2,930.75	85.69
508	☐	J36	8.25	2,906.00	3,041.27	58.61
509	☐	J360FH	8.25	2,705.00	2,929.97	97.48
510	☐	J362FH	8.25	2,705.00	2,930.10	97.53
511	☐	J364FH	8.25	2,718.00	2,930.28	91.98
512	☐	J366FH	8.25	2,721.00	2,930.28	90.68
513	☐	J368FH	8.25	2,717.00	2,930.26	92.40
514	☐	J370FH	8.25	2,731.00	2,930.32	86.37
515	☐	J372FH	8.25	2,731.00	2,930.34	86.38
516	☐	J374FH	8.25	2,704.00	2,930.38	98.09
517	☐	J376FH	8.25	2,705.00	2,930.41	97.67
518	☐	J380FH	8.25	2,947.00	3,046.33	43.04
519	☐	J382FH	8.25	2,948.00	3,046.33	42.61
520	☐	J384FH	8.25	2,945.00	3,046.33	43.91
521	☐	J388	8.25	2,946.00	3,046.33	43.47
522	☐	J38FH	8.25	2,913.00	3,036.99	53.73
523	☐	J392	8.25	2,952.00	3,046.33	40.87
524	☐	J394	8.25	2,945.00	3,046.33	43.91
525	☐	J396	8.25	2,942.00	3,046.33	45.21
526	☐	J398FH	8.25	2,943.00	3,046.33	44.77
527	☐	J40	8.25	2,916.00	3,037.51	52.65
528	☐	J400	8.25	2,902.00	3,044.65	61.81
529	☐	J402FH	65.58	2,912.00	3,044.61	57.46
530	☐	J404FH	8.25	2,917.00	3,044.59	55.28
531	☐	J406FH	8.25	2,921.00	3,044.87	53.67
532	☐	J408	8.25	2,918.00	3,044.87	54.97
533	☐	J410FH	8.25	2,922.00	3,045.08	53.33
534	☐	J412FH	8.25	2,929.00	3,045.49	50.48
535	☐	J414	8.25	2,928.00	3,053.07	54.19
536	☐	J416FH	8.25	2,928.00	3,055.14	55.09
537	☐	J418FH	8.25	2,926.00	3,055.14	55.96
538	☐	J420FH	8.25	2,918.00	3,055.70	59.67
539	☐	J422FH	8.25	2,928.00	3,054.41	54.78
540	☐	J424FH	8.25	2,928.00	3,054.36	54.75
541	☐	J426FH	8.25	2,927.00	3,054.33	55.17
542	☐	J42FH	8.25	2,919.00	3,037.51	51.35
543	☐	J430	8.25	2,923.00	3,055.76	57.52
544	☐	J432	8.25	2,924.00	3,055.74	57.08
545	☐	J434FH	8.25	2,926.00	3,055.75	56.22
546	☐	J436	8.25	2,922.00	3,055.74	57.95
547	☐	J438	8.25	2,923.00	3,055.74	57.52
548	☐	J440FH	8.25	2,925.00	3,054.30	56.03
549	☐	J442FH	8.25	2,926.00	3,054.69	55.76
550	☐	J444FH	8.25	2,930.00	3,051.97	52.85

Peak Day Demand

		ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
551	☐	J446	8.25	2,909.00	3,057.35	64.28
552	☐	J448	8.25	2,923.00	3,055.70	57.50
553	☐	J44FH	8.25	2,918.00	3,036.99	51.56
554	☐	J450FH	8.25	2,918.00	3,044.81	54.95
555	☐	J452FH	65.58	2,915.00	3,044.71	56.20
556	☐	J454	8.25	2,841.00	2,987.89	63.65
557	☐	J456FH	8.25	2,706.00	2,929.86	97.00
558	☐	J458FH	8.25	2,709.00	2,929.86	95.70
559	☐	J46	8.25	2,896.00	3,036.61	60.93
560	☐	J460FH	8.25	2,713.00	2,929.86	93.96
561	☐	J462FH	8.25	2,713.00	2,929.87	93.97
562	☐	J464	8.25	2,711.00	2,929.87	94.83
563	☐	J466	8.25	2,707.00	2,929.86	96.57
564	☐	J468	8.25	2,712.00	2,929.86	94.40
565	☐	J470	8.25	2,712.00	2,929.89	94.41
566	☐	J472	8.25	2,712.00	2,929.86	94.40
567	☐	J474	8.25	2,712.00	2,929.87	94.40
568	☐	J476	7.10	2,815.00	3,074.56	112.47
569	☐	J478FH	8.25	2,816.00	3,074.57	112.04
570	☐	J48	8.25	2,900.00	3,035.74	58.81
571	☐	J480FH	8.25	2,796.00	3,074.70	120.76
572	☐	J482FH	129.17	2,796.00	3,074.85	120.83
573	☐	J484FH	8.25	2,811.00	3,075.11	114.44
574	☐	J486FH	8.25	2,840.00	3,075.48	102.03
575	☐	J488FH	8.25	2,820.00	3,075.47	110.70
576	☐	J490FH	8.25	2,818.00	3,075.47	111.56
577	☐	J492FH	8.25	2,820.00	3,075.46	110.69
578	☐	J494FH	129.17	2,818.00	3,075.39	111.53
579	☐	J496FH	8.25	2,815.00	3,075.57	112.91
580	☐	J500FH	8.25	2,823.00	3,075.69	109.49
581	☐	J508FH	8.25	2,847.00	3,075.71	99.10
582	☐	J50FH	8.25	2,695.00	2,930.38	101.99
583	☐	J510FH	8.25	2,856.00	3,075.74	95.21
584	☐	J512	8.25	2,872.00	3,075.74	88.28
585	☐	J514FH	8.25	2,869.00	3,075.78	89.60
586	☐	J516	8.25	2,867.00	3,075.79	90.47
587	☐	J518FH	8.25	2,865.00	3,075.83	91.35
588	☐	J52	8.25	2,742.00	2,930.88	81.84
589	☐	J522FH	8.25	2,824.00	3,075.70	109.06
590	☐	J524	8.25	2,815.00	3,075.67	112.95
591	☐	J526FH	8.25	2,840.00	3,075.74	102.14
592	☐	J528FH	8.25	2,854.00	3,075.79	96.10
593	☐	J532FH	8.25	2,858.00	3,075.86	94.40
594	☐	J534	8.25	2,860.00	3,075.89	93.54
595	☐	J54	8.25	2,738.00	2,930.88	83.57
596	☐	J540	89.12	2,927.00	3,045.88	51.51
597	☐	J546	7.10	2,760.00	3,156.38	171.75
598	☐	J548	7.10	2,760.00	3,154.30	170.85
599	☐	J550	7.10	2,760.00	3,149.79	168.90
600	☐	J552	7.10	2,760.00	3,147.00	167.69

Peak Day Demand

		ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
601	☐	J554	7.10	2,760.00	3,149.17	168.63
602	☐	J556	7.10	2,760.00	3,150.89	169.37
603	☐	J558	7.10	2,760.00	3,154.40	170.89
604	☐	J560	8.25	2,875.00	3,027.95	66.27
605	☐	J562	7.10	2,865.00	3,028.74	70.95
606	☐	J564	8.25	2,820.00	2,984.37	71.22
607	☐	J566FH	8.25	2,922.00	3,044.93	53.27
608	☐	J568FH	8.25	2,928.00	3,044.87	50.64
609	☐	J56FH	8.25	2,740.00	2,930.64	82.60
610	☐	J570FH	8.25	2,929.00	3,044.87	50.21
611	☐	J572	8.25	2,939.00	3,044.79	45.84
612	☐	J574	8.25	2,937.00	3,044.79	46.71
613	☐	J576	8.25	2,942.00	3,044.65	44.48
614	☐	J578	8.25	2,940.00	3,044.79	45.41
615	☐	J580FH	8.25	2,939.00	3,044.79	45.84
616	☐	J582	8.25	2,922.00	3,044.91	53.26
617	☐	J584FH	8.25	2,842.00	3,075.65	101.24
618	☐	J586	8.25	2,865.00	3,075.77	91.33
619	☐	J588	8.25	2,857.00	3,075.78	94.80
620	☐	J58FH	8.25	2,734.00	2,930.55	85.16
621	☐	J590FH	8.25	2,833.00	3,075.64	105.14
622	☐	J594FH	8.25	2,826.00	3,075.64	108.17
623	☐	J596FH	8.25	2,803.00	3,075.39	118.03
624	☐	J60	8.25	2,728.00	2,930.51	87.75
625	☐	J600FH	8.25	2,846.00	3,075.75	99.55
626	☐	J602	8.25	2,846.00	3,075.75	99.55
627	☐	J604	8.25	2,945.00	3,044.38	43.06
628	☐	J606FH	8.25	2,950.00	3,044.04	40.75
629	☐	J608	8.25	2,943.00	3,044.38	43.93
630	☐	J610FH	8.25	2,936.00	3,044.80	47.14
631	☐	J612FH	8.25	2,931.00	3,044.85	49.33
632	☐	J614	8.25	2,931.00	3,044.79	49.30
633	☐	J616	89.12	2,933.00	3,044.77	48.43
634	☐	J618	7.10	3,143.00	3,167.43	10.59
635	☐	J62	8.25	2,723.00	2,930.52	89.92
636	☐	J620	8.25	2,865.00	2,995.23	56.43
637	☐	J622FH	8.25	2,826.00	2,989.07	70.66
638	☐	J624FH	8.25	2,835.00	2,989.06	66.75
639	☐	J626FH	8.25	2,805.00	2,989.07	79.76
640	☐	J630FH	8.25	2,825.00	2,989.06	71.09
641	☐	J634FH	8.25	2,831.00	2,989.05	68.49
642	☐	J638FH	8.25	2,790.00	2,989.06	86.25
643	☐	J64	8.25	2,742.00	2,930.40	81.63
644	☐	J640FH	8.25	2,930.00	3,044.78	49.74
645	☐	J642FH	8.25	2,929.00	3,044.81	50.18
646	☐	J646FH	8.25	2,934.00	3,044.77	48.00
647	☐	J648FH	8.25	2,799.00	2,930.53	56.99
648	☐	J650FH	8.25	2,790.00	2,930.52	60.89
649	☐	J652FH	8.25	2,774.00	2,930.52	67.82
650	☐	J654FH	8.25	2,772.00	2,930.43	68.65

Peak Day Demand

		ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
651	☐	J656FH	8.25	2,779.00	2,930.37	65.59
652	☐	J658FH	8.25	2,784.00	2,930.42	63.45
653	☐	J660FH	8.25	2,774.00	2,930.17	67.67
654	☐	J662FH	144.82	2,765.00	2,930.03	71.51
655	☐	J664FH	8.25	2,784.00	2,930.17	63.33
656	☐	J666FH	8.25	2,792.00	2,930.37	59.95
657	☐	J668	144.82	2,805.00	2,929.98	54.15
658	☐	J66FH	8.25	2,733.00	2,930.31	85.49
659	☐	J670	8.25	2,746.42	2,931.15	80.04
660	☐	J672FH	8.25	2,747.00	2,931.14	79.79
661	☐	J674	8.25	2,931.48	3,046.11	49.67
662	☐	J676FH	8.25	2,935.42	3,046.08	47.95
663	☐	J678FH	8.25	2,934.28	3,045.87	48.35
664	☐	J680FH	8.25	2,931.09	3,045.69	49.65
665	☐	J682	8.25	2,926.25	3,045.59	51.71
666	☐	J684FH	8.25	2,930.42	3,045.65	49.93
667	☐	J686FH	8.25	2,929.00	3,045.80	50.61
668	☐	J688	8.25	2,924.95	3,045.82	52.37
669	☐	J68FH	8.25	2,743.00	2,930.29	81.15
670	☐	J690	8.25	2,925.00	3,045.82	52.35
671	☐	J692FH	8.25	2,932.10	3,045.97	49.34
672	☐	J694	8.25	2,923.00	3,045.47	53.07
673	☐	J696	8.25	2,935.00	3,044.80	47.57
674	☐	J698	8.25	2,929.52	3,044.96	50.02
675	☐	J700FH	8.25	2,936.95	3,044.96	46.80
676	☐	J702	8.25	2,925.68	3,045.32	51.84
677	☐	J704FH	8.25	2,926.37	3,045.32	51.54
678	☐	J706FH	8.25	2,934.71	3,045.32	47.93
679	☐	J708FH	8.25	2,930.45	3,044.96	49.62
680	☐	J70FH	8.25	2,731.00	2,930.31	86.36
681	☐	J710FH	8.25	2,935.73	3,044.83	47.27
682	☐	J712	8.25	2,721.80	2,930.70	90.52
683	☐	J714FH	8.25	2,726.17	2,930.70	88.62
684	☐	J716	8.25	2,720.00	2,930.70	91.30
685	☐	J718FH	8.25	2,723.42	2,930.70	89.82
686	☐	J72	8.25	2,724.00	2,930.71	89.57
687	☐	J720FH	8.25	2,781.00	2,985.78	88.73
688	☐	J724	8.25	2,934.00	3,044.81	48.01
689	☐	J728	8.25	2,932.00	3,044.81	48.88
690	☐	J730FH	8.25	2,932.00	3,044.81	48.88
691	☐	J732	8.25	2,930.00	3,044.81	49.75
692	☐	J736	8.25	2,922.00	3,044.86	53.23
693	☐	J738FH	8.25	2,924.00	3,044.84	52.36
694	☐	J74	8.25	2,911.00	3,042.48	56.97
695	☐	J740FH	8.25	2,916.00	3,044.90	55.85
696	☐	J742FH	8.25	2,938.00	3,044.80	46.28
697	☐	J744	8.25	2,942.00	3,044.80	44.54
698	☐	J746	8.25	2,944.00	3,043.68	43.19
699	☐	J748	89.12	2,950.00	3,043.59	40.55
700	☐	J750FH	8.25	2,941.00	3,043.63	44.47

Peak Day Demand

		ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
701	☐	J752	89.12	2,946.00	3,043.57	42.28
702	☐	J754	8.25	2,944.00	3,043.63	43.17
703	☐	J756	8.25	2,948.00	3,044.04	41.61
704	☐	J758	8.25	2,952.00	3,044.04	39.88
705	☐	J76	8.25	2,886.00	3,042.78	67.93
706	☐	J774	8.25	2,738.00	2,930.32	83.33
707	☐	J776	8.25	2,736.00	2,930.32	84.20
708	☐	J778	8.25	2,771.00	2,930.39	69.06
709	☐	J780	8.25	2,770.00	2,930.39	69.50
710	☐	J782	8.25	2,812.00	2,986.19	75.47
711	☐	J784FH	8.25	2,774.00	2,930.51	67.82
712	☐	J786FH	8.25	2,781.00	2,985.78	88.73
713	☐	J788FH	8.25	2,921.00	3,046.15	54.23
714	☐	J78FH	8.25	2,932.00	3,045.64	49.24
715	☐	J790FH	8.25	2,926.00	3,044.82	51.49
716	☐	J792	89.12	2,943.00	3,044.76	44.09
717	☐	J794	815.81	2,907.00	3,044.68	59.66
718	☐	J796	87.97	2,889.00	3,044.35	67.31
719	☐	J802	8.25	2,774.00	2,930.53	67.82
720	☐	J804	8.25	2,799.00	3,074.47	119.36
721	☐	J80FH	8.25	2,925.00	3,044.20	51.65
722	☐	J814	7.10	2,981.00	3,162.87	78.81
723	☐	J816	7.10	2,963.00	3,044.03	35.11
724	☐	J818	7.10	2,954.00	3,044.04	39.01
725	☐	J82FH	8.25	2,917.00	3,043.23	54.70
726	☐	J838	7.10	3,004.53	3,164.00	69.10
727	☐	J84FH	8.25	2,922.00	3,043.23	52.53
728	☐	J86	8.25	2,925.00	3,044.77	51.90
729	☐	J88	8.25	2,916.00	3,041.13	54.22
730	☐	J90	8.25	2,922.00	3,044.78	53.20
731	☐	J92FH	8.25	2,948.00	3,048.74	43.65
732	☐	J942	7.10	2,907.00	3,044.40	59.53
733	☐	J946	7.10	2,983.37	3,163.30	77.96
734	☐	J948	7.10	2,946.00	3,089.20	62.05
735	☐	J94FH	8.25	2,950.00	3,047.00	42.03
736	☐	J954	7.10	2,847.00	3,020.65	75.24
737	☐	J960	7.10	2,851.00	3,022.82	74.45
738	☐	J962	7.10	2,855.00	3,024.06	73.25
739	☐	J964	7.10	2,861.00	3,025.73	71.38
740	☐	J966	7.10	2,861.00	3,026.84	71.86
741	☐	J968	7.10	2,915.00	3,045.00	56.33
742	☐	J96FH	8.25	2,941.00	3,048.31	46.50
743	☐	J970	7.10	2,924.00	3,044.90	52.38
744	☐	J972	7.10	2,917.00	3,045.10	55.51
745	☐	J974	7.10	2,919.00	3,045.00	54.60
746	☐	J976	7.10	2,926.00	3,044.90	51.52
747	☐	J978	7.10	2,934.00	3,046.85	48.90
748	☐	J980	7.10	2,934.00	3,046.70	48.83
749	☐	J982	7.10	2,928.00	3,046.35	51.28
750	☐	J984	7.10	2,944.00	3,062.18	51.21

Peak Day Demand

		ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
751	☐	J986	7.10	2,923.00	3,051.32	55.60
752	☐	J988	7.10	2,921.00	3,047.63	54.87
753	☐	J98FH	8.25	2,936.00	3,050.36	49.55
754	☐	J990	7.10	2,916.00	3,045.99	56.32
755	☐	J992	7.10	2,923.00	3,045.06	52.89
756	☐	J994	7.10	2,946.00	3,089.76	62.29
757	☐	J996	7.10	2,910.00	3,044.79	58.40
758	☐	J998	7.10	2,908.00	3,044.68	59.22

Peak Instantaneous Demand

		ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
1	☐	J-100FH	9.23	2,876.00	2,996.53	52.23
2	☐	J-101	9.23	2,865.00	3,066.44	87.28
3	☐	J-102FH	9.23	2,868.00	3,071.35	88.11
4	☐	J-103FH	9.23	2,871.00	3,071.64	86.94
5	☐	J-104	9.23	2,839.00	2,997.06	68.49
6	☐	J-105FH	9.23	2,875.00	3,071.89	85.31
7	☐	J-106FH	9.23	2,877.00	3,069.94	83.60
8	☐	J-107FH	9.23	2,936.00	3,076.07	60.69
9	☐	J-108	9.23	2,876.00	3,071.37	84.65
10	☐	J-109FH	9.23	2,875.00	3,071.65	85.21
11	☐	J-10FH	9.23	2,741.00	2,930.24	82.00
12	☐	J-110	9.23	2,879.00	3,071.89	83.58
13	☐	J-111	9.23	2,899.50	3,072.22	74.84
14	☐	J-112	9.23	2,879.00	3,072.21	83.72
15	☐	J-113	9.23	2,885.00	3,073.14	81.52
16	☐	J-114FH	9.23	2,885.50	3,072.62	81.08
17	☐	J-115	9.23	2,885.00	3,072.62	81.29
18	☐	J-116FH	9.23	2,881.00	3,073.90	83.58
19	☐	J-117	9.23	2,897.00	3,072.77	76.16
20	☐	J-118FH	9.23	2,891.00	3,073.15	78.93
21	☐	J-119FH	9.23	2,889.00	3,073.50	79.94
22	☐	J-11FH	9.23	2,740.00	2,929.80	82.24
23	☐	J-12	9.23	2,766.00	2,932.46	72.13
24	☐	J-120	9.23	2,887.00	3,073.82	80.95
25	☐	J-1208	9.23	2,822.00	3,004.64	79.14
26	☐	J-121	9.23	2,878.00	3,074.18	85.01
27	☐	J-1210	9.23	2,760.00	3,106.87	150.30
28	☐	J-122FH	9.23	2,880.00	3,074.33	84.20
29	☐	J-123	9.23	2,870.00	3,074.18	88.47
30	☐	J-124	9.23	2,892.00	3,073.89	78.81
31	☐	J-125	9.23	2,892.00	3,073.89	78.81
32	☐	J-1254	9.23	3,000.00	3,162.99	70.62
33	☐	J-1268	9.23	3,200.00	3,301.00	43.76
34	☐	J-1269	9.23	3,200.00	3,301.00	43.76
35	☐	J-126FH	9.23	2,901.00	3,074.19	75.04
36	☐	J-127	9.23	2,901.00	3,074.26	75.07
37	☐	J-1273	9.23	2,823.00	3,007.70	80.03
38	☐	J-128FH	9.23	2,935.00	3,076.06	61.12
39	☐	J-129	9.23	2,899.00	3,073.82	75.75
40	☐	J-13	9.23	2,751.00	2,985.35	101.54
41	☐	J-130	9.23	2,932.00	3,076.05	62.42
42	☐	J-131FH	9.23	2,901.00	3,073.50	74.74
43	☐	J-132FH	9.23	2,925.00	3,075.99	65.42
44	☐	J-133FH	9.23	2,903.00	3,073.23	73.76
45	☐	J-134FH	9.23	2,927.00	3,075.99	64.56
46	☐	J-135	9.23	2,905.00	3,072.97	72.78
47	☐	J-136FH	9.23	2,910.00	3,072.64	70.47
48	☐	J-137	9.23	2,901.00	3,072.61	74.36
49	☐	J-138FH	9.23	2,902.00	3,072.60	73.92
50	☐	J-139FH	9.23	2,877.00	3,072.57	84.74

Peak Instantaneous Demand

		ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
51	☐	J-140	9.23	2,885.00	3,071.73	80.91
52	☐	J-141FH	9.23	2,900.00	3,071.73	74.41
53	☐	J-142	9.23	2,885.00	3,071.67	80.89
54	☐	J-143FH	9.23	2,890.00	3,071.48	78.64
55	☐	J-144FH	9.23	2,897.00	3,070.27	75.08
56	☐	J-145FH	9.23	2,889.00	3,070.00	78.43
57	☐	J-146	9.23	2,888.00	3,070.12	78.91
58	☐	J-147FH	9.23	2,891.00	3,069.50	77.34
59	☐	J-148	9.23	2,908.00	3,071.84	70.99
60	☐	J-149FH	9.23	2,905.00	3,070.39	71.66
61	☐	J-14FH	9.23	2,750.00	2,930.70	78.30
62	☐	J-150	9.23	2,909.00	3,070.57	70.01
63	☐	J-151FH	9.23	2,893.00	3,070.33	76.84
64	☐	J-152	9.23	2,874.00	3,002.78	55.80
65	☐	J-153FH	9.23	2,892.50	3,069.74	76.80
66	☐	J-154	9.23	2,892.00	3,069.74	77.02
67	☐	J-155	9.23	2,894.00	3,069.94	76.23
68	☐	J-156FH	9.23	2,894.00	3,069.97	76.25
69	☐	J-157	9.23	2,870.00	3,069.95	86.64
70	☐	J-158FH	9.23	2,900.00	3,070.13	73.72
71	☐	J-159	9.23	2,896.00	3,070.13	75.45
72	☐	J-15FH	9.23	2,753.00	2,930.70	77.00
73	☐	J-160FH	9.23	2,903.50	3,070.30	72.27
74	☐	J-161FH	9.23	2,897.00	3,070.26	75.07
75	☐	J-162FH	9.23	2,880.00	3,069.97	82.31
76	☐	J-163	9.23	2,885.00	3,070.07	80.19
77	☐	J-164FH	9.23	2,910.00	3,070.91	69.72
78	☐	J-165FH	9.23	2,915.00	3,071.06	67.62
79	☐	J-166	9.23	2,915.00	3,071.46	67.79
80	☐	J-167FH	9.23	2,909.00	3,072.15	70.69
81	☐	J-168FH	9.23	2,917.00	3,072.43	67.35
82	☐	J-169FH	9.23	2,921.00	3,075.98	67.15
83	☐	J-16FH	9.23	2,640.00	2,930.06	125.68
84	☐	J-170FH	9.23	2,917.00	3,075.13	68.52
85	☐	J-171	9.23	2,916.00	3,071.61	67.42
86	☐	J-172	9.23	2,909.00	3,072.15	70.69
87	☐	J-173FH	9.23	2,920.00	3,071.60	65.69
88	☐	J-174	9.23	2,921.00	3,071.41	65.17
89	☐	J-175FH	9.23	2,915.00	3,072.19	68.11
90	☐	J-176	9.23	2,915.00	3,072.18	68.11
91	☐	J-177FH	9.23	2,929.00	3,075.42	63.44
92	☐	J-178	9.23	2,920.00	3,073.24	66.40
93	☐	J-179	9.23	2,920.00	3,073.38	66.46
94	☐	J-17FH	9.23	2,638.00	2,930.04	126.54
95	☐	J-18	9.23	2,637.00	2,930.04	126.97
96	☐	J-180	9.23	2,933.00	3,075.78	61.87
97	☐	J-181	9.23	2,915.00	3,073.76	68.79
98	☐	J-182	9.23	2,915.00	3,073.79	68.80
99	☐	J-183FH	9.23	2,915.00	3,073.78	68.80
100	☐	J-184FH	9.23	2,915.00	3,073.22	68.56

Peak Instantaneous Demand

		ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
101	☐	J-185	9.23	2,920.00	3,073.99	66.72
102	☐	J-186FH	9.23	2,910.00	3,074.36	71.22
103	☐	J-187	9.23	2,915.00	3,073.33	68.61
104	☐	J-188	9.23	2,909.00	3,074.90	71.88
105	☐	J-189FH	9.23	2,915.00	3,076.92	70.16
106	☐	J-191	9.23	2,915.00	3,073.28	68.58
107	☐	J-192	9.23	2,910.00	3,073.26	70.74
108	☐	J-193FH	9.23	2,917.00	3,073.28	67.72
109	☐	J-194	9.23	2,917.00	3,070.77	66.63
110	☐	J-195	9.23	2,916.50	3,070.77	66.85
111	☐	J-196	9.23	2,909.00	3,070.63	70.03
112	☐	J-197	9.23	2,908.00	3,070.62	70.47
113	☐	J-198FH	9.23	2,900.00	3,070.55	73.90
114	☐	J-199	9.23	2,902.00	3,070.65	73.08
115	☐	J-19FH	9.23	2,636.00	2,930.03	127.40
116	☐	J-1FH	9.23	2,720.00	2,929.70	90.86
117	☐	J-2	9.23	2,720.00	2,929.70	90.86
118	☐	J-200	9.23	2,895.00	3,070.28	75.95
119	☐	J-201	9.23	2,890.00	3,070.20	78.08
120	☐	J-202	9.23	2,892.00	3,070.19	77.21
121	☐	J-203	9.23	2,883.00	3,070.18	81.10
122	☐	J-204FH	9.23	2,880.00	3,070.07	82.36
123	☐	J-205	9.23	2,885.00	3,070.30	80.29
124	☐	J-206	9.23	2,890.00	3,070.44	78.19
125	☐	J-207	9.23	2,883.00	3,070.27	81.14
126	☐	J-208	9.23	2,939.00	3,076.17	59.43
127	☐	J-209	9.23	2,825.00	3,006.07	78.46
128	☐	J-20FH	9.23	2,745.00	2,931.00	80.59
129	☐	J-21	9.23	2,745.00	2,930.57	80.41
130	☐	J-210	9.23	2,937.00	3,075.98	60.22
131	☐	J-211FH	9.23	2,830.00	3,006.07	76.29
132	☐	J-212FH	9.23	2,824.00	3,006.07	78.89
133	☐	J-213	9.23	2,825.00	3,009.83	80.09
134	☐	J-214FH	9.23	2,835.00	3,009.83	75.75
135	☐	J-215FH	9.23	2,825.00	3,009.83	80.09
136	☐	J-216	9.23	2,830.00	3,014.29	79.85
137	☐	J-217	9.23	2,830.00	3,017.05	81.05
138	☐	J-218FH	9.23	2,838.00	3,014.29	76.39
139	☐	J-219	9.23	2,830.00	3,014.28	79.85
140	☐	J-22	9.23	2,920.00	3,075.20	67.25
141	☐	J-220	9.23	2,924.00	3,076.61	66.12
142	☐	J-221FH	9.23	2,748.00	2,930.93	79.26
143	☐	J-222FH	9.23	2,732.00	2,931.38	86.39
144	☐	J-223	9.23	2,720.00	2,930.87	91.37
145	☐	J-224	9.23	2,750.00	2,931.21	78.52
146	☐	J-225FH	9.23	2,752.00	2,931.05	77.58
147	☐	J-226	9.23	2,740.00	2,930.94	82.74
148	☐	J-227FH	9.23	2,845.00	2,993.11	64.18
149	☐	J-228	9.23	2,755.00	2,931.05	76.28
150	☐	J-229FH	9.23	2,753.00	2,930.89	77.08

