TO: HONORABLE MAYOR AND CITY COUNCIL
FROM: Vijay Sammeta

SUBJECT: OPEN DATA POLICY
DATE: March 24, 2016

Approved Date 3/24/16

RECOMMENDATION

As recommended by the Rules and Open Government Committee on February 10, 2016, adopt a resolution establishing City Council Policy 0-43, “Open Data Policy.”

OUTCOME

Approval of the staff recommendation will affirm the City of San José’s commitment to open, honest, and effective government, facilitate the use of data across City departments, and empower the community to engage with the City on a new level, while inspiring new ideas, services, and economic opportunities.

BACKGROUND

With rigorous sunshine rules in place with respect to information on the City’s website concerning actions for consideration at meetings of the City Council, City Council committees and City commissions to the publishing of detailed information and assumptions regarding financial and budgetary data, the City of San José has long been committed to transparent government. Interested community members also have access to a growing array of the City’s data online, including crime report data, building permits, geographical data layers, procurement card transactions, employee compensation, budget and financial visualizations, and more.

With City Council’s approval of the Mayor’s June Budget Message for Fiscal Year 2014-2015, a two-person Data Analytics Team in the City Manager’s Budget Office and an Open Data Architect position in the Information Technology Department were created. Together, these staff have worked with each department and led a City-wide initiative over the past year to inventory all of the City’s various data sets. As the inventory has recently completed, efforts are now shifting to prioritize the posting of this data onto the City’s Open Data Portal (data.sanjoseca.gov), allowing easy public access and improving collaboration among departments.
On February 10, 2016, the Rules and Open Government Committee directed the City Manager to produce a draft Open Data Policy for discussion and consideration by City Council at its meeting on March 15, 2016. At its meeting on March 2, 2016, the Rules and Open Government Committee deferred City Council consideration until April 5, 2016. Open data policies have become commonplace in cities throughout the United States, where new demands for public information and new methods for sharing it necessitate appropriate governing policies and guidelines.

In late 2015, staff produced the first draft of the City’s Open Data Policy. As part of the Administration’s strategy for soliciting community feedback, the draft was shared publicly through the City’s website and through a series of community events organized by the Mayor’s Office and facilitated by a Microsoft Philanthropy and Civic Engagement Manager and the City’s Information Technology Department. Additionally, the City is participating in the Bloomberg Philanthropies What Works Cities Initiative; through that initiative, the attached Open Data Policy has received input from leading experts at the Sunlight Foundation and the Johns Hopkins Center for Government Excellence. The adoption of the Open Data Policy will guide the City in making data available to the community and enhancing public service delivery.

ANALYSIS

To address new and growing demands for machine-readable public information, staff has been preparing for a launch of a newly redesigned Open Data Portal, which will act as a central hub for the City’s publicly accessible data. Posting publicly accessible data to the Portal will allow interested community members, non-profit organizations, and entrepreneurs unfettered access to information used by staff to inform operational decision making and public policy. Open data also creates an opportunity for the City to communicate the impact of its programs and services through data visualizations, including charts, graphs, and maps, leading to increased transparency, accountability, and community engagement. Internally, the Portal will streamline the flow of information within the organization, allowing staff access to data collected and stored outside of their respective departments. This will improve the City’s capacity to conduct data analytics, develop informed public policy, and measure the results of its programs and services, resulting in a smarter, more efficient government.

How the City’s data is collected, maintained and shared on the Open Data Portal will be governed by the recommended Open Data City Council Policy and the Administration’s Open Data Implementation Policy and Procedures. The proposed Council Policy is attached to the resolution posted to the City’s agenda webpage for this item. The proposed Administrative Policy is attached to this memorandum for information purposes. The proposed City Council Policy provides broad policy guidelines for open data and its use to City Council Appointees, while the Administrative Policy gives more specific direction to the departments reporting to the City Manager, and who will be the originators of much of the data.
Open Data Policy Overview

By adopting the Open Data City Council Policy, the data collected and generated by the City will be open by default, subject to the Policy's limitations. Over time and to the extent practicable, the City will publish all appropriate datasets and associated metadata on the City's Open Data Portal, except where the public release of such data would be in violation of the law, including laws governing privacy or privileged information, or would violate contractual or proprietary rights or would jeopardize the security of individuals or property. Every reasonable effort will be made to frequently update datasets on the Open Data Portal to the extent that the City regularly maintains or updates such data.

