GIS STRATEGIC PLAN (2018-2020)

GEOGRAPHIC INFORMATION SYSTEMS (GIS) DIVISION
Mono County Information Technology

Geographic Information Systems (GIS) have become a cornerstone of the technology services provided by Mono County Information Technology over the past 15 years. As mobility increases in the workforce, location awareness and a deeper understanding of geography is becoming paramount for everyday decision making across virtually every business line of our organization. The team that comprises the GIS Division at Mono County is committed to working collaboratively to deliver leading edge technology to internal staff, and the constituents we support. The following GIS Strategic Plan outlines the goals and methodology we will follow in this pursuit.

OUR MISSION

To foster an understanding of geography and make the associated data a key component of decision making by implementing GIS as a core business system in the organization which increases collaboration, transparency, and provides for an exceptional user experience.

STRUCTURE OF THE PLAN

The 2018-2020 Mono County GIS Strategic Plan is organized into three high-level Initiatives. Under each Initiative are a series of Goals, which are supported by Key Strategies and Tactics. Each of these main focus areas has associated Results, in addition to each Initiative a set of Key Outcomes.

The graphic to the right describes the visual layout of the plan which proceeds on the following pages.
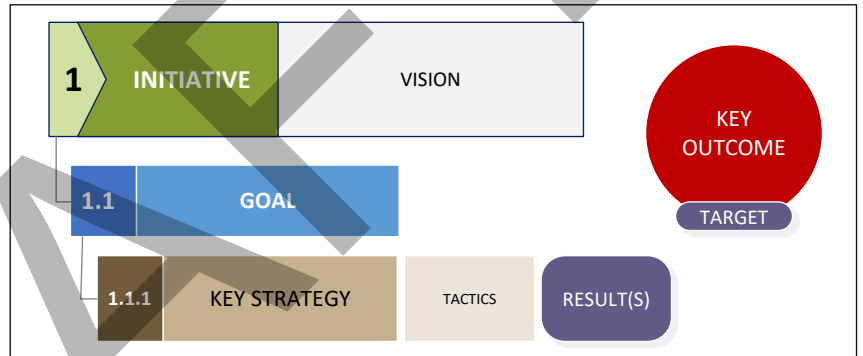
INITIATIVES

This Strategic Plan focuses on three main Initiatives and associated Visions, as described below:

1	Usability & Access	Provide exceptional user experiences by delivering well-designed, modern, and fluid resources across various devices and locations.
2	Data Quality & Availability	Deliver consistent and accurate data to end users and constituents while continually working to improve quality and expand the reach of our datasets.
3	Engaged & Empowered Users	Cultivate, engage, and empower our users and constituents such that they can play a collaborative role in the development and maintenance of our datasets and improve the way we serve our communities.

These Initiatives are all ultimately aimed at delivering high quality data to our users through a variety of methods – namely focused applications or direct access to the data itself.

Our general approach is to leverage web-based technologies to facilitate near-real-time access to information, while simultaneously reducing or eliminating the impacts on GIS staff to produce such information.

Carrying out these Initiatives positions staff within our organization to make highly informed decisions based on high-quality information. It also positions Mono County in such a way that parties interested in conducting business, relocating, providing service, or otherwise engaging with us an organization have the best information available, with limited hassle to access it.

OUTCOMES AND MEASURES

Each of the Initiatives covered on the following pages features a series of immediate Results, as well as overall Outcomes which will be realized if efforts are successful in completing the work efforts.

1	**Usability & Access**	Provide exceptional user experiences by delivering well-designed, modern, and fluid resources across various devices and locations.

1.1 Improve security by implementing consistent and pervasive authentication experiences.

1.1.1	Deploy a solution which provides a unique login for each user or entity.	Integrate existing Active Directory stores and other identity stores using industry standard products.	Implement a unified identity store across all applications and services	Audit existing security and access and minimize shared accounts and privileges.	All users provided a 'Single Sign On' experience
1.1.2	Effectively protect applications and datasets.	Implement and integrate industry standard multi-factor authentication tools.	Ensure proper security settings and permissions for all applications and datasets.	Provide a seamless & secure access experience for Public Safety personnel on mobile devices.	A highly secure & highly dependable application environment

1.2 Develop & deploy web and mobile apps that are focused, easy to use, current, and well-presented.

1.2.1	Emphasize modern digital mapping, while simultaneously minimizing printed products.	Deploy requested maps as web services with beautiful cartography that meets user needs.	Leverage automation tools to deliver commonly accessed maps in an on-demand manner.	Implement on-demand print/output tools for all web apps enabling dynamic PDF and print outputs.	Increased portability and access to information. Reduced paper.
1.2.2	Provide tools and resources that increase citizen and staff engagement and decrease demand on staff.	Provide a balanced application portfolio which addresses wide ranging user needs.	Deploy easy to use web applications that are 'mobile first' and meet the needs of 90% of users.	Design tools and applications which help our staff collect critical information from constituents.	Focused applications which support informed and engaged citizens.

