Agenda Item C.3
DISCUSSION/ACTION ITEM
Meeting Date: July 16, 2019

TO: Mayor and Councilmembers

FROM: Michelle Greene, City Manager

CONTACT: Todd Mitchell, HR/Risk Manager

SUBJECT: FY 2019-20 to FY 2020-21 Information Technology Strategic Plan

RECOMMENDATION:

Receive and review the proposed FY 2019-20 to FY 2020-21 Information Technology Strategic Plan (ITSP), provide staff feedback as necessary.

BACKGROUND:

On February 16, 2016, City Council received results of an organizational assessment of the City's Public Works Department conducted by the consulting firm Baker Tilly International (Baker Tilly). In addition to other findings, the study recommended that the City conduct a technology evaluation covering all departments and develop a strategic plan to ensure that appropriate technology applications are in place and managed effectively to support operations.

As part of implementing the Baker Tilly recommendations, staff prepared a Request for Proposals (RFP) that was published on October 27, 2016. The RFP sought a qualified consultant to conduct a technology assessment of current resources and to develop an IT Strategic Plan to improve the City's business applications and more effectively support the City's departmental technology needs.

On February 7, 2017, City Council authorized the City Manager to execute a Professional Services Agreement with ThirdWave Corporation (ThirdWave), to conduct an independent technology assessment and develop a Strategic Plan that addresses the City's information technology needs, in an amount not to exceed $75,000.

On September 18, 2018, City Council authorized the City Manager to execute a Professional Services Agreement with Citygate Associates to conduct an independent operational and organizational assessment of the City Manager's Office and Neighborhood Services and Public Safety Department. As part of the operational and organizational assessment of the City Manager's Office, Citygate assessed the City's Information Technology division, peer reviewed the City's draft FY 2019-20 to FY 2020-

21 Information Technology Strategic Plan, and provided recommendations which are included in the ITSP.

DISCUSSION:

ThirdWave Corporation was awarded this contract due to: 1) their responsiveness to the RFP; 2) the qualifications and experience of their project team; 3) their extensive record conducting similar analyses for government agencies in California; 4) the methodology and approach they planned to apply to this project; and 5) the proposed timeline for project completion.

Methodology

ThirdWave's methodology included a Rapid Workflow® needs assessment that closely examined the City's existing business processes to recommend technology applications that increased efficiencies or improved service levels. The focus on evaluating business processes was deemed extremely beneficial, as it would identify and eliminate any duplication of work among staff and maximize the efficient use of technologies for completion of work. This approach was similar to the work started by Baker Tilly with the added benefit of extending work flow reviews across the organization. By focusing on critical functions such as financial transactions (accounts payable and payroll), permitting, and project management, this inter-departmental approach would facilitate integration in shared processes.

The project approach utilized by ThirdWave employed a comprehensive and structured "waterfall" best practice methodology. The project collected and synthesized various types of information, including:

- Data on existing and planned Information Systems.
- Focus Groups with IT staff and management.
- Management Interviews with the City's leadership team.
- Online Staff Survey.
- Fifteen (15) Rapid Workflow® business process analysis workshops addressing mission critical business functions for City Departments.

Findings

A detailed presentation of the information gathered is included in Attachment 2: ITSP Findings & Recommendations. The project identified hundreds of specific challenges, however, the following items list the top five challenges facing the City from an Information Technology perspective.

1. The existing City IT support model is not responsive to the needs of the City.
2. Several aging infrastructure/systems need upgrading or replacing.
3. The City lacks numerous departmental/enterprise application software.
4. There is a lack of emphasis on formal role-based staff training on technologies.
5. The City has a visually attractive Website, but it lacks an E-Government focus.

To address these challenges the project identified fifty-six (56) specific actionable and recommended technology initiatives.

Recommendations

The items below provide a summary of the top organizational and technical recommendations.

1. Adopt a minimally staffed internal IT Team
2. Upgrade or replace aging infrastructure
3. Upgrade or replace aging department/enterprise software with strategic applications
4. Adopt staff training as a prerequisite for the deployment of Information Technologies
5. Focus City Website on E-Government, Online Web Service Delivery

ThirdWave prepared the ITSP Implementation Roadmap ("Roadmap") (Attachment 3) which addresses the acquisition and implementation of strategic business technologies and the employment of IT staff support in a phased manner. The Roadmap is a management tool that identifies prioritized initiatives that should be carried out and provides gross investment estimates for these initiatives.

ThirdWave's Roadmap distilled the initial list of fifty-six (56) specific actionable items into twenty (20) prioritized technology initiatives. The City's ITSP includes the majority of these 20 technology initiatives, as well as ThirdWave's recommended operational and/or policy solutions related to the use, operation and management of the City's IT portfolio. There were three (3) technology initiatives specified in the Roadmap that were not included in the ITSP for the following reasons.

1. City Council Request Tracking – There is already a tracking document in use.
2. Special Events/Alcohol Permits Application – This was included as part of E-Government/E-Commerce objectives
3. ECMS Taxonomy – This was included as part of Enterprise Content Management System objective

As with any planning document, ThirdWave advised that the ITSP Roadmap should be revisited and refreshed on a yearly basis. Updates should consider changing circumstances in a variety of areas: e.g., the City's economic position, emerging Information Technologies, and changing departmental technology needs. Moreover, yearly performance evaluations should be carried out to measure completed initiatives and make necessary adjustments.

Benefits

Potential benefits that could be realized by implementing the ITSP initiatives were identified in the Rapid Workflow® workshops, where comprehensive and detailed data

was gathered on business process challenges in the City. These include qualitative and quantitative benefits of proposed technology solutions if implemented, e.g., staff time savings, cost savings, streamlined business processes, enhanced service delivery, and so on.

The top 20 benefits that will be derived by approving and implementing the ITSP are based on the number of times these benefits were identified in the Rapid Workflow® workshops. While these benefits are not quantified in terms of hard dollars, the numbers below provide a level of magnitude on the potential impact that ITSP initiatives will offer the City and its constituents.

Benefit Types	Number of Times Identified
Staff time savings	104
Improved customer service	53
Cost savings	49
Improved efficiencies / productivity	49
Business process improvement	40
Improved document / records management	34
Improved transparency / accessibility	32
Improved public image	26
Reduced stress	25
Better / more timely information	23
More collaboration	19
On-time project delivery	18
Improved quality control	15
Consistent, timely response	13
Ecology – Green City	12
Improved standards	10
Improved staff morale	9
More timely billing	8
Consistent, more timely reviews	8
Improved City legal position	8

Citygate Review & Amendments

Citygate, the consultant that conducted the overall assessment of the City Manager's Office, reviewed the data and information contained in the draft ITSP, and the two volumes produced by ThirdWave, and prepared recommendations included in the "Section 5—Status of Information Technology" (Attachment 4) document. The goal of Citygate's work was to provide a useful framework, including priority steps, based on best practices, for future decision-making around IT management and provision. Citygate focused its review and recommendations on improving upon the best these draft volumes had to offer by prioritizing the actionable items that, based upon Citygate's experience, offer the "biggest bang for the buck" while also considering the City's financial and human resource capacity.

Key Citygate recommendations that have been incorporated by staff into the ITSP include the following:

1. Include project accountability, resources, and schedule
2. Improve linkage to the Goleta Strategic Plan
3. Improve oversight of IT initiatives and supervision of IT implementation
4. Create a collaborative and learning organization focusing first on process, then on projects
5. Improve the capacity and performance of external IT support and services prior to increasing internal IT staff
6. Establish clear project priorities

Executive Team Review

The City's Executive Team has reviewed and provided input on the ITSP at multiple points during the process. Beginning in May 2017, Executive Team members participated in Rapid Workflow® workshops with staff to examine business processes for their departments as a first step in the process. In September 2017 the Executive Team met to determine prioritization of the initiatives identified during the Rapid Workflow® workshops, which was then used to develop the ITSP Implementation Roadmap. In January 2019, the Executive Team was asked to review and provide input on the draft ITSP, and their suggestions were incorporated into a second draft version of the plan. Following incorporation of the Citygate recommendations described above into the ITSP, the Executive Team was asked to provide a final review of the plan and met on June 25, 2019 to discuss and provide their input. The final version of the ITSP was very well received by the group and is a testament to the value-add of this important collaboration

Attachment 1 contains the ITSP prepared by staff. Attachment 2 is the ITSP Findings & Recommendations document prepared by ThirdWave which contains a detailed presentation of the information gathered during Rapid Workflow® needs assessments conducted with City staff. Attachment 3 is the ITSP Implementation Roadmap document prepared by ThirdWave that identifies prioritized initiatives that should be carried out and provides gross investment estimates for these initiatives. Attachment 4 is the Section 5—Status of Information Technology document prepared by Citygate which contains their recommendations. Staff are recommending that City Council adopt the proposed ITSP, and direct staff to implement the ITSP as specified.

FISCAL IMPACTS:

There is no fiscal impact associated with receiving this Plan, through there will eventually be costs in implementing it. A reserve fund of approximately $400,000 has been set aside to fund ITSP projects and programs.

The investment estimates that would be necessary should the ISTP be fully implemented are highlighted in Attachment 5: ITSP – Estimated Financial Impact Chart. The chart lists the goals, strategies and objectives from the ITSP, with the estimated

cost for each objective, and the tentative timeline for completion as proposed by staff. It is important to note that the cost estimates included in the chart were provided by ThirdWave and have not been verified by staff. The estimates also do not include any new consultant or City staff resources needed to implement the new initiatives. Upon approval of the ITSP, and as proposed projects are reviewed and approved by the IT Steering Committee, actual costs will be determined and budget appropriations requested of Council as appropriate.

Further, the timeline for completion as shown in Attachment 5 should be considered conceptual and aspirational. For example, there are initiatives proposed for the FY 2019/20 timeframe. If implemented as proposed, these would necessarily have an impact on the FY 2019/20 Annual Work Program for City Manager's Department recently adopted by City Council as it relates to the Support Services Division and would likely result in the division being oversubscribed, the extent to which is unknown at this time. As implementation of the ITSP begins, and the impact on division resources becomes more apparent, staff will present a revised Work Program for Council review and adoption. The actual ITSP implementation timeline will depend on this revised direction from Council.

ALTERNATIVES:

Council may elect to adopt the Information Technology Strategic Plan FY 2019-20 to FY 2020-21 included as Attachment 1. Alternatively, Council may direct staff to make further updates to the Plan. If further updates are needed, staff will come back to Council at the next regularly scheduled meeting with a final version for approval and adoption.

Legal Review By:

Michael Jenkins
City Attorney

Approved By:

Michelle Greene
City Manager

ATTACHMENTS:

1. Information Technology Strategic Plan FY 2019-20 TO FY 2020-21
2. ITSP Findings & Recommendations
3. ITSP Implementation Roadmap
4. Section 5—Status of Information Technology
5. ITSP – Estimated Financial Impact Chart

ATTACHMENT 1:

Information Technology Strategic Plan FY 2019-20 TO FY 2020-21

City of Goleta Information Technology Strategic Plan

FY 2019-20 TO FY 2020-21

Table of Contents

Table of Contents 2
Executive Summary 3
Information Technology Vision and Mission 4
Guiding Principles 4
Information Technology Strategic Plan Overview 5
The Plan – Goals, Strategies, Objectives 5
Goal 1: Reliable, Secure Infrastructure and Services 6
Goal 2: Accessible and Transparent Government 9
Goal 3: Technology-Capable Workforce 12
Goal 4: Proactive, Accountable IT Service 16
Goal 5: Collaborative Decision Making 19

Executive Summary

The City of Goleta's Information Technology Strategic Plan (ITSP) is the result of a comprehensive and thorough assessment of the City's existing technologies, operational requirements and service delivery needs. This document reflects a business and technology approach that is both strategic and operationally responsive. It addresses the unique requirements of the mission critical business needs of the City and its constituents, visitors and business community.

The ITSP is the product of a collaborative effort with City management and staff who made valuable contributions throughout the project. A considerable focus was placed on addressing management, operational and technology challenges identified during the assessment phase of the project; which are referred to as "Problem Statements" in the appendices which follow. While numerous challenges were uncovered during the assessment phase, it's important to note that numerous strengths were also observed at the City including the following:

- The City has several new members on its leadership team, which has infused the City with a fresh set of progressive perspectives. Many City department directors share a common vision on the need to enhance the City's Information Technologies.
- City staff have a strong level of professionalism, with a conscientious commitment to delivering exemplary services to the residents, businesses and visitors of the City of Goleta.
- The City's Strategic Plan provides a clear set of strategies that can be supported through the adoption and implementation of the IT Strategic Plan.

The ITSP focuses on improving the status quo and articulating a path for becoming an exceptional city; it is comprised of three complementary documents:

- **IT Strategic Plan**: Establishes the vision, mission and guiding principles for IT at the City, and provides an overview of the goals, strategies and primary objectives that will guide how the plan is implemented.
- **ITSP Findings & Recommendations**: Identifies a comprehensive set of possible management and business process improvements, and Information Technology objectives/initiatives.
- **ITSP Implementation Roadmap**: Provides the final proposed and prioritized objectives/initiatives, preliminary budget estimates, 5-year timeline, and Cost Allocation Plan for implementation.

The challenge of adopting, funding and implementing an ITSP Roadmap is a formidable one. However, given its 5-year timeline, there is plenty of latitude to budget and execute the technology initiatives identified in the ITSP. The ITSP Roadmap is a living document that can be (and should be) reviewed and adjusted on a yearly basis. It provides an

opportunity for new, more efficient ways of providing services - coupled with strategic investments in technology.

The cornerstone of the ITSP Roadmap is to ensure that investments in strategic business technologies are sound and deliver the highest possible value to the City and its constituents. Additionally, the ITSP Roadmap aligns with, and supports, the City of Goleta's 2017-19 Strategic Plan, which articulates eight overarching strategies that will guide the City towards achieving its vision.

Information Technology Vision and Mission

- **Vision** - Innovative, responsive delivery of technology which supports the City's business needs and makes government more accessible, efficient, accountable, and transparent.

- **Mission** - To deliver and support secure, reliable, and integrated technology solutions in alignment with the City's strategic plan goals, while delivering excellence in customer service and improving the quality and effectiveness of government services which benefit the City and its constituents.

Guiding Principles

1. Embrace technology as a strategic enabler and utilize IT to improve the way City staff perform their jobs and deliver services to residents and businesses.

2. Implement Information Technology that provides all internal and external customers with easy and timely access to online information and services. The City will strive to make data available for the benefit of the public, except as may be limited by the Public Records Act.

3. Adopt a formal management process to ensure that IT initiatives are properly vetted for consistency with the ITSP Roadmap, IT industry trends, are fiscally sound, and are effective in improving operating efficiencies and customer service prior to proceeding with IT initiatives.

4. When feasible, utilize an enterprise approach when procuring, implementing and managing the City's Information Technology assets, and deploy systems that address needs across multiple departments and/or can share data across multiple applications.

5. IT assets, systems, skills and support operations will be viewed as strategic investments that are critical in attaining internal City-wide business and external service delivery objectives.

6. Create an environment that encourages accountability through service level agreements, performance measures and individual responsibility, including the City contracted service providers.

7. Implement contemporary, but proven, technologies that maximize future options by emphasizing open standards (systems whose architecture allows them to speak to other systems).

8. Assess business processes for redesign opportunities before investing in technology initiatives to automate them. Leverage new technologies to make new or redesigned business processes a reality.

Information Technology Strategic Plan Overview
Goals, Strategies, Objectives

This plan is organized into five main goals. Each goal has supporting strategies. The strategies are the approaches we are taking to achieve the goals. Furthermore, each strategy has one or more objectives within it. The objectives are the measurable steps that will be taken to achieve the specific strategy.

Goals – these are the broad outcomes

Strategies – the approaches we will take

Objectives – the measurable steps taken to achieve the strategies

Goal 1: Reliable, Secure Infrastructure and Services – Provide technology solutions and services that are current, sustainable, and secure for efficient delivery of public services.

Link to City Strategic Plan – STRATEGY: STRENGHTEN INFRASTRUCTURE
Strategic Goal: Enhance the efficiency of the City's organizational infrastructure
STRATEGY: ENSURE FINANCIAL STABILITY
Strategic Goal: Provide accurate, reliable, and timely financial information

As the City continues to evolve and grow, the pace and evolution of the City's Information Systems infrastructure and services must keep commensurate pace. The City is managing lifecycles for current enterprise and functional area systems and is planning to introduce new systems and technologies, such as an upgraded Financial Software system, as business process improvements dictate. Maintaining a safe, secure, and accessible network is a fundamental goal as the City strives to modernize its systems and increase opportunities for citizens to conduct business online. The City is also working to establish and maintain standards and guidelines for the procurement and use of IT hardware, software, and network resources. These efforts will maximize efficiencies while promoting the seamless exchange of data. The City's infrastructure and systems lifecycle management policies must:

- Provide for increased network connectivity and capacity for a growing variety of devices, both wired and wireless at City facilities
- Implement server and storage solutions that are scalable and affordable
- Standardize systems to enable economies of scale and cross-departmental consistency
- Ensure timely upgrades to enterprise and functional area software projects

The City is evaluating, is currently implementing, or is already utilizing the following technologies to promote a reliable and efficient infrastructure:

- Implementing a Financial Software upgrade
- Expanded server/storage capacity
- Expanded Wireless Throughput/Capacity
- Upgraded workstations for high-demand positions
- Upgraded mobility/productivity options with touchscreen notebooks/laptops

Strategy A: Manage Lifecycles for Current Systems

Objectives:

1. ***Upgrade/Improve Wired/Wireless Network Access***

   Relevance/Importance: All current and future IT initiatives depend on a fast, reliable, and secure network backbone.

   Desired Outcomes: Improved network speed, throughput, and capacity

   Responsible Parties: Third-party IT services provider in conjunction with City staff.

   Timeline for Completion: Currently in-progress, estimated completion in Q4 2019.

2. ***Provide Scalable, Secure Server/Storage Solutions***

   Relevance/Importance: Properly managing these important IT assets will help ensure continuity of mission critical applications and infrastructure.

   Desired Outcomes: Secure and accessible server/storage solutions that scale according to variable demands.

   Responsible Parties: Third-party IT services provider in conjunction with City staff.

   Timeline for Completion: In progress, estimated completion in Q2 2020. Vendor has upgraded server/storage capacity by installing new servers and will implement cloud-based storage as application demand dictates.

3. ***Include Libraries in PC Replacement Program***

   Relevance/Importance: Proper asset management ensures the availability of current technology for public use and enhances staff productivity and efficiency.

   Desired Outcomes: PCs are refreshed on a rolling three-year cycle, similar to City Hall PCs.

   Responsible Parties: Third-party IT services provider in conjunction with City staff.

   Timeline for Completion: Vendor will replace 1/3 of PCs beginning in Q3 2019.

Strategy B: Modernize Systems and Optimize Service Delivery

Objectives:

1. ***Upgrade Financial System Software***

   Relevance/Importance: Upgrading to current version of Financial System software will ensure provision of accurate, reliable, and timely financial information.

Desired Outcomes: Enhanced functionality and capability will maximize staff efficiencies and improve customer service.

Responsible Parties: Financial Software vendor, third-party IT services provider, City staff.

Timeline for Completion: Implementation schedule to begin in Q3 2019.

2. ***Backfile Digital Conversion***

Relevance/Importance: Digitizing documents and records, where appropriate, enhances internal workflows, facilitates integration into future applications, and increases public availability, supporting open and transparent government.

Desired Outcomes: All City documents and records are digitized, and easily accessible by staff and public as appropriate.

Responsible Parties: Third-party vendors in conjunction with City staff

Timeline for Completion: Work is underway to convert the City's Planning Department documents and records to digital format and storage; tentative timeline of Q2 2020 to begin converting remaining files/records.

3. ***Upgrade Server/Networking Equipment Closet***

Relevance/Importance: The City's vital server and networking equipment needs to be housed in more secure and environmentally controlled space.

Desired Outcomes: Dedicated server room with elevated flooring, scalable racks, environment controls (HVAC, Halon, etc.)

Responsible Parties: Third-party IT solutions provider

Timeline for Completion: Upon completion of 130 Cremona purchase, utilizing existing server room in former ABC Clio facility.

4. ***Upgraded Mobility Solutions***

Relevance/Importance: Increased deployment of mobile devices and remote access solutions to City staff will enable anywhere, anytime access to resources and enhance customer service response times.

Desired Outcomes: Enhanced efficiency for City staff that require access to information in the field or while telecommuting, and improved customer service.

Responsible Parties: Third-party IT services provider, City staff (Support Services).

Timeline for Completion: In progress; 2-in-1 tablet devices have been deployed to Executive Management Team, and additional mobile devices have been requested for FY 2019/20 budget.

5. ***Unified GIS Strategy***

Relevance/Importance: Development of a comprehensive GIS strategy and consolidation of our various GIS systems will improve efficiencies and enhance public access to mapping information.

Desired Outcomes: Development of a comprehensive GIS strategy with expanded areas of coverage (natural resources, flood zones, etc.); consolidation of disparate GIS systems currently in use.

Responsible Parties: Third-party vendors and service providers, consultants, City staff.

Timeline for Completion: Q2 2020.

Goal 2: Accessible and Transparent Government - On-demand access to Citizen-centric solutions support a high level of customer service that respond effectively to constituent needs

Link to City Strategic Plan – STRATEGY: ENHANCE THE EFFICIENCY AND TRANSPARENCY OF CITY OPERATIONS

Strategic Goal: Maintain transparency in all aspects of City government
Strategic Goal: Continually strive to improve customer service

The City's citizens, businesses, partners, and employees all have high expectations for technology-supported services, and increasingly expect to conduct business "online" rather than in line. Constituents want the ability to simply, easily, and intuitively access public information and conduct business with the City – incorporating the use of online information, social media, and mobile applications as they do in many other aspects of their lives. Developing improved online self-service delivery capabilities, with interactive, transactional services integrated with the City's financial, enterprise, and departmental technologies, will allow the City to enhance its transparency efforts. City staff are adopting mobile devices with greater frequency to enhance telework, improve communications, boost productivity, and service constituents and partners with greater ease. The City will improve accessibility to services and information by:

- Promoting and implementing eGovernment strategies
- Developing citywide mobility solutions

- Enhancing government transparency by providing constituent access to public information

The City is evaluating, is currently implementing, or is already utilizing the following technologies to provide access to services:

- Expanding self-service options on City website properties, i.e. online form submission, online payments, etc.
- Online permit tracking system
- Extensive social media outreach and interaction
- Mobile app

Strategy A: Increase Opportunities to Conduct Business Online

Objectives:

1. ***E-Government Strategy***

   Relevance/Importance: Developing an E-Government Strategy focused on benchmarking the City's website design, content, and online services to establish a more robust online service delivery model will foster convenience, self-service access to documents/records, and transparency.

   Desired Outcomes: Refocus the City's website from an information dissemination tool to an online service delivery tool with interactive, transactional and online services integrated with the City's financial, enterprise, and departmental technologies.

   Responsible Parties: Third-party vendors and consultants; third-party IT Services provider; City staff.

   Timeline for Completion: Q4 2019.

2. ***E-Commerce Application***

   Relevance/Importance: Developing and implementing an e-commerce solution will expand the number of online payment processes currently available, allowing our constituents to intuitively access public information and conduct business with the City

   Desired Outcomes: City business is easily conducted over the Internet using applications that rely on the Internet, including interactive and transactional functions, e.g., online payments, registration and application submittals.

   Responsible Parties: Professional Development Services provider; third-party IT services provider; City staff.

Timeline for Completion: Q2 2020.

3. ***Customer Relationship Management (CRM)***

   Relevance/Importance: A unified and cohesive customer response tracking system will enhance constituent relationships, increase team collaboration, and foster improved efficiencies in serving the public.

   Desired Outcomes: A single repository that integrates and routes requests from multiple external/internal nodes, to enhance visibility into customer interactions and ensure prompt handling of requests.

   Responsible Parties: Professional Development Services provider; third-party IT services provider; City staff.

   Timeline for Completion: Q2 2020.

Strategy B: Develop City-Wide Mobile Application Solutions

Objectives:

1. ***Mobile Applications***

   Relevance/Importance: implementing more mobile-friendly applications to expand in-field services will promote timely and efficient processing of information and enable real-time feedback for all users.

   Desired Outcomes: Field staff is able to respond in real time to public inquiries, submit requests for information remotely while on-site, and document critical incidents immediately instead of having to return to the office.

   Responsible Parties: Third-party vendors and consultants; third-party IT Services provider; City staff.

   Timeline for Completion: Q4 2020.

2. ***Telework/Remote Access***

   Relevance/Importance: Expanding the availability of remote network access capabilities to staff and partners will enhance telework, improve communications, boost productivity, and allow staff to provide service to constituents and partners with greater ease.

   Desired Outcomes: Anytime, anywhere access to City network and resources for staff and approved external partners.

   Responsible Parties: Third-party IT Services provider, City staff.

   Timeline for Completion: In-progress; estimated completion Q4 2019.

Strategy C: Expand Public Access to Information

Objectives:

1. ***Open Access Architecture***

   Relevance/Importance: Implementing technologies that rely on open standards will maximize future options and allow applications to "speak" and integrate with other systems, optimizing the City's financial, enterprise, and departmental technologies to enhance public access to data as appropriate.

   Desired Outcomes: An enterprise whose fundamental architecture is easily integrated, and positioned for long-term scalability, viability, and usability.

   Responsible Parties: Third-party vendors and consultants; third-party IT Services provider; City staff.

   Timeline for Completion: Q2 2021.

