CITY OF ARLINGTON DATA SERVICE STANDARD

The Data Service Standard sets out 10 points to help the City of Arlington to build and deliver transparent, reliable, better government data about services and products for the people who live and do business in Arlington.

The City of Arlington has adopted this Data Service Standard to provide a means and mechanism to ensure the appropriate public provision of City data sets and data services. This framework outlines how city data should be stored or exchanged for the consistent collection and interoperability of that data across various systems, sources and users. This Data Service Standard, in conjunction with the Open Data Policy, shall apply to all Departments of the City of Arlington and pertains to public data chosen for open data release or the creation of data services.

In acknowledgement that technology changes rapidly, the City of Arlington's Data Service Standard should be reviewed annually for revisions and/or additions that will continue to position the City as a leader on the issues of openness, efficiency, collaboration and information technology best practices.

1. Multi-Disciplinary Team Overview

The Data Governance Group, as outlined in the Open Data Policy, is responsible for creating, operating, and maintaining the Data Service Standard in an ongoing manner to ensure quality data services for public and private use.

Why it's important

> *The Data Governance Group should be made up of individuals with a diverse mix of expertise and skills to serves as a resource for the holistic approach to data service.*

What it means

Data Governance Group members and City employees producing analytics should:

- Be a multidisciplinary review team that includes technical and non-technical experts to ensure that the service is useful to a variety of users
  - o Non-technical experts could include specialist expertise such as legal, data ethics, policy, procurement, communications, or industry specific analysis.
- Build data services to provide information that can be used to support evidence-based decision making

- Ensure that new data services integrate with exiting systems to maximize data availability and useability.

2. Publish Data with a Purpose

The Data Governance Group will review proposed datasets to ensure the data and/or data service contributes to advancing the City of Arlington's priorities and meets community needs.

Why it's important

This policy prioritizes the city's effort to create data and analytics services to have them most impact for both the City and the community at large. Each data product should have a clear purpose and be developed to meet the users needs.

What it means

Data Governance Group members and City employees producing analytics should:

- Publicly document the purpose of the service and potential applications
- Understand how the service contributes to city priorities and community needs and explain how the data service can inform policy makers
- Show how data services are linked to other City initiatives, plans, strategies, and City Council priorities.

3. Understand Users and Their Needs

The Data Governance Group must focus on the user and the problem they may be trying to solve through data services. The data service development process should aim to understand the direct users' and the end users' needs and how end users may use the data they are provided.

Why it's important

The context in which a data service is developed is critical to achieving the users' needs in a simple and cost-effective way. Data services that are focused on the problem that a user may be trying to solve may lead to other needs or solutions, so the Data Governance Group should be open to new data services that emerge out of the data service development process.

What it means

Data Governance Group members and City employees producing analytics should:

- Focus on actions or tasks that helps a user resolve an issue. Task examples include Applying for a permit or pet license, Appeal or Pay for citations, Submit citizen concerns, Request open records, or Locating hospitals or library locations, among many others
- Use existing data that is available such as surveys and web analytics to enhance the understanding of a problem
- Regularly review and analyze Open Records Requests and Action Center calls to increase and improve data services that meet the current needs of citizens and improve

efficiency for the City

4. **Ensure Users Succeed the First Time**

A published data service should be simple enough to navigate so that a user can succeed on their first attempt without the need of assistance. The Data Governance Group will conduct usability testing before and after the service goes live and make improvements accordingly.

> ***Why it's important***
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> *It is important for it to be as easy to use and intuitive to the user, no matter their skill level or accessibility needs. If a user experiences issues, they should be able to easily and remotely access assistance with appropriate staff to ensure that the data needs are still met. Additionally, when users have an easy and clear experience with data services, it reinforces confidence and trust between the user and the City.*

> ***What it means***
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> Data Governance Group members and City employees producing analytics should:

- Include a brief description that explains the data service, who it is targeted for and how to use it
- Include contact information so users can get help if they need it
- Thoroughly test data services before launch and during a beta period to make sure most users will succeed the first time they try to use it
- Regularly test data services and be responsive to public feedback to ensure the data service continues to serve the original purpose of the service
- Where applicable, use analytics to identify where in the process a user did not complete a task using a data service, and working to improve the service in a timely manner
- Report to the Data Governance Group when failures occur to proactively share lessons that may affect other data services.
- Make data services easier to find on the City's website by including key words that a user may search for in the search bar or by creating a short url.