Peak Instantaneous Demand

		ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
151	☐	J-23	9.23	2,751.00	2,988.17	102.77
152	☐	J-230	9.23	2,755.00	2,930.89	76.21
153	☐	J-231	9.23	2,750.00	2,930.85	78.36
154	☐	J-232FH	9.23	2,755.00	2,930.79	76.17
155	☐	J-233	9.23	2,750.00	2,930.80	78.34
156	☐	J-234	9.23	2,770.00	2,930.76	69.66
157	☐	J-235FH	9.23	2,765.00	2,930.70	71.80
158	☐	J-236	9.23	2,768.00	2,930.69	70.50
159	☐	J-237	9.23	2,765.00	2,930.68	71.79
160	☐	J-238	9.23	2,778.00	2,930.65	66.14
161	☐	J-24	9.23	2,800.00	2,990.20	82.41
162	☐	J-240	9.23	2,778.00	2,930.64	66.14
163	☐	J-241	9.23	2,780.00	2,930.11	65.04
164	☐	J-242	9.23	2,760.00	2,930.55	73.90
165	☐	J-243	9.23	2,924.00	3,075.80	65.78
166	☐	J-244	9.23	2,770.00	2,930.55	69.56
167	☐	J-245	9.23	2,770.00	2,930.55	69.56
168	☐	J-246	9.23	2,878.00	3,002.76	54.06
169	☐	J-247FH	9.23	2,857.50	2,997.18	60.52
170	☐	J-248	9.23	2,920.00	3,078.29	68.59
171	☐	J-249	9.23	2,920.00	3,078.56	68.70
172	☐	J-250FH	9.23	2,750.00	2,930.80	78.34
173	☐	J-251	9.23	2,750.00	2,930.80	78.34
174	☐	J-252	9.23	2,750.00	2,930.81	78.34
175	☐	J-253	9.23	2,745.00	2,930.80	80.51
176	☐	J-254	9.23	2,735.00	2,930.24	84.60
177	☐	J-255FH	9.23	2,728.00	2,930.17	87.60
178	☐	J-256	9.23	2,728.00	2,930.15	87.59
179	☐	J-257	9.23	2,725.00	2,929.71	88.70
180	☐	J-258FH	9.23	2,735.00	2,929.61	84.33
181	☐	J-259	9.23	2,735.00	2,929.52	84.28
182	☐	J-25FH	9.23	2,758.00	2,989.39	100.26
183	☐	J-26	9.23	2,760.00	2,989.39	99.39
184	☐	J-260FH	9.23	2,735.00	2,929.48	84.27
185	☐	J-261	9.23	2,735.00	2,929.47	84.26
186	☐	J-262	9.23	2,735.00	2,929.46	84.26
187	☐	J-263	9.23	2,720.00	2,929.43	90.75
188	☐	J-264	9.23	2,710.00	2,929.35	95.04
189	☐	J-265	9.23	2,700.00	2,929.04	99.24
190	☐	J-266FH	9.23	2,700.00	2,929.03	99.24
191	☐	J-267FH	9.23	2,751.00	2,934.38	79.46
192	☐	J-268	9.23	2,700.00	2,929.16	99.30
193	☐	J-269FH	9.23	2,700.00	2,929.16	99.29
194	☐	J-27	9.23	2,770.00	2,990.18	95.40
195	☐	J-270FH	9.23	2,700.00	2,929.35	99.38
196	☐	J-271FH	9.23	2,735.00	2,929.48	84.27
197	☐	J-272	9.23	2,824.00	3,004.74	78.32
198	☐	J-273FH	9.23	2,705.00	2,929.58	97.31
199	☐	J-274FH	9.23	2,705.00	2,929.59	97.32
200	☐	J-275FH	9.23	2,785.00	2,987.92	87.92

Peak Instantaneous Demand

		ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
201	☐	J-277	9.23	2,920.00	3,076.92	67.99
202	☐	J-278FH	9.23	2,740.00	2,931.43	82.95
203	☐	J-279FH	9.23	2,730.00	2,930.83	87.02
204	☐	J-28	9.23	2,807.00	2,992.06	80.19
205	☐	J-280FH	9.23	2,741.00	2,930.36	82.05
206	☐	J-281FH	9.23	2,703.00	2,929.60	98.19
207	☐	J-282	9.23	2,720.00	2,929.68	90.85
208	☐	J-283FH	9.23	2,715.00	2,929.71	93.03
209	☐	J-284FH	9.23	2,720.00	2,929.93	90.96
210	☐	J-285	9.23	2,720.00	2,929.71	90.87
211	☐	J-286	9.23	2,720.00	2,929.94	90.97
212	☐	J-287	9.23	2,720.00	2,930.08	91.03
213	☐	J-288FH	9.23	2,720.00	2,929.70	90.86
214	☐	J-289	9.23	2,720.00	2,929.73	90.88
215	☐	J-290	9.23	2,720.00	2,929.73	90.88
216	☐	J-291FH	9.23	2,921.00	3,074.83	66.65
217	☐	J-292FH	9.23	2,705.00	2,929.64	97.34
218	☐	J-293FH	9.23	2,755.00	2,986.68	100.39
219	☐	J-294	9.23	2,913.00	3,076.79	70.97
220	☐	J-295	9.23	2,946.00	3,115.97	73.65
221	☐	J-296	9.23	2,990.00	3,124.09	58.10
222	☐	J-297FH	9.23	2,705.00	2,929.62	97.33
223	☐	J-298	9.23	2,760.00	2,930.59	73.92
224	☐	J-299	9.23	2,770.00	2,930.55	69.57
225	☐	J-29FH	9.23	2,815.00	2,992.97	77.11
226	☐	J-3	9.23	2,730.00	2,929.88	86.61
227	☐	J-300	9.23	2,915.00	3,076.92	70.16
228	☐	J-301FH	9.23	2,800.00	3,081.61	122.02
229	☐	J-302FH	9.23	2,705.00	2,929.62	97.33
230	☐	J-303FH	9.23	2,730.00	2,929.69	86.53
231	☐	J-304	9.23	3,000.00	3,153.89	66.68
232	☐	J-305FH	9.23	2,877.50	2,996.53	51.58
233	☐	J-306	9.23	2,877.50	3,069.80	83.32
234	☐	J-307FH	9.23	2,740.00	2,929.71	82.20
235	☐	J-308	9.23	3,042.00	3,088.18	20.01
236	☐	J-309	9.23	2,760.00	2,930.56	73.90
237	☐	J-30FH	9.23	2,816.00	2,993.85	77.06
238	☐	J-31	9.23	2,815.00	2,994.49	77.77
239	☐	J-310	9.23	2,930.00	3,076.23	63.36
240	☐	J-311	9.23	2,925.00	3,077.59	66.12
241	☐	J-312	9.23	2,870.00	3,075.44	89.02
242	☐	J-313	9.23	2,800.00	2,997.06	85.39
243	☐	J-314	9.23	2,780.00	2,996.75	93.92
244	☐	J-315FH	9.23	2,930.00	3,076.01	63.26
245	☐	J-316	9.23	2,843.00	2,993.11	65.04
246	☐	J-317FH	9.23	2,902.00	3,070.67	73.09
247	☐	J-318FH	9.23	2,922.00	3,078.17	67.67
248	☐	J-319FH	9.23	2,924.00	3,077.45	66.49
249	☐	J-32	9.23	2,800.00	2,996.10	84.97
250	☐	J-320	9.23	2,922.00	3,077.30	67.29

Peak Instantaneous Demand

		ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
251	☐	J-321FH	9.23	2,924.00	3,076.81	66.21
252	☐	J-322FH	9.23	2,936.00	3,076.36	60.82
253	☐	J-323FH	9.23	2,930.00	3,076.49	63.47
254	☐	J-324FH	9.23	2,926.00	3,076.75	65.32
255	☐	J-325FH	9.23	2,924.00	3,076.98	66.29
256	☐	J-326FH	9.23	2,928.00	3,076.73	64.44
257	☐	J-327FH	9.23	2,928.00	3,076.61	64.39
258	☐	J-328FH	9.23	2,933.00	3,076.46	62.16
259	☐	J-329FH	9.23	2,934.00	3,076.43	61.72
260	☐	J-330	9.23	2,934.00	3,076.44	61.72
261	☐	J-331	9.23	2,923.00	3,076.80	66.64
262	☐	J-333	9.23	2,885.00	3,070.28	80.28
263	☐	J-334	9.23	2,885.00	3,070.28	80.28
264	☐	J-335	9.23	2,745.00	2,931.03	80.61
265	☐	J-336	9.23	2,745.00	2,931.03	80.61
266	☐	J-33FH	9.23	2,820.00	2,995.20	75.91
267	☐	J-34	9.23	2,830.00	2,995.45	71.69
268	☐	J-35	9.23	2,827.00	2,994.37	72.52
269	☐	J-36	9.23	2,820.00	2,994.43	75.58
270	☐	J-37	9.23	2,825.00	2,993.83	73.15
271	☐	J-38FH	9.23	2,821.00	2,993.06	74.55
272	☐	J-39FH	9.23	2,836.00	2,994.27	68.58
273	☐	J-4	9.23	2,729.00	2,929.88	87.04
274	☐	J-40	9.23	2,839.00	2,994.25	67.27
275	☐	J-41	9.23	2,837.00	2,994.23	68.13
276	☐	J-42	9.23	2,835.00	2,993.87	68.84
277	☐	J-43	9.23	2,833.00	2,993.15	69.40
278	☐	J-44FH	9.23	2,805.00	2,992.12	81.08
279	☐	J-45	9.23	2,805.00	2,992.35	81.18
280	☐	J-46	9.23	2,780.00	2,992.11	91.91
281	☐	J-47	9.23	2,760.00	2,992.11	100.57
282	☐	J-48	9.23	2,780.00	2,992.11	91.91
283	☐	J-49	9.23	2,801.00	2,992.73	83.08
284	☐	J-5	9.23	2,751.00	2,930.12	77.61
285	☐	J-50	9.23	2,803.00	2,992.35	82.05
286	☐	J-51	9.23	2,800.00	2,992.73	83.51
287	☐	J-52	9.23	2,839.00	2,996.24	68.13
288	☐	J-53	9.23	2,842.00	2,995.94	66.70
289	☐	J-54	9.23	2,920.00	3,074.14	66.79
290	☐	J-55	9.23	2,842.00	2,995.79	66.64
291	☐	J-56	9.23	2,847.00	2,995.89	64.51
292	☐	J-57	9.23	2,850.00	2,995.89	63.21
293	☐	J-58	9.23	2,837.00	2,994.38	68.19
294	☐	J-59	9.23	2,860.00	3,081.61	96.02
295	☐	J-6	9.23	2,757.00	2,930.46	75.16
296	☐	J-61	9.23	2,847.00	2,994.35	63.85
297	☐	J-63FH	9.23	2,839.00	2,994.35	67.31
298	☐	J-64	9.23	2,839.00	2,994.14	67.22
299	☐	J-65	9.23	2,851.50	2,995.87	62.55
300	☐	J-66FH	9.23	2,847.00	2,995.50	64.35

Peak Instantaneous Demand

		ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
301	☐	J-67	9.23	2,842.00	2,994.46	66.06
302	☐	J-68FH	9.23	2,839.00	2,994.14	67.22
303	☐	J-69FH	9.23	2,839.00	2,993.69	67.03
304	☐	J-7	9.23	2,754.00	2,930.09	76.30
305	☐	J-70	9.23	2,837.00	2,993.13	67.65
306	☐	J-71	9.23	2,839.50	2,993.78	66.85
307	☐	J-73FH	9.23	2,830.00	2,991.02	69.77
308	☐	J-74	9.23	2,843.00	2,994.03	65.44
309	☐	J-75	9.23	2,845.00	2,994.10	64.60
310	☐	J-76	9.23	2,849.00	2,994.19	62.91
311	☐	J-77FH	9.23	2,914.00	3,075.55	70.00
312	☐	J-78	9.23	2,940.00	3,076.23	59.03
313	☐	J-79	9.23	2,842.00	2,992.02	65.01
314	☐	J-80FH	9.23	2,940.00	3,076.18	59.01
315	☐	J-81FH	9.23	2,841.00	2,992.61	65.69
316	☐	J-82	9.23	2,921.00	3,075.98	67.15
317	☐	J-83	9.23	2,760.00	2,931.20	74.18
318	☐	J-84	9.23	2,760.00	2,983.42	96.81
319	☐	J-85FH	9.23	2,849.50	2,995.75	63.37
320	☐	J-86	9.23	2,851.50	2,995.74	62.50
321	☐	J-87	9.23	2,852.00	2,996.03	62.41
322	☐	J-88	9.23	2,854.00	2,996.24	61.63
323	☐	J-89	9.23	2,857.00	2,996.00	60.23
324	☐	J-8FH	9.23	2,752.00	2,930.09	77.17
325	☐	J-9	9.23	2,757.00	2,930.68	75.25
326	☐	J-90	9.23	2,857.00	2,996.00	60.23
327	☐	J-91	9.23	2,857.00	2,996.07	60.26
328	☐	J-92	9.23	2,861.00	2,996.36	58.65
329	☐	J-93FH	9.23	2,858.00	2,996.24	59.90
330	☐	J-94	9.23	2,857.00	2,996.54	60.46
331	☐	J-95	9.23	2,863.50	2,996.44	57.60
332	☐	J-956	9.23	2,847.00	3,023.57	76.51
333	☐	J-958	9.23	2,856.00	3,025.29	73.35
334	☐	J-96	9.23	2,863.00	2,996.44	57.82
335	☐	J-97FH	9.23	2,936.00	3,076.09	60.70
336	☐	J-98	9.23	2,866.75	2,996.53	56.23
337	☐	J-99	9.23	2,866.50	2,996.52	56.34
338	☐	J1000	9.23	2,903.00	3,076.29	75.09
339	☐	J1002	9.23	2,892.00	3,076.28	79.85
340	☐	J1004	9.23	2,939.00	3,076.21	59.45
341	☐	J1006	9.23	2,937.00	3,076.21	60.32
342	☐	J1008	9.23	2,940.00	3,076.21	59.02
343	☐	J100FH	9.23	2,933.00	3,077.10	62.44
344	☐	J1010	9.23	2,941.00	3,076.21	58.58
345	☐	J1012	9.23	2,941.00	3,076.21	58.59
346	☐	J1014	9.23	2,942.00	3,076.21	58.15
347	☐	J1016	9.23	2,943.00	3,076.21	57.72
348	☐	J1018	9.23	2,940.00	3,076.21	59.02
349	☐	J1020	9.23	2,944.00	3,076.20	57.28
350	☐	J1022	9.23	2,947.00	3,076.20	55.98

Peak Instantaneous Demand

		ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
351	☐	J1024	9.23	2,941.00	3,076.20	58.58
352	☐	J1026	9.23	2,953.00	3,084.71	57.07
353	☐	J1028	9.23	2,868.00	3,084.72	93.91
354	☐	J102FH	9.23	2,936.00	3,076.05	60.68
355	☐	J1030	9.23	2,890.00	3,084.72	84.37
356	☐	J1032	9.23	2,873.00	3,084.72	91.74
357	☐	J1034	9.23	2,915.00	3,084.71	73.54
358	☐	J1036	9.23	2,761.00	2,931.84	74.02
359	☐	J1038	9.23	2,764.00	2,931.95	72.77
360	☐	J1040	9.23	2,764.00	2,931.87	72.74
361	☐	J1042	9.23	2,766.00	2,931.91	71.89
362	☐	J1044	9.23	2,768.00	2,931.89	71.01
363	☐	J1048	9.23	3,000.00	3,154.51	66.95
364	☐	J104FH	9.23	2,929.00	3,075.54	63.49
365	☐	J1050	9.23	2,861.00	3,048.14	81.09
366	☐	J1054	0.00	2,940.00	3,109.50	73.45
367	☐	J1056	0.00	2,929.50	3,076.59	63.73
368	☐	J1062	0.00	3,000.00	3,124.09	53.77
369	☐	J1068	0.00	3,138.90	3,165.37	11.47
370	☐	J106FH	9.23	2,923.00	3,075.38	66.03
371	☐	J108FH	9.23	2,921.00	3,075.63	67.00
372	☐	J10FH	9.23	2,845.00	3,020.80	76.18
373	☐	J110FH	9.23	2,914.00	3,075.36	69.92
374	☐	J112FH	9.23	2,934.00	3,076.24	61.63
375	☐	J114FH	9.23	2,932.00	3,075.79	62.30
376	☐	J116FH	9.23	2,925.00	3,075.22	65.09
377	☐	J118FH	9.23	2,929.00	3,076.52	63.92
378	☐	J12	9.23	2,845.00	3,020.92	76.22
379	☐	J120FH	9.23	2,930.00	3,075.80	63.17
380	☐	J122FH	9.23	2,930.00	3,075.24	62.93
381	☐	J124FH	9.23	2,922.00	3,074.99	66.29
382	☐	J126FH	9.23	2,899.00	3,075.50	76.48
383	☐	J128FH	9.23	2,902.00	3,074.26	74.64
384	☐	J130FH	9.23	2,881.00	3,075.46	84.26
385	☐	J132FH	9.23	2,887.00	3,074.39	81.20
386	☐	J134FH	9.23	2,894.00	3,074.00	77.99
387	☐	J136FH	9.23	2,898.00	3,073.82	76.18
388	☐	J138FH	9.23	2,924.00	3,073.79	64.90
389	☐	J140FH	9.23	2,920.00	3,073.22	66.39
390	☐	J142FH	9.23	2,923.00	3,073.19	65.08
391	☐	J144FH	9.23	2,808.00	3,081.61	118.55
392	☐	J146FH	9.23	2,810.00	3,081.61	117.69
393	☐	J148FH	9.23	2,816.00	3,081.61	115.09
394	☐	J14FH	9.23	2,845.00	3,020.61	76.09
395	☐	J150FH	9.23	2,868.00	3,081.61	92.56
396	☐	J152FH	9.23	2,932.00	3,072.84	61.03
397	☐	J154FH	9.23	2,929.00	3,074.33	62.97
398	☐	J156FH	9.23	2,929.00	3,073.89	62.78
399	☐	J158FH	9.23	2,928.00	3,073.97	63.25
400	☐	J16	9.23	2,849.00	3,020.59	74.35

Peak Instantaneous Demand

		ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
401	☐	J160FH	9.23	2,912.00	3,070.73	68.78
402	☐	J162FH	9.23	2,918.00	3,072.01	66.73
403	☐	J164FH	9.23	2,911.00	3,071.68	69.62
404	☐	J166FH	9.23	2,911.00	3,072.93	70.16
405	☐	J168FH	9.23	2,905.00	3,073.20	72.88
406	☐	J170FH	9.23	2,882.00	3,073.44	82.95
407	☐	J172FH	9.23	2,884.00	3,072.94	81.87
408	☐	J174FH	9.23	2,877.00	3,072.39	84.66
409	☐	J176FH	9.23	2,881.00	3,072.04	82.78
410	☐	J178FH	9.23	2,888.00	3,071.67	79.58
411	☐	J180FH	9.23	2,880.00	3,071.41	82.94
412	☐	J182FH	9.23	2,863.00	3,071.36	90.28
413	☐	J184FH	9.23	2,863.00	3,069.81	89.61
414	☐	J186	9.23	2,788.00	2,930.55	61.77
415	☐	J188FH	9.23	2,775.00	2,930.55	67.40
416	☐	J18FH	9.23	2,844.00	3,020.58	76.51
417	☐	J190FH	9.23	2,893.00	3,070.27	76.81
418	☐	J192FH	9.23	2,766.00	2,930.55	71.30
419	☐	J194FH	9.23	2,780.00	2,930.55	65.23
420	☐	J196FH	9.23	2,763.00	2,930.57	72.61
421	☐	J198FH	9.23	2,776.00	2,930.56	66.97
422	☐	J200FH	9.23	2,783.00	2,930.63	63.97
423	☐	J202FH	9.23	2,760.00	2,930.68	73.96
424	☐	J204FH	9.23	2,777.00	2,930.76	66.62
425	☐	J206FH	9.23	2,889.00	3,070.47	78.63
426	☐	J208FH	9.23	2,879.00	3,070.20	82.85
427	☐	J20FH	9.23	2,850.00	3,020.58	73.91
428	☐	J210FH	9.23	2,892.00	3,070.23	77.23
429	☐	J212FH	9.23	2,881.00	3,070.01	81.90
430	☐	J214FH	9.23	2,738.00	2,930.80	83.54
431	☐	J216FH	9.23	2,743.00	2,930.97	81.45
432	☐	J218FH	9.23	2,722.00	2,930.87	90.51
433	☐	J22	9.23	2,852.00	3,020.58	73.05
434	☐	J220FH	9.23	2,725.00	2,930.88	89.21
435	☐	J222FH	9.23	2,732.00	2,930.89	86.18
436	☐	J224	9.23	2,730.00	2,930.88	87.04
437	☐	J226FH	9.23	2,736.00	2,930.88	84.44
438	☐	J228FH	9.23	2,738.00	2,930.79	83.53
439	☐	J230FH	9.23	2,747.00	2,931.23	79.83
440	☐	J232FH	9.23	2,723.00	2,930.15	89.76
441	☐	J234FH	9.23	2,728.00	2,930.15	87.59
442	☐	J236FH	9.23	2,738.00	2,930.63	83.47
443	☐	J238FH	9.23	2,745.00	2,931.09	80.63
444	☐	J240FH	9.23	2,720.00	2,930.06	91.02
445	☐	J242FH	9.23	2,742.00	2,930.75	81.79
446	☐	J244FH	9.23	2,755.00	2,986.03	100.10
447	☐	J246FH	9.23	2,835.00	3,014.28	77.68
448	☐	J248FH	9.23	2,740.00	2,930.20	82.41
449	☐	J24FH	9.23	2,842.00	3,020.58	77.38
450	☐	J250FH	9.23	2,749.00	2,930.96	78.84

Peak Instantaneous Demand

		ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
451	☐	J252FH	9.23	2,743.00	2,930.86	81.40
452	☐	J254FH	9.23	2,743.00	2,930.84	81.39
453	☐	J256FH	9.23	2,804.00	2,992.48	81.67
454	☐	J258FH	9.23	2,778.00	2,992.11	92.77
455	☐	J260FH	9.23	2,797.00	2,991.26	84.17
456	☐	J262FH	9.23	2,796.00	2,990.19	84.14
457	☐	J264FH	9.23	2,799.00	2,989.69	82.62
458	☐	J266FH	9.23	2,812.00	2,993.09	78.47
459	☐	J268FH	9.23	2,810.00	2,992.76	79.19
460	☐	J26FH	9.23	2,849.00	3,020.58	74.35
461	☐	J270FH	9.23	2,807.00	2,991.81	80.08
462	☐	J272FH	9.23	2,824.00	2,994.63	73.93
463	☐	J274FH	9.23	2,804.00	2,994.81	82.68
464	☐	J276FH	9.23	2,818.00	2,993.15	75.89
465	☐	J278FH	9.23	2,824.00	2,993.94	73.63
466	☐	J28	9.23	2,922.00	3,076.92	67.13
467	☐	J280FH	9.23	2,819.00	2,993.84	75.76
468	☐	J282FH	9.23	2,841.00	2,995.92	67.13
469	☐	J284FH	9.23	2,843.00	2,995.88	66.24
470	☐	J286FH	9.23	2,844.00	2,995.92	65.83
471	☐	J288FH	9.23	2,849.00	2,996.05	63.72
472	☐	J290FH	9.23	2,794.00	2,985.16	82.83
473	☐	J292FH	9.23	2,856.00	2,995.26	60.34
474	☐	J294FH	9.23	2,845.00	2,994.08	64.60
475	☐	J296FH	9.23	2,843.00	2,994.22	65.52
476	☐	J298FH	9.23	2,852.00	2,996.18	62.47
477	☐	J300FH	9.23	2,875.00	3,007.99	57.63
478	☐	J302FH	9.23	2,871.00	3,004.70	57.93
479	☐	J304FH	9.23	2,872.00	3,002.76	56.66
480	☐	J306FH	9.23	2,864.00	2,996.53	57.43
481	☐	J308FH	9.23	2,858.00	2,996.46	59.99
482	☐	J310FH	9.23	2,752.00	2,931.29	77.69
483	☐	J312FH	9.23	2,739.00	2,929.85	82.69
484	☐	J314FH	9.23	2,743.00	2,930.64	81.30
485	☐	J316FH	9.23	2,734.00	2,930.32	85.07
486	☐	J318FH	9.23	2,720.00	2,929.94	90.97
487	☐	J320FH	9.23	2,716.00	2,929.83	92.65
488	☐	J322FH	9.23	2,721.00	2,929.82	90.48
489	☐	J324FH	9.23	2,727.00	2,929.86	87.90
490	☐	J326FH	9.23	2,729.00	2,929.76	86.99
491	☐	J328FH	9.23	2,736.00	2,929.56	83.87
492	☐	J330FH	9.23	2,727.00	2,929.54	87.76
493	☐	J332FH	9.23	2,736.00	2,929.59	83.88
494	☐	J334FH	9.23	2,739.00	2,929.67	82.62
495	☐	J336FH	9.23	2,733.00	2,930.22	85.45
496	☐	J338FH	9.23	2,725.00	2,929.67	88.68
497	☐	J340FH	9.23	2,739.00	2,930.22	82.85
498	☐	J342FH	9.23	2,728.00	2,929.92	87.49
499	☐	J344FH	9.23	2,736.00	2,930.22	84.15
500	☐	J346FH	9.23	2,740.00	2,930.22	82.42

