



Memorandum

TO: SMART CITIES AND SERVICE
IMPROVEMENTS COMMITTEE

FROM: Rob Lloyd

**SUBJECT: SAN JOSÉ 311 AND SERVICE
DELIVERY STATUS REPORT**

DATE: August 25, 2021

Approved

Date 08/26/2021

RECOMMENDATION

Accept the status report on San José 311 and digital service delivery as part of the approved City Roadmap for 2021-2022, including service options and priorities, and provide input.

OUTCOME

Provide an update on the status of San José 311, focusing on customer-centric plans for improving existing services, adding future digital services, and input to help set priorities.

BACKGROUND

Since the launch of San José 311 (formerly My San José) in July 2017, the City committed to moving towards an omni-channel experience to engage residents and help the City become more responsive to the needs of the community. The 2017 launch was the tip of the spear for the City's digital strategy to meet San José's Smart City early objectives, involving re-engineering City processes, making services more accessible and responsive through technology, and resourcing service delivery based on the data trends that surface through integrated service delivery.

Based on a drive over the last 20 months to improve San José 311 (SJ311) services and set foundations for faster development of new services, staff made substantial progress with the City's digital service delivery that spans: 9-1-1 to 3-1-1 call transition¹; rebranding to San José 311; implementation of virtual agent services; refresh of the SJ311 technology platform and

¹ Memo on 9-1-1 AND 3-1-1 AUDIT RECOMMENDATIONS STATUS REPORT—
www.sanjoseca.gov/home/showdocument?id=55404

architecture; addition of language translation (Spanish and Vietnamese); and addition of Residential Garbage and Recycling².

The City specifically strengthened underlying constituent relationship management technologies by re-platforming the SJ311 mobile app and web portal to modern builds in 2020³. This improved the accuracy, security, scalability, and reliability of the platform through architectural updates and upgrades. Results of this re-platforming fixed data integration/synchronization issues that required significant manual intervention by staff for many graffiti, illegal dumping, and abandoned vehicle requests. A security enhancement added a CAPTCHA to submittals, which is a program that filters out software-generated complaints from “bots”. Prior to this change, over 8,000 false reports were submitted each month by a resident, requiring significant manual effort by staff to back out without distorting data and reports. The re-platforming also improved the ability to add services to the mobile app and web portal, as well as change messaging within the app without changing code. This feature was used frequently in COVID-19 response.

The SJ311 Team⁴ works closely with the “Service Owner” departments to meet service targets and customer satisfaction goals specific to service type. The SJ311 Team meets at least monthly to monitor performance metrics and address related issues.

Service Timeliness		
Percentage of Service Requests Meeting Target		
Service	Percentage	Expected Resolution Time (In Days)
Streetlight Outage	44.91%	16
Potholes	66.87%	2
Illegal Dumping	64.15%	5
Graffiti	66.60%	3
Abandoned Vehicles	85.03%	14
January 1, 2021- July 29, 2021		

² Memo on SAN JOSE 311 REPORT AND DIGITAL STRATEGY REPORT:
<https://sanjose.legistar.com/LegislationDetail.aspx?ID=4957079&GUID=4F5288AB-A777-4EE7-8F9E-3F21A0734D81>

³ Report to City Council from January 5, 2021—
<https://sanjose.legistar.com/LegislationDetail.aspx?ID=4735431&GUID=E9BE4B60-2494-4E1A-ADB9-CE40719A8645>

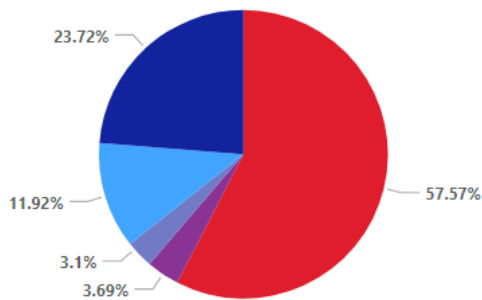
⁴ The SJ311 Team is led by the Information Technology Department and supports Service Owners and leadership from stakeholder City departments that have digital services in SJ311. As of August 2020, these include Parks, Recreation and Neighborhood Services; Environmental Services; and Transportation.