New information systems and legacy system updates will have, to the extent practicable, the ability to report data in a manner whereby it is open and machine-readable and conforms to common data standards that promote interoperability regardless of format or purpose. This will improve the City's ability to collect, store, and report information consistently, promoting interoperability, improved analytics, and increased usability for staff and the community.

To facilitate the collection, opening, and analysis of additional data and information assets, the City will endeavor to acquire rights to the data generated by the City’s vendors or other third parties where the information collected has the potential to inform operational decision making and public policy. This may include, but is not limited to, provisions within agreements with third parties to ensure the City retains ownership of its data and the ability to make such data public, and provisions to acquire data owned and collected by vendors and contractors related to services provided to or on behalf of the City.

In an effort to maximize the impact of this Policy, the City will endeavor to engage and share datasets with other local, regional, and national government entities, non-profit groups, businesses and community interest groups and stakeholders as appropriate with the goal of maximizing the flow of information to the community.

Prioritization of Data

Given that the City collects and manages a wide array of data, and that it will take time and resources for the publishing of datasets on the Open Data Portal, the Policy states that each City Council Appointee will establish an internal process to prioritize the posting of data within each Council Appointee’s purview to the Open Data Portal. Amongst other criteria, the prioritization process should take into account interest in particular data sets expressed by the City Council and the community, each Council Appointee’s perspective as to what degree the posting of data would improve transparency and public service delivery, the relative accuracy of datasets, and any technical challenges in the transmittal of data to the Open Data Portal. A final ranking list will be developed based on the evaluation of each dataset against the criteria, subject to modification in the applicable Council Appointee’s discretion to modify the ranking as conditions change.
EVALUATION AND FOLLOW-UP

The policy directs the City Manager to issue an annual report to the City Council regarding the state of the Open Data Portal, the first tentatively scheduled to occur next spring, including the number, quality, and description of datasets and visualizations posted. Staff will also maintain an up-to-date performance dashboard, on the Open Data Portal or other similarly accessible website, to monitor progress toward specified goals around transparency, accessibility, and usability of data.

POLICY ALTERNATIVES

Alternative # 1: Do not adopt an Open Data Policy. The City’s data collection and posting to the Open Data Portal would be guided only by the Administrative Policy.

Pros: As the Administrative Policy is approved and modified at the discretion of the City Manager, the City would have greater flexibility to adjust to the changing needs of the organization and the community.

Cons: There would be no City Council statement of the policy framework to guide the implementation of this initiative, and the City would miss an opportunity to re-assert its commitment to open, effective and honest government.

Reason for not recommending: The recommended City Council Policy provides a clear framework and direction regarding the goals of open data and its posting to the Open Data Portal, while still providing enough implementation flexibility to all City offices and departments.

PUBLIC OUTREACH

This memorandum will be posted on the City’s website for the April 5th, 2016, City Council meeting. In addition, the Information Technology Department, the City Manager’s Office and the Mayor’s Office have engaged in a significant amount of public outreach on this topic through previous public forums. The City will continue to seek opportunities to engage the public on open data through community events, social media campaigns, and press releases.

COST SUMMARY/IMPLICATIONS

While there are no direct cost implications as a result of the recommendation, the amount of work necessary to complete the data inventory, assist the Open Data Architect on posting data to the Open Data Portal, and appropriately maintaining the data once posted will vary from department to department. As staffing is relatively constrained in many areas of the City, the
Administration will closely monitor the efforts and impacts related to open data and recommend any adjustments as necessary.

COORDINATION

This report has been coordinated with the Office of the City Attorney and the City Manager’s Budget Office.

CEQA

Not a Project, File No. PP10-068, General Procedure & Policy Making that involves no changes to the physical environment.

/s/
VIJAY SAMMETA
Chief Information Officer

For questions, please contact Vijay Sammeta, Chief Information Officer, at (408) 535-3566.

Attachment:
Administrative Policy, “Open Data Implementation Policy and Procedures”
PURPOSE

This Open Data Implementation Policy and Procedures (alternatively, the "Policy") implements and is guided by the City Council Open Data Policy 0-43, adopted by the City Council on April 5, 2016.

DEFINITIONS

**Common Data Standards:** Any set of data collection standards designed to promote interoperability across agencies and organizations and facilitate the efficient exchange and use of information collected in different systems.¹

**Data:** Structured information.

**Dataset:** A collection of data presented in tabular or non-tabular form.

**Data Source:** A system, database, or other information source that contains and reports raw data.

**Information Lifecycle:** The stages through which information passes, typically characterized as creation or collection, processing, dissemination, use, storage, and disposition.