5. **Make Information Accessible by Everyone**

All published data sets and data services should be simple, intuitive and comprehensible for the general public. The Data Officer and the Data Governance Group will be responsible for testing to verify these criteria are met. This includes making sure services are accessible to all users regardless of their abilities or type of device.

> ***Why it's important***
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> *If data is made available to the public, it should work easily and without exception. If information is inconsistent or too difficult to use, it will not be of use for internal or external benefit. Making things more difficult than they need to be will further reduce trust and confidence in the City – "If this isn't accurate, how can I trust that any information from the City is accurate?"*

Simple tools can be the easiest to develop and communicate to the public. If things must remain complicated, such as abbreviated fields or consistent technical terms, these should be defined in an easy-to-find supplemental document or webpage.

What it means

Data Governance Group members and City employees producing analytics should:

- Make sure data services are easy to use, and provide easy-to-find user guides for data sets that may not be intuitive to the user
- Test data sets regularly with people who may actually use the service in the future to ensure that there are not gaps in the information available to a new user
- Test all potential uses of the data to ensure that all forms and uses of data services are functional
- Ensure that data services are able to be used on a variety of devices and software systems to maximize useability
- Develop the Open Data Portal and other data services to be consistent with both the City of Arlington website and the Open Data Portal pages hosted by Esri
- Where possible, data should be collected and released for machine-readable, open formats based on common data standards that allow for automated processing. The Data Governance Group should identify way to make existing data services accessible to all users

6. Inspire Creative Use of Data with the Local Data Community

The purpose of providing public data is to allow members of the public to digest the information and use it to be more engaged in policy development through the use of data. The City should regularly demonstrate the types of data that are available and encourage users to review, analyze, and synthesize data for problem-solving and decision-making. Together with residents, developers, business owners, and research professionals, City data services should foster an active data community that maximizes the potential for data-informed products and services.

Why it's important

The City strives to be a leader in government transparency. Although the City provides numerous data services through the Open Data Portal and other sources, much of the general public does not know what is available or how to access it.

Similarly, developers and analysts who know they can access a variety of City data can use the existing data to generate new insights and service improvements to support internal and external services. The expanding use of City data is valuable for a variety of uses, including economic development efforts to create more high-wage jobs and additional economic growth.

What it means

Data Governance Group members and City employees producing analytics should:

- Build a resource on the Open Data Portal that showcases ways in which existing City data has been used to improve services or processes of the City to increase the quality of life for residents or encourage economic growth
- Actively work with the research community to develop additional data sources that would benefit internal and external research and services
- Regularly conduct outreach through the Office of Communications with the general public and targeted industries to encourage creative use of City datasets
- Enable the discovery of datasets through increased search engine optimization and clear data descriptions
- Encourage interaction with data services by inviting the public to provide suggestions about what data should be a priority for publication, give feedback on the existing data, and provide general input
- Explore ways to enhance and encourage cooperation with other governmental agencies, educational institutions, and other organizations to fill data gaps to meet City priorities and community needs

7. Make the Service Consistent and Simple to Use

Data made available by the City should be simple and intuitive for all users, no matter their skill level or accessibility needs. Data should also be consistent to ensure that users are receiving the same quality of data for each data set. Specialized terms and acronyms should be spelled out for users as a part of the data set information.

Why it's important

If data is made available to the public, it should work easily and without exception. If information is inconsistent or too difficult to use, it will not be of use for internal or external benefit. Making things more difficult than they need to be could reduce trust in government – If this isn't accurate, how can I trust that any information from the City is accurate?"

Simple tools can be the easiest to develop and communicate to the public. If things must remain complicated, such as abbreviated field names, or consistent technical terms, these should be defined in an easy-to-find supplemental document or webpage.