SJ311 Customer Satisfaction by Service Type

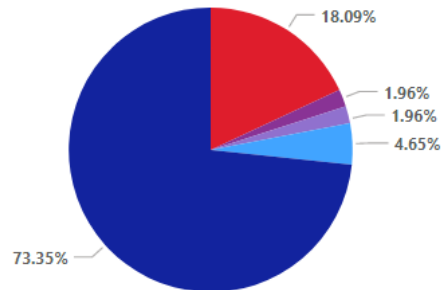
January 2 – July 27, 2021

Experience ● Poor ● Average ● Fair ● Good ● Excellent

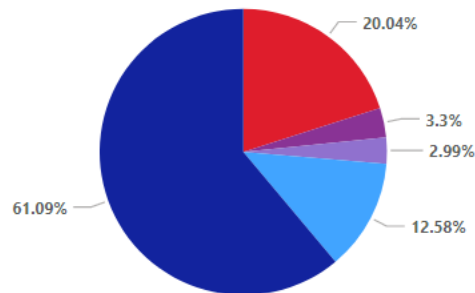
Abandoned Vehicles



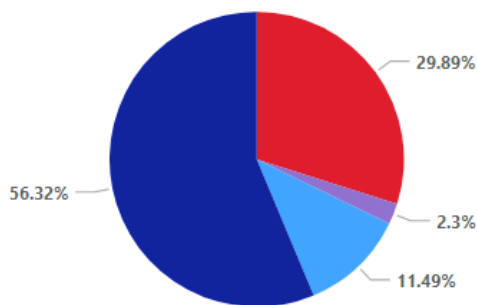
Graffiti



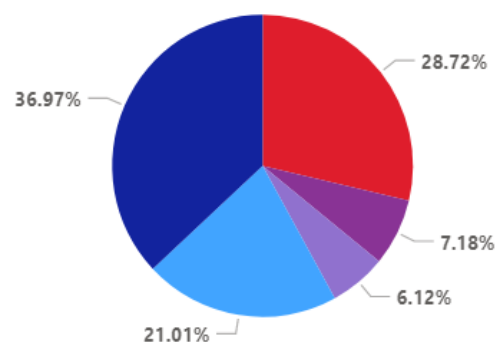
Illegal Dumping



Potholes



Streetlight Outages



Improvements to SJ311 usability, functionality, and service level expectations reflect in SJ311 performance metrics. Beginning July 30, 2017, when the SJ311 mobile app and web portal were launched, the number of reports stalled at around 165,000 annually from 39,000 active users. Reports for Fiscal Year 2020-2021 are now exceeding 181,780 from 50,611 active users. Customer satisfaction ratings improved significantly with the changes and increased use by the community. In 2021, 68% of SJ311 users reported a “Good” to “Excellent” experience versus only 28% reporting a “Good” to “Excellent” experience in 2020.

The Mayor’s March Budget Message for Fiscal Year 2021-2022 directed investments in SJ311 to add services and access for the community. The City Adopted Budget passed by City Council for Fiscal Year 2021-2022⁵ invested in a two-year program to expand San José 311’s internal capacity to develop new features and customer experience improvements. At the June 3, 2021, Smart Cities and Service Improvements Committee meeting, a proposed roadmap was discussed for the potential service types to be added to SJ311⁶. Mayor and Committee members requested that staff return to the September 2021 Smart Cities and Service Improvements Committee with data from staff’s “Voice of the customer” work and the queue of potential new City services for Committee input.

ANALYSIS

With the goal of expanding SJ311 features and customer experience, the SJ311 team is currently working with partners, AST Corp and Oracle, to migrate the exiting web portal and mobile application onto a low-code/no-code platform⁷ called Oracle Visual Builder Studio. If successful,

this shift positions the City to add additional services and features to SJ311 more quickly and at a much lower cost-per-service than in the past. Initial estimates show that instead of taking six to eight (6-8) months and tens to hundreds of thousands of dollars to develop a major service addition, costs can be reduced to ~\$20,000 per service with a development-to-production time of about two (2) months. Full migration of SJ311 to the VBS low-code/no-code platform is expected to conclude by October 30, 2021. The pilot is underway, and the City, AST, and Oracle are working through technical challenges to fully assess if the change will fully meet the City’s expectations.