Goal 3: Technology-Capable Workforce - A technology-capable workforce possesses the contemporary training and resources necessary to meet its public service commitments

Link to City Strategic Plan – STRATEGY: ENHANCE THE EFFICIENCY AND TRANSPARENCY OF CITY OPERATIONS

Core Value 3: Continuous improvement and professional development

Strategic Goal: Continually strive to improve customer service

Training and skill development of our workforce is essential to ensuring the successful implementation of IT initiatives in the City. IT management will work to develop role-based technology training standards that can be applied to beginner, intermediate, and advanced level skillsets throughout the employee lifecycle. Effective training begins during the orientation process with an introduction to the IT environment and the applications in use by the department and is reinforced periodically as skill levels mature and job requirements grow. For staff to be successful, they need access to robust enterprise-level application technology solutions, and the know-how to leverage these technologies as appropriate. To facilitate this effort, they will need to:

- Develop a broad understanding of the City's IT environment and their role within it
- Know how to apply new technologies to improve business processes
- Rely on scalable, robust enterprise applications

To provide appropriate resources and develop staff with the necessary skills, the City is evaluating, currently implementing or is already utilizing the following methods to promote a technology capable workforce:

- Develop departmental applications training overview as part of orientation process
- Adopt staff training as a prerequisite for the deployment of new technologies
- Deploy IT staff to develop and provide periodic IT skills and application training
- Implementing online permit tracking and upgraded financial systems

Strategy A: Technology Training and Ongoing Development.

Objectives:

1. ***IT Systems/Application Overviews***

   Relevance/Importance: It is important to familiarize staff with the organization and departmental IT resources as an integral part of new hire onboarding and orientation.

   Desired Outcomes: A well-informed staff that possesses a thorough understanding of our IT infrastructure, and how best to leverage IT systems and applications to maximize efficiency and productivity.

   Responsible Parties: Third-party IT services provider; City IT staff in coordination with Human Resources staff.

   Timeline for Completion: Upon approval of ITSP.

2. ***Training Prerequisite:***

   Relevance/Importance: It is critical that staff training is included as a vendor requirement in any RFP for new technology solutions to ensure that staff can fully leverage the benefits of the solution upon implementation.

   Desired Outcomes: Staff is fully trained on the new technology and able to benefit from it upon launch.

   Responsible Parties: Third-party IT solutions provider.

Timeline for Completion: Ongoing as new product solutions are implemented

3. ***Continuing Development Focus***

Relevance/Importance: The success of IT solutions at the City requires that we foster and prioritize the development of skills for the IT workforce.

Desired Outcomes: IT staff that is highly knowledgeable, fully engaged with our staff and stakeholders, and focused on continuous skill development.

Responsible Parties: IT Division management; IT staff, in conjunction with Human Resources.

Timeline for Completion: Ongoing upon establishment of internally staffed IT division.

Strategy B: Robust, Scalable Enterprise Software Applications

Objectives:

1. ***Enterprise Content Management System***

Relevance/Importance: Once enterprise-level software solutions are implemented, it will be critical to organize all digital assets for fast and efficient access, version control, and compliance across the organization.

Desired Outcomes: A solution that classifies documents and other digital content into logical groups/subgroups for storage in a manner that is responsive to how information is used by various business units and business processes.

Responsible Parties: Third-party IT solutions provider; City staff

Timeline for Completion: Once policy foundations for ECMS implementation are in place; estimated Q4 2020

2. ***E-Document Workflows***

Relevance/Importance: Automating, streamlining, and optimizing our business process workflows will provide enhanced functionality that reduces cycle time and will improve customer service.

Desired Outcomes: Reduction in paper-based workflow; shorter timelines to process documents, forms and contracts, enhanced ability to meet deadlines; improved customer satisfaction.

Responsible Parties: Third-party IT solutions provider; IT services provider; City staff.

Timeline for Completion: Ongoing; integral component of software solutions as they are implemented

3. ***Inventory/Asset Management***

   Relevance/Importance – The implementation of an integrated, widely accessible system to catalog and manage all infrastructure assets will facilitate data transparency, improve our forecasting, planning and reporting, and will increase the efficiency of our staff to deliver services.

   Desired Outcomes – A contemporary web-enabled enterprise asset management system with integrated modules for inventory management, asset management, work orders/maintenance, and capital program management.

   Responsible Parties – Third-party IT solutions provider; third-party IT services provider; City staff

   Timeline for Completion – Defer as part of Public Works automation effort.

Strategy C: Collaborative Team Environment

Objectives:

1. ***Intranet Implementation***

   Relevance/Importance – Implementation of an intranet for City staff is an important component of our efforts to enhance internal communications, foster collaboration, and support internal operating efficiencies.

   Desired Outcomes – Centralized single point for streamlining the management of and access to data, internal communications, collaboration tools, documents and external links.

   Responsible Parties – Third-party IT solutions provider; third-party IT services provider; City staff.

   Timeline for Completion – Q3 2020.

2. ***Project Management Application***

   Relevance/Importance – The City's ambitious departmental projects and programs schedule requires a robust project management application to ensure that all projects stay on track and within budget.

   Desired Outcomes – Comprehensive application and dashboard to track key performance indicators, resource allocation, and project timelines.

Responsible Parties – Third-party IT solutions provider; third-party IT services provider; City staff.

Timeline for Completion – Q3 2020.

Goal 4: Proactive, Accountable IT Service – IT services provided by proactive, accountable, and well-qualified staff

Link to City Strategic Plan – STRATEGY: ENHANCE THE EFFICIENCY AND TRANSPARENCY OF CITY OPERATIONS

Core Value 4: Collaboration through teamwork in support of a common goal

Strategic Goal: Continually strive to improve customer service

This goal and its related strategic initiatives focus on establishing a more responsive and accountable IT service culture at the City – one that builds trust between IT and departments, streamlines operations, and ensures continuous improvement. Ensuring that City departments and staff can deliver on the increasing project demands of their respective work plans requires qualified IT staff that is on-site daily during business hours and ready to provide service as the need arises. A minimally staffed internal IT team can provide basic-to-intermediate helpdesk support and training capabilities and can be augmented by third-party IT services providers for complex networking and security issues, application implementations and upgrades, or large-scale project work. The City will improve IT department responsiveness by:

- Creating a minimally staffed, highly qualified internal IT team to provide helpdesk support and training
- Maintaining high response rates for the delivery of technical expertise and extraordinary end-user support for existing and future technologies
- Augmenting in-house IT knowledge with third-party service provider expertise when appropriate

The City is evaluating, currently implementing or is already utilizing the following methods to provide responsive IT services:

- Deploying third-party service provider for semi-weekly on-site helpdesk support, and remote support and networking maintenance as needed
- Utilizing existing application vendors for support and training as required

Strategy A: Establish Responsive and Accountable IT Service Culture

Objectives:

1. ***Provide for Qualified, Capable Internal IT Staff***

   Relevance/Importance – Ensuring that City departments and staff can deliver on the increasing project demands of their respective work plans requires qualified IT staff that is on-site daily during business hours and ready to provide service as the need arises.

   Desired Outcomes – A minimally staffed, qualified and capable internal IT team providing basic-to-intermediate helpdesk support and training capabilities.

   Responsible Parties – IT Division management

   Timeline for Completion – As large-scale IT infrastructure and application implementations are successfully completed.

2. ***IT Peer Organizations***

   Relevance/Importance – IT staff access to industry best practices will increase the efficacy of IT resources, encourage professional development, and build relationships among other cities' ITstaff.

   Desired Outcomes – Highly capable IT staff possessing current industry knowledge and mastery of best practices.

   Responsible Parties – IT Division management; IT staff

   Timeline for Completion – Ongoing as part of creation of internally staffed IT division.

3. ***Establish Response Time Metrics***

   Relevance/Importance – Establishing measurable response time goals will ensure prompt handling of technology issues and enhance customer service.

   Desired Outcomes – Implementation of well-defined service response time expectations between IT staff and customer departments.

   Responsible Parties – IT Division management; IT staff in conjunction with IT governance body.

   Timeline for Completion – Upon establishment of internally staffed IT division.

4. ***Utilize Feedback for Constant Improvement***

Relevance/Importance – Timely feedback on performance and response times is a critical component to ensuring a high-performing IT staff.

Desired Outcomes – Post-resolution performance surveys and follow-up check-ins are integral parts of the IT helpdesk function and support constant improvement efforts.

Responsible Parties – IT Division management; IT staff.

Timeline for Completion – Upon establishment of internally staffed IT division.

Strategy B: Strive for Continuous "Up Time"

Objectives:

1. ***Service Level Agreements (SLAs)***

   Relevance/Importance – The establishment of internal/external service guarantees will enable the continuous productivity of staff while enhancing our customer service efforts.

   Desired Outcomes – Highly reliable and always available IT systems and applications.

   Responsible Parties – Third-party IT services provider; IT division management; IT staff

   Timeline for Completion – Upon establishment of internally staffed IT division.

2. ***Strategic Partnering***

   Relevance/Importance – Implementation of proposed complex security and networking projects, application implementations, and large-scale project work will require the use of qualified third-party IT solution providers.

   Desired Outcomes – Highly qualified third-party IT solutions providers working in partnership with and augmenting internal IT staff towards the successful implementation of IT projects and programs.

   Responsible Parties – Third-party IT solutions and IT services providers; IT Division management; IT staff.

   Timeline for Completion – As enterprise-level and large-scale projects are implemented, and upon establishment of internally staffed IT division.

Goal 5: Collaborative Decision Making – Promote end-user advocacy among stakeholders and develop meaningful performance metrics in collaboration with internal and external partners.

Link to City Strategic Plan – STRATEGY: ENHANCE THE EFFICIENCY AND TRANSPARENCY OF CITY OPERATIONS

Core Value 3: Continuous improvement and professional development
Core Value 4: Collaboration through teamwork in support of a common goal
Strategic Goal: Continually strive to improve customer service

The City is increasingly reliant on technology resources and solutions to successfully deliver on the many projects planned in support of our strategic goals. The development of an IT Governance structure is required to define how best to organize the City's IT resources, fund IT initiatives in support of our strategic goals, and ensure maximum value for IT investments is realized. Best practice IT governance indicates that decisions regarding funding for future technology initiatives should be based on a Business Process Improvement assessment using a formal and standard methodology, e.g., Lean, Kaizen, Rapid Workflow®, or other similar method. The resulting data can then be used to produce a comprehensive business case that takes both tangible and intangible costs and benefits of the project into account each time funding requests are made. The proposed framework to build a sustainable governance structure includes:

- Establish an IT steering committee to prioritize City-wide IT projects
- Utilize Business Process Improvement methodology to establish the business case for new or improved technology solutions
- Develop performance metrics for IT initiatives in collaboration with internal/external partners

The City is evaluating, currently implementing, or is already utilizing the following methods to foster collaborative decision making:

- IT Strategic Plan initiative
- Assessment of critical business processes to determine IT project priorities

Strategy A: Establish IT Governance Structure

Objectives:

1. ***IT Governance Policy***

Relevance/Importance – IT program governance and oversight that properly supports internal and external IT resources will be critical to the success of all phases of the ITSP implementation, and will improve the prioritization, funding, and initiation of IT projects.

Desired Outcomes – A collaborative IT governance structure that promotes understanding among all stakeholders of how departmental priorities fit with the overarching Citywide priorities and available resources.

Responsible Parties – City Executive Management; IT Division Management; City staff.

Timeline for Completion – Establish upon approval of ITSP.

2. **IT Steering Committee**

Relevance/Importance – The establishment of a leadership team to prioritize City-wide IT projects and report to City leadership on IT initiatives will be a critical component of our IT governance and oversight effort.

Desired Outcomes – An IT Steering Committee composed of executive leadership that acts as the primary advisory body to provide organizational structure to the technology initiatives and accountability at the highest level. They will assist in the enterprise decisions to assure the successful development, deployment and maintenance of City technology investments.

Responsible Parties – City Executive Management; IT Division Management; City staff.

Timeline for Completion – Establish upon approval of ITSP.

3. **Best Practices Business Process Assessment**

Relevance/Importance – The success of our IT initiatives will benefit from exploring opportunities to assess and redesign business processes before investing in technology initiatives to automate them.

Desired Outcomes – IT solutions are implemented only after it's determined that underlying business processes are sound and would benefit from automation.

Responsible Parties – IT Division Management; City staff.

Timeline for Completion – Establish upon approval of ITSP.

Strategy B: Enhance the Management of IT Projects

Objectives:

1. **Strategically Aligned Project Planning**

   Relevance/Importance – The successful implementation of IT projects requires that we appropriately define, price and scale IT software/service/project implementations to ensure alignment with Citywide strategic plan goals.

   Desired Outcomes – IT projects are developed and implemented according to established budget priorities and alignment with Citywide strategic plan goals.

   Responsible Parties – IT Steering Committee; IT Division Management.

   Timeline for Completion – Establish upon approval of ITSP; as projects are proposed/implemented.

2. **Service/Performance Requirements**

   Relevance/Importance – It is important to establish meaningful service expectations and performance metrics for IT initiatives, collaborating with internal and external partners and addressing feedback, to ensure high-quality service/project delivery.

   Desired Outcomes – IT projects are implemented according to established expectations and incorporate ongoing feedback to ensure project success.

   Responsible Parties – IT Steering Committee; third-party IT solutions and services providers; IT Division Management.

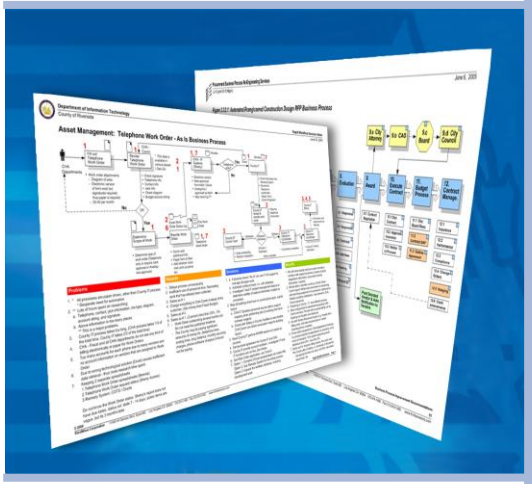
   Timeline for Completion – Establish upon approval of ITSP; as projects are proposed/implemented.

ATTACHMENT 2:

ITSP Findings & Recommendations

PROBLEMS IMPACTS SOLUTIONS BENEFITS

RAPID WORKFLOW®



CITY OF GOLETA

IT Strategic Plan & Roadmap

Volume 1: Findings & Recommendations

July 3, 2017

ThirdWave

ThirdWave Corporation
Information Systems Intelligently Applied
11400 W. Olympic Blvd. Suite 200
Los Angeles, CA 90064
www.ThirdWaveCorp.com
310.914.0186

30 YEARS

Thought Leadership, Exceptional Performance & Results since 1987

Table of Contents

IT Strategic Plan Roadmap: Volume 1 - Findings & Recommendations

Preface

Executive Summary: Findings & Recommendations 1

E 1 Information Technology Strategic Plan Vision 1
E 2 Project Goals & Objectives 2
E 3 Project Approach & Methodology 2
E 4 Information Technology Strategic Plan (ITSP) Findings 2
E 4.1 Organizational Context 2
E 4.2 Management Input 3
Figure E 4.2.1: Management Team Technology Challenges 3
E 4.3 Online Survey Leading IT Requirements 3
Figure E 4.3.1: Overall Condition of Information Systems Rating 4
Figure E 4.3.2: Technologies Requiring the Most Improvement 4
E 4.4 Summary Recommendations 6
E 4.5 ITSP Benefits 7
Figure 4.5.1: ITSP Potential Enterprise Benefits 7

Section 1 Introduction 8

1.1 Project Background, Goal & Objectives 8
1.2 IT Strategic Plan Roadmap Project Approach 9
Figure 1.2.1: Comprehensive Project Methodology 10
Figure 1.2.2: Comprehensive Project Framework 11

Section 2 Requirements Definition Findings 12

2.1 Management Requirements Findings 12
Figure 2.1.1: Management Team Business Challenges 13
Figure 2.1.2: Management Team Technology Challenges 14
Figure 2.1.3: IT Staffing, Knowledge and Resources Allocation 15

2.2 Information Technology Focus Group Findings 18
1: Infrastructure 18
2: Hardware 18
3: Software 19
4 Operations & Sustainability 19

2.2.1 Summary of IT Focus Groups 20
Figure 2.2.1.1: IT Focus Group Problem Statement Dashboard 20
Figure 2.2.1.2: Overall Summary of IS Department Challenges 21

2.3 City Staff Online Survey 21
Figure 2.3.1: City Staff Participation on the Survey 22
Figure 2.3.2: Overall Condition of Information Systems Rating 22
Figure 2.3.3: Technologies Requiring the Most Improvement 23

© 2017

ThirdWave Corp 11400 W. Olympic Blvd. Suite 200 Los Angeles CA 90064 310.914.0186 V 310.312.9513 F

Figure 2.3.4: Importance of Providing Online Services on the City Website ... 23
Figure 2.3.5: Online Service Desired to Enhance Services Delivery to the Community ... 24

2.4 Leading Technology Initiatives ... 25
Figure 2.4.1: Infrastructure & Hardware Requirements ... 25
Figure 2.4.2: Hardware: Servers, Workstations, Peripherals ... 25
Figure 2.4.3 Departmental Software ... 25
Figure 2.4.4 Enterprise Software ... 26
Figure 2.4.5: E-Government ... 26
Figure 2.4.6: Application Integration ... 26

2.5 Data Driven Basis for ITSP Initiatives ... 27
Figure 2.5.1: Enterprise Initiative Matrix ... 27
Figure 2.5.2: Management & Operational Requirements ... 28
Figure 2.5.3: Infrastructure & Hardware Requirements ... 29
Figure 2.5.4: Departmental Software Requirements ... 30
Figure 2.5.5: Enterprise Software Requirements ... 31
Figure 2.5.6: E-Government & System Integration Requirements ... 32

Section 3 IT Strategic Plan Recommendations ... 33

3.1 Introduction to ITSP Recommendations ... 33
3.2 IT Strategic Plan Initiatives ... 34
3.2.1 Technology Recommendations ... 34

I Infrastructure ... 34
I 1 Networks/Communications ... 34
I 1.1 Data Center: Server Closet ... 34

HW Hardware: Servers, Desktops, Mobile Devices, Peripherals ... 35
HW 1 Servers: Data Storage ... 35
HW 2 PC Standardization ... 36
HW 3 PC Replacement Cycle ... 37
HW 4 Mobile Devices ... 37
HW 5 Scanners ... 38

D SW Software: Departmental ... 39
D SW 1 Risk Management Application [1] ... 39
D SW 2 Development Permitting Application [3] ... 41
D SW 3 Land Development Design E-Permitting ... 42
D SW 4 Library ... 43

E SW Software: Enterprise ... 45
E SW 1 Enterprise Taxonomy ... 45
E SW 2 Enterprise Content Management System ... 47
E SW 2.1 Enterprise Document/Records Management ... 47
E SW 2.2 Imaging ... 50
E SW 2.3 Records Management ... 51
E SW 2.4 Workflow Automation ... 53
E SW 2.5 E-Forms ... 54
E SW 2.6 E-Signatures ... 55
E SW 3 Agenda Management ... 56

© 2017

ThirdWave Corp 11400 W. Olympic Blvd. Suite 200 Los Angeles CA 90064 310.914.0186 V 310.312.9513 F

E SW 4 Land Development E-Permitting Application [6] 58
E SW 5 Asset Management Application 60
E SW 6 Public Records Requests / CRM Application 63
E SW 7 Geographic Information Systems Master Plan 65
E SW 8 Design Management Project Management Application 68
E SW 9 ERP Accounts Payable Application 71
E SW 10 ERP Accounts Receivables Application 73
E SW 11 ERP Purchasing Application 75

E-GOV E-Government Software 76
E-GOV 1 City Website Enhancements 76
E GOV 2 Web Content Management 76
E GOV 3 E-Government Applications 77

E TECH Enterprise Architecture 79
E TECH 1 Cloud Solutions / Cloud Services Broker Policies 79

3.2.2 Operational Recommendations 81

O IT Operational Improvement 81
O 1 Business Process Analysis/Improvement 81
O 2 Business Continuity Plan 82
O 3 Disaster Recovery Plan 82

3.2.3 Management Recommendations 83

M Management 83
M 1 IT Organization and Operational Model 83
M 2 City End User Training 86
M 3 Change Management 86
Figure M 3.1: Proposed IT Change Management Model 87

Section 4 Appendix 89

4.1 Glossary 89

Preface

Preface

The City of Goleta's (City) Information Technology Strategic Plan Roadmap is the result of a comprehensive and thorough assessment of the City's existing technologies, operational requirements and service delivery needs. This document reflects a business and technology strategy that is technologically strategic, operationally responsive, and fiscally responsible. It addresses the unique requirements of the mission critical business needs of the City and its constituents, visitors and business community as a whole.

The ITSP Roadmap is the product of a collaborative effort with City management and staff who made valuable contributions throughout the project. A considerable focus was placed on addressing management, operational and technology challenges identified during the project; which are referred to as "Problem Statements" throughout this document.

However, this report should not leave the impression that all ThirdWave assessed was problematic. Nothing could be further from the truth. ThirdWave observed numerous strengths at the City including the following:

- The City has a number of new members on its leadership team, which has infused the City with a fresh set of progressive perspectives. Many City department heads share a common vision on the need to enhance the City's Information Technologies.

© 2017

ThirdWave Corp 11400 W. Olympic Blvd. Suite 200 Los Angeles CA 90064 310.914.0186 V 310.312.9513 F

- City staff have a strong level of professionalism, with a conscientious commitment to delivering exemplary services to the residents, businesses and visitors of the City of Goleta.
- The City's Strategic Plan provides a clear set of strategies that can be supported through the adoption and implementation of the IT Strategic Plan & Roadmap.

The ITSP Roadmap focuses on improving the status quo and articulating a path for becoming an exceptional city; it is comprised of two complementary volumes:

Volume 1: ***ITSP Finding & Recommendations,*** identifying a comprehensive set of possible management, business process improvement, and Information Technology initiatives (this document); and,

Volume 2: ***ITSP 5 Year Implementation Roadmap***, providing the final proposed and prioritized initiatives, budget estimate, 5-year timeline, and Cost Allocation Plan for implementing the Roadmap (a separate document).

The challenge of adopting, funding and implementing an ITSP Roadmap is a formidable one. However, given its 5-year timeline, there is plenty of latitude to budget and execute the technology initiatives identified in the ITSP. The ITSP Roadmap is a living document that can be (and should be) reviewed and adjusted on a yearly basis. It provides an opportunity for new, more efficient ways of providing services - coupled with strategic investments in technology.

The cornerstone of the ITSP Roadmap is to ensure that investments in strategic business technologies are sound and deliver the highest possible value to the City and its constituents. Additionally, the ITSP Roadmap aligns with, and supports, the City of Goleta's 2015 – 2017 Strategic Plan, which articulates six overarching strategies that will guide the City towards achieving its vision. Moreover, this document provides a wealth of data that can be leveraged over the next five years to facilitate excellence in municipal services, civic participation, and community wellbeing.

We'd like to extend our appreciation to the City Council for supporting this important initiative, the City Manager, Department heads and the talented staff at the City for their engagement and valuable input.

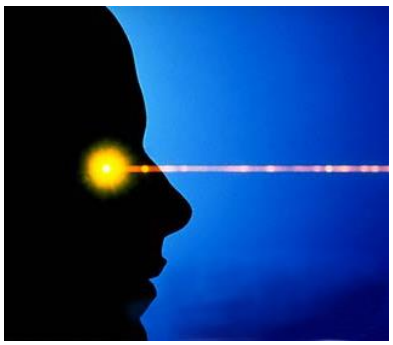
Roy R. Hernández
Founder, President & CEO

Executive Summary

Findings & Recommendations

E.1 Information Technology Strategic Plan Vision

This document reflects a Information Technology Strategic Plan Roadmap (ITSP Roadmap) custom tailored to the City of Goleta. It is technologically sound with a focus on Strategic Business Technologies in response to the business and service delivery needs of the City and its community. The vision of the ITSP Roadmap is to:



> *Provide a comprehensive roadmap fostering the use of proven state-of-the-practice Information Technologies in the most strategic, innovative, cost effective and efficient ways possible to support internal City operations, extraordinary customer service delivery, civic participation and community wellbeing.*

The adoption and implementation of the ITSP Roadmap will leverage the effective investment in Information Technologies while at the same time supporting the City of Goleta's 2013 Strategic Plan *(http://www.cityofgoleta.org/projects-programs/advocacy/strategic-plan-2013-15).*

© 2017
ThirdWave Corp 11400 W. Olympic Blvd. Suite 200 Los Angeles CA 90064 310.914.0186 V 310.312.9513 F

E.2 Project Goal & Objectives

The goal of the ITSP Roadmap project is to create a five (5) year Information Technology Strategic Plan (ITSP) employing a highly participatory process directly engaging City departments, staff, and management. The objectives are to:

- Connect technology resources, innovation, and initiatives to the City's Strategic Planning Goals.
- Serve as the framework for how IT services are delivered throughout the City and ensure business technologies are sound and deliver the highest possible value to the City and its constituents
- Define a clear set of goals, guiding principles, and strategic priorities for accomplishing the City's objectives of digital strategy, principles and implementation roadmap.

The ITSP Roadmap contains measurable objectives and will be the guiding document that shapes how the City delivers innovative and effective technology services.

E.3 Project Approach & Methodology

The ITSP Roadmap project employed a comprehensive and structured "waterfall" best practice methodology. The project collected and synthesized various types of information, including:

- Data on existing and planned Information Systems.
- Focus Groups with IT staff and management.
- Management Interviews with the City's leadership team.
- Online Staff Survey.
- Fifteen (15) Rapid Workflow® business process analysis workshops addressing mission critical business functions for City Departments.

E.4 Information Technology Strategic Plan (ITSP) Findings

E 4.1 Organizational Context

The City of Goleta has a current population just over 30,000, and it is represented by a City Council that consists of five members elected at-large to four year terms. Annually the City Council selects one of its members to serve as Mayor and another as Mayor Pro Tempore. Information Technology services are contracted through the City Manager's Department and serve all City departments including Finance, Public Works, Planning and Environmental Review, Neighborhood Services & Public Safety, the City Clerk and City Attorney Offices.

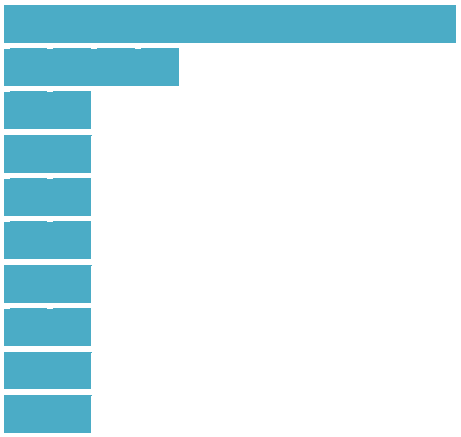
The City has approximately 66 (sixty-six) full time employees as well as consultants and interns. Currently, technology services are coordinated with two weekly site visits, and include network support, administration of five servers, one NAS device and over 80 workstations.