**Interoperability:** The ability of different information technology systems, software and data applications to communicate and exchange data, and use the information that has been exchanged.

**Metadata:** Data that describes a dataset. Metadata summarizes basic information about a dataset, such as the date range covered by a dataset, a description of the dataset, the manager or steward of the dataset, etc.

**Open Data:** Data made open and freely available to the public to be republished, manipulated, or used in any other way without restriction.

**Open Data Portal:** A single web portal maintained by or on behalf of the City that will be the repository and public access point for the City's Open Data and will include features that facilitate comments and questions from the public. The internet site is currently located at http://data.sanjoseca.gov.

¹ The federal government has issued guidance on common data standards, which may serve as a guide for the City of San José as appropriate. See OMB Circular A-110 "Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities." See also Project Open Data at www.project-open-data.cio.gov/open-standards/
Open Data Implementation Policy and Procedures

POLICY

It is the policy of the City that the data it collects and generates will, subject to the limitations of this Policy, be open by default. Over time and to the extent practicable, City Departments, with support from the Information Technology Department, will publish all appropriate datasets and associated metadata controlled by that department on the City’s Open Data Portal, except where the posting of such data would be in violation of the Open Data Standards set forth below. Every reasonable effort shall be made to frequently update datasets on the Open Data Portal to the extent that the Department regularly maintains or updates such data.

New information systems should, to the extent practicable, have the ability to report data in a manner consistent with the open data standards outlined in the Open Data Standards section below. When updating existing legacy information technology systems, it is the expectation of the City Manager that Departments shall make reasonable efforts to ensure that such systems have the ability to report data in a way that meets the Open Data Standards of this Policy.

To facilitate the collection, opening, and analysis of additional data and information assets, to the extent practicable, the City will endeavor to acquire rights to the data generated by the City’s vendor or other third parties where the information collected has the potential to inform operational decision making and public policy. This may include, but is not limited to, provisions within agreements with third parties to ensure the City retains ownership of its data and the ability to make such data public, and provisions to acquire data owned and collected by vendors and contractors related to services provided to or on behalf of the City.

In an effort to maximize the impact of this Policy, the City will endeavor to engage and share datasets with other local, regional, and national government entities, non-profit groups, businesses and community interest groups and stakeholders as appropriate with the goal of maximizing the flow of information to the community.

Scope

This Policy applies to all City Departments falling under the authority of the City Manager and is applicable to any data created or used by such departments.

GOVERNANCE AND OVERSIGHT

Roles and Responsibilities

To facilitate the implementation of this Policy, the City Manager directs the responsibilities identified below be carried out by the identified department or position:
The Open Data Portal will be administered by the Information Technology Department (ITD). ITD will work with Departments to facilitate upgrades to legacy systems and onboarding of new systems meeting open data standards as defined in the Open Data Standards section below.

The Open Data Architect (ODA), located in the IT Department, will act as the frontline manager for the Open Data Portal. This position will work with Departments to identify data sources that impact the San José community and connect those sources of information with the City’s Open Data Portal. The ODA will oversee system integration between Departmental data sources and the Open Data Portal to facilitate availability of current and accurate published data.

The Data Analytics Team (DAT) will provide general support for data-related initiatives in the City. DAT will oversee the Data Inventory Initiative and assist in identifying datasets for publication. DAT will take on other duties related to Open Data as assigned by the City Manager.

System Administrators administer databases and information systems throughout the City. System Administrators shall be responsible for working with the Open Data Architect to develop and facilitate connections between the Open Data Portal and the systems or databases within their respective Departments. System Administrators will work with Data Coordinators and the Open Data Architect to ensure data made available on the Open Data Portal is refreshed in a timely fashion based on the frequency of updates to the data in the system or database.

Each Department Director shall designate one staff member to serve as Data Coordinator. Data Coordinators are responsible for liaising with the Data Analytics Team, IT and the Open Data Architect on all matters related to Open Data and data analytics, in general.

The City Manager may revise these roles and responsibilities or assign additional roles and responsibilities related to the implementation of this Policy as needed.