⁵ Manager Budget Addendum #11: San Jose 311 Improvement Opportunities and Roadmap—
<https://www.sanjoseca.gov/home/showpublisheddocument/73139/637570437995000000>

Manager Budget Addendum #16: Community and Economic Recovery Budget—

<https://www.sanjoseca.gov/home/showpublisheddocument/73424/637575449288770000>

⁶ Report to Smart Cities and Service Improvements Committee from June 3, 2021—

<https://sanjose.legistar.com/LegislationDetail.aspx?ID=4957079&GUID=4F5288AB-A777-4EE7-8F9E-3F21A0734D81>

⁷ A platform that allows staff or contracted resources with little to no programming background to create new features and functionality in SJ311 at a lower cost and with shorter timeframes.

In parallel, the SJ311 team has worked to improve data reporting, analysis, and assessment of the following:

- Equity-based service measures;
- Improvements needed to meet service levels;
- Improvements needed to increase customer satisfaction;
- Improvements needed to provide greater access for persons with disabilities or access and functional needs; and
- Reporting and data analysis across service delivery channels to identify and evaluate services demands/utilization that indicate demand for additional digital channels, such as virtual agent, web portal, and mobile app.

Recent Work

Equity workshops and data analytics

The SJ311 team partnered with the Mayor's Office of Technology and Innovation (MOTI) to complete a series of workshops to define what data equity might look like for each individual service team, stakeholders, and constituents. This work resulted in a shared SJ311 Equity Objective: "Empower all who live, work, and play in San Jose, especially underreporting and heavily impacted communities, to submit reports via SJ311 and ensure that services are delivered per committed turnaround times". The MOTI and SJ311 teams are working to identify and add data sets that will inform staff how equity objectives are and are not being met, and to support subsequent monitoring and evaluation.

In addition, data scientists at Dell Technologies provided pro bono services to analyze free-text comments in service-requests, captured under SJ311's "Other Issues" category. The option accounts for 33% of all SJ311 service requests.

The most prevalent theme found in Dell's analysis was that people of different levels of means use SJ311 for distinctly different priorities. Livability concerns (complaint driven) are more likely to be reported in areas with lower incomes. As the City considers what services to add next to SJ311, strong consideration will be given to services that address basic opportunity and access needs—e.g., equity in education access, affordable housing, internet connectivity—in parallel with efforts to address blight issues and complaints.

Accessibility assessment

As our residents' one-stop shop for City services, it is critical for SJ311 to support accessibility for all residents with an added emphasis on meeting Federal accessibility guidelines. The City's goal is to offer an equivalent user experience for differently abled persons who have additional functional access needs. One-in-four individuals in the United States has a need of this type.

To support the goal, the SJ311 Team completed an accessibility assessment project which provided a list of recommendations that can enhance the user experience for persons with heightened access and functional needs. These improvements will be implemented in phase II of

this project. The outcome prepares the City to continue to meet Federal Government requirements, often referred to as “Section 508” and “Web Content Accessibility Guidelines (WCAG)” standards. Major findings of the Accessibility Assessment summarize as follows:

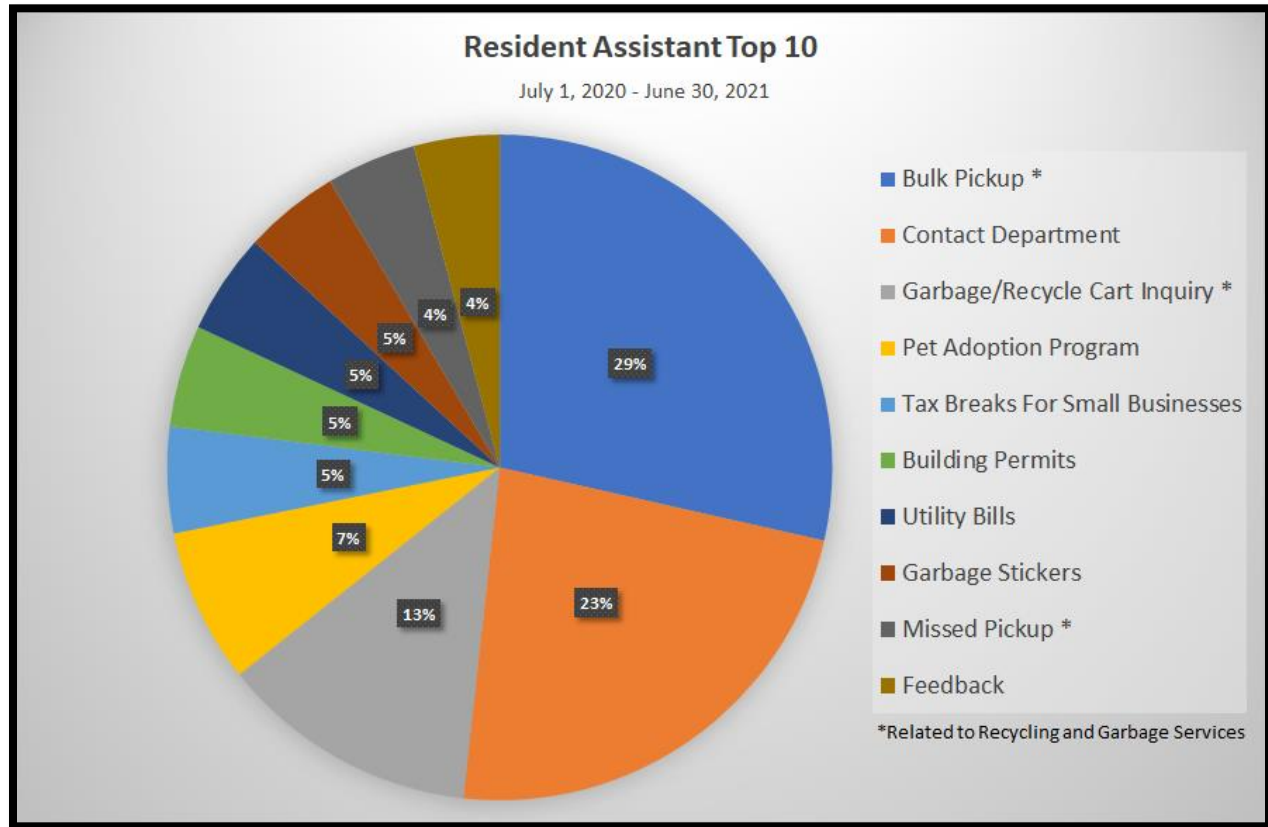
- Recognize and teach the importance of including differently abled residents or those with access and functional needs to share their expertise and lived experiences.
- Prioritize web accessibility in procurement and contract decisions.
- Build relationships with community organizations and partners to improve engagement and accessibility.

The results of this project have been incorporated into the City’s website and digital services governance workplan and aligned with the SJ311 objective to “Design an inclusive experience,” as well as the SJ311 vision to “Make it easier for community and government to work together, keeping San Jose clean, safe, and engaged.” Moving forward, accessibility work will be a joint effort led by the City Manager’s Communications Office, the Information Technology Department, the City Manager’s Office of Racial Equity and Office of Administration, Policy and Intergovernmental Relations, the City’s Website and Digital Services Governance Committee, and stakeholders from City departments. The principles shaping the City’s efforts are aims to be:

- **Inclusive:** We will consider the diverse needs of the disabled and access and functional needs communities, which includes community members who are vision-impaired, hard-of-hearing and living with other cognitive and physical impairments.
- **Efficient:** We will build on existing accessibility efforts within the City. We will minimize duplicate efforts and partner with other departments as much as possible.
- **Omnichannel:** Accessibility compliance will be audited across all of San José 311’s physical and digital touchpoints.
- **Iterative:** Any recommendations will be deployed in smaller pilots, tested and then redeployed in an iterative process to measure impact.
- **Collaborative:** Decisions will be made with, not for, people with disabilities or those with access and functional needs. We will keep community partners continually informed and engaged with our progress.