Peak Instantaneous Demand

		ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
501	☐	J348FH	9.23	2,746.00	2,930.47	79.93
502	☐	J34FH	9.23	2,922.00	3,077.48	67.37
503	☐	J350FH	9.23	2,746.00	2,930.49	79.94
504	☐	J352FH	9.23	2,735.00	2,930.09	84.53
505	☐	J354FH	9.23	2,749.00	2,930.68	78.72
506	☐	J356FH	9.23	2,721.00	2,930.08	90.59
507	☐	J358FH	9.23	2,733.00	2,930.11	85.41
508	☐	J36	9.23	2,906.00	3,072.71	72.23
509	☐	J360FH	9.23	2,705.00	2,929.09	97.10
510	☐	J362FH	9.23	2,705.00	2,929.25	97.17
511	☐	J364FH	9.23	2,718.00	2,929.47	91.63
512	☐	J366FH	9.23	2,721.00	2,929.47	90.33
513	☐	J368FH	9.23	2,717.00	2,929.45	92.05
514	☐	J370FH	9.23	2,731.00	2,929.53	86.02
515	☐	J372FH	9.23	2,731.00	2,929.55	86.03
516	☐	J374FH	9.23	2,704.00	2,929.60	97.75
517	☐	J376FH	9.23	2,705.00	2,929.63	97.33
518	☐	J380FH	9.23	2,947.00	3,076.18	55.98
519	☐	J382FH	9.23	2,948.00	3,076.18	55.54
520	☐	J384FH	9.23	2,945.00	3,076.18	56.84
521	☐	J388	9.23	2,946.00	3,076.18	56.41
522	☐	J38FH	9.23	2,913.00	3,070.90	68.42
523	☐	J392	9.23	2,952.00	3,076.18	53.81
524	☐	J394	9.23	2,945.00	3,076.18	56.84
525	☐	J396	9.23	2,942.00	3,076.19	58.15
526	☐	J398FH	9.23	2,943.00	3,076.19	57.71
527	☐	J40	9.23	2,916.00	3,071.21	67.25
528	☐	J400	9.23	2,902.00	3,076.04	75.41
529	☐	J402FH	9.23	2,912.00	3,075.96	71.04
530	☐	J404FH	9.23	2,917.00	3,075.90	68.85
531	☐	J406FH	9.23	2,921.00	3,076.02	67.17
532	☐	J408	9.23	2,918.00	3,076.02	68.47
533	☐	J410FH	9.23	2,922.00	3,076.01	66.73
534	☐	J412FH	9.23	2,929.00	3,076.01	63.70
535	☐	J414	9.23	2,928.00	3,077.60	64.82
536	☐	J416FH	9.23	2,928.00	3,078.13	65.05
537	☐	J418FH	9.23	2,926.00	3,078.13	65.92
538	☐	J420FH	9.23	2,918.00	3,078.32	69.46
539	☐	J422FH	9.23	2,928.00	3,077.91	64.96
540	☐	J424FH	9.23	2,928.00	3,077.87	64.94
541	☐	J426FH	9.23	2,927.00	3,077.85	65.36
542	☐	J42FH	9.23	2,919.00	3,071.21	65.95
543	☐	J430	9.23	2,923.00	3,078.30	67.29
544	☐	J432	9.23	2,924.00	3,078.29	66.85
545	☐	J434FH	9.23	2,926.00	3,078.30	65.99
546	☐	J436	9.23	2,922.00	3,078.29	67.72
547	☐	J438	9.23	2,923.00	3,078.29	67.29
548	☐	J440FH	9.23	2,925.00	3,077.84	66.23
549	☐	J442FH	9.23	2,926.00	3,077.97	65.85
550	☐	J444FH	9.23	2,930.00	3,077.30	63.83

Peak Instantaneous Demand

		ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
551	☐	J446	9.23	2,909.00	3,078.85	73.59
552	☐	J448	9.23	2,923.00	3,078.32	67.30
553	☐	J44FH	9.23	2,918.00	3,070.89	66.25
554	☐	J450FH	9.23	2,918.00	3,076.45	68.66
555	☐	J452FH	9.23	2,915.00	3,076.26	69.87
556	☐	J454	9.23	2,841.00	2,994.23	66.39
557	☐	J456FH	9.23	2,706.00	2,928.96	96.61
558	☐	J458FH	9.23	2,709.00	2,928.96	95.31
559	☐	J46	9.23	2,896.00	3,070.67	75.69
560	☐	J460FH	9.23	2,713.00	2,928.96	93.57
561	☐	J462FH	9.23	2,713.00	2,928.97	93.58
562	☐	J464	9.23	2,711.00	2,928.97	94.44
563	☐	J466	9.23	2,707.00	2,928.96	96.17
564	☐	J468	9.23	2,712.00	2,928.96	94.01
565	☐	J470	9.23	2,712.00	2,929.00	94.02
566	☐	J472	9.23	2,712.00	2,928.96	94.01
567	☐	J474	9.23	2,712.00	2,928.97	94.01
568	☐	J476	9.23	2,815.00	3,084.61	116.82
569	☐	J478FH	9.23	2,816.00	3,084.61	116.39
570	☐	J48	9.23	2,900.00	3,070.28	73.78
571	☐	J480FH	9.23	2,796.00	3,084.63	125.06
572	☐	J482FH	9.23	2,796.00	3,084.65	125.07
573	☐	J484FH	9.23	2,811.00	3,084.68	118.59
574	☐	J486FH	9.23	2,840.00	3,084.72	106.04
575	☐	J488FH	9.23	2,820.00	3,084.71	114.70
576	☐	J490FH	9.23	2,818.00	3,084.71	115.57
577	☐	J492FH	9.23	2,820.00	3,084.71	114.70
578	☐	J494FH	9.23	2,818.00	3,084.71	115.57
579	☐	J496FH	9.23	2,815.00	3,084.72	116.87
580	☐	J500FH	9.23	2,823.00	3,084.72	113.41
581	☐	J508FH	9.23	2,847.00	3,084.73	103.01
582	☐	J50FH	9.23	2,695.00	2,929.60	101.65
583	☐	J510FH	9.23	2,856.00	3,084.73	99.11
584	☐	J512	9.23	2,872.00	3,084.73	92.18
585	☐	J514FH	9.23	2,869.00	3,084.74	93.48
586	☐	J516	9.23	2,867.00	3,084.75	94.35
587	☐	J518FH	9.23	2,865.00	3,084.77	95.22
588	☐	J52	9.23	2,742.00	2,930.22	81.56
589	☐	J522FH	9.23	2,824.00	3,084.73	112.97
590	☐	J524	9.23	2,815.00	3,084.72	116.87
591	☐	J526FH	9.23	2,840.00	3,084.74	106.04
592	☐	J528FH	9.23	2,854.00	3,084.75	99.98
593	☐	J532FH	9.23	2,858.00	3,084.78	98.26
594	☐	J534	9.23	2,860.00	3,084.79	97.40
595	☐	J54	9.23	2,738.00	2,930.22	83.29
596	☐	J540	9.23	2,927.00	3,077.91	65.39
597	☐	J546	9.23	2,760.00	3,109.45	151.42
598	☐	J548	9.23	2,760.00	3,099.40	147.06
599	☐	J550	9.23	2,760.00	3,083.33	140.10
600	☐	J552	9.23	2,760.00	3,078.90	138.18

Peak Instantaneous Demand

		ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
601	☐	J554	9.23	2,760.00	3,030.48	117.20
602	☐	J556	9.23	2,760.00	3,067.09	133.06
603	☐	J558	9.23	2,760.00	3,096.16	145.66
604	☐	J560	9.23	2,875.00	3,065.55	82.57
605	☐	J562	9.23	2,865.00	3,066.44	87.28
606	☐	J564	9.23	2,820.00	2,991.00	74.09
607	☐	J566FH	9.23	2,922.00	3,076.69	67.03
608	☐	J568FH	9.23	2,928.00	3,076.59	64.39
609	☐	J56FH	9.23	2,740.00	2,929.91	82.29
610	☐	J570FH	9.23	2,929.00	3,076.59	63.95
611	☐	J572	9.23	2,939.00	3,076.45	59.56
612	☐	J574	9.23	2,937.00	3,076.49	60.44
613	☐	J576	9.23	2,942.00	3,076.41	58.24
614	☐	J578	9.23	2,940.00	3,076.42	59.11
615	☐	J580FH	9.23	2,939.00	3,076.42	59.54
616	☐	J582	9.23	2,922.00	3,076.67	67.02
617	☐	J584FH	9.23	2,842.00	3,084.74	105.18
618	☐	J586	9.23	2,865.00	3,084.75	95.22
619	☐	J588	9.23	2,857.00	3,084.77	98.69
620	☐	J58FH	9.23	2,734.00	2,929.80	84.84
621	☐	J590FH	9.23	2,833.00	3,084.74	109.08
622	☐	J594FH	9.23	2,826.00	3,084.74	112.11
623	☐	J596FH	9.23	2,803.00	3,084.71	122.07
624	☐	J60	9.23	2,728.00	2,929.76	87.42
625	☐	J600FH	9.23	2,846.00	3,084.74	103.45
626	☐	J602	9.23	2,846.00	3,084.74	103.45
627	☐	J604	9.23	2,945.00	3,076.34	56.91
628	☐	J606FH	9.23	2,950.00	3,076.26	54.71
629	☐	J608	9.23	2,943.00	3,076.34	57.78
630	☐	J610FH	9.23	2,936.00	3,076.55	60.90
631	☐	J612FH	9.23	2,931.00	3,076.62	63.10
632	☐	J614	9.23	2,931.00	3,076.57	63.08
633	☐	J616	9.23	2,933.00	3,076.56	62.20
634	☐	J618	9.23	3,143.00	3,300.99	68.46
635	☐	J62	9.23	2,723.00	2,929.76	89.59
636	☐	J620	9.23	2,865.00	2,996.52	56.99
637	☐	J622FH	9.23	2,826.00	3,005.94	77.97
638	☐	J624FH	9.23	2,835.00	3,005.93	74.06
639	☐	J626FH	9.23	2,805.00	3,001.62	85.20
640	☐	J630FH	9.23	2,825.00	3,005.92	78.39
641	☐	J634FH	9.23	2,831.00	3,005.92	75.79
642	☐	J638FH	9.23	2,790.00	2,999.77	90.89
643	☐	J64	9.23	2,742.00	2,929.62	81.30
644	☐	J640FH	9.23	2,930.00	3,076.56	63.50
645	☐	J642FH	9.23	2,929.00	3,076.58	63.95
646	☐	J646FH	9.23	2,934.00	3,076.56	61.77
647	☐	J648FH	9.23	2,799.00	2,930.55	57.00
648	☐	J650FH	9.23	2,790.00	2,930.55	60.90
649	☐	J652FH	9.23	2,774.00	2,930.55	67.83
650	☐	J654FH	9.23	2,772.00	2,930.53	68.69

Peak Instantaneous Demand

		ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
651	☐	J656FH	9.23	2,779.00	2,930.53	65.66
652	☐	J658FH	9.23	2,784.00	2,930.54	63.49
653	☐	J660FH	9.23	2,774.00	2,930.53	67.82
654	☐	J662FH	9.23	2,765.00	2,930.53	71.72
655	☐	J664FH	9.23	2,784.00	2,930.53	63.49
656	☐	J666FH	9.23	2,792.00	2,930.54	60.03
657	☐	J668	9.23	2,805.00	2,930.53	54.39
658	☐	J66FH	9.23	2,733.00	2,929.51	85.15
659	☐	J670	9.23	2,746.42	2,930.94	79.95
660	☐	J672FH	9.23	2,747.00	2,930.94	79.70
661	☐	J674	9.23	2,931.48	3,076.17	62.70
662	☐	J676FH	9.23	2,935.42	3,076.17	60.99
663	☐	J678FH	9.23	2,934.28	3,076.17	61.48
664	☐	J680FH	9.23	2,931.09	3,076.17	62.86
665	☐	J682	9.23	2,926.25	3,076.17	64.96
666	☐	J684FH	9.23	2,930.42	3,076.17	63.15
667	☐	J686FH	9.23	2,929.00	3,076.17	63.77
668	☐	J688	9.23	2,924.95	3,076.17	65.52
669	☐	J68FH	9.23	2,743.00	2,929.48	80.80
670	☐	J690	9.23	2,925.00	3,076.17	65.50
671	☐	J692FH	9.23	2,932.10	3,076.17	62.42
672	☐	J694	9.23	2,923.00	3,076.17	66.37
673	☐	J696	9.23	2,935.00	3,076.28	61.22
674	☐	J698	9.23	2,929.52	3,076.23	63.57
675	☐	J700FH	9.23	2,936.95	3,076.23	60.35
676	☐	J702	9.23	2,925.68	3,076.18	65.21
677	☐	J704FH	9.23	2,926.37	3,076.18	64.91
678	☐	J706FH	9.23	2,934.71	3,076.18	61.30
679	☐	J708FH	9.23	2,930.45	3,076.23	63.17
680	☐	J70FH	9.23	2,731.00	2,929.52	86.02
681	☐	J710FH	9.23	2,935.73	3,076.27	60.90
682	☐	J712	9.23	2,721.80	2,930.15	90.28
683	☐	J714FH	9.23	2,726.17	2,930.15	88.38
684	☐	J716	9.23	2,720.00	2,930.15	91.06
685	☐	J718FH	9.23	2,723.42	2,930.15	89.58
686	☐	J72	9.23	2,724.00	2,930.15	89.33
687	☐	J720FH	9.23	2,781.00	2,998.01	94.03
688	☐	J724	9.23	2,934.00	3,076.41	61.70
689	☐	J728	9.23	2,932.00	3,076.40	62.57
690	☐	J730FH	9.23	2,932.00	3,076.40	62.57
691	☐	J732	9.23	2,930.00	3,076.42	63.44
692	☐	J736	9.23	2,922.00	3,076.52	66.95
693	☐	J738FH	9.23	2,924.00	3,076.49	66.07
694	☐	J74	9.23	2,911.00	3,074.26	70.74
695	☐	J740FH	9.23	2,916.00	3,076.61	69.59
696	☐	J742FH	9.23	2,938.00	3,076.38	59.96
697	☐	J744	9.23	2,942.00	3,076.36	58.22
698	☐	J746	9.23	2,944.00	3,076.21	57.29
699	☐	J748	9.23	2,950.00	3,076.21	54.69
700	☐	J750FH	9.23	2,941.00	3,076.21	58.58

Peak Instantaneous Demand

		ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
701	☐	J752	9.23	2,946.00	3,076.20	56.42
702	☐	J754	9.23	2,944.00	3,076.21	57.29
703	☐	J756	9.23	2,948.00	3,076.26	55.57
704	☐	J758	9.23	2,952.00	3,076.26	53.84
705	☐	J76	9.23	2,886.00	3,074.55	81.70
706	☐	J774	9.23	2,738.00	2,929.52	82.99
707	☐	J776	9.23	2,736.00	2,929.52	83.85
708	☐	J778	9.23	2,771.00	2,930.53	69.13
709	☐	J780	9.23	2,770.00	2,930.53	69.56
710	☐	J782	9.23	2,812.00	2,994.64	79.14
711	☐	J784FH	9.23	2,774.00	2,930.54	67.83
712	☐	J786FH	9.23	2,781.00	2,997.75	93.92
713	☐	J788FH	9.23	2,921.00	3,075.98	67.15
714	☐	J78FH	9.23	2,932.00	3,075.81	62.31
715	☐	J790FH	9.23	2,926.00	3,076.44	65.18
716	☐	J792	9.23	2,943.00	3,076.22	57.73
717	☐	J794	9.23	2,907.00	3,077.53	73.89
718	☐	J796	9.23	2,889.00	3,076.28	81.15
719	☐	J802	9.23	2,774.00	2,930.55	67.83
720	☐	J804	9.23	2,799.00	3,084.60	123.75
721	☐	J80FH	9.23	2,925.00	3,075.23	65.09
722	☐	J814	9.23	2,981.00	3,147.86	72.30
723	☐	J816	9.23	2,963.00	3,076.25	49.07
724	☐	J818	9.23	2,954.00	3,076.25	52.97
725	☐	J82FH	9.23	2,917.00	3,074.65	68.31
726	☐	J838	9.23	3,004.53	3,154.46	64.97
727	☐	J84FH	9.23	2,922.00	3,074.65	66.14
728	☐	J86	9.23	2,925.00	3,075.22	65.09
729	☐	J88	9.23	2,916.00	3,073.33	68.17
730	☐	J90	9.23	2,922.00	3,075.22	66.39
731	☐	J92FH	9.23	2,948.00	3,076.52	55.69
732	☐	J942	9.23	2,907.00	3,076.45	73.42
733	☐	J946	9.23	2,983.37	3,150.38	72.36
734	☐	J948	9.23	2,946.00	3,109.50	70.85
735	☐	J94FH	9.23	2,950.00	3,076.21	54.69
736	☐	J954	9.23	2,847.00	3,022.70	76.13
737	☐	J960	9.23	2,851.00	3,024.14	75.02
738	☐	J962	9.23	2,855.00	3,024.98	73.65
739	☐	J964	9.23	2,861.00	3,026.14	71.56
740	☐	J966	9.23	2,861.00	3,026.93	71.90
741	☐	J968	9.23	2,915.00	3,076.79	70.10
742	☐	J96FH	9.23	2,941.00	3,076.40	58.67
743	☐	J970	9.23	2,924.00	3,076.67	66.15
744	☐	J972	9.23	2,917.00	3,076.96	69.31
745	☐	J974	9.23	2,919.00	3,076.79	68.37
746	☐	J976	9.23	2,926.00	3,076.67	65.28
747	☐	J978	9.23	2,934.00	3,078.61	62.66
748	☐	J980	9.23	2,934.00	3,078.50	62.61
749	☐	J982	9.23	2,928.00	3,078.25	65.10
750	☐	J984	9.23	2,944.00	3,089.78	63.17

Peak Instantaneous Demand

		ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)
751	☐	J986	9.23	2,923.00	3,081.88	68.84
752	☐	J988	9.23	2,921.00	3,079.23	68.56
753	☐	J98FH	9.23	2,936.00	3,076.86	61.04
754	☐	J990	9.23	2,916.00	3,078.10	70.24
755	☐	J992	9.23	2,923.00	3,077.59	66.98
756	☐	J994	9.23	2,946.00	3,109.91	71.02
757	☐	J996	9.23	2,910.00	3,076.42	72.11
758	☐	J998	9.23	2,908.00	3,076.27	72.91

Peak Day Demand with Fire Flow

		ID	Static Pressure (psi)	Static Head (ft)	Fire-Flow Demand (gpm)	Residual Pressure (psi)	Hydrant Available Flow (gpm)
1	☐	J-100FH	51.73	2,995.39	1,250.00	48.14	4,018.22
2	☐	J-102FH	86.00	3,066.48	1,250.00	77.72	6,622.10
3	☐	J-103FH	84.81	3,066.72	1,250.00	76.22	5,765.79
4	☐	J-105FH	83.15	3,066.89	1,250.00	74.52	5,453.24
5	☐	J-106FH	81.71	3,065.58	1,250.00	72.60	6,058.99
6	☐	J-107FH	57.80	3,069.40	1,250.00	49.85	3,764.46
7	☐	J-109FH	83.09	3,066.76	1,250.00	74.69	5,679.39
8	☐	J-10FH	82.80	2,932.09	1,250.00	76.98	4,155.00
9	☐	J-110	81.41	3,066.89	1,250.00	71.58	4,504.34
10	☐	J-111	72.62	3,067.10	1,250.00	63.26	4,254.65
11	☐	J-112	81.50	3,067.09	1,250.00	19.05	1,247.42
12	☐	J-113	79.16	3,067.69	1,250.00	71.54	5,784.80
13	☐	J-115	79.04	3,067.42	1,250.00	58.45	2,374.33
14	☐	J-116FH	81.07	3,068.09	1,250.00	73.81	6,109.61
15	☐	J-117	73.89	3,067.53	1,250.00	66.38	5,615.20
16	☐	J-118FH	76.57	3,067.72	1,250.00	69.42	6,134.48
17	☐	J-119FH	77.52	3,067.91	1,250.00	68.70	4,658.88
18	☐	J-11FH	83.08	2,931.73	1,250.00	76.43	3,983.18
19	☐	J-12	72.54	2,933.41	1,250.00	70.12	4,573.51
20	☐	J-120	78.46	3,068.07	1,250.00	70.62	5,417.31
21	☐	J-121	82.43	3,068.23	1,250.00	75.31	6,305.91
22	☐	J-122FH	81.59	3,068.30	1,250.00	74.68	6,495.11
23	☐	J-123	85.89	3,068.23	1,250.00	66.03	2,577.70
24	☐	J-124	76.31	3,068.10	1,250.00	66.20	3,964.05
25	☐	J-125	76.31	3,068.10	1,250.00	61.93	2,941.61
26	☐	J-126FH	72.48	3,068.28	1,250.00	65.88	6,232.66
27	☐	J-127	72.49	3,068.30	1,250.00	64.93	5,237.13
28	☐	J-128FH	58.23	3,069.40	1,250.00	50.26	3,781.18
29	☐	J-129	73.26	3,068.08	1,250.00	66.29	5,852.70
30	☐	J-131FH	72.33	3,067.92	1,250.00	65.36	5,840.20
31	☐	J-132FH	62.55	3,069.36	1,250.00	52.58	3,299.41
32	☐	J-133FH	71.41	3,067.80	1,250.00	64.80	6,381.23
33	☐	J-134FH	61.69	3,069.36	1,250.00	47.37	2,451.24
34	☐	J-135	70.49	3,067.69	1,250.00	63.86	6,350.92
35	☐	J-136FH	68.26	3,067.53	1,250.00	61.42	5,928.19

Peak Day Demand with Fire Flow

		ID	Static Pressure (psi)	Static Head (ft)	Fire-Flow Demand (gpm)	Residual Pressure (psi)	Hydrant Available Flow (gpm)
36	☐	J-137	72.14	3,067.49	1,250.00	64.18	5,065.44
37	☐	J-138FH	71.71	3,067.49	1,250.00	49.06	2,059.40
38	☐	J-139FH	82.52	3,067.44	1,250.00	74.33	5,533.45
39	☐	J-140	78.79	3,066.85	1,250.00	69.33	4,491.07
40	☐	J-141FH	72.29	3,066.84	1,250.00	43.59	1,790.13
41	☐	J-142	78.78	3,066.81	1,250.00	69.96	4,993.10
42	☐	J-143FH	76.59	3,066.76	1,250.00	69.33	6,682.80
43	☐	J-144FH	73.36	3,066.31	1,250.00	65.27	5,933.36
44	☐	J-145FH	76.72	3,066.05	1,250.00	68.21	5,948.47
45	☐	J-147FH	75.90	3,066.17	1,250.00	67.32	5,507.36
46	☐	J-149FH	69.94	3,066.42	1,250.00	61.91	5,567.47
47	☐	J-14FH	79.25	2,932.91	1,250.00	72.39	3,943.79
48	☐	J-151FH	75.14	3,066.40	1,250.00	66.58	5,389.97
49	☐	J-153FH	75.29	3,066.25	1,250.00	65.85	4,633.39
50	☐	J-156FH	74.67	3,066.34	1,250.00	65.23	4,566.15
51	☐	J-158FH	72.11	3,066.41	1,250.00	62.38	4,212.04
52	☐	J-15FH	77.95	2,932.90	1,250.00	53.27	2,024.80
53	☐	J-160FH	70.62	3,066.49	1,250.00	61.41	4,419.26
54	☐	J-161FH	73.43	3,066.47	1,250.00	63.41	4,132.84
55	☐	J-162FH	80.74	3,066.33	1,250.00	63.03	2,727.78
56	☐	J-164FH	67.94	3,066.79	1,250.00	60.53	5,943.87
57	☐	J-165FH	65.84	3,066.94	1,250.00	58.40	5,535.77
58	☐	J-167FH	68.65	3,067.43	1,250.00	62.02	6,559.27
59	☐	J-168FH	65.29	3,067.67	1,250.00	58.92	6,558.09
60	☐	J-169FH	64.28	3,069.36	1,250.00	46.45	2,188.90
61	☐	J-16FH	126.76	2,932.55	1,250.00	99.70	2,713.44
62	☐	J-170FH	65.87	3,069.02	1,250.00	60.64	7,996.35
63	☐	J-173FH	63.94	3,067.57	1,250.00	56.52	5,116.95
64	☐	J-175FH	66.70	3,068.93	1,250.00	58.91	4,691.25
65	☐	J-177FH	60.89	3,069.53	1,250.00	55.03	5,786.65
66	☐	J-178	64.19	3,068.15	1,250.00	58.17	6,809.14
67	☐	J-179	64.22	3,068.22	1,250.00	58.28	6,892.59
68	☐	J-17FH	127.62	2,932.53	1,250.00	87.77	2,191.91
69	☐	J-181	66.68	3,068.89	1,250.00	58.21	4,064.94
70	☐	J-182	66.77	3,069.10	1,250.00	55.95	3,233.31

Peak Day Demand with Fire Flow

		ID	Static Pressure (psi)	Static Head (ft)	Fire-Flow Demand (gpm)	Residual Pressure (psi)	Hydrant Available Flow (gpm)
71	☐	J-183FH	66.77	3,069.10	1,250.00	45.65	2,015.12
72	☐	J-184FH	67.67	3,071.17	1,250.00	62.33	7,395.65
73	☐	J-186FH	68.93	3,069.08	1,250.00	63.00	6,509.13
74	☐	J-187	66.27	3,067.94	1,250.00	59.52	5,634.77
75	☐	J-188	69.64	3,069.73	1,250.00	64.30	7,692.84
76	☐	J-189FH	67.41	3,070.56	1,250.00	57.89	3,535.56
77	☐	J-191	66.24	3,067.88	1,250.00	58.82	5,017.97
78	☐	J-192	68.40	3,067.85	1,250.00	60.94	5,151.97
79	☐	J-19FH	128.48	2,932.52	1,250.00	60.25	1,625.14
80	☐	J-1FH	91.75	2,931.74	1,250.00	77.85	2,986.45
81	☐	J-204FH	80.75	3,066.37	1,250.00	49.31	1,856.82
82	☐	J-20FH	82.05	2,934.36	1,250.00	78.69	6,404.92
83	☐	J-211FH	73.92	3,000.59	1,250.00	53.44	2,253.71
84	☐	J-212FH	76.52	3,000.59	1,250.00	57.89	2,461.94
85	☐	J-214FH	73.23	3,004.01	1,250.00	47.94	1,981.32
86	☐	J-215FH	77.57	3,004.01	1,250.00	54.90	2,225.13
87	☐	J-217	77.99	3,009.99	1,250.00	67.13	4,029.95
88	☐	J-218FH	73.57	3,007.80	1,250.00	45.52	1,888.45
89	☐	J-22	64.81	3,069.57	1,250.00	59.48	7,166.36
90	☐	J-221FH	80.84	2,934.56	1,250.00	69.11	3,200.56
91	☐	J-222FH	88.00	2,935.09	1,250.00	86.50	9,360.84
92	☐	J-225FH	79.53	2,935.54	1,250.00	77.91	9,267.35
93	☐	J-227FH	64.17	2,993.09	1,250.00	52.51	2,876.26
94	☐	J-229FH	79.25	2,935.90	1,250.00	77.62	9,757.61
95	☐	J-232FH	78.56	2,936.31	1,250.00	76.88	10,063.90
96	☐	J-235FH	74.47	2,936.87	1,250.00	72.65	10,037.60
97	☐	J-247FH	59.11	2,993.91	1,250.00	53.58	4,448.55
98	☐	J-250FH	80.58	2,935.96	1,250.00	77.51	6,671.74
99	☐	J-255FH	88.95	2,933.27	1,250.00	69.01	2,587.16
100	☐	J-258FH	85.19	2,931.60	1,250.00	77.66	3,881.29
101	☐	J-25FH	100.65	2,990.30	1,250.00	86.93	4,612.82
102	☐	J-260FH	85.13	2,931.48	1,250.00	76.40	3,627.40
103	☐	J-266FH	100.14	2,931.11	1,250.00	75.84	2,431.07
104	☐	J-267FH	79.51	2,934.49	1,250.00	79.18	5,144.39
105	☐	J-269FH	100.19	2,931.21	1,250.00	80.73	2,717.58