Open Data Portal

A single web portal shall be maintained by or on behalf of the City, administered by the IT Department, and shall act as a central data hub for all open data published by and on behalf of the City. Data made accessible on the Open Data Portal shall meet open data standards as defined in the Open Data Standards section below.
OPEN DATA STANDARDS

To promote government efficiency and the social good that can be gained from opening government data to the public, the default state of new and updated information resources should, to the extent practicable, be open and machine readable. City information should be managed as an asset throughout its lifecycle to promote interoperability and openness, and, wherever possible, subject to the limitations of this Policy, to ensure that data is released to the public in ways that make the data easy to find, accessible, and usable by the public. This includes promoting the graphic visualization of such data through the Open Data Portal and through other data visualization tools used by the City. This Policy excludes the posting of data to the Open Data Portal where the public release of such data would be in violation of the law, including laws governing privacy or privileged information, or would violate contractual or proprietary rights or would jeopardize the security of individuals or property.

When designing new information collection and creation efforts, Departments should support downstream interoperability between information systems and dissemination of information to the public, as appropriate, without the need for retrofitting. This includes consideration and consultation of key target audiences for the information when determining format and frequency of update, consistent formatting of geospatial data, and other information management decisions. Specifically, to the extent practicable, Departments will strive to incorporate the following requirements into future information collection and creation efforts:

Use machine-readable and open formats: Departments should use machine-readable and open formats for information as it is collected or created. While information should be collected electronically by default, machine-readable and open formats must also be used in conjunction with electronic and telephone or paper-based information collection efforts to promote public accessibility. Departments should prioritize the use of open formats that are non-proprietary, publicly available, and that place no restrictions upon their use.

Use data standards: Where common data standards are defined within and by the City, Departments should use such common data standards in the collection and creation of information to promote data interoperability and openness, regardless of format or purpose. This applies to all data formats used by the City, including geospatial data.

Ensure information stewardship through the use of open licenses: Departments should apply open licenses to information as it is collected or created to ensure that as data is made public, there are no restrictions on copying, publishing, distributing, transmitting, adapting, or otherwise using the information for non-commercial or commercial purposes. When information is acquired or accessed by a Department through performance of an agreement, the agreement’s provisions should reflect these objectives while recognizing that contractors may have proprietary interests in such information, and that protection of such information may be necessary to encourage qualified contractors to participate in and apply innovative concepts to the City’s programs.

Ensure frequent updates: Departments should work with the Information Technology Department to provide updates to data hosted on the Open Data Portal, to the extent the
Department regularly maintains or updates such data. Data hosted on the Open Data Portal should be updated with similar frequency as the source dataset from which it originates.

**Metadata requirements:** Departments should provide the following metadata for all datasets hosted on the Open Data Portal:

- Name of primary department responsible for maintaining the dataset
- Name of the dataset owner in the Department where the dataset originates
- Frequency of data refresh
- Date and time of last refresh
- Clear data labels and explanations for each data field
- Additional information as requested by the City Manager

Data posted to the Open Data Portal will meet the following criteria:

- Readable, indexable, and electronically searchable by commonly used Internet search applications
- Platform independent and machine readable
- Available to the public free of charge
- Retains the data definitions and structure present when the data was compiled, if applicable

**Data requests:** The City Manager's Office and Information Technology Department will design and implement a process for receiving requests for open data via the Open Data Portal, responding to such requests, and tracking such requests from the public.

**TECHNOLOGY STANDARDS**

New information systems shall, to the extent practicable, have the ability to report data in a manner consistent with the open data standards outlined in the Open Data Standards section above. When updating existing legacy systems, Departments shall ensure that such systems have the ability to report data in a way that meets the open data standards as outlined in the Open Data Standards section of this Policy, unless to do so would be impracticable, would result in extraordinary cost, loss of operational efficiency, or would otherwise significantly impede normal business operations.

**PROCUREMENT INCENTIVES FOR THE ACQUISITION OF NEW SYSTEMS**

On a case by case basis, to facilitate the acquisition of information systems that meet the Open Data Standards of this Policy, the evaluation criteria developed for procuring such system will incorporate additional consideration for meeting these standards.

**LEGAL TERMS FOR PUBLIC USE OF OPEN DATA**

Data made available on the Open Data Portal is provided only to promote the general welfare. The City is not assuming, nor is it imposing on its officers or employees an obligation for breach
of which it is liable in money damages to any person who claims that such breach caused injury. Data on the Open Data Portal is provided on an “as is” basis, and for informational purposes only. The City reserves the right to discontinue availability of content on the Open Data Portal at any time and for any reason.