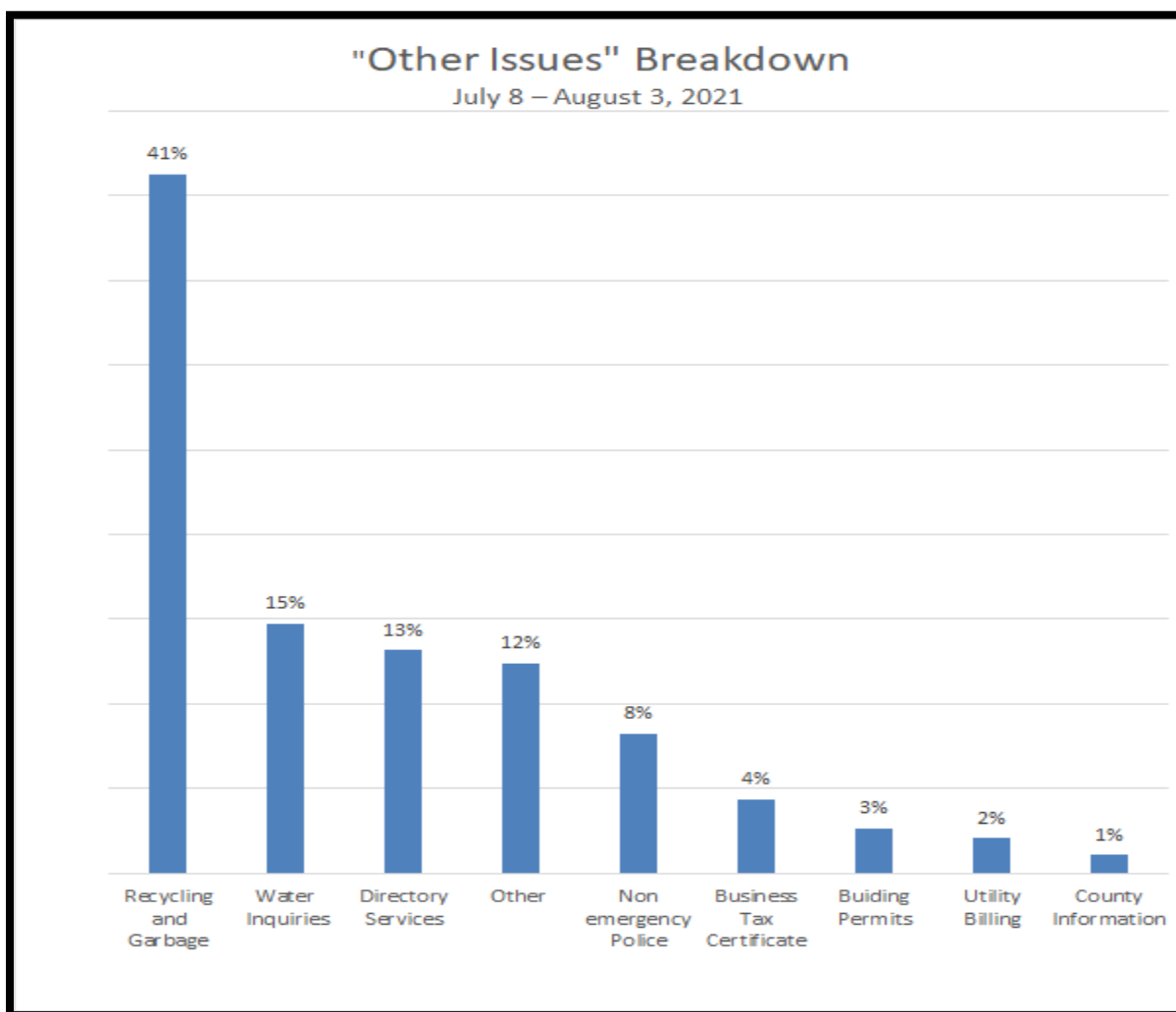
Resident Assistant

On July 3, 2020, the City launched a Resident Assistant chatbot on the City website, www.sanjoseca.gov, to assist residents to quickly find the City’s COVID-19 response information. This question-and-answer-style chatbot and text messaging service has been expanded to help San José residents find information about available City services on www.sanjoseca.gov and via a text to a mobile phone. Total usage of the Resident Assistant from July 2020 through June 2021 was 70,976 sessions in English, Spanish, and Vietnamese. An added benefit of the Resident Assistant is that it also provides data insights on what San José residents search for related to City services, so staff can analyze customer needs.