What it means

Data Governance Group members and City employees producing analytics should:

- Collect and use data from a consistent, reliable source. When possible, this data should be collected locally and consistently from year to year so that the data is comparable over time.
- Use the most recent 5-Year Estimate of the Census Bureau American Community Survey for demographic data if local demographic data is not available.
- Make sure data services are easy to use, and provide easy-to-find user guides for data sets that may not be intuitive to the user
- Test data sets regularly with people who may actually use the service in the future to ensure that there are not gaps in the information available to a new user

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- Test all potential uses of the data to ensure that all forms and uses of data services are functional
- Ensure that data services are able to be used on a variety of devices and software systems to maximize useability
- Develop the Open Data Portal and other data services, such as the KPI dashboard, to be consistent with both the City of Arlington website and the Open Data Portal pages hosted by Esri

8. **Be Transparent and Accountable**

Sources of data should be made available to users, including how it is processed and presented, and the limitations of the data. To maintain accountability, the Data Governance Group should review data quarterly and be responsive to feedback of unreliable or inaccurate data sets.

Why it's important

The City must be fully transparent about its data and the ways it is acquired and used. This, along with maintaining the accuracy of published data services, is important because it allows data to be available to all equally. City data services must proactively share and promote the value of public data to improve and encourage increased economic activity, development, and civic engagement.

What it means

Data Governance Group members and City employees producing analytics should:

- Use clear and plain language to tell users how and why data is collected and shared
- Metadata for all data services should, at minimum, include name and contact information of department responsible for maintaining a dataset, frequency of data updates with date and time of the most recent update, and clear labels and definitions of included data
- Where applicable, metadata should also include authorizing legislation related to collecting or publishing data
- Strive to improve the quality of the data in accordance with user needs
- Make sure data is used in a way that respects privacy, security and cultural awareness
- Find ways to collect and share data across City departments to reduce the burden for users and improve their overall experience
- Publish and maintain the City's data inventory list.

9. **Choose the Right Tools and Technology for User-Centered Services**

Given the limited resources for the City, it is imperative to choose the right tools and technology for presenting data to the public with the aim of preventing a need to change direction in the future.

Why it's important

Choosing the right tools and technology allows users to accurately track changes to the data over time without gaps in historic data. Sometimes this may mean appealing to City leadership

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for investment in the proper tools instead of "making it work," which could result in inaccurate or incomplete data for internal and external use.

What it means

Data Governance Group members and City employees producing analytics should:

- Identify and use open standards and common platforms
- Favor open tools that are accessible and have strong developer community support
- Use appropriate tools and technologies to create and operate a good service in a cost-effective way
- Optimize data quality and timeliness by using online data collection methods or automating data collection, such as e-filing, where possible
- Take a thoughtful approach to managing legacy technology that a service integrates with or depends on
- Ensure city data is kept available and searchable online according to the City's document retention schedule

10. Operate a Reliable Service

Data provided by the City should be available any time, and users should be able to depend on the data sets that are available. Operating a reliable service also means filling data gaps and improving quality over time.

Why it's important

Users expect to be able to use online services at any time, and expect it to be accurate, complete and consistent. Many users have limited choice about how and when they access analytics services, and if a service is unavailable or slow, it cannot help the user in their time of need.

What it means

Data Governance Group members and City employees producing analytics should:

- Review the data for quality, proper use of unique identifiers, completeness, and correct documentation (metadata) before uploading to the Open Data Portal and revisit for accuracy quarterly
- Upon being notified that a data service is inaccurate, misleading, or contains protect or private information, the Data Governance Team should immediately remove the data from the Open Data Portal or other location, correct the issue or error and make a public note when data has been modified
- Have mechanisms in place to let users know when a data service may have required down time due to maintenance or other issues and keep them informed about the status of the unplanned service interruptions
- Follow security and privacy guidelines as established in the City's Information Security Standard and Information Security Policy.
- Ensure that it is easy for users to report inoperability of data services and respond as quickly as possible to review the concern and act appropriately, according to this Data Service Standard

Next Steps

This Data Service Standard should be consulted when there are

- Updates to services and products
- New services and products in the testing environment
- Older data that is being used in an analytic function for the first time

Contributing to the Standard

Changes to this Data Service Standard can and should be made as new information is obtained, errors need to be corrected, or users provide recommendations to the Data Governance Group. Any and all feedback to this Data Service Standard should be submitted to the Open Data Manager email at opendatamanager@arlingtontx.gov.