The City makes no warranty, representation or guaranty of any type as to the content, accuracy, timeliness, completeness or fitness for any particular purpose or use of any data provided on such portal; nor shall any such warranty be implied, including, without limitation, the implied warranties of merchantability and fitness for a particular purpose. The City assumes no liability for (i) any errors, omissions or inaccuracies in the data provided on the Open Data Portal regardless of how caused; or (ii) any decision made or action taken or not taken by anyone using or relying upon such data; or (iii) any virus or other damage to any computer that might occur during or as a result of accessing the Open Data Portal or the Data provided on the Open Data Portal.

The City Manager will develop terms of use for the Open Data Portal and all data contained on such portal subject to the legal review and approval of the City Attorney.

IMPLEMENTATION

To facilitate the strategic implementation of this policy, Departments shall participate in all associated processes including, but not limited to, the processes identified below. The Chief Information Officer, Open Data Architect, and Data Analytics Team may identify additional processes as necessary to facilitate full implementation of this Policy.

Data Inventory Process

All City Departments shall participate in the City-wide data inventory process, which includes the development of a data source catalogue and dataset catalogue for each Department. Departmental Data Coordinators shall facilitate the inventory process within their respective Departments at the direction of the City Manager and Chief Information Officer. The City Manager and Chief Information Officer shall establish a plan to regularly update Departmental data inventories to reflect the current inventory of the City’s information systems and data and to ensure compliance under California law.

Data source catalogues shall include a comprehensive list of all information technology systems used and maintained by a Department, including those that are not subject to inventory under California law. Dataset catalogues shall include datasets associated with such systems and all datasets unassociated with an information technology system including, but not limited to, spreadsheets, GIS shape files, and text files which meet the definition of “dataset” as specified by the City Manager’s Office.

The City Manager’s Office will assist City Departments in developing and maintaining a citywide catalog of “enterprise systems” as defined in the California Public Records Act (Government Code Section 6270.5). As required under Government Code Section 6270.5, and subject of its limitations, a citywide catalog of the City’s enterprise systems will be posted publicly on the
City's website or Open Data Portal, which will include, at minimum, the following metadata fields for the identified data systems as specified in Government Code Section 6270.5:

- Current system vendor
- Current system product
- Brief statement of purpose
- General description of categories or types of data
- Department serving as the system’s primary custodian
- Frequency of data collected in the system
- Frequency data is updated in the system

**Prioritization Process**

Given that the City collects and manages a wide array of data, and that it will take time and resources for the publishing of datasets on the Open Data Portal, the City Manager will establish an internal process to prioritize the posting of data. Amongst other criteria, the prioritization process will take into account interest in particular data sets expressed by the City Council and the community, the Departments' perspective as to what degree the posting of data would improve transparency, public service delivery, the relative accuracy of datasets, and any technical challenges in the transmittal of data to the Open Data Portal. A final ranking list will be developed based on the evaluation of each dataset against the criteria, subject to modification as conditions change.

**Status Updates on Open Data Posting**

The City Manager will issue an annual report to the City Council regarding the state of the Open Data Portal, including number, quality, and description of datasets and visualizations posted. The City Manager’s Office will maintain an up-to-date performance dashboard, on the Open Data Portal or other similarly accessible website, to monitor progress toward specified goals around transparency, accessibility, and usability of data.

**Legal Review**

The City Manager's Office and Departments will work collaboratively with the City Attorney's Office prior to posting data on the Open Data Portal in order to determine whether there are legal limitations with the posting of such data.

**Data Integration**

The Information Technology Department shall work with Data Coordinators to determine the best process for transferring data to the open data portal. Depending on system specifications and limitations, this may include:

- Flat file extracts
- Development of a web service
- Updates from a webpage
- Other means as appropriate
The Information Technology Department will work with Departments to select the most appropriate method for transferring data to the open data portal.

**Data Release and Validation**

Each Department, through its Data Coordinator and other staff as necessary, shall be responsible for (1) the timely release of its data on the Open Data Portal in accordance with the prioritization process as defined above; (2) the validation and accuracy of its data hosted on the Open Data Portal; and (3) that its data hosted on the Open Data Portal complies with all provisions of this Policy.

**Timely Update of Data**

Each Department, through its Data Coordinator and other staff as necessary, shall be responsible for updating data hosted on the Open Data Portal to the extent the Department regularly maintains or updates such data, where applicable, and shall periodically review the content on the Open Data Portal to verify that it is current and consistent with the source dataset.