Improving reporting and analysis around ‘Other Issues’

SJ311 reports categorized as “other issues,” make up 33% of customer requests received via mobile app, web portal, and call-in reports. Previously, the City did not have an analysis-friendly way to determine what types of requests fell into this category. In July 2021, the SJ311 City Customer Contact Center (CCCC) and SJ311 technology team added additional sub-categories to identify causes of customer calls. Initial findings from July 8 – August 3, 2021, include:

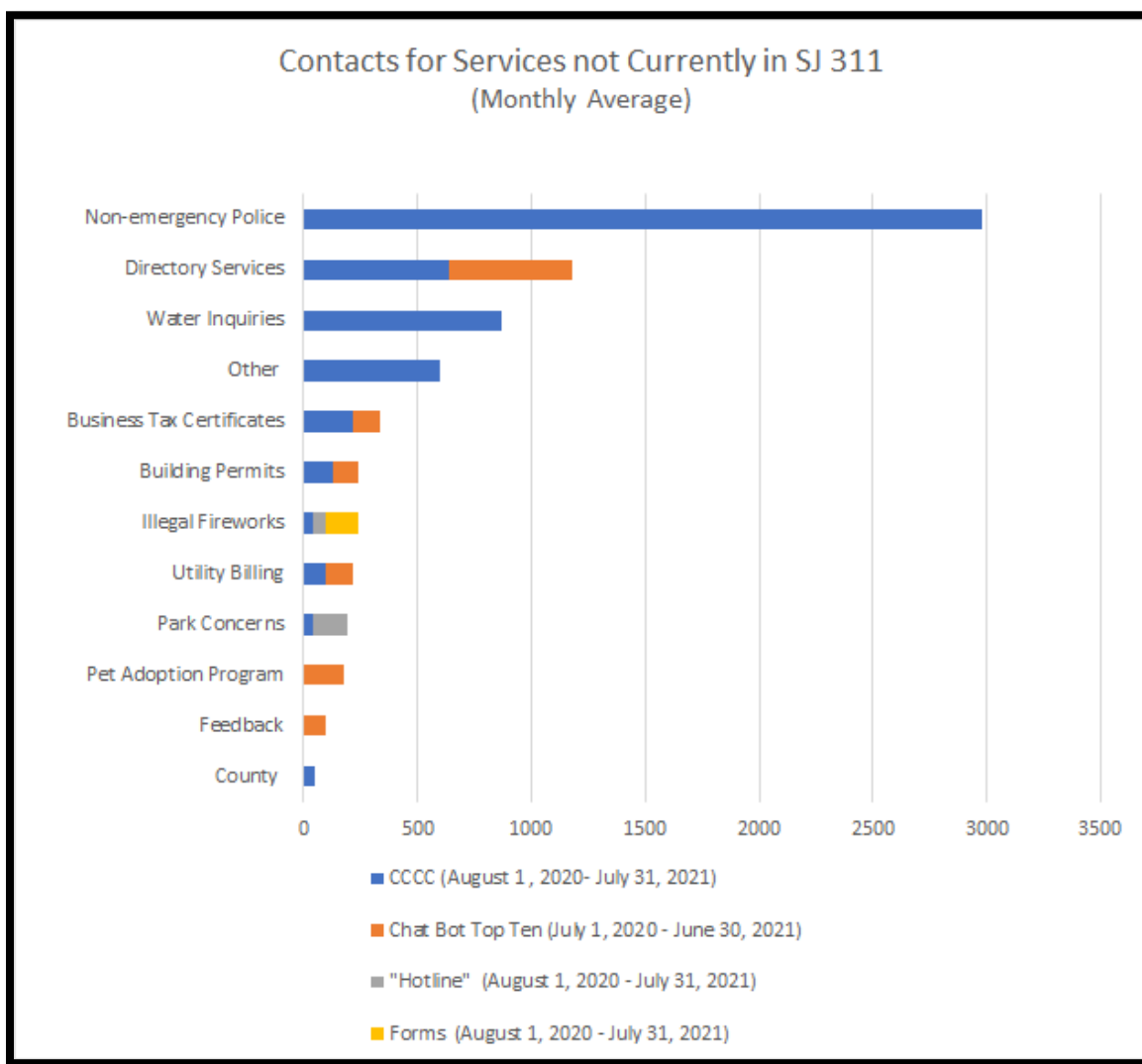


Planning for adding additional services in SJ311

The customer-centric plan to create future digital services needs to successfully connect useful service offerings based on the Voice of the Customer work, along with achievable service level expectations set by the SJ311 service owners. Evaluation of historical data is one way to help determine candidates for inclusion.

The SJ311 team combined the data received from data sources spanning the Resident Assistant chat bot, "Other Issues" submittals, the Parks Concerns hotline, and the Illegal Fireworks hotline and Illegal Fireworks online form. By volume, potential services for addition and/or expansion on SJ311 digital services channels break down as follows⁸:

⁸ Other issues included in the "Contacts for Service" chart include a variety of requests that are too small to categorize. Examples include music in the park, telephone numbers for VTA, questions about job opportunities.



Based on this initial data, the initial list of contenders for addition to SJ311 are below. Recycling and Garbage services are not included in the table below as they have already been built into the SJ311 digital service channels. The SJ311 Team also identified that Utility Billing and Water inquiries are best addressed by call-in contacts due to the detailed conversations and sensitive data associated with late payments and potential water disconnections.

Service	Brief Description
Directory Services	Department's telephone number, hours of operation, location, website address, email address.