E 4.2 Management Input

The figure below provides a summary of technology challenges identified in the City's management team interviews.

Figure E 4.2.1: Management Team Technology Challenges

	Management Technology Challenges	Qty.
1	Electronic Document Management	5
2	Customer Relationship Management (CRM)	2
3	Tracking/reporting activities	1
4	City Point of Contact to interface with GovClarity/GIS	1
5	Computers that can't handle file sizes	1
6	E-Citations	1
7	Email Management	1
8	Finance software	1
9	Geo-based systems	1
10	Granicus support levels	1



E 4.3 Online Survey Leading IT Requirements

The ITSP online survey was posted from March 28 to April 13, 2017. The number of responses was very good for a city of this size: thirty-five (35) City staff and management responded. The online survey addressed the following:

- Existing information systems: infrastructure, hardware, and software
- Information and data sharing needs
- IT support levels
- Business and service delivery applications

The ITSP project used a number of tools to gather input from City staff and management. The online survey was a method that allowed every person the opportunity of sharing their input.

Figure E 4.3.1, Overall Condition of Information Systems Rating, illustrates responses related to the overall condition of the City's Information Technologies. Generally speaking, City staff perceive the existing systems as "Good" or "Very Good."

Figure E 4.3.2, Technologies Requiring the Most Improvement, illustrates a sorted rating of systems that need to be addressed. The top three being: hardware, software, and staff training.

Figure E 4.3.1: Overall Condition of Information Systems Rating

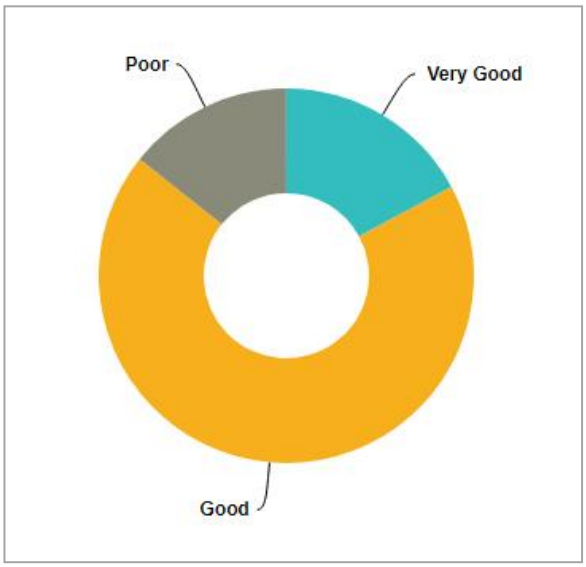


Figure E 4.3.2: Technologies Requiring the Most Improvement

Technologies	%
Application Software	24
Hardware: Servers, PCs, Periph.	20
End User Training	14
Infrastructure: Network/Commun.	13
E-Government Applications	12
Technical Support from IT	11
Project Management	10
Mobile Devices	6
Voice/Data Communications	3
Security/Disaster Recovery	2

E 4.4 Summary Findings & Recommendations

The following provides a summary of key findings of the ITSP Roadmap project: (Technical terms are defined in a glossary in Section 4 of this document.) The ITSP Roadmap project identified hundreds of specific challenges; the items below list the top five challenges facing the City of Goleta from an Information Technology perspective.

1. **The existing City IT support model is not responsive to the needs of the City.**
   The ITSP project revealed that the existing IT Support model has several substantial weaknesses.
   - There is a general consensus that one IT person at the City, two times per week, is insufficient. Moreover, feedback on the existing IT Support vendor is that they are unresponsive.
   - The existing IT support function is under-resourced.
   - The City's lack of an internal IT Team has handicapped fully leveraging existing Information Technologies, limits IT support and staff training. It will also inhibit the successful implementation of ITSP initiatives.

2. **A number of aging infrastructure/systems need upgrading or replacing.**
   As the City has evolved and grown over the last 15 years, the pace and evolution of the City's Information Systems (technology, IT support staff and best practices) has not kept commensurate pace. Outdated infrastructure includes data centers, data storage, appropriately sized servers which consistently fill up to 100% (a serious risk of failure), PCs/Laptops and almost no use of mobile devices. In the area of enterprise software (applications used by many or all city departments), the City staff/management identified twenty-seven (27) such software.

3. **The City lacks numerous departmental/enterprise application software.**
   The need to update or deploy contemporary software was the most consistently identified technology requirement by City staff and management. Twenty-two (22) department applications needed by City departments to execute the primary missions to the community of Goleta were identified. The top three enterprise application are Electronic Document/Records Management, Inventory/Asset Management and Customer Relationship Management software.

4. **There is a lack of emphasis in formal role-based staff training on technologies**
   The need for formal, role-based, training for City staff was the second most noted requirement across all project tasks. This has hindered staff in making the most effective use of the City's existing Information Technologies – and the investments made thus far.

5. **The City has a visually attractive Website, but the it lacks an E-Government focus.**
   The need to provide online access to information, in addition to online services providing online payments, was mentioned throughout the project. A number of online service applications were identified in the project, the top ten improvements include public facing as well as internal City web solutions.

The City of Goleta has undergone an evolutionary trajectory that many newly incorporated cities go through, particularly when they have not developed an IT Strategic Plan in 15 years (the equivalent of five generations of technology). The City has simply outgrown the status quo. Given the important role that technology plays in effective municipal service delivery, the status quo acts as a barrier to making the best, most effective use of technology and limited City human resources. The existing conditions will be exasperated as the City continues to grow and evolve – and the ITSP initiatives are implemented.

E 4.4 Summary Recommendations

The ITSP project identified fifty-six (56) specific actionable and recommended technology initiatives. The items below provide a summary of the top organizational and technical recommendations for the ITSP Roadmap.

1. **Adopt a minimally staffed internal IT Team**
   Outsourced IT support firms cannot address the complete spectrum of applications used in a small and growing City; they are typically limited to network, hardware and MS Office products. ThirdWave recommends that the City:
   - Place a focused commitment to providing the technical expertise and extraordinary end user support on existing and future information technologies.
   - Augment the IT organization's knowledge gaps with the following:
     - Applications Specialist
     - Database Administrator
     - IT Supervisor

2. **Upgrade or replace aging infrastructure**
   Assess and evaluate the City existing systems and upgrade or replace as appropriate. ThirdWave recommends that the City:
   - Assess its data storage devices, and purge unnecessary or duplicate content.
   - Calculate anticipated storage growth and install data storage devices to meet a 5-year increased storage requirement, including servers and NAS devices.

3. **Upgrade or replace aging department/enterprise software with strategic applications:**
   ThirdWave recommends that the prioritized applications identified in the ITSP Roadmap be implemented focusing on:
   - Applications highly tailored and responsive to the specific business, functional and technical requirements identified in the Rapid Workflow® workshops, e.g., Enterprise Document/Records Management, Workflow Automation/E-Forms/E-Signatures, Asset Management, Customer Relationship Management, and so on.
   - Enterprise Architecture, Interoperability, Service Oriented Architecture and Web-enabled capabilities to foster application integration.
   - Cloud-based applications, where appropriate, with proper vetting that hosted applications can be integrated with related systems.

4. **Adopt staff training as a prerequisite for the deployment of Information Technologies**
   - Include and budget for formal role-based staff training in the procurement of all new application software as part of the Scope of Work, in addition to the Train-the-Trainer on enterprise systems where it is appropriate.
   - Implement an ongoing training component as part of the proposed IT Team to address all existing and proposed applications identified in the ITSP.

5. **Focus City Website on E-Government, Online Web Service Delivery**
   Refocus the City website from an information dissemination tool to an online service delivery tool with interactive, transactional and online services integrated with the City's financial, enterprise, departmental technologies – fostering convenience, self-service access to document/records, and transparency.

E 4.5 ITSP Benefits

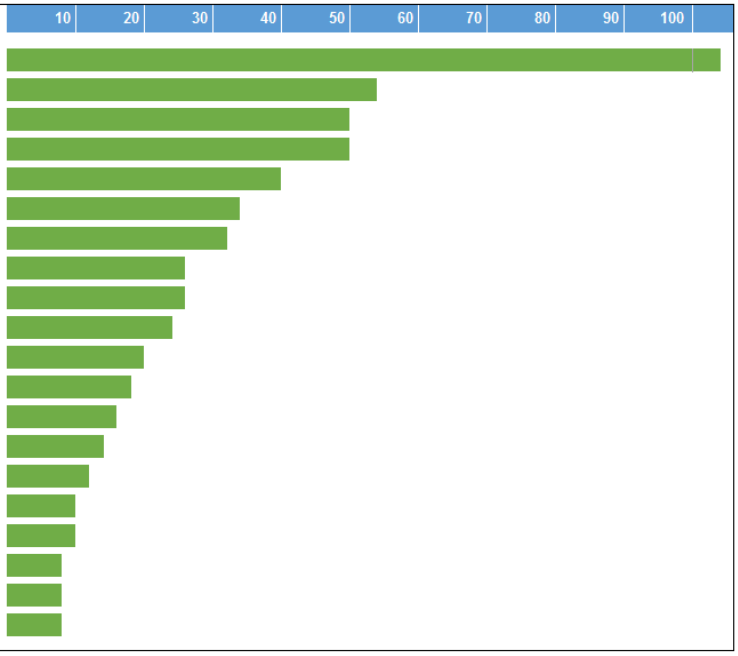
The ITSP project identified potential benefits that could be realized by implementing the ITSP initiatives at the City. Potential benefits were identified in the Rapid Workflow® workshops, where comprehensive and detailed data was gathered on business process challenges in the City. Benefits include qualitative and quantitative benefits of proposed technology solutions if implemented, e.g., staff time savings, cost savings, streamline business process, enhanced service delivery, and so on.

Benefits were identified at several levels, e.g., within a section or division for the business process being examined, the City as a whole, or the public. This information was leveraged to build a compelling business case for IT initiatives, and for prioritizing ITSP initiatives in the ITSP Roadmap. A total of six-hundred and seventeen (617) potential benefits were identified in fifteen (15) business process workshops, representing an average of forty-one (41) benefit opportunities per mission critical business process. These were grouped into forty-one (41) types.

Figure E 4.5.1 below, ITSP Potential Benefits, provides the top twenty (20) potential benefits that will be derived by approving and funding the ITSP. (The number in the column shown as "Qty." indicates the number of times these benefits were identified in all of the Rapid Workflow® workshops.) While these benefits are not quantified in terms of hard dollars, the figure below provides a level of magnitude on the potential impact that ITSP initiatives offer the City and its constituents.

Figure E 4.5.1: ITSP Potential Benefits

	Benefit Types	Qty.
1	Staff time savings.	104
2	Improved customer service	53
3	Cost savings	49
4	Improved efficiencies / productivity	49
5	Business process improvement.	40
6	Improved document / records management.	34
7	Improved transparency / accessibility to the public.	32
8	Improved public image.	26
9	Reduced stress.	25
10	Better / timely information.	23
11	More collaboration.	19
12	On time project delivery.	18
13	Improved quality control.	15
14	Consistent, timely response.	13
15	Ecology - Green City	12
16	Improved standards	10
17	Improved staff morale.	9
18	More timely billing.	8
19	Consistent, more timely reviews.	8
20	Improved City legal position.	8



Section 1

Introduction

1.1 Project Background, Goal & Objectives

The goal of the IT Strategic Plan and Roadmap (ITSP) is to identify internal and external municipal technology needs; the role of Information Services within the organization; and responsive technology solutions that will allow the IT organization to provide exemplary services to the community of Goleta. In addition, the ITSP will help guide the City in responsive technology planning and sound investments.

The objective of the ITSP is to provide a 5-year ITSP Roadmap employing a highly participatory process directly engaging City departments and staff. The ITSP contains actionable recommendations that will guide and shape how the City of Goleta delivers innovative and effective technology services throughout the organization and to the community at large.

This report is accompanied by a second volume, Part II: ITSP Roadmap focusing on prioritization, budgeting and deployment timelines. As such, the following pages address “what” should be done, and the implementation Roadmap addresses “when” and at “what cost.”

© 2017
ThirdWave Corp 11400 W. Olympic Blvd. Suite 200 Los Angeles CA 90064 310.914.0186 V 310.312.9513 F

The objectives of the ITSP are to:

- Connect technology resources, innovation, and initiatives to the City of Goleta's Strategic Plan. Furthermore, facilitate excellence in municipal services, civic participation, and community wellbeing.
- Serve as the framework for how IT services will be delivered to the City with an enterprise focus to integrate existing and new systems to provide business process improvement.
- Define a clear set of goals, guiding principles, and strategic priorities for accomplishing the City's objectives:
  - Information Technology Strategy
  - Guiding Principles
  - Implementation Roadmap
- The IT Strategic Plan contains actionable objectives, and will be the guiding document that shapes how the City delivers innovative, unified, and effective technology services throughout the organization and to the community.

To this end, the implementation of future business systems and Information Technology projects must be properly prioritized, scheduled, and coordinated as part of an enterprise ITSP. Implementation of the ITSP Roadmap will help ensure the City's technological advancement by making logical and sound investments in physical resources (i.e., hardware, software, integrated systems, etc.) and human resources (staff and training).

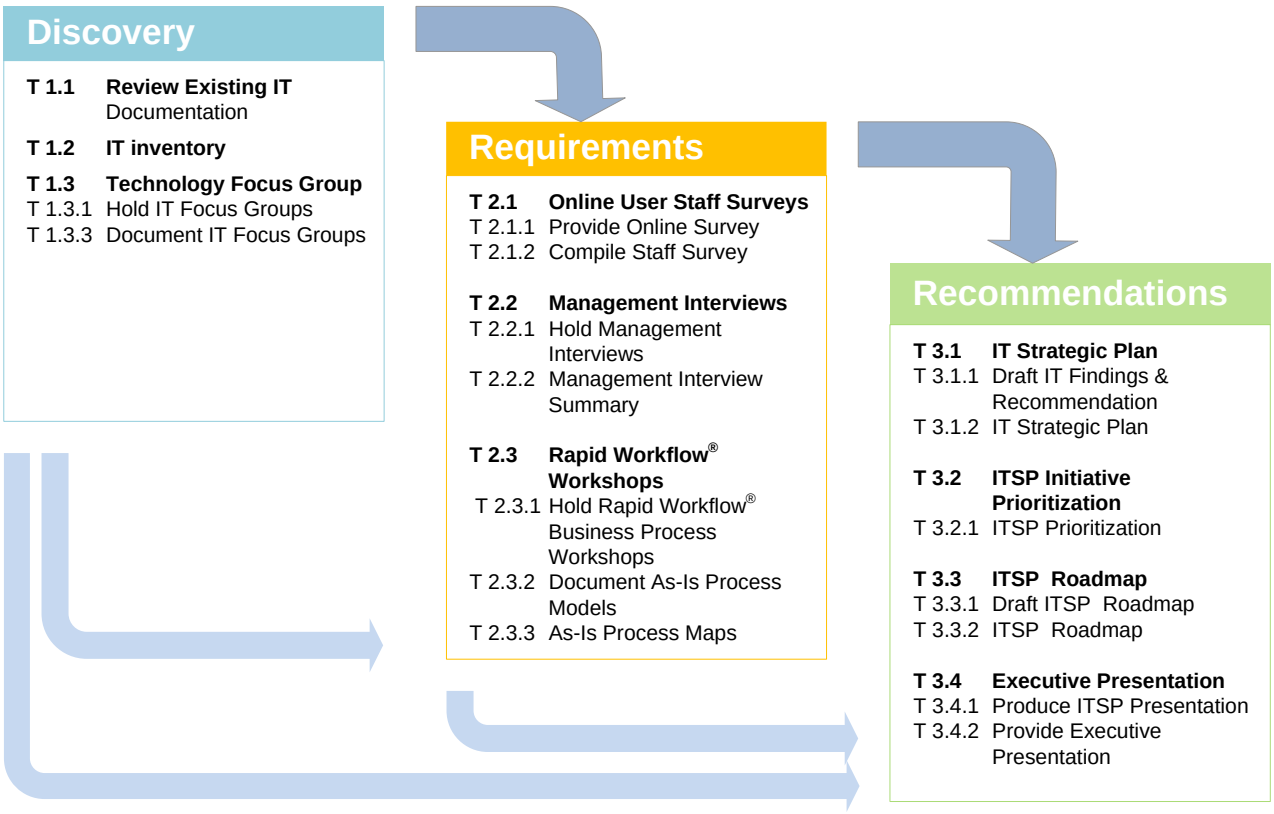
1.2 IT Strategic Plan Roadmap Project Approach

The ITSP project employed a comprehensive, logical and structured "waterfall" approach relying on the collection, assessment, and synthesis of various types of information, including:

- Documentation of Current Technology
- IT Systems Inventory
- Management Interview data
- City Staff Online Survey data
- IT Focus Groups data
- Rapid Workflow® Business Process Analysis Workshop data.

Figure 1.2.1, Comprehensive Project Methodology, illustrates the approach used on the ITSP Roadmap project. As shown, the project was broken out into three phases: Discovery, Analysis/ Requirements and Recommendations / Strategy.

Figure 1.2.1: Comprehensive Project Methodology



Data from one phase is referenced in subsequent project phases and forms the basis for the final recommendations and strategy.

Phase 1: The Discovery Phase established a baseline understanding of the City's IT and business systems environment, including a survey of existing information technologies.

Phase 2: The Analysis/Requirements Phase engaged a broad section of stakeholders, including:

- City Department Heads: in management interviews soliciting a Management perspective on current and future operating challenges faced by Departments.
- City staff: fifteen (15) business requirements workshops were held to address departmental and enterprise operating needs. Over two hundred and forty (240) City staff and management participated, with several contributing inputs in more than one session.
- IT staff: in four focus groups, IT Support staff addressed Infrastructure, Hardware, Software, and Service Delivery challenges.

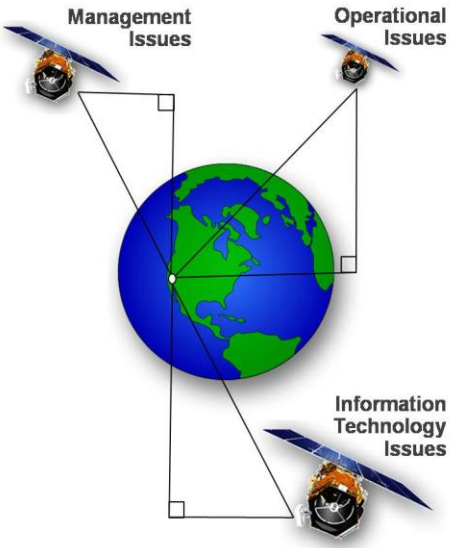
Phase 3: The Strategic Plan Roadmap Phase: synthesized all of the data collected in previous tasks to produce the findings, recommendations and implementation plan, including prioritized technology initiatives.

The ITSP Roadmap identifies opportunities for improving business process and customer service through policy, process and/or Information Technology initiatives. ThirdWave used a comprehensive analysis to produce a pragmatic ITSP Roadmap custom tailored for the specific needs of the City of Goleta.

Figure 1.2.2: Comprehensive Project Framework

ThirdWave's IT Strategic Planning framework triangulates on all key facets of the organization to get a crisp definition of business, functional and technology requirements to produce responsive and actionable recommendations. The project employed a highly participatory process engaging the entire cross section of stakeholders including:

- ***Management Interviews:*** To address business unit missions, business architecture, governance structure, management policies, strategic planning, fiscal and staff resource allocation to effectively sustain the Roadmap.
- ***Operational/Business Process Workshops:*** To address opportunities for streamlined business processes, methods and procedures, and the service delivery tools required by staff to provide extraordinary service delivery.
- ***Technology Focus Groups:*** To address strategic information technologies with the appropriate infrastructure, hardware, software, Enterprise Architecture, organizational structure, knowledge, skills and abilities; standards and best practices.



ThirdWave's IT Strategic Planning Triangulation Framework ©1988

The findings and recommendations in this document respond to management, operational, and technology requirements collected in various project tasks. ThirdWave's IT Strategic Planning Triangulation Framework recognizes that a viable IT strategy addresses all needs of the organization, including the needs of its constituents.

This document is not meant to be read in one sitting; it is a reference guide of a roadmap for a five-year journey. The ITSP provides the rationale and technical description of strategic business / IT initiatives, facilitating the effective planning, procurement, implementation and management of information systems at the City of Goleta.

Volume 1 ITSP Findings & Recommendations (this document) describes "what" the City should do, Volume 2, the ITSP Roadmap describes "when" and at what cost.

Section 2

Requirements Definition Findings

2.1 Management Requirements Findings

Management requirements were gathered via interviews; the objectives included the following:

1. Obtain a management perspective on unique business challenges facing each department.
2. Gather city-wide functional, operational and service delivery requirements.
3. Solicit management opinion on the existing IT organization and the level of their support services.

Department heads from the following organizations participated in the management interviews:

1. City Manager
2. City Attorney
3. Community Relations
4. City Clerk
5. Finance
6. Planning and Environmental Services
7. Public Works
8. Neighborhood Services/Public Safety
9. Human Resources

The figures below summarize the data collected from the City's leadership team including the most significant management, business and technology challenges. Department challenges are shown on the left and corresponding number of times an existing challenge was mentioned is reflected under the quantity (Qty.) column, illustrated by the Gant chart. The responses are for the following question: *"What are the most significant operational and/or service delivery (not technology) challenges facing your department at the present, and in the next 3 to 5 years?"*

The management responses have been grouped into similar responses in the figure below.

© 2017

Figure 2.1.1: Management Team Business Challenges

	Management Business Challenges	Qty.
1	Getting the Zoning Code adopted	2
2	Time Entry (Payroll)	2
3	Business Licenses	1
4	Cash Collections	1
5	Counting inventory of signs	1
6	Development projects	1
7	Tracking City Council requests	1
8	Tracking major projects	1
9	Doing more with less	1
10	Employee Self-Service portal	1
11	E-Signature Policy	1
12	Getting a complete set of documents	1
13	Public that is more tech savvy	1
14	Imaged documents accessible to a couple of staff	1
15	Incomplete agenda reports	1
16	Tracking insurance certificates	1
17	Lack a permitting system	1
18	Manual on-boarding/personnel status changes	1
19	No system for Planning and tying PW together	1
20	Manual/paper processes	1
21	Planning Commission packets	1
22	Public Records Act	1
23	Purchase Requisition/Orders	1
24	Manually tracked Risk Management claims	1
25	Staff shortages	1
26	The crime rate	1
27	Tracking and reporting on progress of Strategic Plan	1
28	Tracking and reporting performance measures	1
29	Use of social media	1

© 2017

The management team interviews did not reveal a common set of challenges. The most significant management business challenge facing City executives are noted in the first two items on the list, adopting the Zoning Code and implementing a time entry system.

The figure on the following page provides a summary of technology challenges identified in the City's management team interviews.

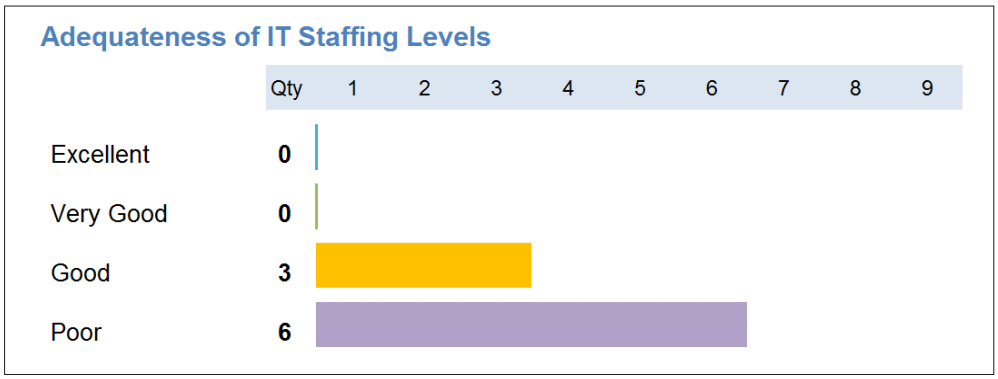
Figure 2.1.2: Management Team Technology Challenges

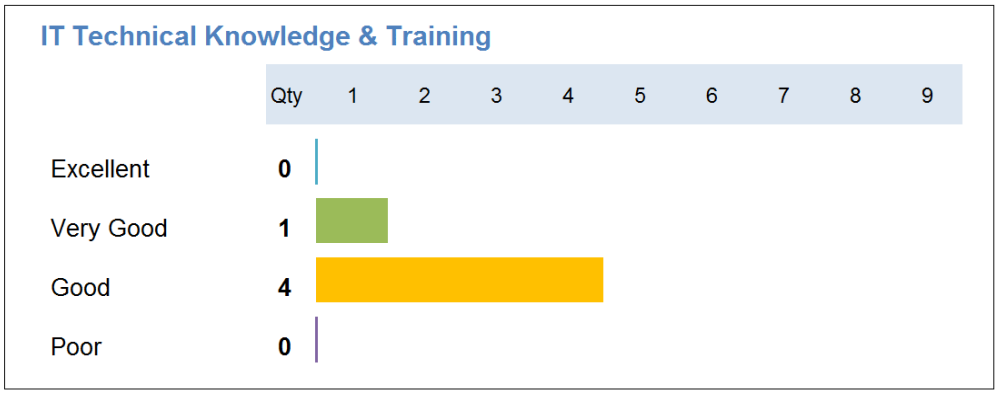
	Management Technology Challenges	Qty.
1	Electronic Document Management	5
2	Customer Relationship Management (CRM)	2
3	Tracking/reporting activities	1
4	City Point of Contact to interface with Gov Clarity/GIS	1
5	Computers that can't handle file sizes	1
6	E-Citations	1
7	Email Management	1
8	Finance software	1
9	Geo-based systems	1
10	Granicus support levels	1
11	Inability to download software	1
12	Internet speed	1
13	Lack of access to basic software	1
14	Legal files software	1
15	Need good inventory system	1
16	Need roles and responsibilities for IT issues	1
17	Need permit tracking and imaging operational	1
18	New financial management systems	1
19	No automated backups	1
20	No integrated software/taxonomy	1
21	Outsourced support	1
22	Proactive replacement of hardware	1
23	Secure and robust remote access environment	1
24	Challenging software systems	1
25	Training before roll out of new software	1
26	User friendly software for PM	1
27	Website	1

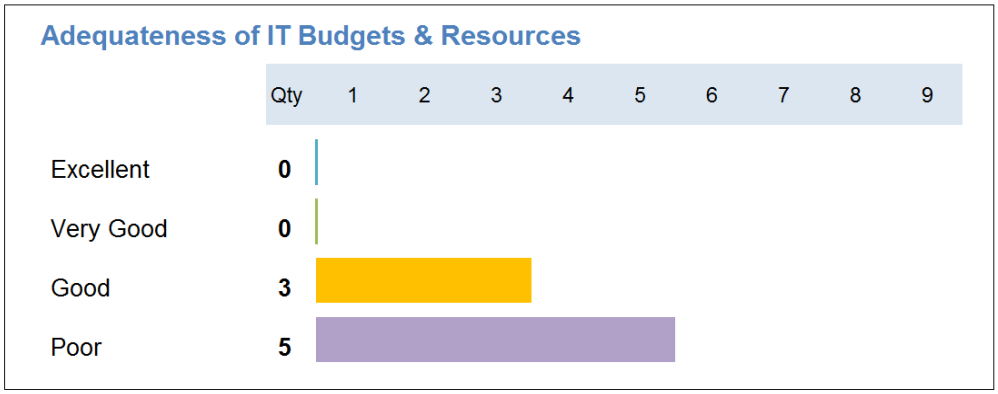
The most significant technology challenges facing the management team include Enterprise Content Management and Customer Relationship Management systems, which are consistent with other data collected in the project.