Peak Day Demand with Fire Flow

		ID	Static Pressure (psi)	Static Head (ft)	Fire-Flow Demand (gpm)	Residual Pressure (psi)	Hydrant Available Flow (gpm)
106	☐	J-270FH	100.25	2,931.37	1,250.00	85.60	3,129.92
107	☐	J-271FH	85.13	2,931.48	1,250.00	77.44	3,872.02
108	☐	J-273FH	98.16	2,931.54	1,250.00	91.05	4,408.29
109	☐	J-274FH	98.17	2,931.55	1,250.00	91.06	4,403.74
110	☐	J-275FH	88.27	2,988.71	1,250.00	73.05	4,336.93
111	☐	J-278FH	83.54	2,932.79	1,250.00	79.65	4,686.86
112	☐	J-279FH	87.70	2,932.41	1,250.00	83.12	4,677.86
113	☐	J-280FH	82.84	2,932.19	1,250.00	77.37	4,259.64
114	☐	J-281FH	99.03	2,931.56	1,250.00	91.83	4,395.87
115	☐	J-283FH	93.87	2,931.64	1,250.00	87.09	4,332.06
116	☐	J-284FH	91.77	2,931.79	1,250.00	62.86	2,054.38
117	☐	J-288FH	91.70	2,931.63	1,250.00	84.50	4,138.31
118	☐	J-291FH	64.10	3,068.94	1,250.00	58.77	7,658.93
119	☐	J-292FH	98.18	2,931.59	1,250.00	91.20	4,423.90
120	☐	J-293FH	100.86	2,987.76	1,250.00	83.75	4,448.55
121	☐	J-294	67.98	3,069.89	1,250.00	62.62	8,019.93
122	☐	J-295	66.59	3,099.69	1,250.00	58.11	6,050.40
123	☐	J-297FH	98.18	2,931.58	1,250.00	90.80	4,312.03
124	☐	J-29FH	76.72	2,992.06	1,250.00	68.80	6,102.85
125	☐	J-301FH	118.17	3,072.72	1,250.00	111.00	7,124.98
126	☐	J-302FH	98.18	2,931.58	1,250.00	90.92	4,344.66
127	☐	J-303FH	87.37	2,931.63	1,250.00	79.79	3,902.37
128	☐	J-305FH	51.48	2,996.31	1,250.00	51.08	5,670.75
129	☐	J-307FH	83.05	2,931.66	1,250.00	76.52	4,042.64
130	☐	J-30FH	76.47	2,992.48	1,250.00	69.16	6,360.89
131	☐	J-311	63.14	3,070.72	1,250.00	57.68	7,694.31
132	☐	J-312	86.16	3,068.85	1,250.00	80.46	8,965.73
133	☐	J-315FH	60.39	3,069.38	1,250.00	53.96	5,194.52
134	☐	J-317FH	71.41	3,066.80	1,250.00	61.11	3,896.61
135	☐	J-318FH	64.62	3,071.14	1,250.00	59.86	8,232.14
136	☐	J-319FH	63.53	3,070.62	1,250.00	58.67	8,111.22
137	☐	J-321FH	63.35	3,070.19	1,250.00	57.95	6,624.63
138	☐	J-322FH	57.93	3,069.70	1,250.00	52.81	6,931.81
139	☐	J-323FH	60.60	3,069.86	1,250.00	55.00	6,036.97
140	☐	J-324FH	62.42	3,070.05	1,250.00	57.35	7,474.75

Peak Day Demand with Fire Flow

		ID	Static Pressure (psi)	Static Head (ft)	Fire-Flow Demand (gpm)	Residual Pressure (psi)	Hydrant Available Flow (gpm)
141	☐	J-325FH	63.36	3,070.24	1,250.00	58.35	7,748.33
142	☐	J-326FH	61.57	3,070.10	1,250.00	56.05	6,219.25
143	☐	J-327FH	61.50	3,069.93	1,250.00	56.37	7,209.64
144	☐	J-328FH	59.28	3,069.82	1,250.00	53.96	6,463.98
145	☐	J-329FH	58.85	3,069.82	1,250.00	53.20	5,842.67
146	☐	J-33FH	74.98	2,993.03	1,250.00	68.08	6,385.54
147	☐	J-38FH	74.18	2,992.20	1,250.00	66.66	6,041.14
148	☐	J-39FH	67.94	2,992.80	1,250.00	60.53	5,056.27
149	☐	J-44FH	80.91	2,991.72	1,250.00	70.90	4,787.48
150	☐	J-54	64.40	3,068.62	1,250.00	58.85	7,412.60
151	☐	J-63FH	66.71	2,992.97	1,250.00	60.16	5,571.78
152	☐	J-66FH	63.55	2,993.66	1,250.00	58.32	5,658.68
153	☐	J-68FH	66.72	2,992.99	1,250.00	60.62	5,886.02
154	☐	J-69FH	66.72	2,992.99	1,250.00	60.37	5,496.21
155	☐	J-73FH	70.61	2,992.95	1,250.00	62.33	4,250.19
156	☐	J-77FH	67.21	3,069.11	1,250.00	62.06	8,290.30
157	☐	J-80FH	56.09	3,069.45	1,250.00	50.60	6,162.22
158	☐	J-81FH	65.89	2,993.05	1,250.00	57.80	4,032.40
159	☐	J-82	64.28	3,069.36	1,250.00	51.39	2,752.75
160	☐	J-85FH	62.56	2,993.87	1,250.00	57.02	4,779.79
161	☐	J-8FH	78.09	2,932.22	1,250.00	63.11	2,596.96
162	☐	J-93FH	59.03	2,994.23	1,250.00	49.41	2,877.70
163	☐	J-956	75.16	3,020.46	1,250.00	65.73	3,955.22
164	☐	J-958	73.12	3,024.74	1,250.00	64.90	3,542.28
165	☐	J-97FH	57.81	3,069.41	1,250.00	51.29	4,894.43
166	☐	J1000	72.09	3,069.39	1,250.00	65.86	6,304.47
167	☐	J1002	76.76	3,069.16	1,250.00	70.58	6,814.93
168	☐	J1004	56.49	3,069.37	1,250.00	48.96	4,057.76
169	☐	J1006	57.36	3,069.37	1,250.00	50.15	4,373.18
170	☐	J1008	56.05	3,069.37	1,250.00	46.93	3,258.43
171	☐	J100FH	59.52	3,070.37	1,250.00	53.30	4,996.74
172	☐	J1010	55.62	3,069.37	1,250.00	46.17	3,128.55
173	☐	J1012	55.62	3,069.37	1,250.00	44.74	2,758.35
174	☐	J1014	55.19	3,069.37	1,250.00	47.59	3,903.43
175	☐	J1016	54.76	3,069.37	1,250.00	48.46	5,126.64

Peak Day Demand with Fire Flow

		ID	Static Pressure (psi)	Static Head (ft)	Fire-Flow Demand (gpm)	Residual Pressure (psi)	Hydrant Available Flow (gpm)
176	☐	J1018	56.05	3,069.37	1,250.00	45.01	2,748.37
177	☐	J1020	53.84	3,068.26	1,250.00	33.12	1,741.22
178	☐	J1022	52.54	3,068.26	1,250.00	31.24	1,663.50
179	☐	J1024	55.14	3,068.25	1,250.00	33.58	1,734.75
180	☐	J1026	53.80	3,077.16	1,250.00	32.88	1,654.73
181	☐	J1028	90.63	3,077.16	1,250.00	80.01	3,843.85
182	☐	J102FH	57.86	3,069.54	1,250.00	51.94	5,367.58
183	☐	J1030	81.09	3,077.16	1,250.00	66.99	2,944.12
184	☐	J1032	88.46	3,077.16	1,250.00	74.58	3,166.46
185	☐	J1034	70.26	3,077.16	1,250.00	52.89	2,316.34
186	☐	J1036	74.57	2,933.09	1,250.00	71.16	4,402.08
187	☐	J1038	73.28	2,933.12	1,250.00	70.31	4,491.10
188	☐	J1040	73.27	2,933.10	1,250.00	69.66	4,243.77
189	☐	J1042	72.41	2,933.11	1,250.00	68.97	4,262.44
190	☐	J1044	71.54	2,933.11	1,250.00	67.04	3,860.45
191	☐	J104FH	60.73	3,069.17	1,250.00	53.48	4,367.26
192	☐	J106FH	63.30	3,069.10	1,250.00	56.30	4,806.30
193	☐	J108FH	64.20	3,069.17	1,250.00	58.91	7,386.23
194	☐	J10FH	72.88	3,013.20	1,250.00	61.71	3,796.39
195	☐	J110FH	67.19	3,069.07	1,250.00	62.00	8,214.97
196	☐	J112FH	58.84	3,069.79	1,250.00	53.00	5,521.08
197	☐	J114FH	59.65	3,069.67	1,250.00	53.49	5,279.32
198	☐	J116FH	62.48	3,069.20	1,250.00	54.68	4,079.87
199	☐	J118FH	61.10	3,070.02	1,250.00	55.32	5,817.00
200	☐	J12	73.01	3,013.50	1,250.00	61.84	3,801.00
201	☐	J120FH	60.54	3,069.72	1,250.00	54.46	5,426.33
202	☐	J122FH	60.47	3,069.56	1,250.00	54.37	5,445.65
203	☐	J124FH	63.69	3,068.98	1,250.00	58.40	7,660.96
204	☐	J126FH	73.64	3,068.95	1,250.00	68.01	7,873.80
205	☐	J128FH	72.06	3,068.30	1,250.00	62.90	4,151.37
206	☐	J130FH	81.41	3,068.87	1,250.00	75.68	8,464.36
207	☐	J132FH	78.58	3,068.35	1,250.00	70.96	5,551.61
208	☐	J134FH	75.47	3,068.17	1,250.00	65.28	3,888.01
209	☐	J136FH	73.69	3,068.07	1,250.00	63.95	3,970.18
210	☐	J138FH	62.54	3,068.33	1,250.00	56.00	5,494.78

Peak Day Demand with Fire Flow

		ID	Static Pressure (psi)	Static Head (ft)	Fire-Flow Demand (gpm)	Residual Pressure (psi)	Hydrant Available Flow (gpm)
211	☐	J140FH	64.07	3,067.86	1,250.00	56.89	5,063.90
212	☐	J142FH	62.85	3,068.04	1,250.00	53.17	3,445.30
213	☐	J144FH	114.70	3,072.72	1,250.00	108.31	7,922.28
214	☐	J146FH	113.84	3,072.72	1,250.00	108.49	10,047.21
215	☐	J148FH	111.24	3,072.72	1,250.00	106.65	13,423.59
216	☐	J14FH	72.65	3,012.67	1,250.00	61.50	3,789.02
217	☐	J150FH	88.99	3,073.37	1,250.00	85.27	14,298.34
218	☐	J152FH	59.95	3,070.35	1,250.00	52.96	4,814.83
219	☐	J154FH	61.06	3,069.93	1,250.00	55.22	5,745.58
220	☐	J156FH	60.94	3,069.65	1,250.00	50.53	3,049.29
221	☐	J158FH	61.07	3,068.95	1,250.00	51.44	3,300.42
222	☐	J16	70.91	3,012.65	1,250.00	56.25	2,979.58
223	☐	J160FH	67.05	3,066.75	1,250.00	53.02	2,768.50
224	☐	J162FH	64.66	3,067.24	1,250.00	57.53	5,428.76
225	☐	J164FH	67.58	3,066.98	1,250.00	60.50	6,064.56
226	☐	J166FH	67.88	3,067.65	1,250.00	60.56	5,315.86
227	☐	J168FH	70.53	3,067.78	1,250.00	63.07	5,313.82
228	☐	J170FH	80.53	3,067.85	1,250.00	72.45	5,368.62
229	☐	J172FH	79.54	3,067.56	1,250.00	71.12	5,170.05
230	☐	J174FH	82.42	3,067.21	1,250.00	73.04	4,749.73
231	☐	J178FH	77.47	3,066.79	1,250.00	68.39	4,735.92
232	☐	J180FH	80.87	3,066.63	1,250.00	73.28	6,771.06
233	☐	J182FH	88.19	3,066.53	1,250.00	80.23	7,094.89
234	☐	J184FH	87.64	3,065.26	1,250.00	78.10	6,217.59
235	☐	J188FH	70.97	2,938.78	1,250.00	65.65	7,289.04
236	☐	J18FH	73.08	3,012.65	1,250.00	55.99	2,731.85
237	☐	J190FH	75.17	3,066.49	1,250.00	41.78	1,693.45
238	☐	J192FH	74.87	2,938.79	1,250.00	72.64	12,783.82
239	☐	J194FH	68.72	2,938.60	1,250.00	61.17	3,805.96
240	☐	J196FH	76.08	2,938.59	1,250.00	74.19	12,744.04
241	☐	J198FH	70.34	2,938.34	1,250.00	61.76	3,509.56
242	☐	J200FH	66.96	2,937.53	1,250.00	65.03	10,100.01
243	☐	J202FH	76.63	2,936.85	1,250.00	57.75	2,316.61
244	☐	J204FH	69.02	2,936.29	1,250.00	38.58	1,637.30
245	☐	J208FH	81.22	3,066.45	1,250.00	66.04	3,095.05

Peak Day Demand with Fire Flow

		ID	Static Pressure (psi)	Static Head (ft)	Fire-Flow Demand (gpm)	Residual Pressure (psi)	Hydrant Available Flow (gpm)
246	☐	J20FH	70.48	3,012.65	1,250.00	55.09	2,864.32
247	☐	J212FH	80.31	3,066.35	1,250.00	61.47	2,599.54
248	☐	J214FH	85.76	2,935.92	1,250.00	79.72	4,853.92
249	☐	J216FH	83.40	2,935.48	1,250.00	57.54	2,072.58
250	☐	J218FH	92.08	2,934.51	1,250.00	66.55	2,250.63
251	☐	J22	69.61	3,012.65	1,250.00	52.65	2,648.03
252	☐	J220FH	90.78	2,934.52	1,250.00	68.39	2,404.13
253	☐	J222FH	87.76	2,934.53	1,250.00	70.90	2,769.28
254	☐	J226FH	86.02	2,934.52	1,250.00	63.68	2,315.17
255	☐	J228FH	85.06	2,934.31	1,250.00	67.22	2,608.16
256	☐	J230FH	81.38	2,934.82	1,250.00	79.00	7,509.23
257	☐	J232FH	91.11	2,933.27	1,250.00	62.66	2,124.30
258	☐	J234FH	88.94	2,933.27	1,250.00	63.43	2,228.21
259	☐	J236FH	84.92	2,933.99	1,250.00	67.61	2,661.08
260	☐	J238FH	82.13	2,934.54	1,250.00	79.11	6,769.13
261	☐	J240FH	92.02	2,932.37	1,250.00	67.36	2,299.77
262	☐	J242FH	82.86	2,933.23	1,250.00	75.30	3,966.02
263	☐	J244FH	100.64	2,987.26	1,250.00	82.60	4,297.09
264	☐	J246FH	74.87	3,007.80	1,250.00	51.23	2,149.98
265	☐	J248FH	83.72	2,933.21	1,250.00	65.87	2,627.31
266	☐	J24FH	73.94	3,012.65	1,250.00	55.56	2,617.12
267	☐	J250FH	80.25	2,934.21	1,250.00	75.73	5,337.56
268	☐	J252FH	82.68	2,933.81	1,250.00	76.06	4,369.70
269	☐	J254FH	82.63	2,933.70	1,250.00	75.64	4,221.01
270	☐	J256FH	81.47	2,992.01	1,250.00	71.22	4,464.04
271	☐	J258FH	92.60	2,991.71	1,250.00	75.61	3,172.69
272	☐	J260FH	84.14	2,991.19	1,250.00	73.47	4,953.64
273	☐	J262FH	84.27	2,990.49	1,250.00	72.64	4,693.31
274	☐	J264FH	82.79	2,990.07	1,250.00	70.80	4,855.43
275	☐	J266FH	78.14	2,992.34	1,250.00	69.72	5,173.96
276	☐	J268FH	78.88	2,992.04	1,250.00	70.28	5,577.77
277	☐	J26FH	70.91	3,012.65	1,250.00	52.39	2,526.23
278	☐	J270FH	79.90	2,991.39	1,250.00	70.46	5,619.68
279	☐	J272FH	73.17	2,992.87	1,250.00	65.96	5,781.19
280	☐	J274FH	81.84	2,992.87	1,250.00	74.77	6,554.70

Peak Day Demand with Fire Flow

		ID	Static Pressure (psi)	Static Head (ft)	Fire-Flow Demand (gpm)	Residual Pressure (psi)	Hydrant Available Flow (gpm)
281	☐	J276FH	75.68	2,992.65	1,250.00	68.50	5,808.16
282	☐	J278FH	73.13	2,992.79	1,250.00	66.31	5,837.83
283	☐	J280FH	75.22	2,992.59	1,250.00	67.41	5,343.80
284	☐	J282FH	66.07	2,993.49	1,250.00	60.15	6,136.77
285	☐	J284FH	65.26	2,993.62	1,250.00	59.71	5,844.56
286	☐	J286FH	64.94	2,993.87	1,250.00	60.10	5,871.44
287	☐	J288FH	62.91	2,994.20	1,250.00	58.04	5,093.51
288	☐	J290FH	86.20	2,992.95	1,250.00	72.25	3,267.05
289	☐	J292FH	59.56	2,993.45	1,250.00	53.41	4,396.36
290	☐	J294FH	64.19	2,993.14	1,250.00	57.41	4,689.28
291	☐	J296FH	65.08	2,993.19	1,250.00	58.20	4,670.30
292	☐	J298FH	61.62	2,994.20	1,250.00	56.58	4,725.53
293	☐	J300FH	51.51	2,993.89	1,250.00	36.39	1,938.22
294	☐	J302FH	53.25	2,993.89	1,250.00	40.84	2,268.34
295	☐	J304FH	52.81	2,993.88	1,250.00	28.29	1,487.07
296	☐	J306FH	56.59	2,994.61	1,250.00	52.51	4,605.84
297	☐	J308FH	59.19	2,994.61	1,250.00	54.90	4,669.27
298	☐	J310FH	78.30	2,932.71	1,250.00	74.23	4,433.69
299	☐	J312FH	83.52	2,931.76	1,250.00	75.99	3,761.64
300	☐	J314FH	82.03	2,932.32	1,250.00	76.16	4,035.37
301	☐	J316FH	85.82	2,932.06	1,250.00	80.11	4,311.82
302	☐	J318FH	91.77	2,931.79	1,250.00	81.25	3,401.08
303	☐	J320FH	93.47	2,931.72	1,250.00	86.64	4,281.37
304	☐	J322FH	91.30	2,931.71	1,250.00	79.62	3,226.59
305	☐	J324FH	88.72	2,931.75	1,250.00	79.78	3,603.31
306	☐	J326FH	87.82	2,931.69	1,250.00	80.49	3,959.43
307	☐	J328FH	84.73	2,931.54	1,250.00	75.98	3,588.80
308	☐	J330FH	88.63	2,931.54	1,250.00	80.10	3,762.30
309	☐	J332FH	84.74	2,931.57	1,250.00	76.53	3,697.32
310	☐	J334FH	83.47	2,931.63	1,250.00	76.52	3,947.06
311	☐	J336FH	86.26	2,932.07	1,250.00	75.08	3,160.75
312	☐	J338FH	89.56	2,931.68	1,250.00	81.31	3,834.14
313	☐	J340FH	83.66	2,932.07	1,250.00	73.20	3,195.74
314	☐	J342FH	88.39	2,932.00	1,250.00	80.44	3,863.67
315	☐	J344FH	84.96	2,932.07	1,250.00	74.45	3,223.68

Peak Day Demand with Fire Flow

		ID	Static Pressure (psi)	Static Head (ft)	Fire-Flow Demand (gpm)	Residual Pressure (psi)	Hydrant Available Flow (gpm)
316	☐	J346FH	83.23	2,932.07	1,250.00	74.95	3,567.32
317	☐	J348FH	80.74	2,932.33	1,250.00	75.22	4,162.63
318	☐	J34FH	64.48	3,070.81	1,250.00	59.03	6,472.77
319	☐	J350FH	80.75	2,932.35	1,250.00	75.27	4,178.50
320	☐	J352FH	85.46	2,932.22	1,250.00	72.76	3,005.93
321	☐	J354FH	79.57	2,932.64	1,250.00	74.59	4,401.06
322	☐	J356FH	91.53	2,932.25	1,250.00	76.73	2,948.48
323	☐	J358FH	86.32	2,932.23	1,250.00	78.52	3,865.99
324	☐	J360FH	98.00	2,931.16	1,250.00	79.74	2,784.73
325	☐	J362FH	98.05	2,931.29	1,250.00	85.06	3,325.08
326	☐	J364FH	92.50	2,931.47	1,250.00	82.86	3,654.37
327	☐	J366FH	91.20	2,931.47	1,250.00	81.79	3,665.31
328	☐	J368FH	92.92	2,931.45	1,250.00	84.72	4,000.50
329	☐	J370FH	86.88	2,931.52	1,250.00	78.34	3,702.17
330	☐	J372FH	86.89	2,931.52	1,250.00	79.63	4,020.36
331	☐	J374FH	98.60	2,931.56	1,250.00	87.99	3,611.03
332	☐	J376FH	98.18	2,931.58	1,250.00	90.89	4,331.91
333	☐	J380FH	53.03	3,069.38	1,250.00	45.30	3,620.21
334	☐	J382FH	52.59	3,069.38	1,250.00	44.99	3,656.07
335	☐	J384FH	53.89	3,069.38	1,250.00	47.77	5,198.75
336	☐	J388	53.46	3,069.38	1,250.00	47.42	5,246.11
337	☐	J392	50.86	3,069.38	1,250.00	44.04	4,022.08
338	☐	J394	53.90	3,069.38	1,250.00	47.91	5,357.55
339	☐	J396	55.19	3,069.38	1,250.00	48.93	5,172.68
340	☐	J398FH	54.76	3,069.38	1,250.00	48.54	5,174.17
341	☐	J400	72.50	3,069.33	1,250.00	67.30	8,657.23
342	☐	J402FH	68.15	3,069.29	1,250.00	62.95	8,234.79
343	☐	J404FH	65.98	3,069.26	1,250.00	60.78	7,938.41
344	☐	J406FH	64.27	3,069.33	1,250.00	54.63	3,450.29
345	☐	J408	65.57	3,069.33	1,250.00	58.35	4,817.12
346	☐	J410FH	63.84	3,069.33	1,250.00	55.82	4,109.10
347	☐	J412FH	60.81	3,069.34	1,250.00	52.40	3,729.49
348	☐	J416FH	62.01	3,071.11	1,250.00	54.73	4,198.02
349	☐	J418FH	62.88	3,071.11	1,250.00	57.36	6,116.10
350	☐	J420FH	66.39	3,071.23	1,250.00	60.69	6,152.30

Peak Day Demand with Fire Flow

		ID	Static Pressure (psi)	Static Head (ft)	Fire-Flow Demand (gpm)	Residual Pressure (psi)	Hydrant Available Flow (gpm)
351	☐	J422FH	61.95	3,070.98	1,250.00	57.05	7,376.36
352	☐	J424FH	61.95	3,070.97	1,250.00	56.02	5,524.52
353	☐	J426FH	62.38	3,070.97	1,250.00	56.57	5,729.05
354	☐	J42FH	64.23	3,067.25	1,250.00	52.58	3,087.85
355	☐	J434FH	62.92	3,071.22	1,250.00	55.06	3,960.82
356	☐	J440FH	63.25	3,070.97	1,250.00	58.15	7,134.18
357	☐	J442FH	62.84	3,071.04	1,250.00	57.81	7,304.57
358	☐	J444FH	60.87	3,070.49	1,250.00	55.95	7,707.70
359	☐	J44FH	64.55	3,066.98	1,250.00	52.18	2,963.18
360	☐	J450FH	65.68	3,069.59	1,250.00	60.45	7,893.73
361	☐	J452FH	66.91	3,069.43	1,250.00	61.71	8,102.57
362	☐	J456FH	97.51	2,931.05	1,250.00	64.17	2,023.86
363	☐	J458FH	96.21	2,931.05	1,250.00	64.31	2,054.49
364	☐	J46	74.01	3,066.80	1,250.00	61.87	3,421.88
365	☐	J460FH	94.48	2,931.05	1,250.00	61.80	2,004.18
366	☐	J462FH	94.49	2,931.06	1,250.00	67.64	2,226.12
367	☐	J478FH	109.95	3,069.76	1,250.00	103.99	10,409.40
368	☐	J480FH	119.15	3,070.98	1,250.00	113.42	11,347.00
369	☐	J482FH	119.74	3,072.34	1,250.00	114.43	12,207.76
370	☐	J484FH	113.90	3,073.87	1,250.00	109.20	12,769.49
371	☐	J486FH	102.25	3,075.98	1,250.00	98.79	15,121.86
372	☐	J488FH	110.95	3,076.05	1,250.00	106.25	8,945.29
373	☐	J490FH	111.85	3,076.13	1,250.00	106.57	7,915.15
374	☐	J492FH	111.02	3,076.22	1,250.00	105.55	7,637.90
375	☐	J494FH	111.85	3,076.15	1,250.00	104.23	6,007.91
376	☐	J496FH	113.37	3,076.63	1,250.00	108.33	8,268.78
377	☐	J500FH	110.09	3,077.07	1,250.00	105.27	8,197.42
378	☐	J508FH	99.71	3,077.13	1,250.00	94.77	7,395.44
379	☐	J50FH	102.50	2,931.56	1,250.00	86.92	3,034.65
380	☐	J510FH	95.86	3,077.23	1,250.00	91.07	7,354.19
381	☐	J512	88.93	3,077.23	1,250.00	82.75	5,546.87
382	☐	J514FH	90.27	3,077.32	1,250.00	85.84	7,558.18
383	☐	J516	91.14	3,077.35	1,250.00	86.85	7,845.47
384	☐	J518FH	92.05	3,077.45	1,250.00	88.45	9,598.10
385	☐	J522FH	109.66	3,077.08	1,250.00	105.28	9,083.50