Business Tax Certificates	Application for business tax certificates, changing existing ones, exemptions.
Building Permits	Building permit inquiries, appointments, walk-in options and fees.
Illegal Fireworks	Reporting illegal fireworks and sales of fireworks.
Park Concerns	Issues at parks such as trees down, broken equipment, water issues, park restrooms.
Pet Adoption Program	Pet adoption program inquiries.

Beyond the data

As cited previously in this memo, an analysis by Dell Technologies data scientists found that livability and quality of life concerns (complaint driven) are more likely to be requested in neighborhoods with lower household incomes. As the City considers what services to add next to SJ311, addressing basic opportunity, equity, and access needs will be key. This includes SJ311 options such as education access, affordable housing, internet connectivity, and the like. These options will pair with services that answer clear demand for requesting services that are complaint driven and related to quality of life and livability issues. Opportunity and access needs aren't typically reported through City service channels and therefore are not reflected in the data. Examples of SJ311 services that could be added to help address basic community opportunity and access needs include:

- **Affordable Housing** – Adding a button in SJ311 that links to the Affordable Housing Doorway Portal.
- **Community Wifi** – Adding a button that allows residents to report areas of poor Internet Wifi connectivity to be addressed through the City's Digital Inclusion initiative.
- **Coordination with Community Based Organizations (CBOs)** – Adding features to SJ311 to connect residents to CBOs serving their needs.

Additional plans to understand the Voice of the Customer

It is necessary understand deeply the *Voice of the Customer* as staff considers services to add next, as well as evaluating usability of services that have already been added. Methods that will help ensure resident needs are understood and acted upon involve at least the following:

- ***Continued Focus on Racial Equity, Inclusion and Underserved Communities:*** All services considered for addition to SJ311 will incorporate a racial equity lens patterned off the work conducted by the Office of Civic Innovation in developing the City Roadmap, prioritizing 47 recovery workstreams, and in developing the Community and Economic Recovery Budget⁹. The Weighted Shortest Job First (WSJF) prioritization process will imbue a racial equity lens¹⁰ in the process. The City Manager's Office of Racial Equity is, and will continue to be, included in the build out of additional features, services and enhancements to SJ 311 to ensure a focus on our underserved communities. Questions include in the WSJF exercise to incorporate racial equity included:
- ***"Super Users" and "Influencers":*** The SJ311 team implemented a practice of involving super users from the community to test application functions and features prior to release. Staff can also tap a network of "influencers" to recommend use of SJ311 to Spanish and Vietnamese community groups.
- ***"Community Conversations":*** The SJ311 and Library teams are working together to include SJ311 questions in the August Community Conversations meeting. The goal is to gain additional input on services residents would like to see included in SJ311 that may have been missed. The teams are also working to develop consistent data on residents' WiFi access types and speeds. The information could help direct our Digital Inclusion investments and focus.
- ***Parks Concerns:*** The Parks, Recreation and Neighborhood Services Department has a Parks Concerns hotline and email that receives resident concerns related to parks. From March 2020 to March 2021, the hotline and email received 1,811 cases. SJ311 received 533 requests between the Contact Center, the mobile app, and the online portal for a total of more than 2,300 requests per year related to parks use.

The above considerations will be used by the SJ311 Executive Team to conduct a Weighted Shortest Job First (WSJF) exercise, scheduled for August 24, 2021. The SJ311 Team will use the prioritization exercise to help determine which services should be recommended in priority order for addition to SJ311 along the lines of value that can be delivered quickly. The results of the prioritization exercise will be discussed at the September 2, 2021, Smart Cities and Service Improvements Committee meeting to add context for the input from Committee members.

CONCLUSION

Ongoing commitment to SJ311 is a key lever in improving service delivery and performance insights for the City. Investments must pay off as trust in the City's digital services channels

⁹ City Managers Budget Addenda #16 Community and Economic Recovery Budget

<https://www.sanjoseca.gov/home/showpublisheddocument/73424/637575449288770000>

¹⁰ Racial equity criteria included in the WSJF exercise included: How equitable is the initiative? Who is benefitting? Who is burdened? What Neighborhoods? Is this serving marginalized communities? Does it serve a high-risk population? What is the risk within certain neighborhoods in the City? What is the current community impact, especially on marginalized communities if we do not complete?

quickly erodes when follow-up and follow-through from staff teams do not align with the needs of the public. Continuous review of performance, improvements to City processes, and coordination across City departments is essential to the collective success.

The San José 311 Customer Contact Center, mobile app, online portal, and advanced chat, agent and language access are powerful tools. Investments in the unified San José 311 digital services strategy will succeed only as much as teams can upgrade the people and processes that deliver services. Staff will continue to update the Smart Cities and Services Improvements Committee for its input, insights, and support.

EVALUATION AND FOLLOW-UP

The Information Technology Department will report progress in adding additional services to SJ311 to the Smart Cities and Services Improvements Committee on December 2, 2021, as well as coordinate any funding needs with the City Budget Office for the annual budget process.

CLIMATE SMART SAN JOSE

The recommendation in this memo has no effect on Climate Smart San José energy, water, or mobility goals.

COMMISSION RECOMMENDATION/INPUT

This report was not presented at a Commission.

CEQA

Not a Project, File No. PP17-009, Staff Reports, Assessments, Annual Reports, and Informational Memos that involve no approvals of any City action. (Information Technology)

PUBLIC OUTREACH

This memorandum will be posted on the Smart Cities and Service Improvements committee Agenda website for the September 2, 2021, meeting. In addition, the City has engaged with over two dozen Spanish- and Vietnamese-speaking residents in user research and usability testing. Further usability testing will be conducted in the future as the City evaluates each phase of the implementation.

COORDINATION

This memorandum has been coordinated with the City Manager's Office of Civic Innovation and Digital Strategy, City Attorney's Office, Fire Department, Library, City Manager's Office of Racial Equity, City Manager's Office of Communications, City Manager's Office of Administration, Policy and Intergovernmental Relations, Department of Transportation, Environment Services Department and the Parks, Recreation and Neighborhood Services Department.

/s/

ROB LLOYD

CHIEF INFORMATION OFFICER

Information Technology Department

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