The figure below provides a listing of management responses for the following question: *"What is your department's level of satisfaction with the IT organization's ability to support your department's current or projected needs?"*

Figure 2.1.3: IT Staffing, Knowledge and Resources Allocation







The management interviews revealed the following related to the IT organization:

Management/Operational Challenges

- Sixty-six percent (66.6%) of the management team rated the adequateness of IT staffing levels as "Poor." Here are some comments made in the management interviews related to IT support:

  "IT support is only onsite an average of 8 hours/week. There is a perceived lack of availability of IT to respond to staff needs. IT requests sometimes take weeks or longer to be fulfilled and the model of support is reactionary vs. proactive. Only see the need for support growing over time as the City becomes more reliant on these tools. Do not see how the status can continue."

  "The City has one guy, and have had to wait a long time to get issues addressed in the past, 2 – 3 weeks."

  "Need more regular IT support, more than twice per week. While the existing person does a good job handling emergencies, it always feels the requests take forever."
  "No Internal IT on staff. Would be ideal to have someone on staff (or least in the building) on a more frequent basis. Two afternoons/week not sufficient."

  "There are not enough resources. He is only here twice a week and not for full days. Would be better to have someone here full-time. HR is waiting longer to have things fixed and if there are small items, they aren't asking, because he is not here and it seems too small. This build up and can become a large item then. If someone was here full-time, there would be better service."

  Other management comments related to IT staffing were similar. Clearly the current IT staffing level is not sustainable if new IT initiatives are implemented as a result of the IT Strategic Plan.

Technology Knowledge Challenges

- Eighty percent (80%) of the Management team rated technology knowledge as "Good." Below is a sampling of comments made in the management interviews:

  "Not accessible frequently enough."

  "This person seems to be knowledgeable."

  "Not sure, but things break a lot and storage is maxed out. Also, it seems like they are being asked to save in duplicates to help out. Searching feature to find documents. On different shared drives until they get maxed out and have to delete. Not efficient."

"He is reactive and does what he can but within the limits of his contract. He is knowledgeable, but doesn't bring alternative solutions, only break/fix. He admits that he needs to get things stable, but it is not the best model, as there isn't anything beyond this. He wants/needs to maintain the status quo."

IT Budget & Resource Challenges

- Sixty-two percent and-a-half (62.5%) of the management team rated the adequateness of IT budgeting and resources as "Poor" and the balance, 37.5% rated is as "Good." Below is a sampling of comments made in the management interviews:

  "Council has never rejected any of IT request. IT has never been an issue. They are supportive of the ITSP study. Funding has been good. Where there may different opinions: staff may think we need to ask for more because some things may not have been reflected in the budget. But you can't ask if you don't know what you need."

  "Need more server capacity."

  "Need more funding, but not sure how much. It's behind the scenes technology and don't always see it until it's too late. Not sure if the budget is not there or if there isn't staffing available to make it happen. Known for a while that budget is not there, but it has been okay and have been getting through. For a while there were more issues. Not sure the City has looked to the future of how to meet the demands."

  "Licensing was difficult for a while on Office, but not experiencing other challenges. Everyone is getting what they need."

  "We feel more resources are needed."

  "Not enough budgeted. Has to be used correctly."

  "Need to look at what are the IT needs, SW and HW, and what are the resources needed to maintain that level of information systems at the City. Have had challenges where the servers are maxed out; upgrades that were not planned for or implemented."

  "The budget is set to be reactive. The City has not been looking to the future of what can be done. The ITSP will help. My opinion is that our current and past practices have viewed IT infrastructure as a necessity, and reactive in nature, i.e. a problem is identified and we then are forced to find an IT solution to handle or prevent it. We should instead be proactively viewing IT as a tool we can use to take us to the next level, something that assists us in implementing ideas that improve customer service and operational efficiencies."

The most telling observation that can be made of the forgoing data is that in no case was anything rated as "Excellent: and on one response included a rating of "very Good", clearly there is room for improvement in the City's allocation of IT staffing, resources and budgeting.

2.2 Information Technology Focus Group Findings

The following pages provide a summary of comments and findings from four Focus Groups held with the City's IT support consultant and the City Project Manager regarding the City's Information Technology portfolio and operations.

The following provides a summary from the IT Focus Group deliverable. It includes a graphical illustration on the nature of challenges and opportunities facing the City in four key technology areas:

- Infrastructure: data centers, networks, communications
- Hardware: servers, computers. mobile devices. peripherals
- Software: enterprise, department, web-enabled applications
- Sustainability & Service Delivery: staffing, operations. and services delivery

Legend:

M	■	Management Issues: related to finance, organizational structure, staffing, training, and/or policy.
O	■	Operational Issues: related to operations, service delivery, methods and/or procedures.
T	■	Technology Issues: related to any aspect of information technology.

1	Infrastructure	M	O	T
1.1	**Network Infrastructure**			
	1. Needs are not communicated to Department Heads.	■		
	2. New switches are required			■
1.2	**Telecommunication Infrastructure**			
	1. Too many vendors: Impulse, COC, Frontier, Primus	■		
1.3	**Data Centers**			
	1. Space constraints		■	■
	2. Environment is not appropriate, i.e., sprinkler heads above			■
1.4	**Data Storage**			
	1. Storage capacity is maxed out (a serious issue)			■

2.	Hardware	M	O	T
2.1	**Servers: Application, Database and Web Servers**			
	1. Servers are maxed out			■
2.2	**Personal Computers**			
	1. Are in the process of replacing PCs			■
2.3	**Laptops**			
	1. Need to replace Laptops.	■		■
	1. Cannot login to personal desktop/shared drives from Laptops.			■

2.4 Mobile Devices: Tablets/Smart Phones

1. Do not have a BYOD policy
2. Mobile technology is not made available

3. Software	M	O	T
3.1 Department Applications			
1. Crossroads: have to rely on Sheriff's Dept. to copy and update the City's data			
3.2 Enterprise Applications			
1. GIS GovClarity does not do what the City requires			
2. Lack GIS Standards			
3. GovClarity does not fulfill users' needs			
3. Applications are not utilized to the fullest extent			
3. Have limited Licensing with ESRI			
3.3 E-Government/Online Applications			
1. Online payments are used for Credit Cards only			
2. Customers need to call to obtain authorization code			

4. Operations & Sustainability	M	O	T
4.1 IT Organizational Structure			
1. The City uses managed services that can cause response issues			
2. Lack a dedicated staff on site			
3. Problems can only get fixed on Wednesday afternoon and Friday mornings			
4.2 Business Continuity & Disaster Recovery			
1. Lack a Business Continuity Plan.			
2. Lack a Disaster Recovery Plan			
4.3 Security			
1. The City may be more stringent than they need to be with Systems Security.			
4.4 Help Desk			
1. Synergy creates ticket when support request is received.			
2. The City is not creating their own tickets, Synergy is			
3. End user ticket is inconsistent.			
4. Unable to gauge the level of urgency.			

© 2017
ThirdWave Corp 11400 W. Olympic Blvd. Suite 200 Los Angeles CA 90064 310.914.0186 V 310.312.9513 F

2.2.1 Summary of IT Focus Groups

The figure below provides a high-level overview of the four technology support areas addressed in the IT Focus Groups. The Gant chart illustrates the number of times an issue was identified by IT staff.

Figure 2.2.1.1: IT Focus Group Problem Statement Dashboard

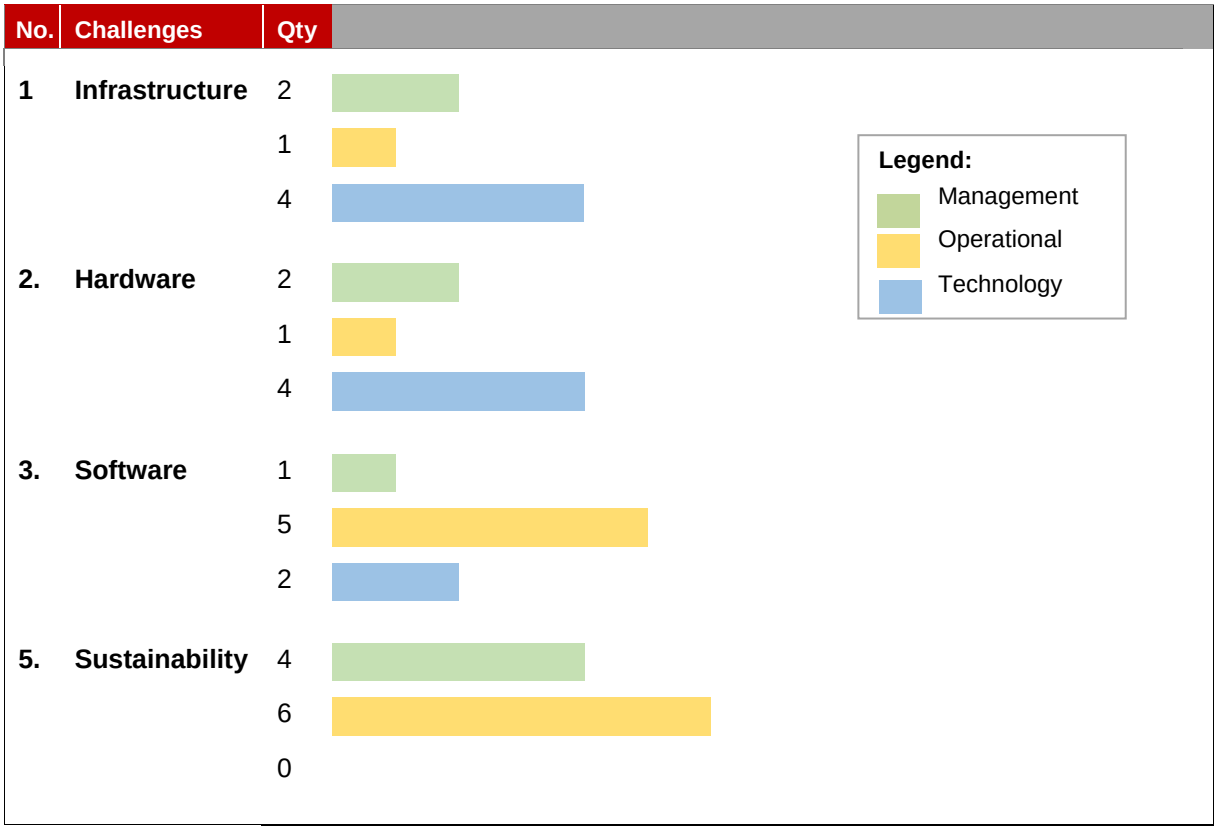


Figure 2.2.1.2, Overall Summary of IT Department Challenges, provides an overall summary of the challenges identified in the IT Focus Groups, which gathered information directly from the City's technical professionals. While the compiled instances of management, operational, and technology problems are not weighted, this dashboard provides a general indicator of existing challenges identified by the City of Goleta's IT staff.

© 2017

Figure 2.2.1.2: Overall Summary of IT Department Challenges

Challenges	Qty	%
Management	9	28.12
Operational	13	40.62
Technology	10	31.25
	32	**100**

The figure summarizes the data from Figure 2.2.1.1 above and indicates that the most significant challenges faced by the IT organization relate to IT operational issues with Management and Technology issues coming in close seconds. (The solutions from the IT Focus Groups are incorporated into section *2.4 Leading Technology Initiatives.)*

2.3 City Staff Online Survey

The data on the following pages was gathered via an online survey that allowed all City staff the opportunity to provide input on their perception of the City's Information Technologies and the IT organization's ability to support the City's needs.

The online survey was posted from March 29 to April 13, 2017. Thirty-five (35) out of sixty (60) city staff responded, or approximately 41.6% of all City, a very good response.

The online survey addressed the following:

- Existing information systems: infrastructure hardware, and software
- Information and data sharing needs
- IT support levels
- Business and service delivery applications

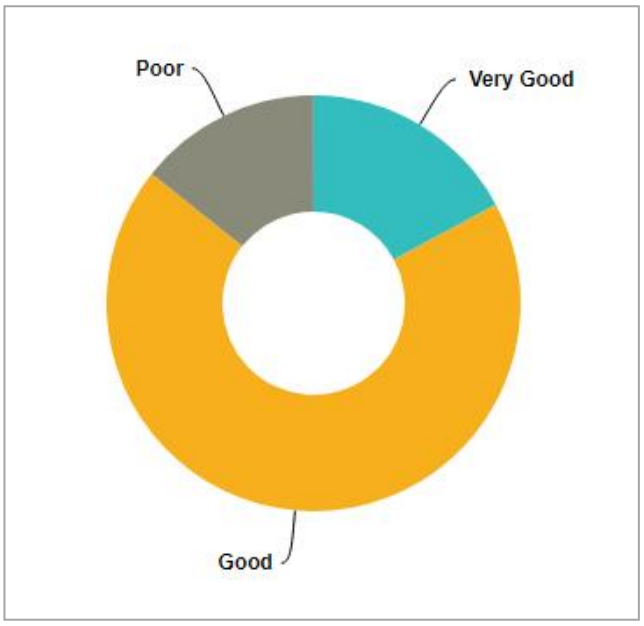
The following figure illustrates the degree of City staff participation sorted by departments in descending order. Generally speaking, the survey received a great response.

Figure 2.3.1: City Staff Participation on the Survey

Department Survey Responses	Qty.
Planning & Environmental Review	11
Public Works	7
Finance	5
City Clerk	3
City Manager	3
City Attorney	2
Neighborhood Services & Public Safety	2
Human Resources & Risk Management	1
Community Relations	1
Support Services	0
TOTAL RESPONCES	**35**

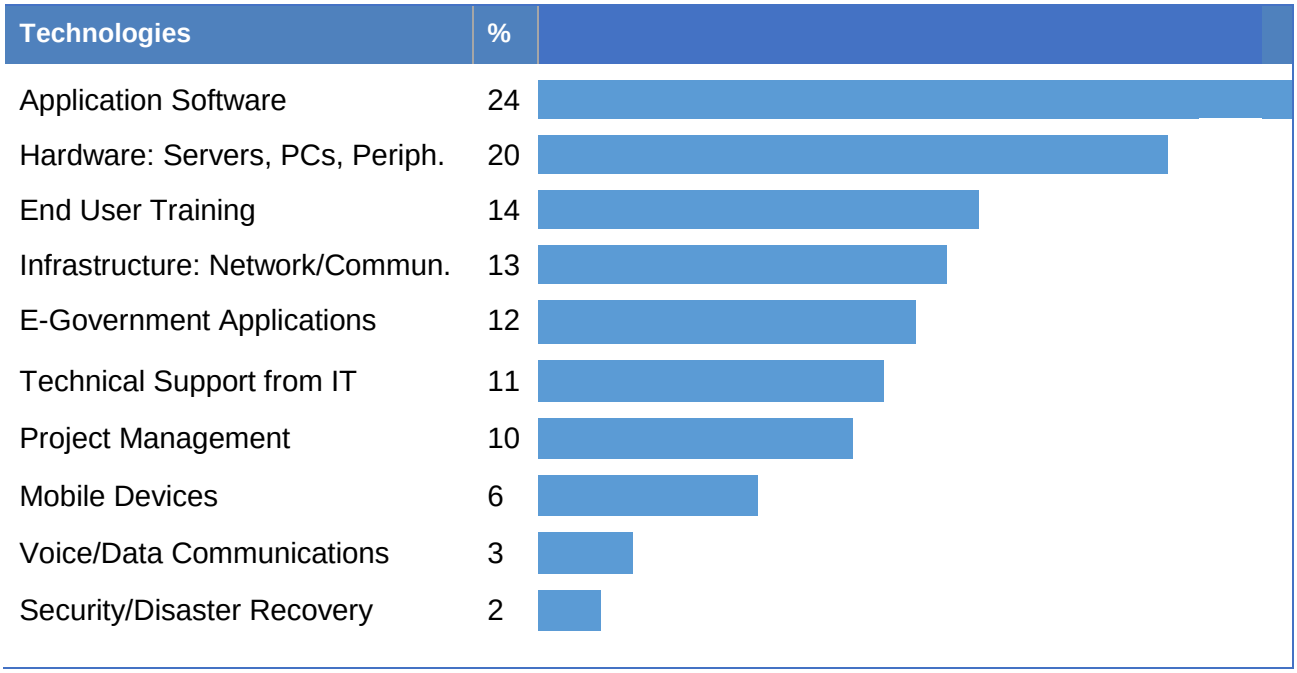
The figure below illustrates how City staff and management perceive the condition of existing systems used at the City. City staff generally rated the tools currently used as "Good."

Figure 2.3.2: Overall Condition of Information Systems Rating



The figures on the following page provide the responses from key questions in the City staff survey, summarized in a graphical format.

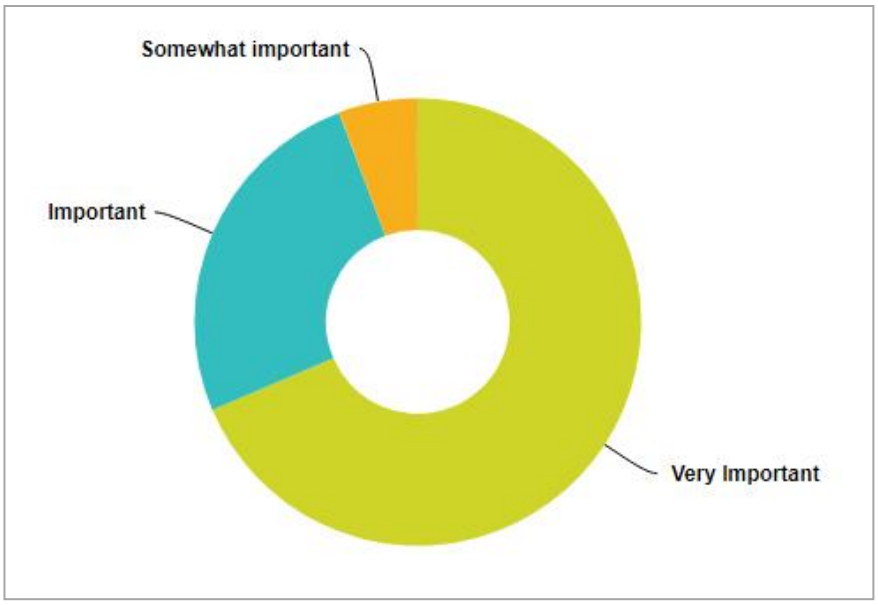
Figure 2.3.3: Technologies Requiring the Most Improvement



Technologies	%
Application Software	24
Hardware: Servers, PCs, Periph.	20
End User Training	14
Infrastructure: Network/Commun.	13
E-Government Applications	12
Technical Support from IT	11
Project Management	10
Mobile Devices	6
Voice/Data Communications	3
Security/Disaster Recovery	2

The figure below illustrates the responses to a question on how important is it for the City website to provide online services (i.e., E-payments, E-Commerce, and/or E-forms (not PDFs that have to be filled out printed and faxed or emailed back)

Figure 2.3.4: Importance of Providing Online Services on the City Website



Thirty-six (36) different online applications were provided for staff to pick from. The figure below reflects the seventeen (17) top responses to a question asking what online services City staff would most like to provide the residents of Goleta. (Ten applications that received less than three votes are not listed here but are included in the Online Staff Survey deliverable.)

Figure 2.3.5: Online Service Desired to Enhance Services Delivery to the Community

	Management Technology Challenges	Qty.
1	City Intranet	14
2	Online Permits – Information posting only	13
3	Online Employee Self-Service: Payroll/Time Cards	13
4	Online Fee Payment	12
5	City Website Functional Improvements	11
6	Online Maps – Interactive map searches	11
7	Online Business Licenses	11
8	Online Plan Checks / Permitting	8
9	City Website Redesign	7
10	Online Payments: City Invoices	7
11	Online Payments: Permits Residential	7
12	Online Bid Center	5
13	Online City Code Enforcement	5
14	Online Finance Customer Service Applications	4
15	Online Customer Service Request Application	3

© 2017

2.4 Leading Technology Initiatives

The figure below provides a list of the technology initiatives identified in the ITSP project. (The number at the right indicates the total number of times mentioned in the requirements definition tasks.) It bears noting that the initiatives identified in Figure 2.4.1 are not final; they are provided here for informational purposes and future reference. They will be prioritized in the ITSP Implementation Roadmap.

Figure 2.4.1: Infrastructure Initiatives *(Not Prioritized)*

	INF	Infrastructure	
1	I 1	Fast Wireless	2
2	I 2	Internet Speed	2
3	I 3	Phone System	2
4	I 4	Remote Access	1
5	I 5	Server Closet	1
6	I 6	Secured Wireless Network	1

Figure 2.4.2: Hardware: Servers, Workstations, Peripherals *(Not Prioritized)*

	HW	Hardware: Servers, Workstations, Peripherals	
8	HW 1	Servers Capacity	4
9	HW 2	PCs (Faster - Replacement Cycle)	3
10	HW 3	Mobile Devices	1

Figure 2.4.3: Departmental Software *(Not Prioritized)*

	D SW	Department Software	
11	DSW 1	Alcohol Permits Application	2
12	DSW 2	Special Events Tracking Application	2
13	DSW 3	Business License Application	1
14	DSW 4	Risk Management Application	1
15	DSW 5	Vison Content Management Revisions	1
16	DSW 6	Department Permitting Application	1
17	DSW 7	Library Timesheet Tracking Application	1
18	DSW 8	Help Desk Ticket System	1
19	DSW 9	Computer Aided Drafting	1
20	DSW 10	Fleet Management Application	1
21	DSW 11	Inspection Application	1
22	DSW 12	SCADA	1

Figure 2.4.4: Enterprise Software *(Not Prioritized)*

	E SW	Software: Enterprise	
23	ESW 1	Enterprise Content Management System	15
24	ESW 2	Records Management	13
25	ESW 3	Workflow Automation	2
26	ESW 4	E-Forms	3
27	ESW 5	E-Signatures	2
28	ESW 6	E-Permitting Application	6
29	ESW 7	ECMS Taxonomy	5
30	ESW 8	Inventory / Asset Management Application	4
31	ESW 9	Customer Relationship Management Application	4
32	ESW 10	GIS: Consolidate GIS Systems	3
33	ESW 11	Back file Conversion	3
34	ESW 12	Project Management Application	3
35	ESW 13	ERP Financials	2
36	ESW 14	ERP Accounts Payable Application	2
37	ESW 15	E-Government Strategy	1
38	ESW 16	Vision/Site Enhancement	1
39	ESW 17	GIS Strategic Plan	1
40	ESW 18	GIS Coverages: Natural Resource Layer	1
41	ESW 19	ERP Accounts Receivables Application	1
42	ESW 20	ERP Purchase Requisitions / POs (Incode)	1
43	ESW 21	ERP Risk Management Claims Application	1
44	ESW 22	ERP Insurance Tracking Application	1
45	ESW 23	ERP Purchasing Application	1
46	ESW 24	ERP Human Resources Application	1
47	ESW 25	Work Order Application	1
48	ESW 26	Instant Messaging Platform	1
49	ESW 27	Tracking City Council Requests Application	1

Figure 2.4.5: E-Government *(Not Prioritized)*

	EGOV	E-Government	
50	EGOV 1	E-Commerce Applications	2
53	EGOV 2	City Website Enhancements	1
51	EGOV 3	Intranet	1
52	EGOV 4	Online Employee Services	1
54	EGOV 5	Online Maps	1
55	EGOV 6	Online Business Licenses	1

Figure 2.4.6: System Integration *(Not Prioritized)*

	AI	Application Integration	
56	AI 1	City Assist / GeoDelivery / Blackboard Connect	1

© 2017

2.5 Data Driven Basis for ITSP Initiatives

The figures on the following pages (Figures 2.5.2 through 2.5.6) illustrate where each of the initiatives shown above was identified in the ITSP Roadmap project, e.g., management interviews, IT Focus Groups, Rapid Workflow® workshops or Online Staff Survey. This is important for traceability purposes; in future years of the ITSP Implementation Roadmap, City staff will be able to reference where recommendations came from.