Peak Day Demand with Fire Flow

		ID	Static Pressure (psi)	Static Head (ft)	Fire-Flow Demand (gpm)	Residual Pressure (psi)	Hydrant Available Flow (gpm)
386	☐	J526FH	102.78	3,077.20	1,250.00	98.52	8,825.45
387	☐	J528FH	96.77	3,077.33	1,250.00	92.93	9,376.98
388	☐	J532FH	95.11	3,077.51	1,250.00	92.24	13,815.27
389	☐	J534	94.27	3,077.57	1,250.00	91.96	21,711.63
390	☐	J536	67.46	3,069.68	1,250.00	61.74	8,160.93
391	☐	J540	62.37	3,070.95	1,250.00	56.83	7,530.15
392	☐	J566FH	64.03	3,069.77	1,250.00	58.47	7,202.39
393	☐	J568FH	61.37	3,069.64	1,250.00	55.63	6,536.27
394	☐	J56FH	83.12	2,931.82	1,250.00	76.65	4,015.40
395	☐	J570FH	60.94	3,069.64	1,250.00	53.00	4,064.21
396	☐	J572	56.53	3,069.47	1,250.00	50.71	5,960.66
397	☐	J574	57.41	3,069.49	1,250.00	50.98	5,139.21
398	☐	J576	55.17	3,069.33	1,250.00	48.10	4,498.04
399	☐	J578	56.09	3,069.46	1,250.00	50.24	5,854.47
400	☐	J580FH	56.53	3,069.46	1,250.00	49.97	4,944.74
401	☐	J582	64.01	3,069.74	1,250.00	57.91	6,098.18
402	☐	J584FH	101.68	3,076.66	1,250.00	98.61	16,682.37
403	☐	J588	95.41	3,077.19	1,250.00	92.74	18,273.68
404	☐	J58FH	85.68	2,931.73	1,250.00	78.79	4,003.97
405	☐	J590FH	105.58	3,076.66	1,250.00	98.80	6,005.70
406	☐	J594FH	108.61	3,076.66	1,250.00	99.01	4,696.81
407	☐	J596FH	118.35	3,076.15	1,250.00	108.51	5,007.40
408	☐	J600FH	100.20	3,077.24	1,250.00	95.09	7,161.42
409	☐	J602	100.20	3,077.24	1,250.00	96.04	8,873.01
410	☐	J604	53.75	3,069.06	1,250.00	44.05	3,117.30
411	☐	J606FH	51.44	3,068.72	1,250.00	38.12	2,291.58
412	☐	J608	54.62	3,069.06	1,250.00	42.63	2,592.72
413	☐	J610FH	57.86	3,069.53	1,250.00	51.21	4,967.96
414	☐	J612FH	60.07	3,069.64	1,250.00	53.72	5,468.28
415	☐	J614	60.03	3,069.55	1,250.00	51.63	3,837.91
416	☐	J616	59.15	3,069.52	1,250.00	50.70	3,853.53
417	☐	J620	56.50	2,995.38	1,250.00	35.80	1,724.95
418	☐	J622FH	73.20	2,994.93	1,250.00	65.85	5,377.70
419	☐	J624FH	69.30	2,994.92	1,250.00	55.24	2,797.95
420	☐	J626FH	81.99	2,994.21	1,250.00	72.19	4,511.89

Peak Day Demand with Fire Flow

		ID	Static Pressure (psi)	Static Head (ft)	Fire-Flow Demand (gpm)	Residual Pressure (psi)	Hydrant Available Flow (gpm)
421	☐	J630FH	73.63	2,994.92	1,250.00	53.92	2,270.34
422	☐	J634FH	71.03	2,994.92	1,250.00	47.05	1,954.16
423	☐	J638FH	88.30	2,993.78	1,250.00	77.93	4,533.67
424	☐	J640FH	60.46	3,069.53	1,250.00	52.64	4,189.55
425	☐	J642FH	60.91	3,069.57	1,250.00	52.82	4,047.02
426	☐	J646FH	58.72	3,069.52	1,250.00	49.64	3,471.71
427	☐	J648FH	116.61	3,068.11	1,250.00	109.08	9,120.27
428	☐	J650FH	120.26	3,067.55	1,250.00	112.00	8,635.89
429	☐	J652FH	126.89	3,066.85	1,250.00	117.44	8,071.02
430	☐	J654FH	127.84	3,067.04	1,250.00	117.43	6,737.89
431	☐	J656FH	124.91	3,067.28	1,250.00	115.59	7,493.28
432	☐	J658FH	122.79	3,067.38	1,250.00	113.39	7,267.69
433	☐	J660FH	127.08	3,067.29	1,250.00	117.22	7,053.97
434	☐	J662FH	130.92	3,067.15	1,250.00	117.16	5,070.77
435	☐	J664FH	122.83	3,067.47	1,250.00	113.51	7,271.52
436	☐	J666FH	119.51	3,067.82	1,250.00	110.49	7,245.74
437	☐	J66FH	86.01	2,931.50	1,250.00	78.57	3,955.59
438	☐	J672FH	81.66	2,935.45	1,250.00	28.57	1,366.55
439	☐	J674	59.75	3,069.37	1,250.00	53.06	5,093.78
440	☐	J676FH	58.04	3,069.37	1,250.00	50.96	4,536.40
441	☐	J678FH	58.53	3,069.36	1,250.00	50.14	3,702.13
442	☐	J680FH	59.91	3,069.36	1,250.00	51.62	3,850.72
443	☐	J682	62.01	3,069.36	1,250.00	54.27	4,356.04
444	☐	J684FH	60.20	3,069.36	1,250.00	51.94	3,897.40
445	☐	J686FH	60.82	3,069.36	1,250.00	52.22	3,763.24
446	☐	J688	62.57	3,069.36	1,250.00	54.01	3,890.56
447	☐	J68FH	81.67	2,931.47	1,250.00	69.69	2,986.63
448	☐	J690	62.55	3,069.36	1,250.00	52.91	3,446.47
449	☐	J692FH	59.48	3,069.36	1,250.00	51.49	3,981.76
450	☐	J694	63.42	3,069.36	1,250.00	55.57	4,375.48
451	☐	J696	58.24	3,069.40	1,250.00	52.25	5,866.02
452	☐	J698	60.60	3,069.38	1,250.00	53.42	4,705.20
453	☐	J700FH	57.38	3,069.38	1,250.00	47.93	3,221.30
454	☐	J702	62.26	3,069.36	1,250.00	54.37	4,263.54
455	☐	J704FH	61.96	3,069.36	1,250.00	53.43	3,874.66

Peak Day Demand with Fire Flow

		ID	Static Pressure (psi)	Static Head (ft)	Fire-Flow Demand (gpm)	Residual Pressure (psi)	Hydrant Available Flow (gpm)
456	☐	J706FH	58.34	3,069.36	1,250.00	45.65	2,561.48
457	☐	J708FH	60.20	3,069.38	1,250.00	52.38	4,137.77
458	☐	J70FH	86.88	2,931.52	1,250.00	75.79	3,242.90
459	☐	J710FH	57.92	3,069.40	1,250.00	51.56	5,312.51
460	☐	J714FH	89.73	2,933.26	1,250.00	66.26	2,359.02
461	☐	J718FH	90.92	2,933.26	1,250.00	63.89	2,187.26
462	☐	J720FH	92.03	2,993.39	1,250.00	81.79	4,713.84
463	☐	J724	58.71	3,069.50	1,250.00	50.47	3,730.29
464	☐	J728	59.58	3,069.50	1,250.00	51.67	3,970.21
465	☐	J730FH	59.58	3,069.50	1,250.00	49.09	3,021.22
466	☐	J732	60.45	3,069.52	1,250.00	52.45	3,976.56
467	☐	J736	63.97	3,069.64	1,250.00	57.74	5,786.55
468	☐	J738FH	63.09	3,069.60	1,250.00	56.64	5,467.21
469	☐	J74	68.16	3,068.30	1,250.00	57.10	3,307.17
470	☐	J740FH	66.61	3,069.73	1,250.00	61.35	8,008.67
471	☐	J742FH	56.97	3,069.47	1,250.00	50.46	4,979.45
472	☐	J744	55.22	3,069.44	1,250.00	49.35	5,740.16
473	☐	J746	53.88	3,068.35	1,250.00	35.56	1,904.34
474	☐	J748	51.24	3,068.27	1,250.00	31.13	1,770.52
475	☐	J750FH	55.16	3,068.30	1,250.00	32.42	1,670.18
476	☐	J752	52.97	3,068.25	1,250.00	31.37	1,745.45
477	☐	J754	53.86	3,068.30	1,250.00	33.62	1,771.48
478	☐	J756	52.31	3,068.72	1,250.00	36.96	2,078.36
479	☐	J758	50.57	3,068.72	1,250.00	31.20	1,689.80
480	☐	J76	79.04	3,068.42	1,250.00	72.63	6,990.13
481	☐	J778	128.32	3,067.15	1,250.00	118.19	6,911.60
482	☐	J784FH	126.90	3,066.87	1,250.00	117.22	7,677.32
483	☐	J786FH	92.00	2,993.33	1,250.00	81.84	4,745.42
484	☐	J788FH	64.28	3,069.36	1,250.00	48.45	2,373.67
485	☐	J78FH	59.49	3,069.30	1,250.00	54.24	6,875.19
486	☐	J790FH	62.20	3,069.54	1,250.00	53.86	3,905.13
487	☐	J792	54.76	3,069.37	1,250.00	48.49	5,239.79
488	☐	J794	71.08	3,071.04	1,250.00	65.46	9,079.16
489	☐	J796	77.97	3,068.93	1,250.00	72.30	8,549.20
490	☐	J798	48.92	3,067.91	1,250.00	36.97	2,435.36

Peak Day Demand with Fire Flow

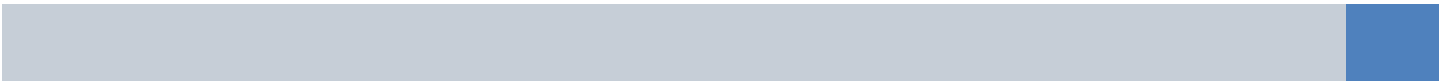
		ID	Static Pressure (psi)	Static Head (ft)	Fire-Flow Demand (gpm)	Residual Pressure (psi)	Hydrant Available Flow (gpm)
491	☐	J800	67.06	3,067.77	1,250.00	54.90	3,107.15
492	☐	J80FH	62.41	3,069.03	1,250.00	57.20	7,645.93
493	☐	J814	100.50	3,212.95	1,250.00	100.45	113,673.48
494	☐	J816	45.80	3,068.71	1,250.00	9.33	1,020.72
495	☐	J818	49.71	3,068.71	1,250.00	28.70	1,569.08
496	☐	J820	106.17	3,205.47	1,250.00	98.93	8,714.78
497	☐	J822	105.60	3,210.23	1,250.00	101.81	11,471.18
498	☐	J824	99.91	3,211.33	1,250.00	97.82	14,039.81
499	☐	J826	96.77	3,211.04	1,250.00	93.55	10,732.08
500	☐	J828	93.26	3,211.38	1,250.00	90.16	9,748.71
501	☐	J82FH	65.70	3,068.62	1,250.00	58.86	5,326.75
502	☐	J830	93.62	3,211.29	1,250.00	89.91	8,399.48
503	☐	J832	95.44	3,211.13	1,250.00	91.73	8,584.76
504	☐	J834	88.02	3,212.33	1,250.00	86.35	13,120.27
505	☐	J836	90.51	3,211.29	1,250.00	83.73	5,006.63
506	☐	J838	90.10	3,212.48	1,250.00	89.05	18,185.05
507	☐	J840	115.20	3,210.76	1,250.00	107.45	5,348.15
508	☐	J842	117.01	3,210.76	1,250.00	106.24	4,362.85
509	☐	J844	105.41	3,211.26	1,250.00	101.33	7,853.18
510	☐	J846	105.64	3,211.25	1,250.00	100.74	6,799.67
511	☐	J848	108.30	3,211.23	1,250.00	103.12	6,649.17
512	☐	J84FH	63.53	3,068.62	1,250.00	51.91	2,950.70
513	☐	J850	108.52	3,211.22	1,250.00	103.73	7,070.75
514	☐	J852	105.14	3,211.34	1,250.00	102.85	14,042.08
515	☐	J854	102.39	3,211.34	1,250.00	99.74	10,566.45
516	☐	J856	101.02	3,211.34	1,250.00	98.43	10,617.90
517	☐	J858	62.87	3,033.54	1,250.00	58.80	3,586.73
518	☐	J86	62.48	3,069.20	1,250.00	53.04	3,394.58
519	☐	J860	63.32	3,044.19	1,250.00	55.71	3,425.89
520	☐	J862	64.53	3,048.41	1,250.00	55.24	3,494.72
521	☐	J864	69.14	3,044.19	1,250.00	48.14	1,977.34
522	☐	J866	65.95	3,054.25	1,250.00	55.05	3,694.79
523	☐	J868	57.78	3,060.17	1,250.00	46.82	3,596.84
524	☐	J870	60.08	3,059.22	1,250.00	48.29	3,331.49
525	☐	J872	67.40	3,059.09	1,250.00	55.51	3,631.65

Peak Day Demand with Fire Flow

		ID	Static Pressure (psi)	Static Head (ft)	Fire-Flow Demand (gpm)	Residual Pressure (psi)	Hydrant Available Flow (gpm)
526	☐	J874	59.17	3,059.09	1,250.00	45.82	2,877.56
527	☐	J876	58.65	3,059.09	1,250.00	39.14	2,103.28
528	☐	J878	60.86	3,059.09	1,250.00	37.56	1,896.17
529	☐	J88	65.83	3,067.94	1,250.00	57.77	4,388.06
530	☐	J880	66.39	3,059.09	1,250.00	46.11	2,260.41
531	☐	J882	70.37	3,059.22	1,250.00	55.81	3,095.93
532	☐	J884	75.48	3,067.76	1,250.00	57.96	2,581.87
533	☐	J886	67.62	3,067.76	1,250.00	60.09	5,430.79
534	☐	J888	69.50	3,068.52	1,250.00	62.70	6,034.98
535	☐	J890	67.49	3,068.31	1,250.00	60.69	6,076.72
536	☐	J892	73.06	3,068.52	1,250.00	62.42	3,767.36
537	☐	J894	64.41	3,068.32	1,250.00	57.86	6,207.82
538	☐	J896	66.17	3,067.35	1,250.00	58.81	5,851.61
539	☐	J898	65.62	3,067.39	1,250.00	55.95	3,988.59
540	☐	J90	63.78	3,069.20	1,250.00	57.48	5,451.01
541	☐	J900	63.68	3,067.39	1,250.00	55.61	4,822.76
542	☐	J902	65.60	3,067.93	1,250.00	58.54	6,001.23
543	☐	J904	54.22	3,067.82	1,250.00	45.33	3,654.87
544	☐	J906	54.95	3,067.85	1,250.00	46.36	3,849.17
545	☐	J908	60.81	3,067.86	1,250.00	52.42	4,343.23
546	☐	J910	56.20	3,067.86	1,250.00	44.80	2,822.94
547	☐	J912	58.08	3,067.86	1,250.00	49.04	3,820.00
548	☐	J914	54.75	3,067.85	1,250.00	45.64	3,590.65
549	☐	J916	55.07	3,067.85	1,250.00	43.57	2,734.28
550	☐	J918	45.85	3,067.82	1,250.00	33.15	2,036.17
551	☐	J920	45.39	3,067.82	1,250.00	28.11	1,601.60
552	☐	J922	50.41	3,067.82	1,250.00	37.19	2,196.43
553	☐	J924	44.86	3,067.82	1,250.00	29.78	1,739.35
554	☐	J926	53.79	3,067.82	1,250.00	42.35	2,678.97
555	☐	J928	50.37	3,067.82	1,250.00	39.42	2,593.38
556	☐	J92FH	52.80	3,069.85	1,250.00	47.60	6,047.42
557	☐	J930	50.26	3,067.82	1,250.00	37.05	2,189.45
558	☐	J932	51.76	3,067.82	1,250.00	40.93	2,706.41
559	☐	J934	53.42	3,067.82	1,250.00	32.23	1,658.07
560	☐	J936	54.13	3,067.82	1,250.00	44.58	3,363.44

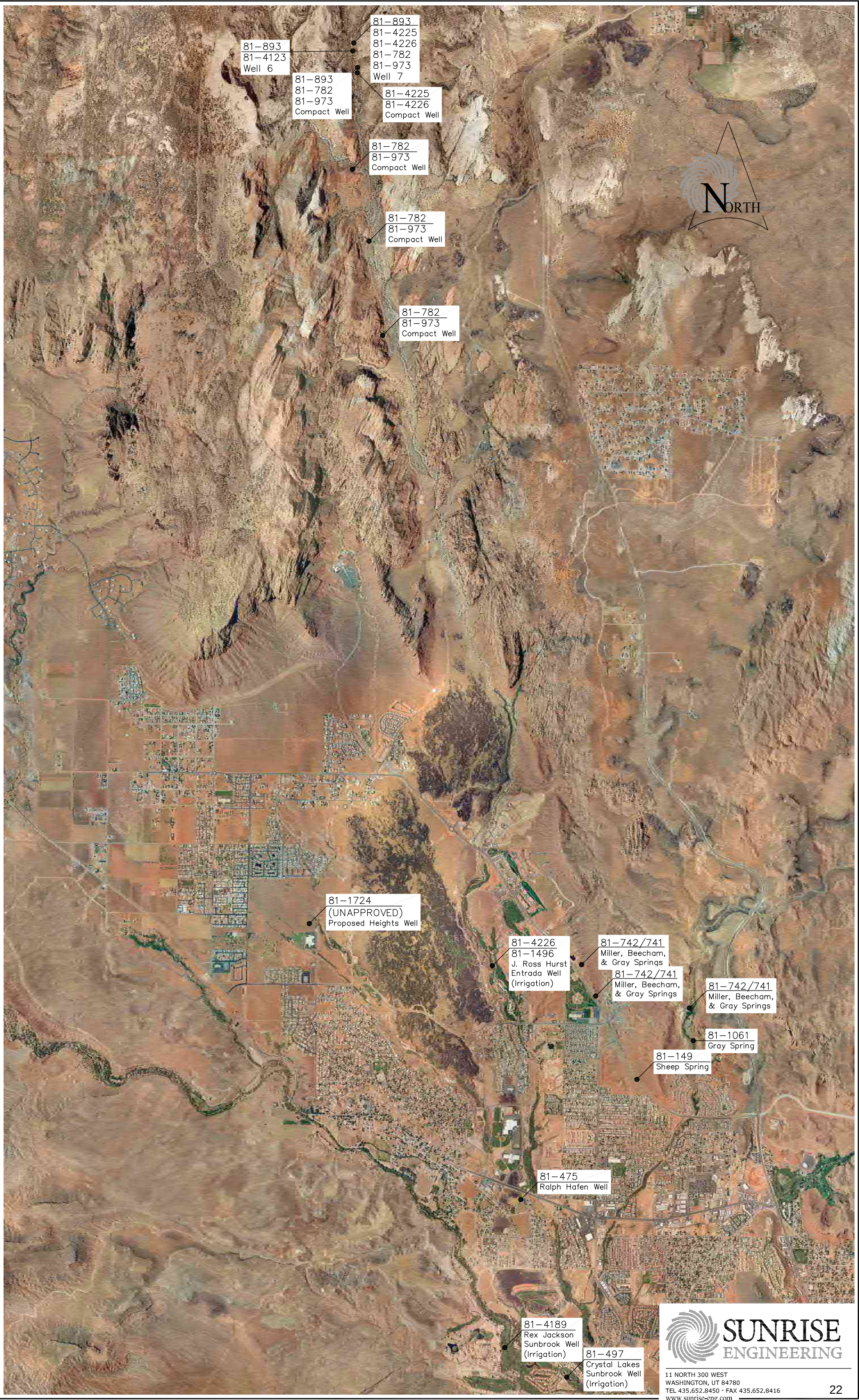
Peak Day Demand with Fire Flow

		ID	Static Pressure (psi)	Static Head (ft)	Fire-Flow Demand (gpm)	Residual Pressure (psi)	Hydrant Available Flow (gpm)
561	☐	J938	66.09	3,070.83	1,250.00	59.32	5,731.62
562	☐	J940	62.71	3,070.83	1,250.00	51.80	3,125.03
563	☐	J942	70.19	3,069.00	1,250.00	64.48	7,637.58
564	☐	J944	121.83	3,210.76	1,250.00	109.42	4,104.32
565	☐	J946	99.30	3,212.54	1,250.00	98.53	25,054.83
566	☐	J948	58.20	3,080.32	1,250.00	51.41	6,753.42
567	☐	J94FH	51.79	3,069.51	1,250.00	46.45	5,880.22
568	☐	J950	61.16	3,079.04	1,250.00	54.13	6,724.93
569	☐	J952	61.08	3,080.72	1,250.00	52.66	4,512.55
570	☐	J954	74.18	3,018.19	1,250.00	63.74	3,875.93
571	☐	J960	74.07	3,021.94	1,250.00	64.42	3,537.15
572	☐	J962	73.25	3,024.06	1,250.00	64.14	3,362.43
573	☐	J964	71.88	3,026.88	1,250.00	65.07	3,496.53
574	☐	J966	72.68	3,028.74	1,250.00	69.66	4,179.28
575	☐	J968	67.12	3,069.90	1,250.00	61.82	8,076.51
576	☐	J96FH	55.80	3,069.77	1,250.00	49.38	4,566.79
577	☐	J970	63.14	3,069.72	1,250.00	56.37	5,186.79
578	☐	J972	66.32	3,070.07	1,250.00	60.99	7,980.61
579	☐	J974	65.38	3,069.89	1,250.00	60.01	7,708.01
580	☐	J976	62.27	3,069.72	1,250.00	52.66	3,404.90
581	☐	J978	59.54	3,071.41	1,250.00	53.81	6,735.23
582	☐	J980	59.51	3,071.34	1,250.00	53.83	6,895.69
583	☐	J982	62.04	3,071.18	1,250.00	56.42	7,307.87
584	☐	J984	57.89	3,077.60	1,250.00	51.12	6,518.76
585	☐	J986	65.41	3,073.96	1,250.00	59.00	7,115.55
586	☐	J988	65.56	3,072.31	1,250.00	59.59	7,168.83
587	☐	J98FH	58.14	3,070.17	1,250.00	51.39	4,428.65
588	☐	J990	67.35	3,071.44	1,250.00	61.66	7,518.53
589	☐	J992	64.15	3,071.05	1,250.00	58.61	7,566.67
590	☐	J994	58.37	3,080.72	1,250.00	51.62	6,839.72
591	☐	J996	69.14	3,069.56	1,250.00	63.18	6,508.39
592	☐	J998	69.93	3,069.39	1,250.00	64.19	6,989.38



APPENDIX C

WATER RIGHTS INVENTORY



81-893
81-4123
Well 6

81-893
81-782
81-973
Compact Well

81-893
81-4225
81-4226
81-782
81-973
Well 7

81-4225
81-4226
Compact Well

81-782
81-973
Compact Well

81-782
81-973
Compact Well

81-782
81-973
Compact Well

81-1724
(UNAPPROVED)
Proposed Heights Well

81-4226
81-1496
J. Ross Hurst
Entrada Well
(Irrigation)

81-742/741
Miller, Beecham,
& Gray Springs

81-742/741
Miller, Beecham,
& Gray Springs

81-742/741
Miller, Beecham,
& Gray Springs

81-1061
Gray Spring

81-149
Sheep Spring

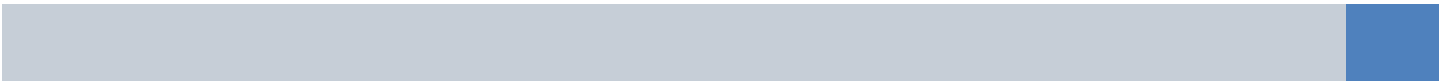
81-475
Ralph Hafen Well

81-4189
Rex Jackson
Sunbrook Well
(Irrigation)

81-497
Crystal Lakes
Sunbrook Well
(Irrigation)



11 NORTH 300 WEST
WASHINGTON, UT 84780
TEL 435.652.8450 • FAX 435.652.8416
www.sunrise-eng.com



APPENDIX D

OPINION OF PROBABLE COST

SUNRISE ENGINEERING INC.							
11 North 300 West, Washington, Utah 84780 Tel: (435) 652-8450 Engineer's Opinion of Probable Cost							
SANTA CLARA CITY WATER FACILITY PLAN PROJECTS						NW/MG	11/15/2022
NO.	DESCRIPTION	Est Quantity	Units	Unit Price	TOTAL COST	I.F. Eligible	Impact Fee Eligible Cost
10" to 12" PRV Enlargement							
13	Mobilization	1	LS	\$ 6,250	\$ 6,250	100%	\$ 6,250
14	Traffic Control	1	LS	\$ 5,000	\$ 5,000	100%	\$ 5,000
15	Materials Sampling & Testing	1	LS	\$ 5,000	\$ 5,000	100%	\$ 5,000
16	12" PVC Line, Fittings, Bedding, Backfill & Tracer Wire (C900, Class 150, SDR 18: or C909 PC150)	100	LN FT.	\$ 100.00	\$ 10,000	100%	\$ 10,000
17	12" PRV	1	EA	\$ 15,000.00	\$ 15,000	100%	\$ 15,000
18	PRV Station w/ Appurtenances	1	EA	\$ 100,000	\$ 100,000	100%	\$ 100,000
		SUBTOTAL			\$ 141,250	100%	\$ 141,250
		CONTINGENCY		20%	\$ 29,000	100%	\$ 29,000
		CONSTRUCTION TOTAL			\$ 170,250		\$ 170,250
	INCIDENTALS						
17	Administration		LS	1%	\$ 1,800	100%	\$ 1,800
19	Engineering Design		LS	12.5%	\$ 21,300	100%	\$ 21,300
20	Engineering Construction Services		HOURLY	8%	\$ 13,700	100%	\$ 13,700
21	GIS Mapping	0	EST.		\$ 1,500	100%	\$ 1,500
							\$ -
		TOTAL PROJECT COST			\$ 208,550	100%	\$208,550

SUNRISE ENGINEERING INC.							
11 North 300 West, Washington, Utah 84780 Tel: (435) 652-8450 Engineer's Opinion of Probable Cost							
SANTA CLARA CITY WATER FACILITY PLAN PROJECTS						NW/MG	11/15/2022
NO.	DESCRIPTION	Est Quantity	Units	Unit Price	TOTAL COST	I.F. Eligible	Impact Fee Eligible Cost
12" Line Well Connection to Snow Canyon Tank							
22	Mobilization	1	LS	\$ 137,500	\$ 137,500	100%	\$ 137,500
23	Traffic Control	1	LS	\$ 5,000	\$ 5,000	100%	\$ 5,000
24	Materials Sampling & Testing	1	LS	\$ 5,000	\$ 5,000	100%	\$ 5,000
23	12" PVC Line, Fittings, Bedding, Backfill & Tracer Wire (C900, Class 150, SDR 18: or C909 PC150)	26,000	LF	\$ 100	\$ 2,600,000	100%	\$ 2,600,000
25	Misc fittings, pipe, and valve assembly	1	LS	\$ 150,000	\$ 150,000	100%	\$ 150,000
		SUBTOTAL			\$ 2,897,500	100%	\$ 2,897,500
		CONTINGENCY		20%	\$ 580,000	100%	\$ 580,000
		CONSTRUCTION TOTAL			\$ 3,477,500		\$ 3,477,500
	INCIDENTALS						
26	Administration		LS	1%	\$ 34,800	100%	\$ 34,800
27	Engineering Design		LS	9.0%	\$ 313,000	100%	\$ 313,000
28	Engineering Construction Services		HOURLY	8%	\$ 278,200	100%	\$ 278,200
29	Legal & Fiscal/Environmental	0	EST.		\$ 50,000	100%	\$ 50,000
30	Miscellaneous	0	EST.		\$ 15,000	100%	\$ 15,000
31	GIS Mapping	0	EST.		\$ 1,500	100%	\$ 1,500
							\$ -
		TOTAL PROJECT COST			\$ 4,170,000		\$ 4,170,000