OUTCOMES & MEASURES

All users will have unique and pervasive credentials that leverages SSO & can be integrated with MFA solutions.	A web portal integrated with agency websites where users can find everything they need in 3 Clicks or Less.	Use digital projection equipment and interactive maps to realize a 90% reduction in paper and printed maps.	Comprehensive data catalog where 90% of core agency datasets can be downloaded or directly connected to.
December, 2018	December, 2018	December, 2020	December, 2020

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2 — Data Quality & Availability

Deliver consistent and accurate data to end users and constituents while continually working to improve quality and expand the reach of our datasets.

2.1 Provide useful, accurate, accessible, and consistently maintained data to users and constituents.

2.1.1 Maintain data in its native and authoritative system.	Establish and adhere to guidelines for where data is to be stored. Consolidate data as needed.	Provide direct access to data using web services and applications whenever possible.	Implement One-Way replication where necessary and appropriate with automated tasks.	High availability of authoritative data via standardized interfaces
2.1.2 Ensure data quality in all business systems through regular updates, and seamless integration.	Leverage SMEs or technical leads in departments for data quality and consistency review.	Update data in siloed business systems from authoritative sources on a regular basis.	Develop and maintain current and descriptive metadata for all data products.	Consistent and accurate data exists in all business systems
2.1.3 Facilitate clean-up of core data sets.	Clean up geometry and attributes in the Parcel Fabric and other core data sets.	Perform analysis nightly to identify data quality issues.	Utilize interns where possible for data review and update efforts.	Accurate data sets in an established maintenance program
2.1.4 Minimize future errors by implementing quality control measures.	Develop solid SOPs, workflows, and business processes to ensure consistency in editing.	Utilize software functions to better manage edit sessions and ensure data quality.	Implement Linear Referencing and Associated Fabric Classes for relevant data sets.	Consistent, standard, and fully developed data meeting best practices

2.2 Leverage high quality data for informed, analytic-based decision making.

2.2.1 Deploy customer-facing applications and web resources allowing users to quickly and clearly interact with data.	Develop an understanding of customer needs for effective design.	Leverage dashboards, modules, and standardized interfaces for users to visualize & analyze.	Utilize COTS and OOB technologies that are matched with user skill level and needs.	Modular, reusable, and effective tools inform decisions and breakdown silos.
2.1.2 Improve access to data by implementing data portals, enterprise-level search tools, and other externally-facing transparency tools.	Consolidate geospatial data, maps, and applications in one easy-to-use location.	Integrate data and associated information into the County & Town's websites.	Deploy an enterprise search tool which allows customers to easily and quickly find data & information.	Easy access to authoritative datasets and information

OUTCOMES & MEASURES

- Dashboards deployed for operations within the Public Safety and Public Works departments. — December, 2018
- Enterprise Search functionality allowing constituents to find any information in 3 Clicks or Less — December, 2019
- An implemented Quality Control system resulting in 90% error reduction identified during nightly update scripts. — December, 2020
- In all of the departments using GIS, a SME is maintaining departmental datasets. — December, 2020

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3 | **Engaged and Empowered Users** | Cultivate, engage, and empower our users and constituents such that they can play a collaborative role in the development and maintenance of our datasets and improve the way we serve our communities.

3.1 **Integrate GIS as a key business system which assists with process improvement and operational efficiency.**

3.1.1 Leverage "Tech Leads" as liaisons who engage for effective utilization of GIS within each department.	Effectively engage departments to better understand business processes and user needs.	Help SMEs develop applications which improve citizen engagement and outreach.	Foster the use of emerging technologies and opportunities that may improve business operations.	Empowered users who deliver appropriate and focused products
3.1.2 Eliminate barriers-to-entry for users such that GIS is more accessible and easier to use.	Maintain the GIS User Group for disseminating information and seeking feedback.	Produce written and video documentation and tutorials for all critical systems and key processes.	Instill a level of awareness around GIS capacity as part of employee on-boarding and training.	Extensive adoption of GIS across the organizations and among the publc

3.2 **Set a high-bar and lead by example where collaboration and engagement drive our work.**

3.2.1 Collaborate and coordinate with other agencies and key stakeholders.	Participate in Regional User Group and similar meetings to share information and resources.	Make tools, services, and resources available to partner agencies.	Encourage partner agencies and stakeholders to adopt open standards for easy collaboration.	Ready access to our data by others – and their data by us
3.2.2 Provide tools and resources that increase citizen and staff engagement and decrease staff demand.	Provide a balanced application portfolio which addresses wide ranging user needs.	Deploy easy to use web applications that are 'mobile first' and meet the needs of 90% of users.	Design tools and applications which help our staff collect critical information from constituents.	Engaged and informed citizens supported by simple applications

OUTCOMES & MEASURES

At least one Citizen Engagement application deployed for each agency
December, 2018

Fully leveraged web GIS environment where all services are available on all devices from anywhere at any time
December, 2019

SMEs in each department take responsibility for their data and online content
December, 2020