Figure 2.5.1: Enterprise Initiative Matrix

			Software Departmental							Software Enterprise										
			Online Permitting (Replace Innoprise)	E-Land Dev. Permits (Replace Innoprise)	Online Liquor License	Code Enforcement App (Cartegraph)	Online R/W Permitting Application	Intelligent Transportation Systems Strateg	Chameleon	ECMS	Imaging	Enterprise Content Managemnt	Enterprise Records Management	Automated Workflow	Agenda Management	Email Management	E-Forms	E-Signatures	Enterprise Taxonomy	Backfile Conversion
No.	Rapid Workflow	Business Process	11	12	13	14	15	16	17	18							19	20	21	22
1	Public Works	Facilities Managemnt										■		■			■		■	
2	City Clerk	Agenda Management									■	■	■	■			■	■		

How to read the matrices:

The enterprise initiative matrix provides a list of Rapid Workflow® process workshops, IT Focus Groups, Management Interview and Online Staff Survey requirements on the left column. The table is meant to be read by line item from left to right. Each square symbol on that line indicates an IT initiative identified in that workshop, focus group, interview or survey response. The technology initiative is denoted above in the vertical text.

In this illustration, the first initiative for the Public Works Facilities Management workshop is Enterprise Content Management; the second initiative is Automated Workflow, and so on.

Written descriptions for ITSP initiatives are provided in Section 3, IT Strategic Plan Recommendations, in this document. *The list of IT Strategic Roadmap initiatives shown above went through a formal prioritization process, which is presented in Volume 2: ITSP Roadmap.*

Figure 2.5.2: Management & Operational Requirements

Legend:

- Management Policy Initiatives
- Business Process Improvement
- Infrastructure Initiatives
- Hardware Initiatives
- Software Initiatives
- E-Government Initiatives
- Systems Integration

Management / Policies

		1 Management meeting to simplify forms	2 Web Policy - Depts Content Mngt./Audits	3 Role-based Training	4 Staff Training - Web Content managemenet	5 Staff Training - GIS	6 Staff Training - Project Management	7 Staff: IT Team (GIS Coor / APP Spcl)	8 Staff: Traffic Eng., Dep Dir., Proj Emg.	9 Adopt a Standard Contract	10 Adopt SOPs / Process	11 Revise Budget Authority Level	12 Standard RFP Templates	13 Update Purchasing Order	14 Adopt Master Service Agreements	15 Email Policy	16 Change Library Hours Schedule	17 Pilci to Enforce Dedalines	18 Adopt BYOW Device Policy
WS	**Rapid Workflow Process**	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	Risk Management Process	■	■		■														
2	Website Enterprise Session		■																
3	Development Process																		
4	GIS Enterprise Session					■		■											
5	Account Receivables Process																		
6	Development Permit Tracking Process						■												
7	Design Management								■	■	■								
8	Enterprise PO / AP										■	■							
9	RFP Procurement Process			■									■	■					
10	Asset Management Process																		
11	Public Works Land Development Design								■						■				
12	Public Records Request process															■			
13	Records Management Enterprise Session			■															
14	Library Session																■		
15	Agenda Process			■														■	
		1	2	3	1	1	1	1	2	1	2	1	1	1	1	1	1	1	0
I	**Management Interviews**																		
1	City Manager			■			■	■											
2	City Attorney																		
3	Public Information Manager			■				■											
4	Planning Environment. Services Director			■				■											
5	Neighborhood Services Director							■											
6	Advanced Planning Director																		
7	City Clerk							■											
8	Finance Director																		
9	HR/Risk Manager Director							■											
10	Public Works Director							■			■								
		0	0	3	0	0	1	7	0	0	1	0	0	0	0	0	0	0	0
FG	**IT Focus Group**																		
	Infrastructure & Hardware							■											
	Hardware																		■
	Software																		
	Sustainability							■											
		0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	1
SR	**Online Staff Survey**																		
				■															
		0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		1	**2**	**7**	**1**	**1**	**2**	**10**	**2**	**1**	**3**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**

Operation

		1 Revise web Forms	2 Development Review Teams	3 Business Process Improvement	4 PC Refresh Program	5 Disaster Recovery Plan	6 Business Continuity Plan	7 Technology Implementation Planning	8 Technology Implementation Planning
WS	**Rapid Workflow Process**	1	2	3	4	5	6	7	8
1	Risk Management Process								
2	Website Enterprise Session	■							
3	Development Process		■						
4	GIS Enterprise Session								
5	Account Receivables Process								
6	Development Permit Tracking Process								
7	Design Management								
8	Enterprise PO / AP								
9	RFP Procurement Process			■					
10	Asset Management Process								
11	Public Works Land Development Design								
12	Public Records Request process								
13	Records Management Enterprise Session								
14	Library Session				■				
15	Agenda Process			■					
		1	1	2	1	0	0	0	0
I	**Management Interviews**								
1	City Manager								
2	City Attorney								
3	Public Information Manager								
4	Planning Environment. Services Director								
5	Neighborhood Services Director								
6	Advanced Planning Director								
7	City Clerk								
8	Finance Director								
9	HR/Risk Manager Director								
10	Public Works Director								
		0	0	0	0	0	0	0	0
FG	**IT Focus Group**								
	Infrastructure & Hardware								
	Hardware								
	Software								
	Sustainability					■	■		
		0	0	0	0	1	1	0	0
SR	**Online Staff Survey**								
						■	■	■	■
		0	0	0	0	1	1	1	1
		1	**1**	**2**	**1**	**2**	**2**	**1**	**1**

© 2017
ThirdWave Corp 11400 W. Olympic Blvd. Suite 200 Los Angeles CA 90064 310.914.0186 V 310.312.9513 F

Figure 2.5.3: Infrastructure & Hardware Requirements

Legend:

- Management Policy Initiatives
- Business Process Improvement
- Infrastructure Initiatives
- Hardware Initiatives
- Software Initiatives
- E-Government Initiatives
- Systems Integration

		Infrastruct.						Hardware				
		Fast Wireless	Phone System	Internet Speed	Remote Access	Server Closet		Servers Capacity	PCs (Faster - Replacemene Cycle)	Mobile Devices	Scanners	
WS	**Rapid Workflow**	1	2	3	4	5		1	2	3	4	5
1	Risk Management Process											
2	Website Enterprise Session											
3	Development Process											
4	GIS Enterprise Session											
5	Account Receivables Process											
6	Development Permit Tracking Process											
7	Design Management											
8	Accela Focus Group											
9	RFP Procurement Process											
10	Asset Management Process											
11	Public Works Land Development Design											
12	Public Records Request process											
13	Records Management Enterprise Session											
14	Library Session	■	■						■			
15	Agenda Process											
		1	1	1	0	0		0	1	0	0	0
I	**Management Interviews**											
1	City Manager											
2	City Attorney											
3	Public Information Manager			■				■	■			
4	Planning Environment. Services Director							■	■			
5	Neighborhood Services Director							■				
6	Advanced Planning Director											
7	City Clerk											
8	Finance Director											
9	Human Resources Director				■							
10	Public Works Director							■			■	
		0	0	1	1	0	0	4	2	0	1	0
FG	**IT Focus Group**											
	Infrastructure & Hardware		■			■						
	Hardware											
	Software											
	Sustainability											
		0	1	0	0	1	0	0	0	0	0	0
SR	**Online Survey**											
										■		
		0	0	0	0	0	0	0	0	1	0	0
		1	**2**	**2**	**1**	**1**	**0**	**4**	**3**	**1**	**1**	**0**

Figure 2.5.4: Departmental Software Requirements

Legend:

- Management Policy Initiatives
- Business Process Improvement
- Infrastructure Initiatives
- Hardware Initiatives
- Software Initiatives
- E-Government Initiatives
- Systems Integration

Software

Departmental

		1 Risk Management Application	2 Vison Content Management Revisions	3 Development Permitting Application	5 Library Timesheet Tracking Appl	6 Alcohol Permits Application	7 Business Licences Application	8 Special Events Tracking Appl	9 Help Desk Ticket System	10 Computer Aided Drafting	11 Fleet Management	12 Inspection Application	13 SCADA
WS	**Rapid Workflow**												
1	Risk Management Process	■											
2	Website Enterprise Session		■										
3	Development Process			■									
4	GIS Enterprise Session												
5	Account Receivables Process												
6	Development Permit Tracking Process												
7	Design Management												
8	Accela Focus Group												
9	RFP Procurement Process												
10	Asset Management Process												
11	Public Works Land Development Design												
12	Public Records Request process												
13	Records Management Enterprise Session												
14	Library Session				■								
15	Agenda Process												
		1	1	1	1	0	0	0	0	0	0	0	0
I	**Management Interviews**												
1	City Manager												
2	City Attorney												
3	Public Information Manager												
4	Planning Environment. Services Director												
5	Neighborhood Services Director					■	■	■					
6	Advanced Planning Director												
7	City Clerk												
8	Finance Director												
9	Human Resources Director												
10	Public Works Director												
		0	0	0	0	1	1	1	0	0	0	0	0
FG	**IT Focus Group**												
	Infrastructure & Hardware												
	Hardware												
	Software								1				
	Sustainability												
		0	0	0	0	0	0	0	1	0	0	0	0
SR	**Online Survey**												
						■				■	■	■	■
		0	0	0	0	1	0	0	0	1	1	1	1
		1	**1**	**1**	**1**	**2**	**1**	**1**	**1**	**1**	**1**	**1**	**1**

Figure 2.5.5: Enterprise Software Requirements

Legend:

- Management Policy Initiatives
- Business Process Improvement
- Infrastructure Initiatives
- Hardware Initiatives
- Software Initiatives
- E-Government Initiatives
- Systems Integration

Software

Enterprise

		1 GIS Strategic Plan	2 GIS: Consolidate GIS Systems	3 GIS Coverages: Natural Resource Layer	4 ECMS Taxonomy	5 Enterprise Content Management System	6 Records Management	7 Back File Conversion	8 Workflow Automation	9 E-Forms	10 E-Signatures	11 ERP Financials	12 ERP Accounts Payable Software	13 ERP Accounts Receivables App	14 ERP Purchase Requisitions / POs (Incode)	15 ERP Risk Management Claims	16 ERP Insurance Tracking Application	17 ERP Purchasing Application	18 ERP Human Resources Application	19 Inventory / Asset Management Appl	20 Work Order Appl	21 Project Management Software	22 E-Permitting Software	23 Customer Relationship Management Appl	24 Instant Messaging Platform	25 Tracking City Council Requests Appl
WS	**Rapid Workflow**																									
1	Risk Management Process																									
2	Website Enterprise Session																									
3	Development Process			■		■	■																			
4	GIS Enterprise Session	■	■																							
5	Account Receivables Process													■												
6	Development Permit Tracking Process				■	■	■																			
7	Design Management																					■				
8	Accela Focus Group					■	■						■													
9	RFP Procurement Process					■	■		■																	
10	Asset Management Process																			■						
11	Public Works Land Development Design				■	■	■	■															■			
12	Public Records Request process																							■		
13	Records Management Enterprise Session				■	■	■																			
14	Library Session																									
15	Agenda Process					■	■																			
		1	1	1	3	7	7	1	1	0	0	0	1	1	0	0	0	0	0	2	0	1	1	1	0	0
I	**Management Interviews**																									
1	City Manager																					■				■
2	City Attorney					■																		■		
3	Public Information Manager				■		■			■														■		
4	Planning Environment. Services Director					■	■																■			
5	Neighborhood Services Director					■						■											■			
6	Advanced Planning Director					■		■															■			
7	City Clerk					■	■																			
8	Finance Director					■	■			■	■				■	■	■									
9	Human Resources Director																								■	
10	Public Works Director				■	■	■													■	■	■	■	■		
		0	0	0	2	7	5	1	0	2	1	1	0	0	1	1	1	0	0	1	1	2	4	3	1	1
FG	**IT Focus Group**																									
	Infrastructure & Hardware																									
	Hardware																									
	Software		■																							
	Sustainability																									
		0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SR	**Online Survey**																									
			■			■	■	■	■	■	■	■	■					■	■	■			■			
		0	1	0	0	1	1	1	1	1	1	1	1	0	0	0	0	1	1	1	0	0	1	0	0	0
		1	**3**	**1**	**5**	**15**	**13**	**3**	**2**	**3**	**2**	**2**	**2**	**1**	**1**	**1**	**1**	**1**	**1**	**4**	**1**	**3**	**6**	**4**	**1**	**1**

Figure 2.5.6: E-Government & System Integration Requirements

Legend:

- Management Policy Initiatives
- Business Process Improvement
- Infrastructure Initiatives
- Hardware Initiatives
- Software Initiatives
- E-Government Initiatives
- Systems Integration

		E-Gov Apps								Integration					
		E-Government Strategy	E-Commerce Appl	Intranet	Vision/Site Enhancement	Online Employee Services	City Website Enhancements	Online Maps	Online Business Licenses	City Assist /GeoDelivery/Blackboard Connect					
WS	**Rapid Workflow**	1	1	2	2	3	4	5	6	1	2	3	4	5	8
1	Risk Management Process														
2	Website Enterprise Session	■			■										
3	Development Process														
4	GIS Enterprise Session														
5	Account Receivables Process														
6	Development Permit Tracking Process														
7	Design Management														
8	Accela Focus Group														
9	RFP Procurement Process														
10	Asset Management Process														
11	Public Works Land Development Design														
12	Public Records Request process														
13	Records Management Enterprise Session														
14	Library Session														
15	Agenda Process														
		1	0	0	1	0	0	0	0	0	0	0	0	0	0
I	**Management Interviews**														
1	City Manager														
2	City Attorney														
3	Public Information Manager									■					
4	Planning Environment. Services Director														
5	Neighborhood Services Director														
6	Advanced Planning Director														
7	City Clerk														
8	Finance Director														
9	Human Resources Director														
10	Public Works Director														
		0	0	0	0	0	0	0	0	1	0	0	0	0	0
FG	**IT Focus Group**														
	Infrastructure & Hardware														
	Hardware														
	Software		■												
	Sustainability														
		0	1	0	0	0	0	0	0	0	0	0	0	0	0
SR	**Online Survey**														
			■	■		■	■	■	■						
		0	1	1	0	1	1	1	1	0	0	0	0	0	0
		1	**2**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**0**	**0**	**0**	**0**	**0**

© 2017

Section 3

IT Strategic Plan Recommendations

3.1 Introduction to ITSP Recommendations

The following pages provide the findings and recommendations for the City of Goleta's ITSP Roadmap. This document reflects the City's input, IT industry best practices, and ThirdWave's 30 years of experience in this arena.

This section of the ITSP includes a description of technology initiatives reflecting input provided in all phases of the project.

It is important to note **that not all solutions identified** in Section 2.5 Leading Technology Requirements (Figure 2.5.1: Enterprise Initiative Matrix, Figure 2.5.2: Management & Operational Requirements, Figure 2.5.3: Infrastructure & Hardware Requirements, Figure 2.5.4: Departmental Software Requirements, Figure 2.5.5: Enterprise Software Requirements, and Figure 2.5.6: E-Government & System Integration Requirements) were included in the final recommendations shown in the following pages.

The figures noted above captured solutions discussed in various discovery/requirements activities. The fact that a solution was mentioned by City staff in a requirements definition task does not automatically constitute a recommended technology. The following ITSP Roadmap initiatives do not include those that lacked a compelling business case or sufficient justification. Therefore, there is not a one-to-one relationship with items in the figures listed above and recommended solutions in the following pages.

© 2017
ThirdWave Corp 11400 W. Olympic Blvd. Suite 200 Los Angeles CA 90064 310.914.0186 V 310.312.9513 F

The City can use this document as a reference document and revisit all identified solutions in the future, including the ones that did not make it to the final recommended initiatives.

3.2 IT Strategic Plan Initiatives

This section provides an overall view of IT solutions identified in various tasks of the ITSP Roadmap project, including on-line surveys, focus groups with IT staff, and Rapid Workflow® workshops with stakeholders.

3.2.1 Technology Recommendations

The following enterprise-wide technology recommendations are based on all phases of discovery and requirements definition of the ITSP Roadmap project. (The number in parenthesis indicates the number of times an initiative was noted in a Rapid Workflow® workshop.) Moreover, ThirdWave synthesized staff input and industry best practices, as appropriate, for the City's organizational and technological situation and culture.

The findings identified here relate to technology issues; but in some cases, operational and management issues are also referenced in these findings where they relate specifically to technology recommendations.

I Infrastructure

The Roadmap project assessed various infrastructure, networking, and communication technologies. Various IT operational opportunities were also assessed as part of the project. Our findings and recommendations on infrastructure issues are provided below.

I 1 Networks/Communications

I 1.1 Data Center: Server Closet

Findings:

- The existing server closet has space constraints.
- Sprinkler head right above.
- The environment is not appropriate.

According to City staff, this results in the following:

- Potential safety issues.
- The network could go down due to water leaks and heating of the space.
- Potential for misconnection of ports.
- Lack of organization, there is no plan for it, or ability to plan for it.

© 2017

Recommendations:

- Implement a better designed and dedicated room: racks, environment, HVAC, Halon, etc.
- Needs to be secured and easily accessible for service, maintenance, and support.

Benefits:

- Easily scalable environment.
- Easier to maintain, manage, and the equipment would not be subjected to damage, or its lifecycle.
- Prevent equipment failure.

HW Hardware: Servers, Desktops, Mobile Devices, Peripherals

HW 1 Servers: Data Storage

Findings:

- The City currently has the following servers, each from a distinct manufacturer:
  - Lenovo ThinkServer RD330 purchased in 10/08/2016
  - ProLiant DL360 G5 purchased 04/21/2011
  - ThinkServer RD540 purchased 10/10/2017
  - Dell PowerEdge R410 purchased 01/07/2014
  - NAS
- The issue of the City's servers, and the fact that they routinely fill up to 100%, came up in several tasks in the project.
- Four (4) of the nine (9) department heads interviewed mentioned the current issues with the City's Servers.
  - Public Information Officer:
    "Need more server capacity. Do not have a naming structure for the servers; need some architecture set up for the city files. Need protocols on how to save, store and access documents."
  - Planning Environmental Services:
    The interim planning manager noted the following as one of the most significant technology challenges: *"Consistent lack of space on the network drives."*
  - Neighborhood Services:
    The Director noted the following: *"Have had challenges where the servers are maxed out."*
  - Public Works
    The Director noted the following*: "Not sure, but things break a lot and storage is maxed out. Also, it seems like they are being asked to save in duplicates to help out. Searching feature to find documents on different shared drives until they get maxed out and have to delete. This is not efficient."*

According to City staff, this results in the following:

- Inefficiency
- Wasted staff time to move content to other devices, drop boxes not managed by the City.
- Staff are setting up their own storage approach and systems, creating potential security
- IT may not be aware or control where data is stored
- A lack of organization and policies on the use of storage devices
- What staff refer to as "No drives for a day" events, where shared drives are unavailable for a day while IT Support backs up files, resulting in a considerable loss of staff productivity.

(Note: in our 30-year experience, we have never heard of this approach to information/system management.)

- Files get 100% full, which is a serious system risk as this could cause the drives to fails.
- The current storage capability will inhibit the City's ability to meet its growth rate
- The current situation will limit the ability to provide additional services to the public.

Recommendations:

- Carry out an assessment of files currently stored on the City's shared drives and purge as much content as possible.
- Carryout an assessment of the remaining content and calculate the required number of storage devices that would get the server utilization to a reasonable and safe levels, i.e., less than 80$.
- Procure additional storage devices as required.
- Adopt centrally managed storage, internally and externally
- Implement data management tools
- Adopt data management policies
- Pursue replacing the existing IT Support vendor for failing to inform the City of this serious risk to City systems, information and operation.

Benefits:

- Improved City staff productivity by eliminating "No drives for a day" events.
- Enhanced service delivery.
- Avoid systems failures.
- Disaster recovery.
- Improved consistency
- Reduced liability and improved security
- Improved efficiencies

HW 2 PC Standardization

Findings:

As indicated in the table below, the City owns 78 PCs. There are 3 different vendors supplying devices to the city. The majority of PCs are Lenovo (78%), with the remaining PCs being HP and Unidentified. The City has done great job of standardizing on the PC.

Workstations - PCs by Manufacturer

Manufacturer	%	Qty
Lenovo	0.78	61
HP	0.09	7
Unidentified	0.13	10
Total	**1.00**	**78**

Recommendations:
- Replace old end of life devices with Lenovo PD, as appropriate.
- Create a catalogue for departments to order from, with various configuration offered based on the application software run on those machines.

Benefits:
- Increased savings in operations, support, and maintenance costs.
- City wide standards will simplify systems support and end user training.

HW 3 PC Replacement Cycle

Findings;
Approximately 59% of the City PC's are three or less years old; a very good percentage.

Workstations - PCs by Aging

Year Purchase	%	Qty
2009	0.01	1
2011	0.06	5
2012	0.05	4
2013	0.10	8
2014	0.26	20
2015	0.10	8
2016	0.14	11
2017	0.26	20
Undentified	0.01	1
Total		**78**

Recommendations:
- Continue with the City's planned replacement schedule.

Benefits:
- Increased savings in operations, support, and maintenance costs.
- Citywide standards will simplify systems support and end user training.

HW 4 Mobile Devices

Findings:
- The only mobile devices the City has are iPads for the City Council (all 5 members), PIO and Public Works.
  - Do not have a BYOD policy.
  - The City is not making full use of available mobile technology.
- There are different vendors that handle different aspects:
  - Impulse: Hosted VOIP, Data connection
  - COX communications: main Internet data connection
  - Frontier: couple of analogue lines that exist

© 2017

- Primus: long distance carrier
- The use of multiple vendors can be confusing.

According to City staff, this results in the following:

- Security exposure
- Potential personnel, labor implications.
- Legal implications, there is no differentiation between personal and government accounts if you are doing business, which is discoverable.
- Employees may not have a phone.
- Don't think the City has the flexibility as an organization, to make changes.
- Not a cohesive, or easy situation to implement changes.

Recommendations:

- Adopt a BYOD policy
- Provide employees the options to have a work provided cell
- Explore a single vendor approach.
- Assign a single point of contact, who understands the whole environment

Benefits:

- Simplified billing.
- Time savings.
- Improved efficiencies.

HW 5 Scanners

Findings:

- The need for Scanners was noted in the Public Works management interview to capture document related to Public Works projects. According to staff, not having this technology results in the inability to have all related documents in the same format and accessible from one system.

Recommendations

- Implement a desktop scanner in Public Works on the second floor.

Benefits

- Improved project related document management.
- Staff time savings

D SW Departmental Software

Departmental software are applications meeting specific or unique internal department functionality. For instance, a Library would be the only department in a city requiring a Library Information Management System (LIMS). In general, municipalities tend to have a decentralized approach to the procurement and deployment of departmental application software, which is often predicated by the municipal budget process. The lack of an enterprise approach typically results in disparate departmental information systems, and various home grown, stand-alone “shadow” systems that are usually unsupported, one-off applications.

The following departmental applications were identified in the course of the project; their selection and implementation should all go through detailed business, technical and functional specifications development and benchmarking to evaluate and procure the most responsive and cost-effective solutions.

DSW 1 Risk Management Application [1]

The Risk Management workshop revealed the following:

Findings:

- There is no guide to the process. According to staff, this results in mistakes and can affect response times.
- There is no easy way of verifying the status of the process, which results in confusion.
- There is paper and electronic duplication of files and no workflow automation, which results in wasted staff time and creates islands of information.
- The pubic has to physically drop off forms and there is no method for them to check on their status. This impacts customer services, results in pubic annoyance, inconvenience, their time and costs. It is difficult for people that do not live here to file a complaint.
- Claims can go directly to the City Clerk or Risk Management; there is no formal policy, which results in room for more errors and missed deadlines.
- Scanning: there is a large file size limitation; there is also a limited size of files that can be emailed. This results in wasted staff time, and having to know how to parse and zip files.
- There is a lack of standard folder conventions of shared drives. According to staff, this results in:
  - Confusion, wasted staff time, and frustration searching for files.
  - Creates islands of information.
- There are outdated forms, which results in wasted staff time and the possible use of wrong forms.

Recommendations:

1. Implement Risk Management Application

Features and Functions

- Provide a "Context Sensitive Help" feature in the application providing descriptions on the process
- Provide access to the application to Departments on an as needed basis and to external parties, as appropriate.
- E-Forms, utilizing "Smart forms" that dynamically adjust by Claim Type.
- Provide data validation for all data entry screens.

- Automated Workflow: provide typical workflow automation capabilities including, but not limited to:
  - Routing
  - Ticklers/reminders
  - Comments
  - Approval Signatures
  - Designee Signature
  - Escalation
  - Tracking
- Online submittals.
- Online status checking.
- Provide routing directly to Risk Management and Clerk at the intake step.
- Provide ability to attach documents to claim form.
- Provide prefixes for type of claim.
- Produce labels.

Reporting
- Status of Claims
- Claims received by:
  - Date and Date Range
  - Month
  - Year
  - Claims by location
  - Claims by type of claim
  - Claim by date of incident

Interfaces
- Automatically drop a copy of the claim in the City Attorney's Legal File system.
- Revise the existing process, policies and practices to reflect the new Risk management application.
- Provide staff training.
- Develop a standard taxonomy for shared drives.

Benefits:
- Staff time savings.
- Create a more efficient process.
- Would not have to call different departments.
- Would benefit staff relations.
- Save space.
- Save time in the retention process.
- Improved customer and community relations.
- Appear easier to work with the City.
- Improved convenience and customer service.
- Reduce physical copying and file size.
- Improved efficiency.
- Improved records management.
- Process improvement.

DSW 2 Development Permitting Application [3]

The development permitting workshop revealed the following challenges:

Findings:
- The City has an outdated zoning code.
- Lack clear filling system of hand copy documents.
- Lack of written procedures.
- Lack a standard electronic filing system (taxonomy).
- Lack electronic natural resources maps.
- Lack a routing system for the review process.
- Timely case assignment is challenge.
- Lack of consistency between hardcopy and electronic files.
- Receiving and filing emails.
- Getting comments from departments in a timely fashion.
- Lack a development review team.

According to staff, this results in the following:
- Slows down the development review process.
- Produces staff confusion.
- Creates additional costs to the public.
- Waste of staff time searching for or organizing files.
- Loss of information.
- Affects the quality of the work product.
- Inconsistencies.
- Incomplete reviews.
- Inability to do fill analysis.
- Business process inefficiencies.
- Customers and City staff do not know where departments are at with the development application.
- Do not end up with a comprehensive review.
- Less time for thorough analysis.
- Stress for the Case Planner, who must work harder to do the analysis.
- Potential to miss 30 day and permit streamline act.
- Loss of comprehensive files.