SUNRISE ENGINEERING INC.							
11 North 300 West, Washington, Utah 84780 Tel: (435) 652-8450 Engineer's Opinion of Probable Cost							
SANTA CLARA CITY WATER FACILITY PLAN PROJECTS						NW/MG	11/15/2022
NO.	DESCRIPTION	Est Quantity	Units	Unit Price	TOTAL COST	I.F. Eligible	Impact Fee Eligible Cost
New Well							
45	Mobilization	1	LS	\$ 68,350	\$ 68,350	100%	\$ 68,350
46	Traffic Control	1	LS	\$ 5,000	\$ 5,000	100%	\$ 5,000
47	Materials Sampling & Testing	1	LS	\$ 5,000	\$ 5,000	100%	\$ 5,000
46	Conductor Casing	1	LS	\$ 40,000	\$ 40,000	100%	\$ 40,000
48	20" Diameter Well Drilling	1,200	LF	\$ 200	\$ 240,000	100%	\$ 240,000
49	GeoPhysical Logging	1	LS	\$ 5,000	\$ 5,000	100%	\$ 5,000
50	18" Diameter Well Casing	1,200	LF	\$ 250	\$ 300,000	100%	\$ 300,000
51	18" Diameter Stainless Steel Screen	1,200	LF	\$ 200	\$ 240,000	100%	\$ 240,000
52	Misc pipes, fittings, etc	1	LS	\$ 50,000	\$ 50,000	100%	\$ 50,000
53	Conductor Casing Removal	1	LS	\$ 10,000	\$ 10,000	100%	\$ 10,000
54	Pea Gravel (Disinfected)	600	LF	\$ 15	\$ 9,000	100%	\$ 9,000
55	Disinfection	1	LS	\$ 5,000	\$ 5,000	100%	\$ 5,000
56	Well Drillers Report	1	LS	\$ 3,000	\$ 3,000	100%	\$ 3,000
57	Well Equipping	1	LS	\$ 175,000	\$ 175,000	100%	\$ 175,000
58	Well House Building	1	LS	\$ 175,000	\$ 175,000	100%	\$ 175,000
59	Well Site Electrical	1	LS	\$ 100,000	\$ 100,000	100%	\$ 100,000
60	Metering Manhole	1	EA	\$ 15,000.00	\$ 15,000	100%	\$ 15,000
		SUBTOTAL			\$ 1,445,350	100%	\$ 1,445,350
		CONTINGENCY		20%	\$ 290,000	100%	\$ 290,000
		CONSTRUCTION TOTAL			\$ 1,735,350		\$ 1,735,350
	INCIDENTALS						
61	Administration		LS	1%	\$ 17,400	100%	\$ 17,400
62	Engineering Design		LS	9.0%	\$ 156,200	100%	\$ 156,200
63	Engineering Construction Services		HOURLY	8%	\$ 138,900	100%	\$ 138,900
64	Legal & Fiscal/Environmental	0	EST.		\$ 50,000	100%	\$ 50,000
65	Miscellaneous	0	EST.		\$ 15,000	100%	\$ 15,000
66	GIS Mapping	0	EST.		\$ 1,500	100%	\$ 1,500
							\$ -
	TOTAL PROJECT COST				\$ 2,114,350		\$ 2,114,350

SUNRISE ENGINEERING INC.							
11 North 300 West, Washington, Utah 84780							
Tel: (435) 652-8450							
Engineer's Opinion of Probable Cost							
SANTA CLARA CITY WATER FACILITY PLAN PROJECTS							
						NW/MG	11/15/2022
NO.	DESCRIPTION	Est Quantity	Units	Unit Price	TOTAL COST	I.F. Eligible	Impact Fee Eligible Cost
Irrigation: Riesling Avenue 8" Line							
1	Mobilization	1	LS	\$ 4,440	\$ 4,440	100%	\$ 4,440
2	8" PVC Irrigation Line (DR-18), Bedding, Backfill, Tracer Wire, Etc.	1,200	LF	\$ 60	\$ 72,000	100%	\$ 72,000
3	Misc Connections and Tie Ins	1	LS	\$ 2,400	\$ 2,400	100%	\$ 2,400
4	2.5" Bituminous Surface Coarse	3,600	SF	\$ 3.00	\$ 10,800	100%	\$ 10,800
5	6" Untreated Base Course	3,600	SF	\$ 1.00	\$ 3,600	100%	\$ 3,600
6					\$ 93,240	100%	\$ 93,240
7					\$ 19,000	100%	\$ 19,000.00
8					\$ 112,240		\$ 112,240
9	INCIDENTALS						
10	Administration		LS	1%	\$ 1,200	100%	\$ 1,200
11	Engineering Design		LS	11.3%	\$ 12,700	100%	\$ 12,700
12	Engineering Construction Services		HOURLY	8%	\$ 9,000	100%	\$ 9,000
13	GIS Mapping		EST.		\$ 1,000	100%	\$ 1,000
						100%	
					\$ 136,140	100%	\$ 136,140

SUNRISE ENGINEERING INC.							
11 North 300 West, Washington, Utah 84780							
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Engineer's Opinion of Probable Cost							
SANTA CLARA CITY WATER FACILITY PLAN PROJECTS							
						NW/MG	11/15/2022
NO.	DESCRIPTION	Est Quantity	Units	Unit Price	TOTAL COST	I.F. Eligible	Impact Fee Eligible Cost
Irrigation: Crestview Drive 8" Line							
1	Mobilization	1	LS	\$ 16,430	\$ 16,430	100%	\$ 16,430
2	8" PVC Irrigation Line (DR-18), Bedding, Backfill, Tracer Wire, Etc.	5,300	LF	\$ 60.00	\$ 318,000	100%	\$ 318,000
3	Misc Connections and Tie Ins	1	LS	\$ 10,600.00	\$ 10,600	100%	\$ 10,600
4	2.5" Bituminous Surface Coarse	15,900	SF	\$ 3.00	\$ 47,700	100%	\$ 47,700
5	6" Untreated Base Course	15,900	SF	\$ 1.00	\$ 15,900	100%	\$ 15,900
					\$ 345,030	100%	\$345,030
					\$ 70,000	100%	\$ 70,000.00
					\$ 415,030		\$ 415,030
	INCIDENTALS						
6	Administration		LS	1%	\$ 4,200	100%	\$ 4,200
14	Engineering Design		LS	12.5%	\$ 51,900	100%	\$ 51,900
15	Engineering Construction Services		HOURLY	8%	\$ 33,300	100%	\$ 33,300
16	Legal & Fiscal/Interim Financing	0	EST.			100%	\$ -
17	Miscellaneous	0	EST.			100%	\$ -
18	GIS Mapping	0	EST.		\$ 800	100%	\$ 800
						100%	
					\$ 505,230	100%	\$ 505,230

SUNRISE ENGINEERING INC.							
11 North 300 West, Washington, Utah 84780 Tel: (435) 652-8450 Engineer's Opinion of Probable Cost							
SANTA CLARA CITY WATER FACILITY PLAN PROJECTS						NW/MG	11/15/2022
NO.	DESCRIPTION	Est Quantity	Units	Unit Price	TOTAL COST	I.F. Eligible	Impact Fee Eligible Cost
Irrigation: Villa Bonita 8" Line							
19	Mobilization	1	LS	\$ 3,300	\$ 3,300	100%	\$ 3,300
20	8" PVC Irrigation Line (DR-18), Bedding, Backfill, Tracer Wire, Etc.	750	LF	\$ 60	\$ 45,000	100%	\$ 45,000
21	Misc Connections and Tie Ins	1	LS	\$ 1,500	\$ 12,000	100%	\$ 12,000
22	2.5" Bituminous Surface Coarse	2,250	SF	\$ 3.00	\$ 6,750	100%	\$ 6,750
23	6" Untreated Base Course	2,250	SF	\$ 1.00	\$ 2,250	100%	\$ 2,250
		SUBTOTAL			\$ 69,300	100%	\$ 69,300
		CONTINGENCY		20%	\$ 14,000	100%	\$ 14,000.00
		CONSTRUCTION TOTAL			\$ 83,300		\$ 83,300
	INCIDENTALS						\$ -
24	Administration		LS	1%	\$ 900	100%	\$ 900
25	Engineering Design		LS	9.5%	\$ 8,000	100%	\$ 8,000
26	Engineering Construction Services		HOURLY	8%	\$ 6,700	100%	\$ 6,700
27	GIS Mapping	0	EST.		\$ 1,000	100%	\$ 1,000
						100%	
		TOTAL PROJECT COST			\$ 99,900	100%	\$ 99,900

SUNRISE ENGINEERING INC.							
11 North 300 West, Washington, Utah 84780 Tel: (435) 652-8450 Engineer's Opinion of Probable Cost							
SANTA CLARA CITY WATER FACILITY PLAN PROJECTS						NW/MG	11/15/2022
NO.	DESCRIPTION	Est Quantity	Units	Unit Price	TOTAL COST	I.F. Eligible	Impact Fee Eligible Cost
Irrigation: North Town Road 8" Line							
28	Mobilization	1	LS	\$ 18,075	\$ 18,075	100%	\$ 18,075
29	8" PVC Irrigation Line (DR-18), Bedding, Backfill, Tracer Wire, Etc.	4,885	LF	\$ 60	\$ 293,100	100%	\$ 293,100
30	Misc Connections and Tie Ins	1	LS	\$ 9,770	\$ 9,770	100%	\$ 9,770
31	2.5" Bituminous Surface Coarse	14,655	SF	\$ 3.00	\$ 43,965	100%	\$ 43,965
32	6" Untreated Base Course	14,655	SF	\$ 1.00	\$ 14,655	100%	\$ 14,655
		SUBTOTAL			\$ 379,565	100%	\$ 379,565
		CONTINGENCY		20%	\$ 76,000	100%	\$ 76,000.00
		CONSTRUCTION TOTAL			\$ 455,565		\$ 455,565
	INCIDENTALS						
33	Administration		LS	1%	\$ 4,600	100%	\$ 4,600
34	Engineering Design		LS	12.5%	\$ 57,000	100%	\$ 57,000
35	Engineering Construction Services		HOURLY	8%	\$ 36,500	100%	\$ 36,500
36	Legal & Fiscal/ROW	0	EST.		\$ 20,000	100%	\$ 20,000
37	Miscellaneous	0	EST.		\$ 5,000	100%	\$ 5,000
38	GIS Mapping	0	EST.		\$ 1,000	100%	\$ 1,000
							\$ -
		TOTAL PROJECT COST			\$ 579,665	100%	\$ 579,665

SUNRISE ENGINEERING INC.							
11 North 300 West, Washington, Utah 84780 Tel: (435) 652-8450 Engineer's Opinion of Probable Cost							
SANTA CLARA CITY WATER FACILITY PLAN PROJECTS						NW/MG	11/15/2022
NO.	DESCRIPTION	Est Quantity	Units	Unit Price	TOTAL COST	I.F. Eligible	Impact Fee Eligible Cost
Irrigation: Sycamore Drive 8" Line							
39	Mobilization	1	LS	\$ 4,070	\$ 4,070	100%	\$ 4,070
40	8" PVC Irrigation Line (DR-18), Bedding, Backfill, Tracer Wire, Etc.	1,100	LF	\$ 60	\$ 66,000	100%	\$ 66,000
41	Misc Connections and Tie Ins	1	LS	\$ 2,200	\$ 2,200	100%	\$ 2,200
42	2.5" Bituminous Surface Coarse	3,300	SF	\$ 3.00	\$ 9,900	100%	\$ 9,900
43	6" Untreated Base Course	3,300	SF	\$ 1.00	\$ 3,300	100%	\$ 3,300
		SUBTOTAL			\$ 85,470	100%	\$ 85,470
		CONTINGENCY		20%	\$ 18,000	100%	\$ 18,000.00
		CONSTRUCTION TOTAL			\$ 103,470		\$ 103,470
	INCIDENTALS						
44	Administration		LS	1%	\$ 1,100	100%	\$ 1,100
45	Engineering Design		LS	9.7%	\$ 10,100	100%	\$ 10,100
46	Engineering Construction Services		HOURLY	8%	\$ 8,300	100%	\$ 8,300
47	GIS Mapping	0	EST.		\$ 1,500	100%	\$ 1,500
							\$ -
	TOTAL PROJECT COST				\$ 124,470	100%	\$ 124,470

SUNRISE ENGINEERING INC.							
11 North 300 West, Washington, Utah 84780 Tel: (435) 652-8450 Engineer's Opinion of Probable Cost							
SANTA CLARA CITY WATER FACILITY PLAN PROJECTS						NW/MG	11/15/2022
NO.	DESCRIPTION	Est Quantity	Units	Unit Price	TOTAL COST	I.F. Eligible	Impact Fee Eligible Cost
Irrigation: Claude Drive 8" Line							
48	Mobilization	1	LS	\$ 4,070	\$ 4,070	100%	\$ 4,070
49	8" PVC Irrigation Line (DR-18), Bedding, Backfill, Tracer Wire, Etc.	1,100	LF	\$ 60	\$ 66,000	100%	\$ 66,000
50	Misc Connections and Tie Ins	1	LS	\$ 2,200	\$ 2,200	100%	\$ 2,200
51	2.5" Bituminous Surface Coarse	3,300	SF	\$ 3.00	\$ 9,900	100%	\$ 9,900
52	6" Untreated Base Course	3,300	SF	\$ 1.00	\$ 3,300	100%	\$ 3,300
		SUBTOTAL			\$ 85,470	100%	\$ 85,470
		CONTINGENCY		20%	\$ 18,000	100%	\$ 18,000.00
		CONSTRUCTION TOTAL			\$ 103,470		\$ 103,470
	INCIDENTALS						
53	Administration		LS	1%	\$ 1,100	100%	\$ 1,100
54	Engineering Design		LS	9.7%	\$ 10,100	100%	\$ 10,100
55	Engineering Construction Services		HOURLY	8%	\$ 8,300	100%	\$ 8,300
56	GIS Mapping	0	EST.		\$ 1,500	100%	\$ 1,500
							\$ -
	TOTAL PROJECT COST				\$ 124,470	100%	\$ 124,470

SUNRISE ENGINEERING INC.

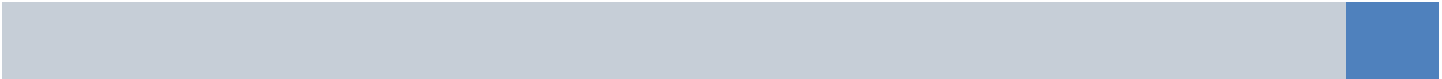
11 North 300 West, Washington, Utah 84780

Tel: (435) 652-8450

Engineer's Opinion of Probable Cost**SANTA CLARA CITY WATER FACILITY PLAN PROJECTS**

NW/MG 5/10/2023

NO.	DESCRIPTION	Est Quantity	Units	Unit Price	TOTAL COST	I.F. Eligible	Impact Fee Eligible Cost
Irrigation:Additional Water Share Purchase							
57	Water Share (4ac-ft)	20	EA	\$ 15,000	\$ 300,000	100%	\$ 300,000
			SUBTOTAL		\$ 300,000	100%	\$ 300,000
			CONTINGENCY	20%	\$ 60,000	100%	\$ 60,000.00
			CONSTRUCTION TOTAL		\$ 360,000		\$ 360,000
	INCIDENTALS						
58	Administration/ Legal Services		LS	1%	\$ 3,600	100%	\$ 3,600
							\$ -
			TOTAL PROJECT COST		\$ 363,600	100%	\$ 363,600



APPENDIX E

PROJECTED CASH FLOW

CASHFLOW PROJECTIONS

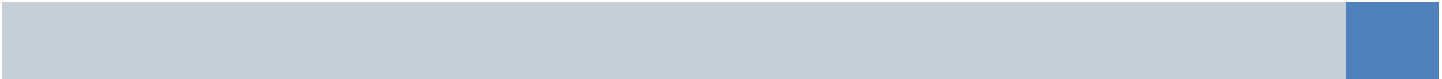
CULINARY WATER MASTER PLAN
CITY OF SANTA CLARA

4			Actual	Actual	Budget	Budget											
5	Fiscal Year Beginning July	0	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
6		0	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
7																	
8	Average Rate ERU	\$0.00	\$44.47	\$46.71	\$52.07	\$49.68	\$51.61	\$51.61	\$52.15	\$52.80	\$53.46	\$54.13	\$54.81	\$55.49	\$56.19	\$56.89	\$57.60
9	Connection Fee	\$0	\$172	\$631	\$215	\$215	\$221	\$228	\$235	\$242	\$249	\$257	\$264	\$272	\$281	\$289	\$298
10	Impact fee	\$1,973	\$1,973	\$1,973	\$1,973	\$1,973	\$3,057	\$3,057	\$3,057	\$3,057	\$3,057	\$3,057	\$3,057	\$3,057	\$3,057	\$3,057	\$3,057
11	WCWCD Surcharge Rate/ERU	\$1.75	\$1.75	\$1.75	\$1.75	\$1.75	\$1.75	\$1.75	\$1.75	\$1.75	\$1.75	\$1.75	\$1.75	\$1.75	\$1.75	\$1.75	\$1.75
1	System Users:																
2	Total Existing ERU's	2,414	3,068	3,216	3,252	3,424	3,629	3,775	3,926	4,083	4,246	4,416	4,592	4,776	4,967	5,166	5,372
3	New ERU's:	654	148	36	172	205	145	151	157	163	170	177	184	191	199	207	215
4																	
5	REVENUES:																
6	User Fees	0	1,637,198	1,802,728	2,031,985	2,041,250	2,292,740	2,384,450	2,505,775	2,638,581	2,778,426	2,925,682	3,080,743	3,244,023	3,415,956	3,597,002	3,787,643
7	Other Operating Revenues	0	139,998	84,942	158,000	53,500	55,105	56,758	58,461	60,215	62,021	63,882	65,798	67,772	69,805	71,900	74,057
8	Connection Fees	0	25,484	22,714	44,390	22,160	32,110	34,442	36,885	39,443	42,371	45,440	48,654	52,020	55,825	59,811	63,986
9	Impact Fees	1,290,342	227,663	191,619	346,860	167,840	443,808	461,560	480,023	499,224	519,192	539,960	561,559	584,021	607,382	631,677	656,944
10	Interest Income	0	17,491	13,434	10,000	7,500	6,576	23,339	42,356	35,963	22,723	9,826	10,433	10,499	18,622	6,839	11,556
11	Gain on Disposal	0	0	-6,026	32,000	0	0	0	0	0	0	0	0	0	0	0	0
12	WCWCD Surcharge	57,561															
	Estimated Irrigation User Fee																
13	TOTAL REVENUE:	\$1,347,903	\$2,047,834	\$2,109,411	\$2,623,235	\$2,292,250	\$2,830,339	\$2,960,550	\$3,123,499	\$3,273,425	\$3,424,734	\$3,584,790	\$3,767,187	\$3,958,335	\$4,167,590	\$4,367,228	\$4,594,186
14																	
15	EXPENSES: (Inc. O&M & Debt Serv.)	4.50%		3.00%		6.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
16	Salaries, Wages, & Benefits (100's)	0	579,020	564,331	566,416	569,740	598,227	628,138	659,545	692,523	727,149	763,506	801,681	841,765	883,854	928,046	974,449
17	Materials & Supplies (200's)	0	291,295	331,395	404,650	406,410	418,602	431,160	444,095	457,418	471,141	485,275	499,833	514,828	530,273	546,181	562,566
18	Professional & Technical Services (300's)	0	33,184	32,210	43,500	47,200	48,616	50,074	51,577	53,124	54,718	56,359	58,050	59,792	61,585	63,433	65,336
19	Special Dept. Materials & Supplies (400's)	0	68,410	42,571	139,500	64,500	66,435	68,428	70,481	72,595	74,773	77,016	79,327	81,707	84,158	86,683	89,283
20	Other Charges (500's)	0	573,277	499,653	501,000	26,000	26,780	27,583	28,411	29,263	30,141	31,045	31,977	32,936	33,924	34,942	35,990
21	Capital Expenses (700's)	0	3,213	11,892	898,500	163,000	167,890	172,927	178,115	183,458	188,962	194,631	200,469	206,484	212,678	219,058	225,630
22	Others (900's)	0	144,575	183,356	206,521	602,478	620,552	639,169	658,344	678,094	698,437	719,390	740,972	763,201	786,097	809,680	833,970
	Irrigation System Expenses								50,000	51,500	53,045	54,636	56,275	57,964	59,703	61,494	63,339
23	Sub-Total Operation & Maintenance	\$0	\$1,692,973	\$1,665,408	\$2,760,087	\$1,879,328	\$1,947,103	\$2,017,480	\$2,140,567	\$2,217,975	\$2,298,365	\$2,381,859	\$2,468,585	\$2,558,676	\$2,652,272	\$2,749,517	\$2,850,563
24																	
25	EXISTING DEBT SERVICE (800's)																
26	Debt Payment to Water District	0	54,081	54,310	63,600	63,600	63,600	63,600	63,600	63,600	63,600	63,600	63,600	63,600	63,600	63,600	63,600
27	All other Debt	0	50,941	46,826	381,834	285,722	285,722	285,722	285,722	285,722	285,722	285,722	285,722	285,722	285,722	285,722	285,722
28	Sub-Total Existing Debt Service	\$0	\$105,022	\$101,136	\$445,434	\$349,322	\$349,322	\$349,322	\$349,322	\$349,322	\$349,322	\$349,322	\$349,322	\$349,322	\$349,322	\$349,322	\$349,322
29																	
30	NEW DEBT SERVICE																
31	Division of Water Resources	0					0	0	0	0	0	0	0	0	0	0	0
32	Revenue Bond Reserves 10%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33	Sub-Total New Debt Service	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
34	Total Debt Service	\$0	\$105,022	\$101,136	\$445,434	\$349,322	\$349,322	\$349,322	\$349,322	\$349,322	\$349,322	\$349,322	\$349,322	\$349,322	\$349,322	\$349,322	\$349,322
35	PROPOSED PROJECT EXPENSES																
	Culinary: Water Right Recommendations									18,000							
	Culinary: North Hamblin Pkwy to North Town Rd 12" Line								292,400								
	Culinary: 10" to 12" PRV Enlargement								208,550								
	Culinary: 12" Line Well Connection to Snow Canyon Tank									\$595,714	\$595,714	\$595,714	\$595,714	\$595,714	\$595,714	\$595,714	\$352,392
	Culinary: New Well															\$352,392	\$352,392
	Irrigation: Riesling Avenue 8" Line							\$	136,140								
	Irrigation: Crestview Drive 8" Line								\$252,615	\$252,615							
	Irrigation: Villa Bonita 8" Line												\$99,900				
	Irrigation: North Town Road 8" Line														\$579,665		
	Irrigation: Sycamore Drive 8" Line																\$124,470
	Irrigation: Claude Drive 8" Line																\$124,470
	Irrigation:Additional Water Share Purchase									\$72,720	\$72,720	\$72,720	\$72,720	\$72,720	\$72,720		
36	Renewal and Replacement Fund	0	0	0	645,886	0	114,821	118,340	156,349	170,781	178,437	169,981	179,312	178,822	212,485	202,347	190,061
37	TOTAL EXPENSES:		\$1,797,995	\$1,766,544	\$3,851,407	\$2,228,650	\$2,411,246	\$2,485,142	\$3,283,328	\$3,604,408	\$3,747,173	\$3,569,596	\$3,765,553	\$3,755,254	\$4,462,177	\$4,249,292	\$3,991,278
38																	
39	Net Cashflow		\$249,839	\$342,867	(\$1,228,172)	\$63,600	\$419,094	\$475,408	(\$159,829)	(\$330,983)	(\$322,439)	\$15,193	\$1,634	\$203,081	(\$294,587)	\$117,936	\$602,908
40	Project Self Participation																
41																	
42	CASH ON HAND																
43	*Fund Balance	736,259	986,098	1,328,965	100,793	164,393	583,487	1,058,894	899,065	568,082	245,643	260,836	262,471	465,551	170,964	288,900	891,807
44	Renewal and Replacement Account Balance:	0	0	0	645,886	645,886	760,707	879,047	1,035,396	1,206,178	1,384,614	1,554,595	1,733,907	1,912,729	2,125,214	2,327,561	2,517,622
45	Total	\$736,259	\$986,098	\$1,328,965	\$746,679	\$810,279	\$1,344,194	\$1,937,942	\$1,934,461	\$1,774,260	\$1,630,257	\$1,815,432	\$1,996,378	\$2,378,280	\$2,296,178	\$2,616,461	\$3,409,429
46	*Fund Balance is obtained by adding the previous year's																
47	balance to the net cash flow, minus any self funded portion																
48	of future projects.																