Recommendations

1. **Implement Department Permitting Application (DPA).**

   Features / Functions
   - Work flow automatization (for electronic routing).
   - Electronic online submittals including the application, studies, plans, and attachments.
   - Work and Case assignments.
   - Work load balancing.
   - Auto-notifications.
   - Reminders and trackers.
   - Application process tracking.
   - Fees/ Deposit.

© 2017

- Email management.

Reports
- Number of cases processed by team.
- Fees/deposit.

Interfaces
- GIS.
- Finance system: including time cards.
- Enterprise Content Management, including developing a taxonomy for all documents.

2. **Enterprise Content Management System (ECMS)**
   This process will require the implementation of an ECMS to help manage all of the documentation generated in the process.

3. **GIS Coverages**
   Create natural resources GIS coverage including hazards, noise, solutions, environment, biology, and flood zones. Provide access to GIS to all staff who require it.

3. **Development Review Team**
   Create a development review team: round table review of projects with department to memorize the management early in the process.

Benefits
- Enhanced consistency.
- Improved efficiency.
- Reduced staff time filing documents.
- Cost savings to city staff and the applicants.
- Enhanced customer service.
- Business process improvement and shorter project timeframes.
- Improved comprehensive review of projects.
- Mitigate "care hits".
- Better projects.

DSW 3 Land Development Design E-Permitting

Findings
- There is a lack of sufficient information from management on special needs or considerations.
- There is insufficient space to store documents (staff have 30 GB of data that can't be placed on shared drives).
- Documents are kept in hardcopy.
- Do not have a permit tracking system, staff are currently using Excel to do this instead.
- Receive incomplete submittal from planners.
- Lack of in-house Traffic Engineers to facilitate the review process.
- Have to create an agreement for every out sourced interaction.

Impacts
- Cost impacts.
- Increased staff workload.
- Affects perception of the City with regards to responsiveness.
- Slows down the project review process.
- Staff time.
- Timeliness.
- Affects ability to review applications, makes it time consuming.
- Eats up storage space on servers.
- Requires more coordination.
- Inability to do information signaling.
- Inability to track permits.

Recommendations

1. **Implement an E-Permitting Application**

   Features/Functions:
   - Provide 'Special considerations / needs Data entry fields'
   - E-submittals
   - Data validation, validations of submitted documents.
   - Ability to have attachments.
   - Web-enabled
   - Provide access to applications.
   - Enforce the submittal checklist.

2. Articulate and adopt an Enterprise taxonomy.
3. Adopt and implement an Enterprise Content Management System.
   - Carry out the back-file conversion of hardcopy documents, if and where it is justifiable.
4. Retain Traffic Engineers, either as:
   - New staff
   - Onsite consultant
   - Use a consultant
5. Adopt the use of Master Agreements.

DSW 4 Library

The Goleta Library is currently part of the County, however, in the future it will become part of the City. With that in mind, to gather the library's requirements, a meeting was held with the librarian. The information gathered is high level, as the library did not have a Rapid Workflow® workshop.

Technology Findings
- Network speed: The library has a lack of network speed. Although they have wireless, the building LAN only supports a limited speed. (Believe it is the old wiring in the Library.) According to staff, this results in the following:
  - Affecting wireless devices and Internet PCs.
  - There are complaints from the public about the slow speed.
  - Patrons check out.
  - It affects the Reference help staff in answering questions on reference computers.

- Affects the PC support staff.

- Computers: The library does not have enough computers dedicated to Internal use: (8) for adults, and (4) Internet for children and teens. Adults can use the computer 2 hours per day. They also have (3) PCs that are not connected. According to staff, this results in the following:
  - Do not have enough computers dedicated for Internal use (8) for adults, (4) Internet for children and teens. In addition, (3) PCs are not connected.
  - Adults can use the computer 2 hrs. per day.
  - Can be up to an hour to access computer time.

- Replacement PCs: The Library lacks a PC replacement schedule. They have 27 PCs networked to the City of Santa Barbara. According to staff, this results in the following:
  - Computers are slow.
  - It took so long to replace the internet PCs the patrons could not use the Web.

- Time tracking: The Library currently uses the City of Santa Barbara's timekeeping system by submitting hard copy timesheets to the County for data entry. According to staff, this results in the following:
  - Staff must check their hours and send them in on Wednesday. If there are changes after that, they have to call them into Central. This is time consuming.

- Phone System: The library phone system is out of date; the company that provided the old Nortel phones went out of business. According to staff, this results in the following:
  - The existing phone system only supports 3 voicemail accounts.
  - At the present, staff must shout when they are closing.

Management Findings

- Staffing: According to the Librarian, there is a lack of Library staff. There are only 20 staff members as of now, which results in the following:
  - Inability to do programming.
  - Inability to spend quality time with patrons who need references; there is a 15-minute time limit as of now.
  - Imposes a limit of three holds at the desk.
  - Imposes service limits. (They have volunteers that process shipments four time per week. Have 15 volunteers / week 20 hours combined.)

- Staff Hours. The Library is the only library only open until 8:00 pm, which results in a dead hour from 7:00 – 8:00 pm.
  - Recommendation: Close at 7:00pm on three days, and move to Mondays. Open from 10:00am – 6:00pm. Overall, it would be the same number of hours.
  - Benefits: Improved customer service on Mondays, which is a very busy day.

E SW Software: Enterprise

Enterprise Software denotes applications used by all departments, by all key departments, or many departments across the City. An enterprise technology vision, which the ITSP Roadmap proposes, typically adheres to the following:

- Enterprise software benefits several business units across the organization, taking advantage of economies of scale.
- Enterprise software pools financial resources from one or more business units or departments to procure systems that otherwise might not be affordable by one business unit.
- Avoids the purchase of technically disparate systems that provide the same functionality.
- Procures systems that meet an Enterprise Architecture and established technology standards to minimize operational costs and maximize investments in technology.
- Decreases the overall workload on IT staff by not having to provide technical support on numerous redundant applications or applications that do not meet the City's standard Enterprise Architecture or standards.
- Typical enterprise applications include ERP Systems (e.g., financial. human resource, work order, procurement, asset management applications, etc.) Enterprise Content Management Systems, and Geographic Information systems.

ESW 1 Enterprise Taxonomy

Enterprise taxonomy is a high-level hierarchical classification of electronic content facilitating the management and disposition of electronic documents/records, digital photographs, digital video, and/or digital recordings throughout their lifecycle. Taxonomy classifies documents and other digital content into logical groups/subgroups for storage in an Enterprise Content Management System (ECMS) in a manner that is responsive to how information is used by various business units and business processes. A standard taxonomy facilitates fast and easy access to content by both staff and the public, when the latter is made available via web access.

Findings:

- The issue of taxonomy came up in several Rapid Workflow workshops and management interviews:
  - Development Permit Tracking Process
  - Public Works Land Development Design
  - Records Management Enterprise Session
  - Public Information Manager Interview
  - Public Works Director Management

- There are no standard naming conventions, or existing conventions are inconsistent.
- Department shared drives lack a common taxonomy (indexing structure).
- Departments can lose folders/documents, they can be moved/deleted.
- The City lacks enterprise ECMS standards, i.e. an enterprise taxonomy (indexing system for all documents/records) required to maximize end user acceptance and use.

According to City staff, this results in the following:

- Potential Noncompliance and lost documents.
- Inefficient use of staff time to find information.
- When staff leave the City, it is difficult to decipher their filing system.

- There is a lack of transparency.
- It is difficult to make content available to the public.
- There is no structure of commonality to accessing City documents and records.
- Staff cannot share content.
- Delays in processing work items.
- Limits the ability to collaborate.
- Staff confusion.
- A lack of version control or using the wrong version of documents.
- City staff cannot respond to records requests.
- Potential for human error, deleting or misnaming files.
- It can take a lot of staff time to find documents, across the City.
- Duplication of documents.

Recommendations:

- Develop a standard taxonomy (document indexing scheme) referencing three data sets:
  - Physical document inventory
  - City Records Retention Schedule
  - Documents (hardcopy and electronic) from the Rapid Workflow process maps.
- Hold stakeholder classification/indexing workshops.
- Complete the taxonomy and include an appendix in an ECMS RFP.
- Explore and articulate a back-file conversion plan to bulk scan very large quantities of hardcopy documents using a predetermined meta data scheme (taxonomy) to index and store scanned content. Back file conversion includes stringent quality assurance practices to produce and transmit electronic documents in bulk for porting into the ECMS.

Benefits

- Allows ECMS deployed at the City to be friendly, intuitive and fast for staff and the public to find and retrieve content.
- Foster end user acceptance, use and a higher return on investment.
- Staff time savings.
- Compliance with the law.
- Reduces legal risk of the City.
- Improved records management.
- Cost savings: paper, toner, copier maintenance costs.
- Save time, money and duplicate storage.
- Enhanced service delivery.
- Provide the ability to share information with departments.
- Reduced paper waste, improved efficiencies, curtailing the use of hardcopy documents, and helps the City be environmentally green.
- Enhanced public convenience; meet the transparency expectations by the public.
- More efficient staff/contractors/community.
- Reduced errors, less duplication/version control.
- Better emergency preparedness/resiliency.
- Increased user acceptance.

ESW 2 Enterprise Content Management Systems

ESW 2.1 Enterprise Document/Records Management

The need for an enterprise content management solution was the most identified in the ITSP project.

- Of the nine management interviews, five (5) out of nine (9) department heads (44.4%) identified ECMS as a required solution.
- In the online staff survey, the lowest rated application from a list of thirty-six (36), was Records Management (10).
- Of the fifteen (15) Rapid Workflow workshops, ECMS was noted as a solution in seven (7) workshops (53.3); ECMS was the most mentioned solution.

An enterprise records management workshop was held with staff/management from a number of City departments, including the Clerk's Office, Parks & Recreation, Finance and Planning. The data gathered in that workshop is presented below.

Findings

- Staff has a different idea of what administration records should be.
- The City lacks a records management policy.
- There is a lack of staff accessibility to documents stored on other City shared drives.
- There is considerable duplication of documents: electronic and hardcopy.
- Lack of storage, most shared drives are maxed out (100% full, which is a serious exposure).
- Storing existing hardcopy documents takes up considerable physical office storage space.
- Not sure departments are all filing their documents.
- The City has limited office space and lacks physical filing areas.
- The department shared drives lack a common taxonomy (indexing structure).
- Shared drives are continuously getting 100% full. IT support send emails to staff to delete documents when the drives get full; they don't understand that documents can't be deleted.
- Files are misplaced, electronically and in hardcopy.
- There is a lack of common document management location, which applies to originals and copies.
- Document version control is a challenge.
- Lack of a shared site where City staff and vendors can collaborate on a document(s).

According to staff, this results in the following:

- Potential legal liability for the City.
- More work for staff.
- There is no structure of commonality to accessing City documents and records.
- Staff cannot share content.
- Delays in processing work items.
- Limits the ability to collaborate.
- Staff confusion.
- Costs for electronic storage and floor space.
- Version control: electronic and hardcopy documents may not match.
- Staff work is impacted and interrupted by "No drives for a day" events, which are required when files have to be backed up when drive get 100% full.

- Drives have to be shut down and remapped when the drive gets full, leading to disruption of staff work.
- It is difficult to access documents.
- City staff cannot respond to records requests.
- Poor public perception.
- Documents are missed, misplaced, or purged. City staff could lose important documents.
- Delays projects or projects must restart.
- Lower staff productivity.
- Longer project timeframes.

Recommendations

1. **Enterprise Document/Records Management**
   Implement an Enterprise Content Management System, with the complete range of modules (describe below). The ECMS will provide a common access method to documents / records for staff and the public, particularly in business processes where content is accessed by more than one business unit. The ECMS will allow an expeditious and cost-effective implementation, and minimize ongoing operation and maintenance costs. The ECMS will provide the following minimum features and functions:

   - Rich functionality in the ability to store, access, view, modify (with appropriate privileges), and share documents across City business units, geographically dispersed locations, and project offices.
   - A complete suite of document management features integrated with Records Management, E-Forms, E-Signatures and Automated Workflow functionality.
   - A user friendly, easy to setup and use Graphical User Interface (GUI), consistent with other GUI industry standards.
   - Support access to major business automation document types in their native file formats.
   - Web-enabled access to content stored in the ECMS via Internet, Intranet and Extranet browsers.
   - Scalability to support up to thousands of staff via the Web.
   - A high degree of system performance, system uptime and availability.
   - Use multiple levels of security to protect the electronic content.
   - Robust system administration and security features.
   - Control on whether or not previous versions can be edited.
   - Offer a proven enterprise solution, with a track record in the ability to manage tens of millions of online documents in centrally located repositories.
   - Application Program Interfaces (APIs) to leading vertical applications, e.g., ERP, Permitting and GIS applications.
   - Aligned with, and support, industry standards and are non-proprietary.
   - Ability to check in/check out a document such that the current user of a document can be determined.
   - Provide control over permissions to add new document profiles.
   - Facility to add new document profiles to the system.
   - Ability to specify the number of versions of a document that are maintained on-line.
   - Context sensitive help files.
   - Allow default profiling settings for departments to manage privacy settings more efficiently.
   - If a user is trying to view a "checked out" document, the solution should be able to send that user a notification when the document is checked back in.

- Provide collaborative document sharing.
- Import content into a repository directly from within an application such as Microsoft Office Applications.
- Ability to check documents out of the system for access via a localized copy that can be worked on, checked back in, and processed automatically.
- Allow direct integration with any core business system using standard programming.
- Support an unlimited number of customer- defined, first class, index value fields per document within one storage structure. These fields should be of various formats, including date, currency, alphanumeric, and numeric.
- Provide redaction capabilities.
- Provide polarity reversal (from negative to positive).
- Provide ability to insert documents into a scan job (pages or other types of records. Once the canning process has been done.
- Carry out a city-wide document inventory: a physical inventory of hardcopy document and inventory of electronic content on shared drives.
- Purge documents on department shared drives that duplicates or no longer need to be retained.
- Develop and adopt enterprise-wide taxonomy to be included in an ECMS Request for Proposal.
- Issue an RFP for an appropriate sized ECMS for the City's size and specific software requirements.

2. Management / Policy Recommendations

- Define and adopt new document/records management policies.
- Provide education to staff after the taxonomy and Enterprise Content Management System (ECMS) roadmap has been developed.
- Provide staff education on purging.

Benefits

- All staff would be on the same page.
- The City would be in a more legally defensible position.
- Save physical space.
- More efficient workflows.
- Promote collaboration within and across departments.
- Increased productivity.
- Enhanced transparency.
- Improved customer service.
- Increased storage space.
- More confidence in documents.
- Enhanced version control.
- The City/City Clerk's Office would have a complete record.
- Eliminate the possibility of deleting documents.
- Staff time savings.
- Improved response to records request.

ESW 2.2 Imaging

The imaging software will provide the following minimum features and functions:

- Image Capture ability to import hard copy and existing electronic documents from the same interface.
- Automatic conversion of scanned documents to standardized TIFF, JPEG, or full text searchable PDF formats.
- Image Enhancement: de-skew, de-speckle, crop, rotate, and remove borders.
- Quality Assurance / Quality Control features: verify image quality and, if necessary, provide the ability to enhance images.
- Data Extraction: automatic forms recognition, data capture, and Zonal Optical Character Recognition (where applicable).
- Indexing / Validation: associate attributes with documents.
- Automatic Image Storage: ability to automatically release and store images (hard copy scans) into assigned ECMS libraries without having to prompt the scan operator for an ECMS storage location, document security etc.).
- Paper Size: accommodate different types and sizes of paper in the scanning process, varying from 3.5" up 11x17 size documents, and large document scanning for engineering documents.
- Virtual Cleanup: provide the scan operator the ability to touch-up and/or improve the quality of the scanned documents in "real time" (while scanning) prior to being released to the ECMS libraries, eliminating the need for the operator to re-scan documents.
- Automatic Forms Processing capabilities: structured documents (documents that use standard forms) can be processed using electronic forms or forms processing to reduce manual data entry and improve data accuracy. Use indexing scripts and zones that allow the incorporation of customized forms processing and data validation into the capture and index process.
- Support barcode, Optical Character Recognition (OCR), forms recognition, and (Optical Mark Recognition), which detect the presence, or absence, of marks in defined areas; used for processing questionnaires, standardized tests.
- Support batch scanning/high volume production environment.
- Distributed batch and page-level QA of scanned images, work can be allocated to locations/resources other than those at scanning facility if one exists.
- Provide scan-time indexing.
- Provide scan-time indexing via patch code to allow preloading of partial index values.
- Provide scan time manual indexing available.
- Provide distributed batch-level indexing.
- Provide automatic indexing via Optical Character recognition (OCR).
- Scan directly to workflow and routing control provided for raw, un-indexed objects.
- Modify scanner configuration changes on the fly, i.e., resolution, page size, orientations, brightness, etc.
- Support duplex scanning.
- Provide point and click indexing against host data image by image/object (single keystroke indexing of multiple index fields without keying). Users can "automatically" link images to records in our business application and no keying is required.
- Provide the choice of pre-defined index values via pick list/drop down menu.
- Index multiple images as a group without rekeying index data meaning single index set can be applied to a group of images.
- Store and manage scanned paper in industry standard.
- Import object types, including Word, Excel, PDF, JPEG, GIF, HTML, etc.
- Support ad-hoc image/object retrieval via simple index search.

- Provide data and text extraction capabilities for scanned image documents, including OCR, ICR, OMR, bar codes, and signature detection, in order to provide hands-off processing of scanned documents directly into the system without involving third party software applications.
- Automatically fill several index values on a document based on a primary index value that triggers the automatic look up of additional index information already contained within the system.

ESW 2.3 Records Management

1. Implement a Records Management features as part of the ECMS

The ECMS deployment will require the implementation of an integrated electronic records management component that provides the following minimum functionality:

- Provide for back end system support and design for "trusted system status" per California and any applicable Federal Legislation. This should include the use of back end migration to optical storage or similar technology that meets the legislative compliance requirement for permanent records storage of documents. There should be assurance that records stored in the system cannot be altered.
- Create, edit and manage a corporate "file plan" / records retention schedule, which contains information used to classify records.
- Create and manage the record folders (and folder volumes) that are available to help organize the file plan.
- Configure the system to easily declare objects as records in native authoring tools and specify which object classes and properties to manage.
- Create and manage records retention rules.
- Create and manage physical boxes, folders and records.
- Search for categories, folders and records.
- Place holds against record categories or search results.
- Identify appropriate metadata for all formats and sources.
- Manage various record image / formats in an integrated manner, including:
- Scanned hardcopy images
- Support MS Office automation software suites including:
  - E-mail:
  - E-mail Archive offering the ability to assign time-based retention to e-mails with the ability to put an e-mail or group of e-mails "on hold," preventing automatic destruction.
  - Support single instance storage of both e-mail and attachments.
  - Ability for users to access e-mail in the archive directly from their client
  - Search on e-mail index values and/or perform a full-text search on e-mail and attachment content.
  - Electronic Forms
  - Web content
  - Faxes
- Maintain the relationships between records and files, between file series and the file plan.
- Retrieve information for personal use or to comply with Freedom of Information Act / discovery requests.
- Associate the contextual and structural data within a document.
- Construct and manage audit trails and track system usage by department and user.
- Manage record version control.

- Manage the integrity and reliability of records once they have been declared as such.
- Identify records that are due for disposal when their prescribed retention periods elapse, managing the disposal process.
- Provide a seamless integration of the ERMS (providing the records management logic) with an ECMS, to support such tasks as document capture, storage, search, access, and workflow.
- Records Manager Application will be a 100% Web-browser based application.
- Views file plans and retention and disposition policies.
- Participate in automated workflows, seamlessly integrated with the ECMS via a desktop client or Web browser.
- Provide intelligent bar-coding of physical objects.
- Provide interface capabilities to existing systems that create electronic records, via an application program interface (API) to integrate properly with the proposed ECMS.
- Open APIs to easily integrate with new and existing legacy applications.
- Standards-compliant architecture: support .Net, and XML for an optimum development environment.
- ERP integration: support enterprise resource planning (ERP) systems APIs.
- Typical Reports: Including, but limited to, the following:
- Ready for Destruction report
- Future Disposition Schedules report
- File Plan and Retention Codes report
- User Profiles and Activities report
- Records Status report
- Provide inherent security mechanisms for the protection of confidential information.
- Create and manage records' security profiles, object stores, services and to enable auditing.
- Adhere to industry best practices (e.g., the ISO 15489, the International Records Management Standard, U.S. Department of Defense's 5015.2, and Model Requirements for the Management of Electronic Records (MOREQ).
- Allow for the creation of records that refer to electronic files, paper documents, boxes of paper documents and microfilm.
- Provide ability for documents to be automatically declared as records without any user interaction.
- Allow for multiple documents to be grouped together and treated by the system as a single record, with a single retention plan.
- Provide the ability for a document(s) to be dragged and dropped into a record (folder of documents) and have this new document automatically inherit the records management policy.
- Allow users to capture, declare, and store electronic records (documents) in their native formats, including e-mail, electronic forms, physical items, images, text files, and Office documents.
- Solution should provide the ability to place a hold (or multiple holds) on a record, as in the case of an audit or legal discovery
- Provide a variety of retention options, including the ability to keep both index values and files permanently, keep only index values, or purge both index values and files with or without a history log.

ESW 2.4 Workflow Automation

1. Automated workflow

The Automated Workflow software will provide functionality that reduces cycle times, improves productivity by automating, streamlining, and optimizing business processes. The business process management software will provide the following minimum features and functions:

- Implement an enterprise Automated Workflow solution that can be easily adopted and deployed in all business units where it is required.
- The automated workflow solution can be part of the OnBase system or a standalone workflow engine. Today there are numerous cost effective and user-friendly workflow solutions that can be implemented.
- The Automated Workflow software will provide the following minimum features and functions:
  - Tight integration with the ECMS functionality.
  - Native, configurable workflow dashboard to monitor, in real time, the workload of end users.
  - Workflow capabilities that allow both structure and ad-hoc workflows to be defined and tracked.
  - Workflows that are configurable to allow different approval processes based on how quickly the content object is to be published (e.g. routine or urgent).
  - Workflows that are configurable to allow different approval processes based on where the content object is being published and being authored in the repository.
  - Workflow approval process that is configurable to support varying content object states during the authoring process for example, draft, awaiting approval, approved, published, archived.
  - Business Process Modeling Notation (BPMN) compliant designer to produce BPMN standard language.
  - Support, out-of-the-box, graphical design of workflows with BPMN compliant designer.
  - Workflows that are configurable to allow different approval processes if the content object is external.
  - Workflow routes to have both serial and parallel routes.
  - Flexible and configurable workflow and business rules engine.
  - Accommodate alternative approval routing to account for staff absences.
  - Web-based workflow and process management, and the ability to interactively manage business processes and related content via the Web and a simple GUI-based browser interface on the client.
  - Web workflow with an easy to use GUI-based workflow design tool for creating and defining automated workflows.
  - Allow users to create, query, participate, and administer workflows easily using a GUI interface.
  - Browser-based workflow dashboard to be displayed natively through a client interface, Wen Services for Remote Portals 1.0 (WSRP) compliant portal product without custom coding.
  - Allows the user a unique workflow profile; rights, functions allowed, etc.
  - Support graphical workflow design tool; no programming required.
  - Allow document flow, action detail capture – including time, date, user, action taken detail where all is captured for reporting.

- Contain a wide range of applications for enterprise workflows, such as design, tracking, administration, and configuration.
- Utilize browser-based architecture, eliminating the administrative burden associated with "thick client" deployment of workflow solutions throughout the extended enterprise including installation, configuration, and administration.
- Utilize out-of-the-box functionality that facilitates rapid deployment and removes the need for extensive development efforts, including delegation, voting, review cycles, reassignment, parallel processing, user-based work assignment, and attachments.
- Utilize security and version control, incorporating powerful security and version control of defined business processes.
- Link documents, content and folders to specific business processes.
- Utilize XML-based process definitions.
- Launch workflows linked to a specific document or document class upon document check-in or its addition to the document repository.
- E-Mail notification providing user configurable notifications that detail user work assignments and status changes of the workflows being tracked.
- Enable the URLs contained in notifications to process the assigned work and/or view its current status.

Benefits:

- Provide functionality that reduces cycle times, and improves productivity by automating, streamlining, and optimizing business processes.
- Reduced paper.
- Business process improvement.
- Reduced timelines to process documents, forms and contracts.
- Improved ability to meet deadlines.

ESW 2.5 E-Forms

E-Form requirements were identified in the ITSP project as requirements in Public Information Manager and Finance Director management interviews and the online staff survey. Electronic forms can be used to build applications for many departments across the City including on-line/ E-Government applications for the public.

1. Implement an E-Forms

Implement an E-Forms tool as part of the ECMS deployment or as its own solutions. The District requires that E-Forms be a seamless component of the ECMS solution, allowing the use of electronic forms to meet various requirements (e.g., intelligent E-Forms to replace paper forms and for use with Automated Workflow application).

- Implement web-enabled applications that provide E-Forms/E-Signatures as part of the solution, as appropriate.
- Implement an E-Forms development application either as a stand-alone application or as a seamless component of the OnBase solution, allowing the use of electronic forms to meet various requirements (e.g., intelligent E-Forms to replace paper forms and for use with Automated Workflow application).
- Implement an E-Forms solution that can interface to leading ECMS and other department/enterprise applications, providing the following minimum functionality:
  - Retain the look and feel of paper forms, if required.

- Provide variable length fields for data entry, eliminating blank spaces when printed.
- Enhance and simplify forms processing with automatic calculations and data validation.
- Support electronic signatures.
- Support database integration.
- Expedite forms submission via a browser.
- Interact with other applications, including initiating an OnBase workflow process, updating other systems, or authenticating signatures.
- Provide ability to attach associated documents to the form (e.g., documents, photographs, plans or drawings).
- Be accessible from within the City as well as externally via the Internet.
- Develop a way to interact with other ECMS modules or applications including:
  - Document import capture
  - Web (Online form submission)
  - Web Portal Form creation/submission through portal or a kiosk
  - Index value design and structure
  - Cross referencing
  - Notes and annotations
  - Workflow (form auto-triggers a workflow process)
  - E-mail (form viewed as attachment)
- Maintain revision control on electronic forms to offer flexibility to display forms in their submitted state or with a new layout.
- E-Forms may be used by themselves, with or without the use of E-Signatures.
- Meet State of California's requirements for authenticated signatures, e.g., Government Code Section 16.5 supporting Digital Signatures.

Benefits:

- Facilitates staff access to information and services.
- Facilitates dynamic relationship with the public, enhanced service delivery.
- Reduced traffic and driving.
- Enhanced efficiency.
- Improved public convenience and meet the expectations.

ESW 2.6 E-Signatures

E-Signatures are commonly used to support the use of E-Forms; electronic forms can be used to build applications for many departments across the City including on-line/ E-Government applications for the public.

1. Implement an E-signature

- Implement an E-signature solution providing the following minimum functionality:
  - Work seamlessly with the proposed E-Forms application and/or the City's ECMS solution.
  - Be a seamless component of the ECMS solution.
  - Ensure the authenticity, integrity, and non-repudiation of its electronic documents.
  - Meet State of Colorado's requirements for authenticated signatures.
  - Support the State of California's requirements for authenticated signatures, e.g., Government Code Section 16.5 supporting Digital Signatures and California's Uniform Electronic Signature Act. (Civil Code Section 1633.1-1633.17).

- Support the Uniform Electronic Transactions Act (UETA) which is a federal statute that has been adopted by 47 states.
- Support E-Signature approvals, either from a Web browser or from within the ECMS.

Benefits:
- Enhanced online transaction.
- Eliminate walking around to collect signatures.
- Reduced traffic and driving.
- Provide easy access to services.
- Facilitate dynamic relationships with the public and enhanced service delivery.

ESW 3 Agenda Management

Findings
- The Clerk receives incomplete submittals from planners.
- Departments and staff are not forecasting.
- Staff does not get attachments to the City Attorney in a timely manner.
- City Attorney's review is not received in a timely manner.
- Staff is not meeting the agenda process deadlines.
- The author of the report does not have the opportunity to review the final report before it is published.
- There are different versions of the same software used, i.e., Acrobat.
- Converting different software files into one Acrobat document, i.e., Excel spreadsheets.
- Opportunities present themselves after the timeline deadline.
- Staff is not available to respond to designated reports.
- There is insufficient staff training on Legistar.
- Staff are still preparing paper documents and binders for the City Council.
- Departments are challenged to meet the deadlines.
- There is a lack of respect for the deadline.

According to staff, this results in the following:
- The Clerk's Office is prevented from completing their tasks in a timely manner.
- Last minute submissions.
- Missed deadlines.
- Impacts the report author.
- This may cause a delay to the next Council meeting.
- Missed deadlines impacts the work of the reviewers and Clerk, and the quality of the packets.
- Bad perception of the City.
- It takes extra staff time, including staff working late hours.
- The inability of the author to review the final document results in the potential for incorrect information to be published.
- Affects the consistency of documents.
- Affects the quality of documents.
- Massive amounts of paper are wasted.
- Potential for missed opportunities, i.e. grants,
- Staff is rushed and make mistakes.
- Affects the approval sequence.

© 2017

- The lack of training on Legistar results in process delays.
- Takes approximately 2 hours to prepare, when it should take minutes.
- Not cost effective.
- Not sustainable for the environment.
- Ties up the copiers.
- Domino delays.

Solutions

- Complete reports on a timely manner.
- Delegate authority to the City Clerk to enforce deadlines, or Department heads can plead their case to the City Manager.
- Educate staff on the process.
- Produce forecasts.
- Departments should follow up with the City Attorney.
- The City Attorney should establish its deadlines.
- Process change, build the review into the automated workflow.
- Upload documents in acrobat only.
- Establish standard versions of software.
- Create a policy that these opportunities go directly to the City Manager
- Provide staff training for all users at all levels.
- Provide education and training.
- Eliminate or reduce the use of binders.

Benefits

- Improved time efficiency.
- Improved quality control.
- Happier Clerk and city staff.
- Timely submittals, the process could move forward.
- Mitigate errors and mitigate legal liabilities.
- Catch possible errors before publishing the Staff Report.
- Improved image and perception of the City.
- Massive staff time savings.
- Save paper.
- Streamlined late submittals.
- Reduced frustration.
- Revenue to the City from grants.
- Create comfort level and confidence on the use of the Legistar system.
- Improved staff morale.
- Improved relationships amongst staff.
- Staff time savings.
- Cost savings.
- Empowered Council members.

ESW 4 Land Development E-Permitting Application [6]

Findings:

- Historical permits are not in a common media, which results in the following:
  - Staff time.
  - Inefficiency.
  - Might miss something.
  - Bad public/customer service.
  - Documents are misplaced or lost.
- There is limited access to historical permits, which puts pressure on project staff that know how to access documents. If those staff members are not available, information is unavailable.
- Case assignment is not done in a clear or comprehensive manner, which results in Inconsistent work load amongst Case Planners.
- Outdated submittal forms are being kept, which results in not getting adequate information and may cost customers time and money.
- Not everyone knows certain rules and regulations that are in effect, which results in inconsistent messages to the public/applicants.
- Inconsistent information provided to the public, results in a poor image of the city and may introduce legal risks.
- Lack of permit tracking software, results in the following:
  - Wasted staff time.
  - Might miss something.
  - Bad public/customer service.
  - Documents are misplaced or lost.
  - Creates inefficiencies throughout the whole process.
- Two or more multiple file management systems - paper and electronic, which results in Inconsistent record keeping and retrieval, in addition to misplaced/lost records.
- The shared drive file structure is case file number based; the existing convention is too broad, which makes it hard to search and find pertinent information and documents.
- The naming convention for the county is different than the City, which makes it hard to search and find pertinent information and documents. It creates redundant work.
- Not all common permit types are stored in same location, i.e. project folder, which makes it hard to search and find pertinent information and documents
- There is no easy way to check the status of a case, which results in poor communication between the departments and the public.
- Planners process/cases files differently, which results in the following:
  - Potentially unnegotiable to applicants.
  - Lack of communication.
  - Hard to search and find pertinent information and documents.
- Planners are too involved in financial aspects of the process, which results in slowing down the process.
- There is no central list of actions/steps during the process. According to staff this results in the following:
  - It makes it hard to understand all cases.
  - Inability to look at trends and reporting.
  - Causes more work later.

© 2017
ThirdWave Corp 11400 W. Olympic Blvd. Suite 200 Los Angeles CA 90064 310.914.0186 V 310.312.9513 F

Recommendations:

1. Implement Automated Permit Tracking Application

Features
- Provide access to all agencies, departments and the public.
- Case assignment.
- Resource allocation and workload balancing.
- Ability to identify scale, complexity, referencing studies.
- Automated workflow: monitor the status, track in the process, provides metrics, reports, and history.
- E-Signatures.
- E-Submittals.
- All permit types would be managed in this application.
- Automatic notifications to consumers or city staff.
- Generate receipts automatically at the beginning with policies, roles and responsibilities.
- Automated invoicing.
- Not allow a case to progress until fees have been paid.

Interfaces:
- Enterprise Content Management System
  - Develop and use a standard enterprise taxonomy.
  - Store related documents and provide access to staff.
  - Scan and index documents.

2. Review all forms at set interval and store in the ECMS.
3. Communicate and provide role-based training to all staff.
4. Establish clear roles and responsibilities.

Benefits:
- Staff time savings.
- Improved efficiencies
- Improved customer service.
- Improved document / records management.
- Would provide all appropriate staff with the knowledge of using the system, making information available to all staff as needed.
- Improved workload management.
- Cost savings in time and money.
- Improved public perception of the City.
- Improved communication between departments and the City and the public.
- Business process improvement.
- Improved planning.

ESW 5 Asset Management Application

Asset management was addressed in a workshop with Public Works. Given the importance of City assets, and the cost on maintaining them, the existing business processes presents formidable challenges.

Findings

- The existing process is disconnected.
- Staff in the field lack mobile devices.
- The same information is handled several times.
- The City lacks a complete database of the assets being managed.
- There is no way of updating the inventory. (There is an inventory of sidewalks.)
- Unable to track performance measures.
- The City lacks a formal asset management process.
- Work can get lost in the system, i.e., can't go back and look at asset management history.
- Currently unable to schedule the work in a cost-effective way.
- Lack the ability to do predictive maintenance.

According to staff, this results in the following:

- Slow reporting.
- Creates a drawn-out inefficient process.
- Slows the project review down.
- Untraceable and/or labor-intensive repairs.
- Lower quality documentation.
- When building a project, there is not a full picture of what needs to be repaired.
- The City can't implement a formal asset management program.
- Staff can't tell if assets need to be improved or needs to be changed.
- Unable to schedule crew times.
- Costs unnecessary staff time.
- Duplication, redundant work, and staff confusion.
- Lost inaccessible history.
- Don't allow optimizing project planning resources and budgets.
- Contributes to liabilities.

Recommendations

1. **Implement a new Asset Management Application**
   Implement a contemporary fully functional web-enabled Enterprise Asset Management System with a friendly GUI providing the following integrated modules: Inventory Management, Asset Management, Work Orders, Maintenance / Preventive Maintenance and Construction Project + Capital Program Management functionality in an integrated suite. (This solution could be its own suite of applications or part of an ERP solution.)

   Features/Functions

   - Inventory
     - Automate asset assignment and categorization.
     - Facilitate automated data acquisition and inventory through RFID, GPS and barcode scanning.
     - Track and manage warranties and service agreements.
     - Inventories: data description.

  - Inventory management
- Work Orders
  - Automatic work orders.
  - Resource allocation / workload management.
  - Case assignment.
  - BOM (Bill of Materials).
  - Ability to reclassify work orders.
  - Auto generation of work orders.
  - Auto notification of work orders to mobile device.
  - Cross-functional real-time tracking of work orders.
  - Ability to draw work orders.
  - Ability to search work orders.
- Asset Management
  - Provides access to all persons involved in asset management activities: work crews, managers, directors, or to anyone doing asset management in the field, and the public (for checking their status).
  - Track conditional assessment.
  - Track cost, history (project / previous maintenance work).
  - Tracks / reports ownership, leases, asset depreciation, and maintenance;
  - Provide enterprise level visibility into operational, financial and life-cycle performance of assets.
  - Preventive Maintenance / lifecycle forecasting.
  - Ability to identity scale and complexity (referencing the studies).
  - All permit type would be managed in this application.
  - Automatic notification to customers or city staff.
  - Do not allow a case to progress until fees have been paid.
  - Driving directions/optimization.
  - Asset management; provide attribute data on assets.
  - Ability to check status internal/public.
  - Cost information for assets.
  - Generate receipt automatically.
  - Automated invoicing
- Systems
  - Web-enabled / E-Government: with public access.
  - Friendly, intuitive, good GUI.
  - E-Signatures.
  - E-Submittals.
  - Automated workflow: task routing, monitor status, track the process, provide metrics, reports, and history.
  - Integrated databases across all modules.
  - Support Mobile devices: implement the use of tablets for staff in the field.
  - Application with a strategic open architecture.

Reports

- Inventory
- By Work Order Type
- Transferred Work Orders
- Open, Closed, and Incomplete
- Council District
- Aging
- Billing

- Trends
  - Exceptions
  - By Geographic Area
  - Labor and Materials (streets, electrical)
  - Forecasting
  - Time to Complete Work Order
  - By employee
  - History
  - SLA (Service Level Agreement)
  - Maintenance: planned and scheduled
  - Management dashboard
  - Asset type
  - Lifecycle
  - Asset attribute (categorized by type)
  - Changes to assets
  - Ad hoc reports

Interfaces

- Enterprise Content Management System
- Incode ERP

2. Develop and adopt an enterprise taxonomy; established a policy, roles, and responsibilities.
3. Implement an ECMS to store documents, review forms and set intervals.
4. Provide role-based training.

Benefits

- Inventory Management
  - Uniform system.
  - More accurate information and data transparency.
  - Real time updates, get instant feedback from the office.
  - Making information available to all staff as needed, all staff would be on the same page.
  - Better scheduling and use of resources and Just-in-Time (JIT) inventory.
- Asset Management
  - Business process improvement.
  - Improved forecasting and planning.
  - Improved planned maintenance.
  - Prioritized/better informed decisions.
  - Ability to log completions, materials and performance measures.
  - The City would have a clear history of problem areas.
  - Have a total value of City assets.
  - Accurate tracking of work.
  - Concentrate crews in areas, save mobilization time.
  - Easy to tell whether work should be contracted or done in house.
  - Improved budgeting and scheduling.
  - Eliminate “Critical work” or duplicate work.
  - All staff would have access to all asset information.
  - Improved workload management.

  - More efficient expenditure of resources.
  - More uniform and accurate decisions
  - Reduced asset management costs.
  - Economies of scale.
  - Better picture of City services, could produce annual report of work produced.
  - Improved metrics.
  - Reduced liability.

- Staff
  - Save staff time in producing the council report each week (26 hours / week for an intern).
  - Eliminate the daily log, and the 45 – 60 minutes per day spent on it.
  - Improved efficiencies and staff productivity.
  - E-Signatures will eliminate driving around, staff time savings.

- Council and Public
  - Better reporting to the Council and public, with dashboards.
  - Reduced inconveniences to the public.
  - Improved customer service.
  - Improved communication between departments, the City, and the public.
  - Improved public perception of the City.
  - Reduced complaints from the City and public.
  - Quick access to data, better Public Records Act responses.

ESW 6 Public Records Requests / CRM Application

Customer relationship management requirements were identified throughout the project in the following:

- Public Records Request Rapid Workflow workshop:
  "Lack of primary central place to receive records requests (they are emailed to staff)."

- City Attorney Management Interview who made the following comments:
  "The way they currently do it, the Clerk receives and sends out the request to whom she thinks would have the documents. She sends the response back to the requestor. It is not always given out consistently or the same you would normally respond. Would like this process to be uniform. Not everybody in the City gets a copy of the request. It should be sent out to every Director. She is concerned the City is not capturing all that should be captured."

- Pubic Information Manager Management Interview:
  "Need a customer relationship management solution: this is a challenge because information at the city is not shared efficiently."

- Public Works Management Interview:
  "Get the complaint, gets fixed, but then it is not closed, so get comments that are not complete. There is no way to close the complaint (in City Assist)."

Findings

- Do not have updated templates to respond to records requests.
- Not receiving responses from departments in a timely manner.
- Sometimes the City Attorney finds the scope or response is too narrow.
- Key departments may not be notified.
- Complex requests can be time, labor, and material intensive.

- Reviewing multiple email duplications.
- Lack of primary central place to receive records requests (they are currently emailed to staff).
- Not sure when to include the City Attorney in the records requests, which results in identifying actions that should have been taken earlier – missed deadlines.
- Lack of updated citywide records requests policy.
- Using it to search for response documents.

According to staff this results in the following:

- Inability to effectively process, respond to and track customer requests.
- More staff time.
- Impacts deadlines.
- Have to do a lot of searching under a short time period.
- Impacts deadlines.
- Can result in extensions.
- Not complying with the law.
- May not get all documents.
- Legal exposure to the City.
- Requests may be missed – staff may not know request may have been received.
- Wasted staff time.
- Staff frustration.
- Lack understanding of the process
- Legal exposure to the City, when the scope is too narrow.

Recommendations

1. Implement a Customer Relationship Management Application

Features and Functions:

- Develop and store standard templates.
- Initial Response.
- 14 Day Extension Request.
- No Responsive Documents.
- Responsive Documents with Privileges.
- Automatic triggers.
- The number of days since the request.
- Notifications.
- Ability to track and close an issue.
- Support new requests policies.
- Automated workflow: auto distribution, notification, tracking, reminders, escalation, delegation, and close out the requests.
- Configure to provide access to user/administration.
- Web enabled for public access to record requests.
- Provide previous record request histories, accessing electronic contract management system.
- Provide access to multiple staff.
- Ability to pull out documents and notate why they were pulled.
- Discontinue staff doing searches.

Interfaces

- Enterprise Contract Management System

2. Operational / Process Recommendations

- Change the process to include a review meeting.

3. Management / Policy Recommendations

- Develop and adopt a records request policy, training for all departments.
- Provide more staff training on the PRA process and requirements, in addition to identifying consequences when PRA requirements are not met.
- Assign key staff per department liaison.
- Articulate and adopt an email policy.
- Use relevant staff (not IT vendor) to search for relevant documents. Use IT vendor as needed.

Benefits

- Staff time saving for staff, City Clerk and the City Attorney
- Ensure the proper scope of request is responded to.
- Improved efficiency.
- The public and staff would have one common place to go to.
- Improved customer service.
- Ensure the proper scope of response.
- Anticipation of litigation.
- Better able to meet deadlines.
- Improved consistency.
- Reduce the City's legal risk.
- Improved compliance with the law.
- Improved customer service.
- Improved customer perception of the City

ESW 7 Geographic Information Systems Master Plan

The City's use of GIS systems was addressed in an enterprise focus group held with City staff representing several departments. The workshop revealed challenges related to technology, operational and management issues.

Findings: Technology

- The City has multiple versions of GIS or GIS-lite software, i.e., GovClarity / Community View, and they are not true GIS systems. which results in:
  - Additional/duplicate software costs.
  - The potential for data conflicts.
  - Additional work supporting duplicate GIS software.
  - Unnecessarily limiting resource.

- Outdated layers in Community View and GovClarity, and the City does not have good quality control process, which results in:
  - Erroneous information to the public.
  - Planners can't adequately access projects.
  - Questioned data reliability/integrity.

- Lack an ESRI-based viewer for all City staff. This results in:
  - Have to rely on sub-standard GIS products.
  - Lack of a viewer results in limited staff use of GIS.
  - Additional cost, redundant/duplicate data base maintenance.

- The City does not have a GIS user guide, which results in inconsistencies on how to get from information, to date, to production.

Recommendations
- Investigate consolidating GIS applications that provide best value and work for most departments.

Benefits
- Efficiency.
- Cost savings.
- Public benefits.

Findings: Operational

- Problems with versioning working files to shared files, which results in wasted staff time, unusable products and staff confusion.
- Lack a clear definition of staff roles at City Hall, which results in undefined staff roles producing a chance that the GIS will not be updated and that investments in the GIS cannot be leveraged.
- Consultants are not providing spatial data when they submit project deliverables even through contracts specify that they should. This results in an incomplete geodatabase.

Recommendation:
- Carry out a GIS Strategic Plan. (See description below.)

Benefits:
- Reduced staff stress.
- Better use of staff time.
- Reduced redundancies**.**

Findings: Management

- GIS is disconnected from an IT function, including a GIS Coordinator, Application Specialist and DBA. According to staff, this results in the following:
  - Lack of software installation.
  - Insufficient software and hardware compatibility.
  - GIS symbology is not being updated.
  - There is a lack of communication**.**
- The City lack a citywide vision of GIS operations and written/adopted best practices. According to staff this results in the following:
  - A lack of a city-wide GIS visions produces rogue users.
  - No consistent standards.
  - Data doesn't get updated and is useless.
  - Inconsistent priorities.

- The City has committed funding to one GIS program (GovClarity), which has resulted in a resistance to spending on a proper GIS tools. There is a resistance to change because of sunk cost.
- Lack of consistent meta data and a policy of who should update it, which results in uncertainty in the validity of spatial data.
- There is a lack of understanding of ESRI GIS, its capabilities and full potential, as compared to GovClarity; Community View and Permit Tracking software, which results in misinformation and misunderstanding of GIS.
- There is a lack of GIS training for City Staff, which results in an underutilized GIS.
- There is a lack of adequate hardware to use GIS, i.e. large or double monitors and a "one style fits all" computers for all users (e.g., PC CPU and RAM). This results in computers not properly configured for the demanding system requirements of GIS and an underutilized GIS.
- The City is not taking a comprehensive, enterprise approach to GIS, which results in additional costs and wasted staff time.
- The GovClarity contract is managed by a department that does not use GIS data/software (the City Manager Office). This results in a lack of knowledge as to what is needed; the GovClarity software is disliked by users.
- A lack of paper data getting transferred into digital, useful data, which results in:
  - Incomplete spatial data base.
  - Can't use information that should be used.
  - Wasted staff time.
  - Propensity for errors.
- Lack of coordination across the departments who buy data, which results in:
  - Decisions are being made by those who do not use GIS.
  - Funding is being committed somewhere else.
  - The City may be buying software (i.e., GovClarity) that is not the most appropriate software.
- The City has multiple GIS software vendors providing GIS, which results in:
  - Multiple GIS consultants result in multiple costs.
  - Who in the City is administrating multiple contracts to ensure the City is getting the best value.

Recommendations

- Carry out GIS strategic plan: addressing:
  - Policies/practices.
  - Standards and GIS user guide.
  - GIS Team and core functions, including application specialist and database manager.
  - Software licensing.
  - Role-based training.

Benefits

- Reduced staff stress.
- Cost savings.
- Support for grants.
- Emergency response and disaster readiness.
- Improved perception of the City, including recruitment of businesses to Goleta**.**
- Improved standards.
- Better customer service, including additional services to the public.
- Enhanced efficiency.

- More fully leverage the investment in GIS across the City, including better collaboration across departments.
- Demonstrate city is not wasting time.
- Improved efficiencies.
- Increased confidence.
- Expanded potential for future use web applications.

ESW 8 Design Management Project Management Application

The following data was gathered in a workshop with Public Works staff.

Findings:

- Schedules slip, which according to staff, this results in the following:
  - Additional costs.
  - Longer time, including staff time at all levels.
  - Staff stress and moral.
  - Uses more resources.

- Project budgets get blown, which results in the following:
  - Lack of budget for other projects.
  - Strain on the General Fund.
  - Takes budget from other things.
  - Stalls and/or shuts the project down.
  - Projects are rushed.

- The Scope of Work is not defined well enough, which results in the following:
  - Scope creep.
  - Additional costs.
  - Longer time, including staff time at all levels.
  - Staff stress and moral.
  - Uses more resources.
  - Lack of budget for other projects.
  - Strain on the General Fund.
  - Takes budget from other things.
  - Stalls and/or shuts the project down.
  - Projects are rushed.

- Lack comprehensive Project Management software, and dashboard, to provide key performance indicators, which results in:
  - Work load management.
  - Prevents Project Management control.
  - Redundant reporting.
  - Inaccessibility to all staff.

- Lack of financial resources, which results in:
  - Schedule impacts.
  - Staff morale.
  - Ability to produce needed resources.

© 2017
ThirdWave Corp 11400 W. Olympic Blvd. Suite 200 Los Angeles CA 90064 310.914.0186 V 310.312.9513 F

- Unrealistic expectations of workload and scheduling, which results in:
  - Lack of community good will.
  - Staff stress.

- Retaining staff and getting to full staffing, which results in:
  - Additional costs.
  - Longer time, including staff time at all levels.
  - Staff stress and moral.
  - Uses more resources.

- Lack of training, which results in the following:
  - Additional costs.
  - Longer time, including staff time at all levels.
  - Staff stress and moral.
  - Uses more resources.
  - Lack of budget for other projects.
  - Strain on the General Fund.
  - Takes budget from other things.
  - Stalls and/or shuts the project down.
  - Projects are rushed.

- Lack of standardized contracts, which results in the following:
  - Scheduling delays.
  - Sucks up resources.
  - Last minute execution.
  - Impacts vendor relations.
  - Staff Time.
  - Produces multiple contract iterations.

- Lack of a consistent PM approach, which results in the following:
  - Inconsistent project execution.
  - Not achieving the desired outcomes.

- Lack of sufficient and consistent policies, procedures, processes, and checklists, which results in the following:
  - Additional costs.
  - Longer time, including staff time at all levels.
  - Staff stress and moral.
  - Uses more resources.
  - Inefficiencies (city-wide meetings).

Recommendations

1. Implement Project Management software.

Features / Functions
- KPI Dashboard
- Resource allocation/tracking schedules
- Notifications
- Statistics
- Timesheets

- Resources
- Budgets
- Staff time
- Payment tracking
- Prioritization
- Action Log and Discussions.
- Due Dates
- Activity Log / Decisions
- Structure and Nomenclature.
- Accessible to all participants at different levels, web app.
- Provide A, E, & E capability
- Make sure project initiation document is filled out properly.
- Adopt uniform process for project management.
- Reports

2. Provide Project Management training.
3. Cleanly identify goals and objectives.
4. Financial resources increase for CIP.
5. Funding for software.
6. Staff augmentation to include:
   - Traffic Engineer
   - Deputy Director
   - Project Engineer
7. Adopt standard policies for schedules.
8. Adopt a standardized contract.
9. Develop and adopt consistent policies, procedures, and processes.

Benefits

- On time project delivery.
- Save money.
- Improved staff morale.
- Better information.
- Improved efficiencies.
- Meet public expectations.
- Improved transparency.
- Improved communication.
- Improved accountability.
- Staff time savings.
- Improved performance.
- Ability to make better informed decisions.
- Improved project completion, trust, and credibility.

ESW 9 ERP Accounts Payable Application

The information provided below was gathered in an enterprise workshop with staff from the following departments: Finance, Public Works, Neighborhood Services, Economic Development, and Planning Department.

Findings:

- This is a paper-based process, it uses a lot of paper.
- There are too many variations of Payment Requests.
- Incode is too inflexible, it is not user friendly.
- The City lacks standard procedures for processing invoices.
- Not all staff/departments are using the same procedure.
- The location of the invoice packet is unknown.
- The current process is open to human error.
- This is a redundant process: electronic and hardcopy.
- The City's purchasing policy is outdated.
- There can be issues/vulnerabilities with Excel spreadsheets.
- The current version of Incode is outdated, two software upgrades have been missed.
- There is a lack of clear SOPs.
- Staff are storing invoices on shared drives (by invoice number, date, project name).