CASHFLOW PROJECTIONS

CULINARY WATER MASTER PLAN
CITY OF SANTA CLARA

4										
5	Fiscal Year Beginning July	2034	2035	2036	2037	2038	2039	2040	2041	2042
6		2035	2036	2037	2038	2039	2040	2041	2042	2043
7										
8	Average Rate ERU	\$59.05	\$59.79	\$60.53	\$61.29	\$62.06	\$62.83	\$63.62	\$64.41	\$65.22
9	Connection Fee	\$316	\$325	\$335	\$345	\$355	\$366	\$377	\$388	\$400
10	Impact fee	\$3,057	\$3,057	\$3,057	\$3,057	\$3,057	\$3,057	\$3,057	\$3,057	\$3,057
11	WCWCD Surcharge Rate/ERU	\$1.75	\$1.75	\$1.75	\$1.75	\$1.75	\$1.75	\$1.75	\$1.75	\$1.75
1	System Users:									
2	Total Existing ERU's	5,811	6,043	6,285	6,536	6,798	7,070	7,353	7,647	7,953
3	New ERU's:	232	242	251	261	272	283	294	306	318
4										
5	REVENUES:									
6	User Fees	4,199,772	4,422,360	4,656,745	4,903,553	5,163,441	5,437,103	5,725,270	6,028,709	6,348,231
7	Other Operating Revenues	78,567	80,924	83,351	85,852	88,427	91,080	93,813	96,627	96,627
8	Connection Fees	73,250	78,700	84,076	90,048	96,659	103,585	110,839	118,824	127,188
9	Impact Fees	710,551	738,973	768,532	799,273	831,244	864,494	899,073	935,036	972,438
10	Interest Income	76,143	123,485	178,309	241,245	327,791	424,488	532,148	651,638	783,896
11	Gain on Disposal	0	0	0	0	0	0	0	0	0
12	WCWCD Surcharge									
	Estimated Irrigation User Fee									
13	TOTAL REVENUE:	\$5,138,283	\$5,444,442	\$5,771,013	\$6,119,970	\$6,507,562	\$6,920,750	\$7,361,143	\$7,830,834	\$8,328,380
14										
15	EXPENSES: (Inc. O&M & Debt Serv.)	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
16	Salaries, Wages, & Benefits (100's)	1,074,330	1,128,046	1,184,449	1,243,671	1,305,855	1,371,147	1,439,705	1,511,690	1,587,274
17	Materials & Supplies (200's)	596,827	614,732	633,174	652,169	671,734	691,886	712,642	734,022	756,042
18	Professional & Technical Services (300's)	69,315	71,394	73,536	75,742	78,014	80,355	82,765	85,248	87,806
19	Special Dept. Materials & Supplies (400's)	94,720	97,562	100,489	103,504	106,609	109,807	113,101	116,494	119,989
20	Other Charges (500's)	38,182	39,327	40,507	41,722	42,974	44,263	45,591	46,959	48,368
21	Capital Expenses (700's)	239,371	246,552	253,949	261,567	269,414	277,497	285,821	294,396	303,228
22	Others (900's)	884,759	911,302	938,641	966,800	995,804	1,025,678	1,056,449	1,088,142	1,120,787
	Irrigation System Expenses	67,196	69,212	71,288	73,427	75,629	77,898	80,235	82,642	85,122
23	Sub-Total Operation & Maintainance	\$3,064,700	\$3,178,127	\$3,296,032	\$3,418,602	\$3,546,033	\$3,678,532	\$3,816,310	\$3,959,594	\$4,108,615
24										
25	EXISTING DEBT SERVICE (800's)									
26	Debt Payment to Water District	63,600	63,600	63,600	63,600	63,600	63,600	63,600	63,600	63,600
27	All other Debt	285,722	285,722	285,722	285,722	285,722	285,722	285,722	285,722	285,722
28	Sub-Total Existing Debt Service	\$349,322	\$349,322	\$349,322	\$349,322	\$349,322	\$349,322	\$349,322	\$349,322	\$349,322
29										
30	NEW DEBT SERVICE									
31	Division of Water Resources	0	0	0	0	0	0	0	0	0
32	Revenue Bond Reserves 10%	0	0	0	0	0	0	0	0	0
33	Sub-Total New Debt Service	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
34	Total Debt Service	\$349,322	\$349,322	\$349,322	\$349,322	\$349,322	\$349,322	\$349,322	\$349,322	\$349,322
35	PROPOSED PROJECT EXPENSES									
	Culinary: Water Right Recommendations									
	Culinary: North Hamblin Pkwy to North Town Rd 12" Line									
	Culinary: 10" to 12" PRV Enlargement									
	Culinary: 12" Line Well Connection to Snow Canyon Tank									
	Culinary: New Well	\$352,392	\$352,392	\$352,392						
	Irrigation: Riesling Avenue 8" Line			\$	-					
	Irrigation: Crestview Drive 8" Line									
	Irrigation: Villa Bonita 8" Line									
	Irrigation: North Town Road 8" Line									
	Irrigation: Sycamore Drive 8" Line									
	Irrigation: Claude Drive 8" Line									
	Irrigation:Additional Water Share Purchase									
36	Renewal and Replacement Fund	188,321	193,992	199,887	188,396	194,768	201,393	208,282	215,446	222,897
37	TOTAL EXPENSES:	\$3,954,734	\$4,073,833	\$4,197,633	\$3,956,320	\$4,090,123	\$4,229,246	\$4,373,914	\$4,524,362	\$4,680,834
38										
39	Net Cashflow	\$1,183,549	\$1,370,609	\$1,573,380	\$2,163,650	\$2,417,438	\$2,691,504	\$2,987,229	\$3,306,473	\$3,647,546
40	Project Self Participation									
41										
42	CASH ON HAND									
43	*Fund Balance	3,087,128	4,457,737	6,031,117	8,194,767	10,612,206	13,303,710	16,290,939	19,597,412	23,244,958
44	Renewal and Replacement Account Balance:	2,888,806	3,082,798	3,282,686	3,471,082	3,665,850	3,867,242	4,075,524	4,290,970	4,513,867
45	Total	\$5,975,934	\$7,540,535	\$9,313,803	\$11,665,849	\$14,278,055	\$17,170,952	\$20,366,463	\$23,888,381	\$27,758,824
46	*Fund Balance is obtained by adding the previous year's									
47	balance to the net cash flow, minus any self funded portion									
48	of future projects.									



APPENDIX F

IMPACT FEE CERTIFICATION

CERTIFICATION OF IMPACT FEE ANALYSIS BY CONSULTANT

In accordance with Utah Code Annotated, § 11-36a-306 Nathan Wallentine, P.E., on behalf of Sunrise Engineering, Inc., makes the following certification:

I certify that the attached impact fee facilities plan and impact fee analysis:

1. Includes only the costs for qualifying public facilities that are:
 - a. Allowed under the Impact Fees Act; and
 - b. Actually incurred; or
 - c. Projected to be incurred or encumbered within six years after each impact fee is paid;
2. Does not include:
 - a. costs of operation and maintenance of public facilities;
 - b. costs for qualifying public facilities that will raise the level of service for the facilities, through impact fees, above the level of service that is supported by existing residents;
 - c. an expense for overhead, unless the expense is calculated pursuant to a methodology that is consistent with generally accepted cost accounting practices and that methodological standards set forth by the federal Office of Management and Budget for federal grant reimbursement; and
3. Offsets costs with grants or other alternate sources of payment (if grants or other sources of payment have been applied for and received and such information was made available when the Impact Fee Analysis was prepared); and
4. Complies in each and every relevant respect with the Impact Fees Act.

Nathan Wallentine, P.E. makes this certification with the following qualifications:

1. All of the recommendations for implementations of the Impact Fee Facilities Plan (“IFFP”) made in the IFFP documents or in the Impact Fee Analysis documents are followed in their entirety by Santa Clara City staff and elected officials.
2. If all or a portion of the IFFP’s or Impact Fee Analyses are modified or amended, this certification is no longer valid.
3. All information provided to Sunrise Engineering, Inc., its contractors or suppliers is assumed to be correct, complete and accurate. This includes information provided by the City and outside sources.

4. The undersigned is trained and licensed as a professional engineer and has not been trained or licensed as a lawyer. Nothing in the foregoing certification shall be deemed an opinion of law or an opinion of compliance with law which under applicable professional licensing laws or regulations or other laws or regulations must be rendered by a lawyer licensed in the State of Utah.
5. The foregoing Certification is an expression of professional opinion based on the undersigned's best knowledge, information and belief and shall not be construed as a warranty or guaranty of any fact or circumstance.
6. The foregoing certification is made only to Santa Clara City and may not be used or relied upon by any other person or entity without the expressed written authorization of the undersigned.

Sunrise Engineering, Inc.

By: 

Dated: August 2, 2023

**CITY OF SANTA CLARA
ORDINANCE 2023-20**

ADOPTING A WATER SYSTEM IMPACT FEE FACILITIES PLAN & IMPACT FEE ANALYSIS DATED AUGUST 2023; IMPOSING WATER SYSTEM IMPACT FEES; PROVIDING FOR INFORMATION TO MAKE IMPORTANT DECISIONS RELATING TO WATER INFRASTRUCTURE AS THE CITY CONTINUES TO GROW & DEVELOP OVER THE NEXT 20 YEARS.

WHEREAS, the City Council of the City of Santa Clara met in regular session on August 23, 2023 to consider, among other things, adopting a Water Impact Fee Facilities Plan, Impact Fee Analysis document dated August 2023 and imposing Water System Impact Fees, providing for the calculation and collection of such fees, and providing for appeal, accounting and severability of the same, and other related matters; and

WHEREAS, The City of Santa Clara is a political subdivision of the State of Utah, authorized and organized under the provisions of Utah law and is authorized pursuant to the Impact Fee Act, Utah Code Ann. § 11-36-101 *et seq.* to adopt impact fees; and

WHEREAS, on August 23, 2023, the City of Santa Clara reviewed the findings, conclusions, and recommendations of a water system master plan prepared by Sunrise Engineering, (the “*Consultant*”), a copy of which is attached hereto as exhibit “A” (the “*Impact Fee Facilities Plan*”); and (the Impact fee Analysis”); and

WHEREAS, on August 10, 2023, the City of Santa Clara posted notice of public hearing with respect to the Impact Fee Analysis in at least five public places within the City of Santa Clara and published a notice of a Public Hearing on the Public Notice Website in respect to the Impact Fee, and

WHEREAS, on August 23, 2018, the City Council held a public hearing regarding the Impact Fee Analysis and Impact Fee Enactment; and

WHEREAS, after careful consideration and review of the comments at the public hearings, the City Council has determined that it is in the best interest of the health, safety and welfare of the inhabitants of the City of Santa Clara to adopt the findings and recommendations of the Studies to address the impacts of development upon the city of Santa Clara, to adopt the Impact Fee Facilities Plan & Impact Fee Analysis as proposed, to approve the Impact fee Analysis as proposed, to adopt culinary water impact fees, to provide for the calculation and collection of such fees, and to provide for appeal, accounting and severability of the same.

NOW, THEREFORE, BE IT ORDAINED by the City Council of the City of Santa Clara as follows:

Section 1. Findings. The City Council finds and determines as follows:

See Exhibit “A”

Effective Date

This Ordinance shall become effective ninety (90) days following its passage, approval, and publication, as provided by law, being November 23, 2023.

PASSED, ADOPTED AND APPROVED this 23rd day of August 2023.

CITY OF SANTA CLARA:

ATTEST:

Rick Rosenberg, Mayor

Chris Shelley, City Recorder

SECTION IX - WATER RATE ANALYSIS

The city should have a rate schedule that will result in revenues that will provide the necessary culinary water system improvements as recommended in this Plan and maintain the current level of O&M. The base and overage rates should be examined each year to ensure that enough revenue is being generated to cover the expenses.

D. POSSIBLE RATE STRUCTURE

Culinary Rate Structure

Table IX.D-1 illustrates a possible rate structure based on the base and overage rates suggested in Section C and city council preference. This rate structure is designed to have an average bill of \$52.15+ per ERU each month. The average bill was determined using the average monthly water use of approximately 14,700 gallons which is based on the historical average usage of 483 gpd. The way to confirm that the average rate produced will cover annual expenses is to implement the structure and evaluate the results after a full year of use.

Calculations based on the City's financial data show that the proposed rate structures should provide an average rate revenue sufficient to sustain the system. It is recommended that, if in a given year there are excess funds generated by the existing rate, these funds be saved in an interest-bearing Renewal and Replacement account for expenditures on future projects.

Table IX.D-1: Possible Culinary Rate Structure with no Water Included

Proposed Overage Rates (Per 1,000 Gallons)		Monthly Base Rate		Average Rate Based on Usage
		Meter Size	\$/month	
0000-9000	\$ 0.92	5/8" & 3/4"	\$ 37.25	\$ 53.80
9001-16000	\$ 1.45	1"	\$ 62.85	\$ 220.08
16001-23000	\$ 1.70	1-1/2"	\$ 133.25	\$ 290.48
23001-30000	\$ 2.35	2"	\$ 229.25	\$ 460.87
30001-36000	\$ 3.00	3"	\$ 517.25	\$ 748.87
36001-& UP	\$ 4.30	4"	\$ 933.25	\$ 1,164.87

Irrigation Rate Structure

Tables IX.D-2 illustrates a possible rate structure based on the base and overage rates suggested in Section C and city council preference. The overage rate structures are stepped to promote conservation by charging a higher amount for excessive water usage. The structure has also been split by meter size. This was done to better monitor high users (classified as "other" ERUs) because one residential ERU is equivalent to 17.55 "other" ERUs and it is predicted that they will contribute to more than half of the ERUs, but only 10 actual meters by 2033. Because of this, the current average of \$313.52/month per "other" connection is not sufficient and will need to be increased to \$394.97/month.

SECTION IX - WATER RATE ANALYSIS

Table IX.D-2: Possible Irrigation Rate Structure

Meter Size	Base Rate	Tiered Rate above Base (per 1,000 gal)	Gallon Range for Tiered Rate	Max Rate Per Range	Average Rate Based on Usage
3/4"-1"	\$ 20.00	\$ 0.25	0 to 5000	\$ 21.25	\$ 24.43
		\$ 0.50	5000 to 10000	\$ 23.75	
		\$ 0.75	10001 to 15000	\$ 27.50	
		\$ 1.00	15001 to 20000	\$ 32.50	
		\$ 1.25	20001 & UP	\$ 32.50 +	
1 1/2"	\$ 20.00	\$ 0.30	0 to 5000	\$ 21.50	\$ 309.00
		\$ 0.40	5000 to 10000	\$ 23.50	
		\$ 0.50	10001 to 15000	\$ 26.00	
		\$ 0.60	15001 to 20000	\$ 29.00	
		\$ 0.70	20001 & UP	\$ 29.00 +	
2"	\$ 22.00	\$ 0.30	0 to 10000	\$ 25.00	\$ 368.70
		\$ 0.40	10001 to 15000	\$ 27.00	
		\$ 0.50	15001 to 20000	\$ 29.50	
		\$ 0.60	20001 to 30000	\$ 35.50	
		\$ 0.70	30001 & UP	\$ 35.50 +	
3"	\$ 50.00	\$ 0.30	0 to 10000	\$ 53.00	\$ 396.70
		\$ 0.40	10001 to 15000	\$ 55.00	
		\$ 0.50	15001 to 20000	\$ 57.50	
		\$ 0.60	20001 to 30000	\$ 63.50	
		\$ 0.70	30001 & UP	\$ 63.50 +	
4"	\$ 100.00	\$ 0.30	0 to 10000	\$ 103.00	\$ 444.60
		\$ 0.40	10001 to 15000	\$ 105.00	
		\$ 0.50	15001 to 20000	\$ 107.50	
		\$ 0.60	20001 to 30000	\$ 113.50	
		\$ 0.70	30001 & UP	\$ 113.50 +	

Calculations based on the City's financial data show that the proposed rate structures should provide an average rate revenue sufficient to sustain the system. It is recommended that, if in a given year there are excess funds generated by the existing rate, these funds be saved in an interest-bearing Renewal and Replacement account for expenditures on future projects.

E. POSSIBLE DROUGHT RATE STRUCTURES

Culinary Drought Rate Structure

WCWCD has implemented a drought contingency plan consisting of 5 stages: Conserve, Caution, Concern, Crisis, and Catastrophic. Each of these stages represent increasing degrees of drought severity and identify how a city should act in each stage. For example, in the "Catastrophic" Stage all outdoor water usage should be halted, and indoor usage should be reduced by 30%. The "Conserve" stage is assumed to be the current Santa Clara stage and the proposed rate structure represents these efforts. Should the other 4 stages ever be implemented in the city the following rate structures are recommended. This will ensure the city still receives the necessary funds to maintain and operate the system even with the reduction in water usage.

Table IX.E-1: Possible Culinary Drought Rate Structure- Caution Stage

Mayor

Rick Rosenberg

City Manager

Brock Jacobsen



City Council

Denny Drake

Leina Mathis

Ben Shakespeare

Jarett Waite

Christa Hinton

CITY COUNCIL

Meeting Date: 23/Aug/23

Agenda Item: 2

Applicant: Santa Clara City

Requested by: Dustin Mouritsen

Subject: Culinary and Secondary Water Rate Increase

Description:

Consider approval of the culinary and secondary water rate increase.

Recommendation: Approval

Attachments: N/A

Cost: 0

Legal Approval: Yes

Finance Approval: Yes

Budget Approval: Yes

X. IMPACT FEES

A. IMPACT FEE

This report constitutes a capital fee facilities plan to determine the public facilities requirement to serve development resulting from new development activity. An impact fee that is charged by a community may be used to pay for the debt service associated with surplus capacity built into the system. The surplus capacity in the water system has been designed for growth, and for this reason, impact fees should pay for that portion of the debt service associated with the system surplus capacity. The impact fee should also be used to pay for the cost of improvements to the system that are required to support new growth as new connections are added to the system.

B. CULINARY & IRRIGATION COMBINED CALCULATION

The total cost that is eligible for the impact fee assessment is equal to the existing debt service from previous water improvements projects that can be attributed to new growth plus the portion of any planned water improvements project that will be constructed to accommodate new growth. The combined total cost that is due to new growth is divided by the projected number of new ERUs that will be added to the system within the service area.

Currently the system meets all requirements and community demands for a culinary system except for the Water Right analysis recommendations which are needed regardless of new growth. This means that all other improvements are recommended to benefit new growth and are therefore 100% impact fee eligible. The impact fee calculation resulting from culinary and irrigation projects being analyzed together can be found in Table X.B-1.

TABLE X.B-1
IMPACT FEE ANALYSIS FY2023/2024
WATER MASTER PLAN
SANTA CLARA CITY

22-May-23

EXISTING DEBT SERVICE	P&I	% Eligible	% Water Dept.	Eligible
Debt Payment to Water District	\$ 1,272,000	58%		\$ 737,760
All other Debt	\$ 5,714,440	58%		\$ 3,314,375
Existing/Past Projects Impact Fee Eligible Costs:				\$ 4,052,135

PROPOSED IMPROVEMENT PROJECTS

	Total Cost	% Eligible	Impact Fee Eligible
Culinary: Water Right Recommendations	\$ 18,000	0%	\$ -
Culinary: North Hamblin Pkwy to North Town Rd 1	\$ 292,400	100%	\$292,400
Culinary: 10" to 12" PRV Enlargement	\$ 208,550	100%	\$208,550
Culinary: 12" Line Well Connection to Snow Canyon	\$ 4,170,000	100%	\$4,170,000
Culinary: New Well	\$ 2,114,350	100%	\$2,114,350
Irrigation: Riesling Avenue 8" Line	\$ 136,140	100%	\$136,140
Irrigation: Crestview Drive 8" Line	\$ 505,230	100%	\$505,230
Irrigation: Villa Bonita 8" Line	\$ 99,900	100%	\$99,900
Irrigation: North Town Road 8" Line	\$ 579,665	100%	\$579,665
Irrigation: Sycamore Drive 8" Line	\$ 124,470	100%	\$124,470
Irrigation: Claude Drive 8" Line	\$ 124,470	100%	\$124,470
Irrigation: Additional Water Share Purchase	\$ 363,600	100%	\$363,600
Total Estimated New Project Cost	\$ 8,736,775	99.8%	\$ 8,718,775
% Of New Projects Cost Due to New Growth			\$ 8,718,775
Impact Fee Eligible Cost			\$ 8,718,775
No. of ERUs (2023/2024)			3,775
20-Year Projected ERUs			7,953
No. of New ERUs Due to Growth			4,178
Total Impact Fee Eligible Cost			\$ 12,770,910

Maximum Water Impact Fee = Total Eligible Cost / New ERU's **\$ 3,056.75 /ERU.**
Proposed Water Impact Fee for Santa Clara (2023/2024) = **\$ 3,057 /ERU.**

WCWCD Impact Fee (2023) **\$ 8,417 /ERU.**
Total Potential Culinary Water Impact Fee (2023) **\$ 11,474 /ERU.**

Meter Size	X-Sectional Area (in²)	% Area Increase	Impact Fee
3/4"	0.44	0%	\$ 3,057
1"	0.79	80%	\$ 5,489
1 1/2"	1.77	302%	\$ 12,297
2"	3.14	614%	\$ 21,816
3"	7.07	1507%	\$ 49,120
4"	12.57	2757%	\$ 87,333
6"	28.27	6325%	\$ 196,412

P: Santa Clara City 08401 Water & Irrigation IF&PA & IFA 06 Design [Financial- Culinary.xlsx]Impact Fee

**CITY OF SANTA CLARA
RESOLUTION NO. 2023-14R**

**A RESOLUTION AMENDING THE CITY OF SANTA CLARA CULINARY
AND SECONDARY WATER RATES; AND ESTABLISHING AN EFFECTIVE
DATE**

WHEREAS, Santa Clara City finds it necessary from time to time to amend/adjust fee schedules to cover the true cost of services rendered; and

WHEREAS, the costs of providing water service to residents of the city have increased; and

WHEREAS, The City constitutes a capital facilities plan to determine the public facilities requirement to serve development resulting from new development activity. An impact fee that is charged by a community may be used to pay for the debt service associated with the surplus capacity built into the system, and

WHEREAS, the combined total cost that is due to new growth is divided by the projected number of new ERUs that will be added to the system within the service area, and

WHEREAS, the impact fee calculation resulting from culinary and irrigation projects being analyzed together can be found in Table X.B-1, and

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Santa Clara, Utah, that the commercial and residential water rates of the City of Santa Clara, Utah are hereby amended as shown in the attached Exhibit "A" and said rates will become effective August 23, 2023.

This Resolution shall become effective immediately upon adoption, recording, and posting in the manner prescribed by law.

ADOPTED by a duly constituted quorum of the Santa Clara City Council this 23rd day of August 2023.

IN WITNESS THERETO:

RICK ROSENBERG, Mayor

ATTEST:

Chris Shelley, City Recorder

TABLE X.B-1
IMPACT FEE ANALYSIS FY2023/2024
WATER MASTER PLAN
SANTA CLARA CITY

22-May-23

<u>EXISTING DEBT SERVICE</u>	<u>P&I</u>	<u>% Eligible</u>	<u>% Water Dept.</u>	<u>Eligible</u>
Debt Payment to Water District	\$ 1,272,000	58%		\$ 737,760
All other Debt	\$ 5,714,440	58%		\$ 3,314,375
Existing/Past Projects Impact Fee Eligible Costs:				\$ 4,052,135

PROPOSED IMPROVEMENT PROJECTS

	<u>Total Cost</u>	<u>% Eligible</u>	<u>Impact Fee Eligible</u>
Culinary: Water Right Recommendations	\$ 18,000	0%	\$ -
Culinary: North Hamblin Pkwy to North Town Rd 1	\$ 292,400	100%	\$292,400
Culinary: 10" to 12" PRV Enlargement	\$ 208,550	100%	\$208,550
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Maximum Water Impact Fee = Total Eligible Cost / New ERU's \$ 3,056.75 /ERU.

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WCWCD Impact Fee (2023) \$ 8,417 /ERU.

Total Potential Culinary Water Impact Fee (2023) \$ 11,474 /ERU.

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3"	7.07	1507%	\$ 49,120
4"	12.57	2757%	\$ 87,333
6"	28.27	6325%	\$ 196,412

P: Santa Clara City 08401 Water & Irrigation IFPA & IFA 06 Design [Financial- Culinary.xlsx] Impact Fee

Mayor

Rick Rosenberg

City Manager

Brock Jacobsen



City Council

Denny Drake

Leina Mathis

Ben Shakespeare

Jarett Waite

Christa Hinton

CITY COUNCIL

Meeting Date: 23/Aug/23

Agenda Item: 3

Applicant: Robin Linden

Requested by: Jim McNulty

Subject: Partial Plat Amendment, View Pointe Subdivision, Lots 4 & 5

Description:

Robin Linden, is requesting a Partial Plat Amendment for the View Pointe Subdivision. The original subdivision plat includes a total of 13-lots. The applicant is proposing to amend Lots 4 & 5. The proposed plat amendment includes reconfiguring these lots to allow for Lot 4 to have a rectangular shape with additional depth to build a home on. Lot 5 already has a home on the property.

Recommendation: Approval

Attachments: N/A

Cost: 0

Legal Approval: Yes

Finance Approval: N/A

Budget Approval: N/A

Exhibit "A"

Beginning at a point being North 01°00'59" West 1,703.04 feet along the section line and West 669.88 feet from the South Quarter Corner of Section 9, Township 42 South, Range 16 West, Salt Lake Base & Meridian, and running;

thence South 01°04'01" East 304.04 feet to and along the Westerly line of View Ridge Estates, as found on file and the Washington County Recorder's Office, to the Northerly line of Red Mountain Drive;

thence Northwesterly along said Northerly line Red Mountain Drive the following (3) courses;

thence South 89°32'14" West 19.91 feet;

thence Northwesterly 290.45 feet along an arc of a 225.00 foot radius curve to the right (center bears North 00°27'44" West, long chord bears North 53°28'51" West 270.70 feet with a central angle of 73°57'45");

thence Northwesterly 75.36 feet along an arc of a 350.00 foot radius curve to the left (center bears South 73°30'01" West, long chord bears North 22°40'07" West 75.22 feet with a central angle of 12°20'16") to the Southerly corner of Lot 6, View Pointe Subdivision Partial Amendment "A";

thence North 55°49'35" East 245.35 feet along the Southeasterly line and to the Easterly corner said Lot 6;

thence South 42°00'46" East 86.36 feet to the Point of Beginning.

Containing 66,117 square feet or 1.52 acres.



July 18, 2023



Residential Subdivision Final Plat Application Amended

Santa Clara City
2603 Santa Clara Dr
Santa Clara, UT 84765
(435) 656-4690 FAX: (435) 879-5298

Subdivision Name: View Pointe Subdivision Partial Amendment - B lots 4 & 5

Applicant(s)/Property Owner(s) Information

Name: Robin Linden

Address: 1854 N. Red Mountain Drive

City: Santa Clara State: Ut Zip: 84765

Phone Number: (213) 494-9504

Name: Christine D. Walker

Address: 871 Haven Point Loop

City: New Braunfels State: TX Zip: 78132

Phone Number: _____

(If additional property owners please add addendum)

Property Description

Section(s): 9 Township(s): 42 Range: 16

Current Zoning Designation: _____

Parcel Size (acres): 1.14 Ac & 0.44 Ac

Number of Lots: 2

Major Cross Street(s): Red Mountain Drive

Approvals Required By:

- ☒ Technical Review Committee (Staff) - meets every Thursday at 8:30 a.m.
- ☐ Planning Commission - meets every second Thursday of each month at 5:30 p.m.
- ☐ City Council - meets the second and fourth Wednesdays of each month at 5:00 p.m.

Attached checklists serve as a guide for adhering to Santa Clara City's subdivision process/requirements. City Staff will use the checklists for completeness reviews and insuring code compliance for subdivisions. For comprehensive information on the subdivision requirements/process, refer to appropriate City Codes and Statutes.

Office Use Only:

Date plan submitted: _____

Date plan accepted: _____

Subdivision/Development Approval Checklist

FINAL PLAT CHECKLIST

			I. Final Plat Requirements
☒	N	N/A	A. TRC with developer
☒	N	N/A	A. Submittal of: 1) Engineering Drawings (3 copies); 2) Final Plat (8 11"x17" & 1 8.5"x11"); 3) One (1) Mylar; and 4) Engineer Cost Estimates
Y	N	N/A	B. Completeness Review (Chapter 16.24)
			1. Description and delineation (16.24.20)
☒	N	N/A	a. Name of subdivision approved by the Planning Commission
☒	N	N/A	b. Identification system for all lots: name of streets, easements, and lot sizes
☒	N	N/A	c. Traverse of the perimeter of the subdivision
☒	N	N/A	d. Monumentation and survey control
			1. Official Monuments
			2. Street Monuments
			3. Street centerline data and street widths...
			4. Property Corners set prior to recording of final plat.
☒	N	N/A	e. Dedication to the public of all streets, easements, etc.
☒	N	N/A	f. North arrow, scale, point of beginning, legal description and basis of bearing.
☒	N	N/A	g. Subdivision boundary closures shall be .01 or less on exterior boundaries and .02 on interior lots
			2. Standard Forms (16.24.030)
☒	N	N/A	a. Surveyor's "Certificate of Survey"
☒	N	N/A	b. Owner's "Certificate of Dedication"- signed by all owners
☒	N	N/A	c. Notary Public's Acknowledgement of all signatures
☒	N	N/A	d. Notarized Consent of all Leinholders
☒	N	N/A	e. Planning Commission's "Certificate of Approval"
☒	N	N/A	f. City Engineer's "Certificate of Approval"
☒	N	N/A	g. City Surveyor's "Certificate of Approval"
☒	N	N/A	h. City Attorney's "Certificate of Approval"
☒	N	N/A	i. City Council's "Certificate of Approval"
☒	N	N/A	j. A one-and-one half by five-inch space in the lower right-hand corner of the plat for the county recorder.
Y	N	☒	k. Quit Claim Deed from Irrigation Company – Heights Only
Y	N	☒	l. General Notes – The following general notes must appear on the plat:
			1. Notes Pertaining to the Issuance of building permit until all utilities are installed
			2. Notes Pertaining to Unstable Soil Conditions
x			3. Basis of Bearings for Plat
			4. Property is Subject to Findings, Summary and Conclusions of a Geotechnical Report
			5. R-of-W Landscaping Requirements & Subsequent Maintenance Requirements

Y	N	N/A	3. Additional Information Submitted with Final Plat (16.24.040) a. Deed restrictions in final form signed by all owners of any interest: if applicable b. Engineer's itemized estimate of the cost of all required improvements to be developed in the subdivision and a separate cost estimate for any upsizing of piping c. Current title report d. Final utility plans: Water, sewer, power and natural gas e. Final drainage plans 1. Complete drainage system for entire subdivision 2. Comprehensive of drainage system to include area of subdivision but surrounding areas. 3. Final Plans and profiles for all streets to be constructed: reviewed and approved by engineer 4. Erosion control plan where applicable f. Soils report covering each lot in the subdivision as per geotechnical requirements prepared by a soil testing laboratory acceptable to the City g. Irrigation Company: existing ditch/easement issues on property
Y	N	N/A	
Y	N	N/A	
Y	N	N/A	
Y	N	N/A	
Y	N	N/A	
Y	N	N/A	
Y	N	N/A	
Y	N	N/A	
Y	N	N/A	
Y	N	N/A	D. Conformance to Applicable Rules and Regulations
Y	N	N/A	1. Subdivision plan complies with all applicable laws, plans, and regulations: a. Zoning Ordinance b. General Plan c. UDOT; Health Department, etc. d. Standards adopted by the City including all boards, commissions, etc.
Y	N	N/A	E. Self-imposed Restrictions Incorporated – Restrictions:
Y	N	N/A	F. Special Conditions Incorporated (ex. Historical district) – E.G.:
Y	N	N/A	G. Planning Commission Review and Recommendation- Date(s) of review: Date of Recommendation
Y	N	N/A	H. Inclusion of Planning Commission Changes
Y	N	N/A	I. Final Plat and Engineer drawings are to comply with all sections of the City's Design Standards found in Chapter 16.28 (Red lines comply)
Y	N	N/A	J. Engineering Plans Approved by City Engineer and City Staff
			Public Services Date signed: _____
			Public Safety Date signed: _____
			City Engineer Date signed: _____
Y	N	N/A	K. City Council Review and Adoption of Final Plat-Date of Review(s):
			Date of Adoption: _____
Y	N	N/A	L. Inclusion of City Council Changes

OWNER'S DEDICATION:

KNOW ALL MEN BY THESE PRESENTS THAT THE UNDERSIGNED OWNERS OF ALL THE ABOVE DESCRIBED TRACTS OF LAND HAVING CAUSED THE SAME TO BE SUBDIVIDED INTO LOTS AND TO BE HEREAFTER KNOWN AS:

**VIEW POINTE SUBDIVISION PARTIAL AMENDMENT - B
(LOTS 4 & 5)**

FOR GOOD AND VALUABLE CONSIDERATION RECEIVED, DOES HEREBY DEDICATE AND CONVEY TO SANTA CLARA CITY FOR PERMANENT USE OF THE PUBLIC ALL PARCELS OF LAND SHOWN ON THIS PLAN AS PUBLIC EASEMENTS. ALL LOTS AND EASEMENTS ARE AS NOTED ON SHOWN. THE OWNERS DO HEREBY WARRANT AND ASSURE TO SANTA CLARA CITY AND ITS SUCCESSORS, TITLE TO ALL PROPERTY DEDICATED AND CONVEYED TO PUBLIC USE HEREIN AGAINST THE CLAIMS OF ALL PERSONS.

IN WITNESS WHEREOF HE HAVE HEREAFTER SET OUR HANDS THIS _____ DAY OF _____, 20____.

ELIZABETH ANN DOTY DAYTON TRUST UNDER THE DOTY FAMILY TRUST DATED NOVEMBER 15, 1979, AS AMENDED AND REPEATED NOVEMBER 24, 1994, AND AMENDED OCTOBER 30, 2000

CHRISTINE D WALKER - TRUSTEE

DEBORAH E. DOTY - TRUSTEE

ROBIN LINDEN TRUST DATED JANUARY 15, 2005

ROBIN LINDEN - TRUSTEE

ACKNOWLEDGMENT:

STATE OF UTAH
COUNTY OF _____, S.S.

ON THIS _____ DAY OF _____, IN THE YEAR _____, BEFORE ME _____, A NOTARY PUBLIC, PERSONALLY APPEARED _____, AND PROVED ON THE BASIS OF SATISFACTORY EVIDENCE TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO IN THIS DOCUMENT, AND ACKNOWLEDGED (THEY) EXECUTED THE SAME.

FULL NAME SIGNATURE: _____

FULL NAME PRINT: _____

COMMISSION NO.: _____

EXPIRATION DATE: _____

A NOTARY PUBLIC COMMISSIONED
IN THE STATE OF _____

STAMP NOT REQUIRED PER UTAH
CODE 48-1-18 (7) IF ABOVE
INFORMATION IS FILLED IN!

ACKNOWLEDGMENT:

STATE OF UTAH
COUNTY OF _____, S.S.

ON THIS _____ DAY OF _____, IN THE YEAR _____, BEFORE ME _____, A NOTARY PUBLIC, PERSONALLY APPEARED _____, AND PROVED ON THE BASIS OF SATISFACTORY EVIDENCE TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO IN THIS DOCUMENT, AND ACKNOWLEDGED (THEY) EXECUTED THE SAME.

FULL NAME SIGNATURE: _____

FULL NAME PRINT: _____

COMMISSION NO.: _____

EXPIRATION DATE: _____

A NOTARY PUBLIC COMMISSIONED
IN THE STATE OF _____

STAMP NOT REQUIRED PER UTAH
CODE 48-1-18 (7) IF ABOVE
INFORMATION IS FILLED IN!

ACKNOWLEDGMENT:

STATE OF UTAH
COUNTY OF _____, S.S.

ON THIS _____ DAY OF _____, IN THE YEAR _____, BEFORE ME _____, A NOTARY PUBLIC, PERSONALLY APPEARED _____, AND PROVED ON THE BASIS OF SATISFACTORY EVIDENCE TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO IN THIS DOCUMENT, AND ACKNOWLEDGED (THEY) EXECUTED THE SAME.

FULL NAME SIGNATURE: _____

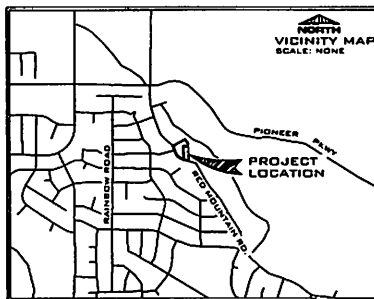
FULL NAME PRINT: _____

COMMISSION NO.: _____

EXPIRATION DATE: _____

A NOTARY PUBLIC COMMISSIONED
IN THE STATE OF _____

STAMP NOT REQUIRED PER UTAH
CODE 48-1-18 (7) IF ABOVE
INFORMATION IS FILLED IN!

**AMENDMENT NOTE:**

THE PURPOSE OF THIS AMENDMENT IS TO ADJUST THE LINE BETWEEN LOTS 4 & 5 OF THE VIEW POINTE SUBDIVISION AND TO VADATE THE UTILITY EASEMENTS ALONG THE OLD LOT LINE AND SIDE LOT LINES. NO OTHER CHANGES WERE MADE WITH THIS PLAN.

SURVEYOR'S CERTIFICATE:

I, BRANDON E. ANDERSON, PROFESSIONAL LAND SURVEYOR NUMBER 4938718, HOLD A LICENSE IN ACCORDANCE WITH TITLE 30, CHAPTER 22, PROFESSIONAL ENGINEERS AND LAND SURVEYORS LICENSES ACT AND HAVE COMPLETED A SURVEY OF THE PROPERTY DESCRIBED HEREIN IN ACCORDANCE WITH SECTION 17-23-17 AND HEREBY CERTIFY ALL MEASUREMENTS AND DESCRIPTIONS ARE CORRECT. MEASUREMENTS WILL BE SET AS REPRESENTED ON THIS PLAN. I FURTHER CERTIFY THAT BY AUTHORITY OF THE HEREIN OWNERS, I HAVE MADE A SURVEY OF THE TRACT OF LAND SHOWN ON THIS PLAN AND HAVE SUBDIVIDED THE SAME TRACT INTO LOTS, TO BE HEREAFTER KNOWN AS:

**VIEW POINTE SUBDIVISION PARTIAL AMENDMENT - B
(LOTS 4 & 5)**

THAT THE SAME HAS BEEN CORRECTLY SURVEYED AND POINTS ESTABLISHED ON THE GROUND IN ACCORDANCE WITH THE HEREIN LEGAL DESCRIPTION.



DATE: _____

BRANDON E. ANDERSON

CERTIFICATE NO. 4938718

LEGAL DESCRIPTION:

BEGINNING AT A POINT 6000 NORTH 01°00'59" WEST 1,703.04 FEET ALONG THE SECTION LINE AND WEST 655.55 FEET FROM THE SOUTH QUARTER CORNER OF SECTION 9, TOWNSHIP 42 SOUTH, RANGE 16 WEST, BALT LAKE BASIN & MERIDIAN, AND RUNNING:

THENCE SOUTH 01°04'01" EAST 304.04 FEET TO AND ALONG THE WESTERN LINE OF VIEW ROSS ESTATES, AS FOUND ON FILE AT THE WASHINGTON COUNTY RECORDER'S OFFICE, TO THE NORTHERLY LINE OF RED MOUNTAIN DRIVE;

THENCE NORTHWESTERLY ALONG SAID NORTHERLY LINE RED MOUNTAIN DRIVE THE FOLLOWING (3) COURSES:

THENCE SOUTH 88°32'14" WEST 119.31 FEET;

THENCE NORTHWESTERLY 392.45 FEET ALONG AN ARC OF A 335.00 FOOT RADIUS CURVE TO THE RIGHT (CENTER BEARS NORTH 00°37'44" WEST, LONG OMBED BEARS NORTH 33°30'31" WEST 370.70 FEET WITH A CENTRAL ANGLE OF 73°57'45");

THENCE NORTHWESTERLY 78.38 FEET ALONG AN ARC OF A 380.00 FOOT RADIUS CURVE TO THE LEFT (CENTER BEARS SOUTH 73°30'01" WEST, LONG OMBED BEARS NORTH 33°40'07" WEST 78.22 FEET WITH A CENTRAL ANGLE OF 18°01'51") TO THE SOUTHERLY CORNER OF LOT 5, VIEW POINTE SUBDIVISION PARTIAL AMENDMENT "A";

THENCE NORTH 88°49'38" EAST 346.36 FEET ALONG THE SOUTHEASTERN LINE AND TO THE EASTERLY CORNER SAID LOT 5;

THENCE SOUTH 43°00'46" EAST 86.36 FEET TO THE POINT OF BEGINNING.

CONTAINING 66,117 SQUARE FEET OR 1.58 ACRES.

VIEW POINTE SUBDIVISION PARTIAL AMENDMENT - B (LOTS 4 & 5)

LOCATED IN SECTION 9
TOWNSHIP 42 SOUTH, RANGE 16 WEST,
BALT LAKE BASIN AND MERIDIAN
SANTA CLARA CITY, WASHINGTON COUNTY, UTAH.

(PAGE 1 OF 2)



CIVIL ENGINEERS & LAND SURVEYORS
3915 EAST RIVIERE DRIVE, SUITE A-2, ST.
GEORGE, UTAH 84780 PH (435) 873-0356
FL 14381 873-0357, WWW.RACVIL.COM

SURVEY/PLAN FILE NUMBER: 07/13/23
DATE: 07/13/23
JOB NUMBER: 13848-33
SCALE: 1" = 30'
C.O.A. DRAWN: B.E.A.
CHECKED: B.E.A.

ENGINEER'S APPROVAL:

THE HEREIN SUBDIVISION HAS BEEN REVIEWED AND IS APPROVED IN ACCORDANCE WITH INFORMATION ON FILE IN THIS OFFICE. THIS _____ DAY OF _____, 20____.

ENGINEER
SANTA CLARA CITY, UTAH

**APPROVAL OF THE
PLANNING COMMISSION:**

ON THIS _____ DAY OF _____, A.D. 20____, THE PLANNING COMMISSION OF SANTA CLARA CITY, HAVING REVIEWED THE ABOVE SUBDIVISION FINAL PLAN AND HAVING FOUND THAT IT COMPLES WITH THE REQUIREMENTS OF SANTA CLARA CITY'S PLANNED ORDINANCES, AND BY AUTHORIZATION OF SAID COMMISSION, HEREBY APPROVE SAID SUBDIVISION FOR ACCEPTANCE BY SANTA CLARA CITY, UTAH.

CHAIRMAN OF THE PLANNING COMMISSION
SANTA CLARA CITY, UTAH

**CITY SURVEYOR'S
CERTIFICATE:**

I, THE SANTA CLARA CITY SURVEYOR, DO HEREBY CERTIFY THAT THIS OFFICE HAS EXAMINED THIS SUBDIVISION FINAL PLAN AND HAVE DETERMINED THAT IT IS CORRECT AND IN ACCORDANCE WITH INFORMATION ON FILE IN THIS OFFICE.

CITY SURVEYOR
SANTA CLARA CITY, UTAH

**APPROVAL AND ACCEPTANCE
BY THE CITY OF SANTA CLARA, UTAH:**

WE, THE MAYOR AND CITY COUNCIL, OF SANTA CLARA CITY, UTAH HAVE REVIEWED THE ABOVE SUBDIVISION FINAL PLAN AND BY AUTHORIZATION OF SAID CITY COUNCIL, ACCORDING TO THE RESULTS OF ITS MEETING OF THE _____ DAY OF _____, A.D. 20____, HEREBY ACCEPT THE SAID SUBDIVISION WITH ALL COMMITMENTS AND ALL OBLIGATIONS PERTAINING THERE TO.

CITY RECORDER MAYOR
SANTA CLARA CITY, UTAH SANTA CLARA CITY, UTAH

**APPROVAL
AS TO FORM:**

APPROVED AS TO FORM, THIS _____ DAY OF _____, 20____.

CITY ATTORNEY
SANTA CLARA CITY, UTAH

TREASURER APPROVAL

I, WASHINGTON COUNTY TREASURER, CERTIFY ON THIS _____ DAY OF _____, A.D. 20____, THAT ALL FEES, SPECIAL ASSESSMENTS, AND FEES DUE AND OWING ON THIS SUBDIVISION FINAL PLAN HAVE BEEN PAID IN FULL.

WASHINGTON COUNTY
TREASURER

RECORDED NO.

FEES: COUNTY RECORDER
WASHINGTON COUNTY, UTAH



City of Santa Clara
2603 Santa Clara Drive
(435) 656-4690, Ext. 225
jmcnulty@sccity.org

Staff Report

Subdivision Plat Amendment Summary and Recommendation

Public Body: Santa Clara City Council

Meeting Date: August 23, 2023

Current Zone: R-1-10 Single-Family

General Plan Designation: Low Density Residential, LDR

Property Address: 1854 and 1860 Red Mountain Drive

Request: Partial Plat Amendment, View Pointe Subdivision, Lots 4 & 5

Applicant Name: Robin Linden

Staff Planner: Jim McNulty

City Staff Recommendation: Approval with conditions

Meeting Type: Public Meeting

PROJECT DESCRIPTION

The applicant, **Robin Linden, is requesting a partial plat amendment** for the View Pointe Subdivision. This subdivision plat includes a total of 13-lots. The applicant is proposing to amend Lots 4 and 5. Lot 4 is currently 19,377 sq. ft. (0.44 acres), and Lot 5 is currently 46,780 sq. ft. (1.07 acres). The proposed plat amendment includes reconfiguring these lots to allow for Lot 4 to have a rectangular shape with additional depth to build on away from Red Mountain Drive. As a result, the lots will have the same square footage and overall acreage. Additionally, the existing home on Lot 5 will be approximately 16' away from the proposed lot line between lots. The proposed partial plat amendment and original subdivision plat have been attached for your review.

Lots 4 and 5 will meet the area, width, and yard regulations as per Section 17.65.050 of city ordinance. The applicant intends to build a home on Lot 4. The Lot 5 ownership will remain under the Christine D. Walker Trust (previously Elizabeth Doty Trust).

SITE & VICINITY DESCRIPTION

The subject properties are in the north end of the city at 1854 and 1860 Red Mountain Drive. Major cross streets in the vicinity include Pioneer Parkway and Canyon View Drive.

ISSUES OF CONCERN/PROPOSED MITIGATION

No items of concern have been identified for this application.

NEIGHBORHOOD RESPONSE

Public meeting notices were sent to the property owners within the View Pointe Subdivision. No responses have been received by city staff.

REVIEWING DEPARTMENTS

DEPARTMENT: *Building*

Recommendations: A geotechnical report will be required for Lot 4 at the time of building permit submittal.

Required Revisions: None at this time.

DEPARTMENT: *Parks & Recreation*

Recommendations: N/A

Required Revisions: N/A

DEPARTMENT: *Police & Fire*

Recommendations: N/A

Required Revisions: N/A

DEPARTMENT: *Power*

Recommendations: Public Utility Easements (PUE's) are required.

Required Revisions: None at this time.

DEPARTMENT: *Public Works*

Recommendations: Public Utility Easements (PUE's) are required. Any PUE that isn't needed (side or rear yard areas) should be abandoned. A front yard PUE is required. A final mylar with signature blocks is required.

Required Revisions: None at this time.

STATE CODE CONSIDERATIONS

Utah Code, Section 10-9a-608 includes requirements for subdivision amendments. To amend a subdivision, a city must hold at least one public meeting (not public hearing). Additionally, a public meeting to consider an amendment to a subdivision requires 10 days' notice rather than 24 hours' notice. A notice must also be sent to all property owners in the subdivision, with a notice in a visible location, with a sign of sufficient size and durability. City staff has determined that all State Code requirements have been met with this application.

CITY STAFF RECOMMENDATION

On August 10, 2023, the Planning Commission held a public meeting and forwarded a recommendation of approval to the City Council. City staff recommends that the City Council consider approving the Partial Plat Amendment for Lots 4 and 5 of the View Pointe Subdivision subject to the following conditions:

1. That the applicant be required to comply with the recommendations from all city reviewing departments.

Request: Partial Plat Amendment

2. That the applicant be required to record the Partial Plat Amendment and provide city staff with an electronic copy.
3. That the applicant be required to submit a Geotechnical Report prior to building permit issuance.
4. That a primary residence be built on the lot prior to any accessory structure being permitted on the property.

Mayor

Rick Rosenberg

City Manager

Brock Jacobsen



City Council

Denny Drake

Leina Mathis

Ben Shakespeare

Jarett Waite

Christa Hinton

CITY COUNCIL

Meeting Date: 23/Aug/23

Agenda Item: 4

Applicant: N/A

Requested by: N/A

Subject: Justice Court Prosecutor Agreement

Description:

N/A

Recommendation: Approval

Attachments: N/A

Cost: N/A

Legal Approval: Yes

Finance Approval: Yes

Budget Approval: Yes

2603 Santa Clara Drive, Santa Clara, Utah 84765

Phone (435) 673-6712 Fax (435) 628-7338

CRIMINAL PROSECUTION AGREEMENT

This Criminal Prosecution Agreement ("Agreement") is made effective as of the date indicated below, by and between the City of Santa Clara, a Utah municipal corporation, acting by and through its authorized officers and located in the County of Washington, State of Utah ("City"), and _____, of _____, Utah ("Attorney").

In consideration of mutual promises, conditions and covenants contained herein, the parties agree as follows:

SECTION ONE--NATURE OF AGREEMENT

A. Pursuant to the authority of City, as granted by the State of Utah and the ordinances of the City, the City hereby appoints Attorney to act under the title of Deputy City Attorney/City Prosecutor for the City, and to render prosecutorial services for crimes and infractions occurring within the Santa Clara and Ivins City limits (Class B and Class C Misdemeanors and infractions). Services will include filing of criminal cases and all necessary and associated pleadings (informations, motions, etc.), negotiation of plea agreements, any necessary court appearances including trial, and other services that, within Attorney's direction, are required in order to bring any particular case to a conclusion (as generally provided in Utah Code Annotated § 10-3-928). Pre-trials and Trials will be scheduled for four hours on the 2nd and 4th Tuesday of the month beginning at 4:00 pm. Services include the handling of appeals on all such cases.

B. Attorney will act as an independent contractor and not an employee of the City and will therefore not be entitled to any benefits provided to City employees. Notwithstanding that, the City of Santa Clara agrees to indemnify, hold harmless and undertake to Attorney's defense in the event that any person should take legal action against Attorney as a consequence of performing prosecutorial services and while acting within the scope of Attorney's authority under this Agreement. This obligation to indemnify, hold harmless and defend shall be the same as the obligation of the City with respect to its employees, as set forth in the Utah Governmental Immunity Act.

C. In the event Attorney has a conflict of interest or a scheduling conflict which prevents Attorney from prosecuting a matter, Attorney shall have the right and duty to hire and compensate another qualified attorney ("substitute attorney") to represent the City in those cases so affected. With respect to any such cases, the City shall indemnify, hold harmless and defend the substitute attorney in accordance with the provisions of section B., above.

SECTION TWO--ACCEPTANCE OF APPOINTMENT

Attorney accepts the appointment set forth in Section One of this Agreement and agrees to commit his time, expertise and best efforts in performing the services identified within Section One of this Agreement.

SECTION THREE--COMPENSATION

City will pay Attorney the rate of Fifteen Hundred Dollars (\$1500) per month. The amount shall be payable within fourteen (14) calendar days of the first calendar day of each month, beginning _____, 2023. The monthly rate will be pro-rated for any partial calendar month at the beginning or end of the term of this Agreement.

Attorney shall be responsible for all supplies, materials and equipment, the payment of taxes, the employment and supervision of any secretary/staff required by Attorney to fulfill Attorney's obligations under this Agreement, and for any other needs or requirements of Attorney, without additional compensation from City; provided that City will pay all filing fees, services fees and witness fees relating to criminal prosecution undertaken by Attorney on behalf of the City, pursuant to this Agreement.

SECTION FOUR--TERMINATION

Either party may terminate this Agreement on sixty (60) days written notice.

SECTION FIVE--GOVERNING LAW; ENTIRE AGREEMENT; MODIFICATION

- A. This Agreement shall be governed, construed, and enforced in accordance with the laws of the State of Utah.
- B. This Agreement constitutes the entire agreement between the parties, and any prior understanding or representation of any kind preceding the date of this Agreement shall not be binding on either party except to the extent incorporated in this Agreement.
- C. Any modification of this Agreement or additional obligation assumed by either party in connection with this Agreement shall be binding only if in writing signed by each party or an authorized representative of each party.

SECTION SIX- ASSIGNMENT OF RIGHTS

The rights of each party under this Agreement are personal to that party and may not be assigned or transferred to any other person, firm, corporation or other entity without the prior written consent of the party, except as provided in Section 1.C., above.

SECTION SEVEN- PARAGRAPH HEADING

The titles to the paragraphs of this Agreement are solely for the convenience of the parties and shall not be used to explain, modify, simplify, or aid in the interpretation of the provisions of this Agreement.

IN WITNESS WHEREOF, each party to this Agreement has caused it to be executed on the ____ day of _____, 2023.

SIGNED

Attorney

Rick Rosenberg
Mayor, Santa Clara City

K. Jake Graff
Judge, Santa Clara Justice Court

CRIMINAL JUSTICE NON-DISCLOSURE AGREEMENT

This agreement outlines the responsibilities of:

_____, **Prosecutor for the City of Santa Clara**
RECIPIENT NAME

Access to the following UCJIS files is available by:

Santa Clara Municipal Justice Court
PROVIDER AGENCY NAME

- X Utah Computerized Criminal History (UCCH)
 - National Crime Information Center (NCIC)
 - National Law Enforcement Telecommunication System (NLETS)
- X Statewide Warrants (SWW)
- X Driver License Division (DLD)
- X Motor Vehicle Division (MVD)

By accepting access as set forth above, the Recipient Agency agrees to adhere to the following UCJIS policies in order to ensure continuation of that access: (If items 1, 2 or 3 do not apply, mark the appropriate space with "NA".

N/A 1. TIMELINESS

NCIC records will be entered, removed or modified promptly to ensure maximum system effectiveness.

N/A 2. QUALITY ASSURANCE/VALIDATION

Validation is required for the filling NCIC entries: wanted/missing/ unidentified persons, violent gang and terrorist organization, boat, license plate, vehicle, gun and securities. This requires the agency to confirm the record is complete, accurate and still outstanding or active.

N/A 3. HIT CONFIRMATION

Within ten(10) minutes of a priority NCIC hit confirmation request , or one(1) hour after a routine NCIC hit confirmation request, on an NCIC entry to furnish to the requesting agency a record confirmation, a response indicating the validity of the record in question or a notice of the specific amount of time necessary to confirm the hit.

4. SECURITY

The Recipient Agency agrees to destroy the information obtained from the state computer, when it is no longer needed for the purpose for which it was provided.

5. DISSEMINATION

Dissemination of UCCH information is governed by Section 53-10-108 if the Utah Code Annotated. This information may be disseminated to criminal justice agencies for criminal justice purposes, criminal justice employment, as well as properly identified individuals that wish to view their own records if the agency has agreed to disseminate personal records and has a policy on file with BCI.

6. TRAINING

The provider Agency shall train the Recipient Agency on the integrity of UCJIS. The Provider Agency shall familiarize the Recipient Agency regarding the laws, rules, policies and procedures of the system. (BCI Policy & Procedures provided & attached).

7. AUDIT

An audit will be conducted by BCI and/or the FBI every three years as outlined in the NCIC policy. This audit is a way of guaranteeing the completeness and accuracy of information in UCJIS.

8. LOGGING

BCI requires that the provider Agency Log the name of the requestor and the purpose for which the information will be disseminated.

9. USE OF THE SYSTEM

The Recipient Agency agrees to comply with all state and federal statutes and regulations as stated in the Security Addendum, appended here to and incorporated by reference and made a part hereof as is fully appearing herein, and to use the information received over UCJIS for criminal justice investigations only and shall not use, disseminate or re-disseminate information received as a result of this contract for a purpose other than that envisioned by the contract or Recipient Agency may be subject to administrative and criminal penalties.

If this agreement is to provide information on a continuing basis, the Provider Agency reserves the right to immediately suspend furnishing information under this agreement when any rule, policy, procedure, regulation, or law described in the BCI Operations Manual and the BCI User Agreement is violated or appears to be violated.

Date

Signature of Recipient Representative (Agency Administrator)

Date

Signature of Mayor, Santa Clara City