According to staff, this results in the following:

- Not ecologically friendly and unsustainable.
- Costs: paper, toner, copiers, copier maintenance contracts, space, and file cabinets.
- Storage: electronic and hardcopy (lack of ongoing disposition of documents that have met their retention period).
- Wasted staff time.
- User errors.
- Delays the process.
- Bad information and reporting causes variations.
- Not enough information.
- Incompatible with other software.
- Can't revise the PO, e.g., with Change Orders.
- Confusion in training staff.
- Vendors may get paid late.
- The existing process results in extra reviews.
- Budgets are exceeded.
- Downstream contract issues.
- Staff stress.
- Redundant work.
- Unreliable data.
- Limited functionality.
- Difficult to find information.

Recommendations:

1. Implement AP Software

Features & Functions

- Adopt an electronic process.
- Implement automated workflow: Routing, Notification, Status, Tracking, Review/Edits/Approvals, E-signatures, Reminders/Ticklers, E-forms, Escalation Dashboard.
- Tracking: Payments, Contracts, Invoices, Accurate account balances, contract duplication.
- Web enabled application.
- Cloud based.
- Standard Payment Request Forms.
- User friendly.
- Provide role-based staff training.
- Update Incode to the latest release.

2. Revise the existing spending authority levels:

Departments:	$2,500
City Manager:	30,000
Purchasing Office:	10,000

3. Adopt formal Standard Operating Procedures for this process.
   - How to process an invoice.
   - Routing for approval.

4. Implement an ECMS to store AP supporting documents.
   Interfaces to Incode.

Benefits

- Save staff time.
- Ecologically sustainable.
- Streamlined business process.
- Avoid Confusion.
- Increased functionality.
- Accurate reporting leading to well-informed staff.
- Vendors would get paid faster.
- Better public image of the city.
- Reduced human errors.
- Up-to-date with the latest practices.
- Better visibility of policies.
- Eliminate work activities.
- Same space physical and electronic storage.
- Improved management.
- Decreased chances of duplications.
- Better document and record movements.

ESW 10 ERP Accounts Receivables Application

Findings

- The city's Incode financial software is cumbersome and not user friendly archaic. According to staff, this results in the following:
  - A lack of funds.
  - Wasted staff time.
  - Large liability on balance sheet.
  - Staff frustration/mess.
- Finance receives funds for unknown receivables, which results in wasted staff time and audit risks.
- Staff cannot see online payments when required. According to staff, this results in the following:
  - Cannot issue permits until payments has been verified.
  - Wasted staff time.
  - Inconvenience to customers who must send proof of payment.
  - Poor image of the City.
- Forms do not exist for every receivable, which results in wasted staff time by having to interpret into financial terms.
- Invoices are not generated automatically, which results in the following:
  - Emails must be sent to request an invoice, with supporting documentation.
  - Communication issues departments are not on the same page.
- Do not have Project Management software capability. According to staff, this results in the following:
  - PM has to use multiple SW, communications.
  - Staff time.
  - Audit findings.
- Processing is disjointed and spread among multiple departments, things have to be manually tracked, which results in wasted staff time.
- Public Works relies too heavily on spreadsheets to track objects. According to staff, this results in the following:
  - Wasted staff time.
  - Spreadsheets are prone to errors.
  - Potential audit findings.
  - Lack of visibility and access to excel data.
- Financial software is only transactional, not Project Management software; i.e., staff can't add notes and attachments, which results in a lack of information / communication and wasted staff time.
- The billing contact is not known; input information is often lacking. According to staff, this results in the following:
  - Billing errors.
  - Staff time.
  - Jeopardizes image of the city.
  - Funds not available.
- Project Managers do not know how to use Incode. According to staff, this results in the following:
  - More calls to Incode.
  - Staff time.
  - Redundant work.
- There has not been sufficient training on Incode, which results in wasted staff time and financial inquiries are delayed.

- Incode: VAR. module the city did not purchase, which results in delayed billings.

Recommendations

1. Implement New Accounts Receivables Application Software

Features / Functions
- Provide a screen with data required to issue an invoice.
- Automated workflow: status, tracking, notifications, threshold by dollar amounts.
- View on line payments.
- Automatic to scan and attached documents.
- E-forms.
- Projects management features.
- Check the status.
- Check funds and fund balances.
- Connect information/pro management information.
- Timeline schedules and due dates.
- Ability to attach documents.
- Ability to add notes to a case.
- Track multiple cases/consultants.

Reports
- Trial balance report. (Training for staff, policy instills to use the report).
- Aging report.

Interfaces
- General ledger.
- MS office suite.
- Export data to excel easily.
- Credit card vendor.

- Provide role base training to the Project Manager.
- Provide universal training to all staff.

Benefits
- Staff time savings.
- Timely information.
- Improved public image.
- Reduced stress.
- More accurate data.
- Billings would be sent in a timely manner.
- Business process improvement.
- Improved institutional knowledge.
- Better use of software and a higher return on investment.

ESW 11 ERP Purchasing Application

Findings

- Things can get bogged down with the insurance verification.
- The City Attorney review process can take a long time.
- There is no one place to find all RFP templates or description of the process.
- Lack of standard operating procedures.
- Complexity of contacts under $10 K.
- The City does not get businesses licenses in a timely manner.
- Finance does not get notified until the end.
- Requisitions are not begun until the contact is executed.
- There is no standard RFP for the City.

According to staff, this results in the following:

- Wasted staff time.
- Delays the project initiation.
- Staff confusion and frustration.
- RFPs are poorly written, may not get qualified vendor responses.
- Could stop vendors from responding.
- The City and Vendors may not be in compliance.
- Slows down getting vendor paid.
- Have inaccurate financial reporting.
- May not have enough funds for a line item.
- More staff work unnecessary for department and finance staff.

Recommendations:

- **Technology:**
  - Adopt the use of an Enterprise Content Management Software
  - Place procurement documents in a central/accessible electronic contract management system.
  - Consider workflow automation.
- **Operational / Process**
  - Create a page cheat sheet for all contracts.
  - Create standard of business process with procedures.
  - Designate one person to be the contact person after office.
  - Engage city attorney at the beginning.
  - Have insurance provided earlier i.e. when draft contract is produced.
  - Provide notification when draft is completed.
- **Management / Policy**
  Develop and adopt standard RFP templates.
  Provide role based training.
  Update purchasing ordinance.

Benefits

- Business process improvement.
- Saves staff time.
- Improve staff efficiency.
- Increased productivity.
- Minimize frustration.

- Clear direction.
- Produce better quality RFPs.
- Attract better vendors.
- Turn around RFPs in timely manner.
- Fiscal budget adjustments.

E GOV E-Government Software

E-Government technologies provide the most significant opportunity for operational cost containment, enhancing service delivery levels and meeting growing customer expectations. Leading E-Government cities are those that evolve towards online service delivery with interactive, transactional and online services integrated with the City's financial systems. This framework maximizes the use of the Internet, enhances customer service, while at the same time reduces operating and staffing costs.

EGOV 1 City Website Enhancements

Findings

- Lack interactive forms.
  - Delays in receiving forms.
    - Public inconvenience.
    - Affects the public's perception of the City.
    - Hand written forms can be difficult to read.
    - Staff time for data entry.
  - Lack of E-commerce functionality, staff time (Public Works/Finance).
  - Keeping track of pages and duplicates, which can make the website confusing and cause messaging inconsistencies.

Recommendations

- Adopt an E-Government strategy, i.e. integrative forms and E-Commerce solutions.
- Explore using Vision or Site Improve to mitigate duplicates.

Benefits

- Improved accessibility to the public.
- Time saving.
- Cost savings.
- City practices aligned with green policies.
- Improved public service (24x7x365)

EGOV 2 Web Content Management

Findings

- There are too many forms, which results in numerous forms and too many specific procedures.
- Each department does not upload its own content, which results in:
  - Outdated content on website.
  - Last minute requests.
  - Additional burden on Community Outreach staff.
- Staff do not remember to update their pages, which results in outdated content and misinformation to the public.

- Limited Community Outreach staff time to approve, which results in:
  - Working from home for Community Outreach staff.
  - Additional burden for staff that do have update rights, i.e. Planning Department.
  - Staff stress.
- There are multiple user right categories on the back end of CMS, which results in staff not being able to get their work done efficiently.
- The vetting process for approval and publishing is challenging, which impacts Community Outreach staff.
- Forms are out of date, which results in:
  - Impacting revenue, i.e. the dollar amounts are not current and the City could lose revenue.
  - Creates more questions from the public.
  - Impacts the public perception of the City.
- Policies do not match content, which results in more questions from City staff.

Recommendations:

- Explore if Vision can pair down the existing number of user right categories.
- Do routine review of forms on an ongoing basis.
- Management meet with internal staff to explore consolidating/simplifying forms and incorporating the revisions into new City policies.
- Adopt a policy that all departments do their own content updates by sufficiently trained staff.
- Content management staff must have the skill to update content, reviewed by Community Outreach, and include this responsibility in the job descriptions.
- Provide reminders on an ongoing basis to update pages.
- Create and adopt a policy to do periodic audits of content; as appropriate.

Benefits

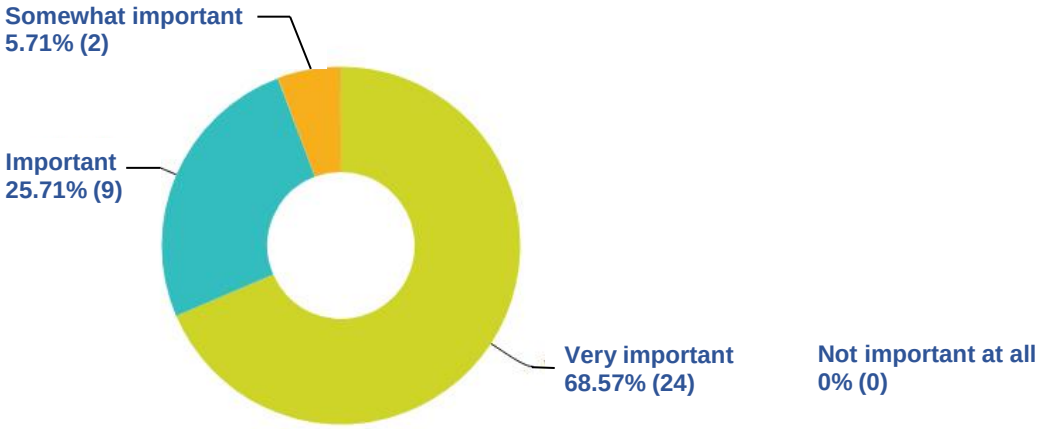
- Reduced public confusion.
- Reduced internal confusion.
- Provide the most up to date information to the public on a timelier basis.
- Less time spent on uploading information by Community Outreach staff.
- Easier for staff to make up dates and understand workflow of website.
- Receive accurate revenue.

EGOV 3 E-Government Applications

Findings

- The City's website currently has a negligible number of E-Commerce applications.
- City staff/management identified numerous opportunities for implementing E-Government/E-Commerce/Online Service applications, identified in the management interviews, City Staff Online Survey and Rapid Workflow® workshops.
- Although there is no supporting data for these initiatives, as with initiatives identified in Rapid Workflow® workshops, ThirdWave believes they are valid and would raise the City's E-Government Maturity level.

How important is it for the City website to provide online services?



EGOV 4.1	City Intranet
EGOV 4.2	Online Permits – Information posting only
EGOV 4.3	Online Employee Self-Service: Payroll/Time Cards
EGOV 4.4	Online Fee Payment
EGOV 4.5	City Website Functional Improvements
EGOV 4.6	Online Maps – Interactive map searches
EGOV 4.7	Online Business Licenses
EGOV 4.8	Online Plan Checks / Permitting
EGOV 4.9	City Website Redesign
EGOV 4.10	Online Payments: City Invoices
EGOV 4.11	Online Payments: Permits Residential
EGOV 4.12	Online Bid Center
EGOV 4.13	Online City Code Enforcement
EGOV 4.14	Online Finance Customer Service Applications
EGOV 4.15	Online Customer Service Request Application

Recommendations

- Adopt an E-Government Strategy posture with regards to the City's use of Internet, specifically web-enabled service delivery, i.e., use E-Government applications to deliver various on-line services to the public, tourist and business community. Use a variety of technologies, e.g.:
  - Interactive Applications (E-Forms).
  - Transactional Applications (Online Payments).
  - Integrated Applications (i.e., online applications interfaced to permitting, work order systems and/or ERP systems).
  - Social Media: Facebook, Twitter.
- Deliver information and innovative government services through web solutions to provide the highest value and convenience to constituents.
- Identify E-Government specific initiatives to raise the City's E-Government Maturity Model©.[1]

1. *E-Government Maturity Model ©: Copyright 1995 ThirdWave Corporation, see Appendix.*

- Align E-Government service delivery around the City's logical customer sets, including development permitting, parks and recreation, public safety, etc.
- Develop and roll out public facing interactive E-Government applications that compliment internal City applications provided by commercial-off-the-shelf applications or developed as complimentary applications to applications recommended in the ITSP Roadmap.
- Develop and implement Web standards: Architecture, development tools, and development methods and databases for the acquisition of web technologies.
- Implement one common Content Management System. Enforce website uniformity by employing a robust Content Management Systems (CMS); provide appropriate training to all staff with content posting responsibilities.
- Adopt the use of E-Signatures tools, where applicable, to satisfy the California Electronic Signature requirements.

Benefits:
- User friendly online applications and services.
- Enhanced customer convenience.
- A virtual City Hall that never closes.
- Business friendly service delivery.

E TECH Enterprise Architecture

E TECH 1 Cloud Solutions / Cloud Services Broker Policies

Findings:
Cloud computing came into existence in the late 1990s and became a widely used solution in the 2000's. Cloud computing allows users to benefit from shared infrastructure, software, and application technologies, without the need for deep knowledge about or expertise with each one of them. The cloud aims to cut costs, and helps the users focus on their core business instead of being impeded by IT operation obstacles.

Recommendations:
- Explore and deploy a cloud computing environment meeting the evolving needs of the City using one or more cloud computing solutions:
  - Infrastructure as a service (IaaS), providing computers, physical or virtual machines, and other resources
  - Platform as a service (PaaS), providing a computing platform, typically including operating system, programming language execution environment, database, and web servers. Application developers develop and run software solutions on a cloud platform without the cost and complexity of buying and managing the underlying hardware and software layers
  - Software as a service (SaaS): cloud providers install and operate application software in the cloud and cloud users access the software from cloud clients. Cloud users do not manage the cloud infrastructure and platform where the application runs, eliminating the need to install and run the application on the cloud user's own computers, which simplifies maintenance and support
- Prepare a rigorous specification for implementing a flexible cloud environment.
- Play close attention to the "pay-as-you-go" cost structure offered by cloud vendors.
- Carry out a pilot project to test the performance and total cost of cloud solutions.
- Monitor cloud performance.

Benefits:

- Provides tools and technologies to build data/compute intensive parallel applications with more affordable costs compared to traditional parallel computing techniques.
- Improved scalability and elasticity via dynamic ("on-demand") provisioning of resources on a fine-grained, self-service basis in near real-time.
- Possible cost reductions, by converting capital expenditures to operational expenditures.
- Device and location independence, providing access to systems / applications using a web browser regardless of location or device, e.g., PC, laptop, smart phone, or tablets.
- Easier maintenance of cloud computing applications.
- Multi-tenancy enabling shared resources/costs across a large pool of users allowing:
  - Centralization of infrastructure in locations with lower costs, e.g., real estate
  - Peak-load capacity increases
  - Utilization improvements based on system utilization levels
  - Monitored performance, with consistent architectures constructed using web services as the system interface
- Reduced risk and liability, with the use of multiple redundant sites, offering business continuity and disaster recovery.
- Potential for improved security, due to centralization of data and increased security-focused resources.

3.2.2 Operational Recommendations

The area of operational sustainability relates to the IT organization's ability to provide the complete spectrum of services required to effectively and successfully meet the technology needs of the city and the public. Issues related to sustainability include sufficient human resources, appropriate knowledge, skills and abilities, and the use of professional best practices commonly found in IT organizations committed to providing exceptional customer service.

The following findings and recommendations are based on input gathered throughout the ITSP Roadmap project related to sustainability.

O IT Operational Improvement

O 1 Business Process Analysis / Improvement

Findings
The need for Business Process Improvement (BPI) was specifically identified in the Rapid Workflow workshops, including:

- RFP Procurement Process
- Agenda Process

Staff rated Business Process Improvement as Poor / Good in the online Staff survey, 6th out of eleven choices. Sample comments include the following:

- "IT support is reactionary rather than proactive (planning for the future). 8 hours/week of IT consultant support only allows for basic IT functions to be performed. This is not enough in a growing organization."

It is evident that many of the City's business processes examined could benefit from business process redesign as well as a technique for Information Technology requirements definition, technical specification development, IT project planning, technology procurements and implementation.

Business Process Improvement opportunities are significant for several reasons as it:

- Can be accomplished at little or no cost when compared to the cost of procuring and implementing technology solutions.
- Solutions can be implemented at a fraction of the time as technology with near immediate labor and cost reductions.
- Solutions, driven by stakeholders themselves, require minimal Change Management.
- BPI can substantially reduce staff workloads and streamline business processes / service delivery.

Recommendations

- Adopt a BPI method and practice.
- Provide BPI services to City Departments as part of all IT projects.

O 2 Business Continuity Plan

Findings
The need for a business continuity plan was specifically identified in the:

- Management Interviews
- IT Focus Groups

The ITSP project revealed that the City does not have a Business Continuity Plan. This is a city-wide challenge, which results in the following:

- Lack of a Business Continuity could shut down certain segments of the City.
- Risk to City's Information Systems.
- Could impact service delivery.
- Could impact public safety resulting in increased liability and costs.
- Risk in the event of a disaster.

Recommendations

- Retain a professional organization to develop a Business Continuity Plan.
- A business continuity plan (BCP) includes planning for non-IT related aspects such as key personnel, facilities, crisis communication and reputation protection, and should refer to the disaster recovery plan (DRP) for IT related infrastructure recovery / continuity.
- Verify and validate BCP to ensure its effectiveness and efficiency for recovery of City operations on a yearly basis.
- Develop and adopt a Business Continuity Plan

Benefits

- Mitigate the risks of natural and man-made disasters.
- Ensure resumed service delivery to the community.

O 3 Disaster Recovery Plan

Findings
The ITSP project revealed that the City does not have a Disaster Recovery Plan.

This results in the following:

- The inability to recover systems / data in the event of a natural or manmade disaster.
- Inconsistent emergency operations response.
- Risk to City's Information Systems.
- Could impact service delivery.
- Could impact public safety resulting in increased liability and costs.
- Risk in the event of a disaster.

Recommendations

- Develop a DR plan, in collaboration with the City's Strategic Plan. Include policies, processes and procedures to recover and ensure business continuity in regards to technological infrastructure in the event of a disaster whether manmade or natural. The City should retain a professional organization to develop a Disaster Recovery Plan. Disaster recovery planning is a subset of a larger process (the Business Continuity Planning) and should include planning for resumption of applications, data, hardware, communications (such as networking) and other IT infrastructure. The disaster recovery plan should address three key control measures:

  - Preventive measures: controls aimed at preventing an event from occurring.
  - Detective measures: controls aimed at detecting or discovering unwanted events.
  - Corrective measures: controls aimed at correcting / restoring systems after a disaster.
- Adopt a formal Service Level Agreement (SLA) with IT Support and departments.
- Explore utilizing the Cloud as a backup disaster recovery site.

Benefits:

- Plan and be prepared in the event of disasters.
- Restoration of the business processes, systems and data recovery after a disaster occurs.
- Ensure key functions and essential services continue operating in case of a disaster and at the earliest time possible.
- Reduced liability.
- Improved public safety.
- Protect the City's assets.

3.2.3 Management Recommendations

This section of the IT Strategic Plan includes a comprehensive set of management recommendations designed to support the implementation of the City's IT Strategic Plan over the next 5 years.

These management recommendations are based on information gained from a thorough review and assessment of the City's mission, business processes and requirements. A baseline understanding of the City's IT management issues were realized by holding interviews with all department heads at the City. Business process requirements were identified in the Rapid Workflow® sessions held with staff and management.

M Management

M 1 IT Organization and Operational Model

As of this writing, the City of Goleta has been in existence for 15 years. Over that time, a small city with a contract business model. The City's current IT support structure consists of a contracted IT support firm, and does not have any dedicated full time technical professionals. The shortcoming of the current IT support model was noted in every phase of the ITSP project, including management interviews, IT Focus Groups, Online Staff Survey, and the Rapid Workflow® workshops.

Implementing an IT operating model that is responsive to the City's emerging operational and service delivery needs is fundamental to ensure the successful implementation of the ITSP Roadmap and future service delivery to the Goleta community.

Findings:

- The existing IT operation model is non-responsive to the needs of the City and non-strategic: The current state of the City's IT support model was consistently mentioned as problematic in every task of the discovery and requirements definition phases of the project:

  Management Interviews, revealed the following:

  - Department heads rated IT staff levels as "Poor" by 6 out of 9 responses.
  - Management comments related to IT staffing include:
    - *"IT support is only onsite an average of 8 hours/week. There is a perceived lack of availability of IT to respond to staff needs. IT requests sometimes take weeks or longer to be fulfilled and the model of support is reactionary vs. proactive. Only see the need for support growing over time as the City becomes more reliant on these tools. Do not see how the status can continue."*
    - *"The City has one guy, and have had to wait a long time to get issues addressed in the past, 2 – 3 weeks."*
    - *"Need more regular IT support, more than twice per week. While the existing person does a good job handling emergencies, it always feels the requests take forever."*
    - *"No Internal IT on staff. Would be ideal to have someone on staff (or least in the building) on a more frequent basis. Two afternoons/week not sufficient."*
    - *"There is only one person for IT support. If a system goes down, there is only one person. Takes too long, they are short staffed in PW, key positions are needed."*
    - *"It could be better. As the City grows, IT needs will grow. They have a contract staff person, which may be low for a city this size."*
    - *"There are not enough resources. He is only here twice a week and not for full days. Would be better to have someone here full-time. HR is waiting longer to have things fixed and if there are small items, they aren't asking, because he is not here and it seems too small. This builds up and can become a large item then. If someone was here full-time, there would be better service."*

  Online Staff Survey, revealed the following:

  - Software support was ranked in the top three areas (out of 10) needing the most improvement along with database administration
  - Representative staff and management comments include the following:
    - *"Would be nice to have IT support on staff so more available. More training would be nice."*
    - *"Would be nice to have a person on-site assigned to full-time support."*
    - *"We need full time on-site IT support, not only to handle help desk and technical support issues that arise, but to proactively train our users."*
    - *"Our technical support consists of 1 person right now and he sometimes doesn't respond to requests for help for weeks. I have two outstanding requests that haven't been completed for more than a month. Requests for updates are not responded to. One time, I asked for my new smartphone to be synced to receive*

work emails. It took weeks before he came to address the issue and the task took a less than a minute."

- *"IT support is lacking. Sometimes I submit IT requests that never get answered. IT staff is here for 8 hours/week, but much of the time spent by the consultant is talking with specified staff about non-work topics. Simply put, the time used by the consultant while in the office is not used efficiently. Preferential treatment for some employees is occurring, while other employees' requests go ignored. There is no order of prioritization that is evident to those submitting requests, leaving us to wonder when an issue will be addressed."*
- *"The IT support is slow and sometimes issues raised don't get addressed."*
- *"We don't have an IT staff? Just one outside consultant. Little is communicated when changes occur. The "newsletter"" they send out is not helpful. Solutions to day-to-day problems would be better."*
- *" We need a more proactive approach to IT."*

The current Information Technology outsourced model has several weaknesses:

- Poor customer application software support.
- The current IT organizational model is untenable and will prove to become more detrimental over time, particularly with implementation of the ITSP Roadmap.
- City data assets are exposed to catastrophic failure, data corruption or loss.
- Difficult to implement an IT Enterprise Architecture, interoperability and standards.
- Lack of well-defined support roles and responsibilities, and knowledge, skills and abilities, limiting the ability to make the best use of investments in IT.
- Inhibits proper planning, project execution and IT innovation.

Recommendations:

- Implement a core City IT Team consisting of the following:
  - **Applications Support Specialist** (new position): Assist with system implementations and follow-on application end user support and training.
  - **Database Administrator** (new position): Assist with system implementations and follow-on database administration. This position would be allocated to support a number of data intensive applications, such as GIS, land management, and ERP applications.
- Issue a Request for Proposal to IT Support organizations to support the City's systems, including infrastructure, servers, hardware, peripherals and related systems software. Include a detailed specification for performance parameters related to response times.

Benefits:

- Implementing the IT Team will meet the current and future IT needs of the City.
- Better service to City end user and executives.
- Better IT solutions and support for City staff.
- Better IT services to the public/constituents.
- Ability to successfully sustain the ITSP during the implementation phase.
- Change the overall IT perception.
- Working in the best interest of the entire organization with an enterprise perspective
- Establish standards and best practices.
- Leverage knowledge and capabilities throughout the organization.

M 2 City End User Training

Findings:

- Staff training was the second most identified of management requirements in the ITSP project: 7 (seven) out of nine (9) department heads noted it as a challenge.
- 3 out of 15 Rapid Workflow® workshops noted the need for staff training.
- In the Online Staff Survey, End User Training, was the second most mentioned area needing improvement.

Recommendations:

- Implement a training component to the IT organization to address all existing and proposed applications identified in this project.
- Include and budget for formal role-based training in the procurement of all new application software as part of the Scope of Work. Every application implemented should include vendor provided System Admin and role-based end user training as appropriate. Train-the-trainer programs should be used only if customer tailored training has been developed for each particular application and should be carried with experienced training.
- Allocate sufficient resources to provide formal, ongoing training to City staff on all mission critical applications employing with a combination of instructor led, video and computer-based training tools. These could be outsourced services and/or training provided by vendors as they implement new applications.

Benefits:

- Well-trained staff will make better use of technology.
- Enhanced service delivery and customer service.
- More efficient use of staff time through technology.
- Maximize the return on investment in Information Technologies.

M 3 Change Management

Change Management is the process, tools and techniques used to manage the people-side of changed business processes during the introduction of new Information Technologies to achieve desired outcomes. Change Management ensures effective change with staff and the wider organization.

Findings

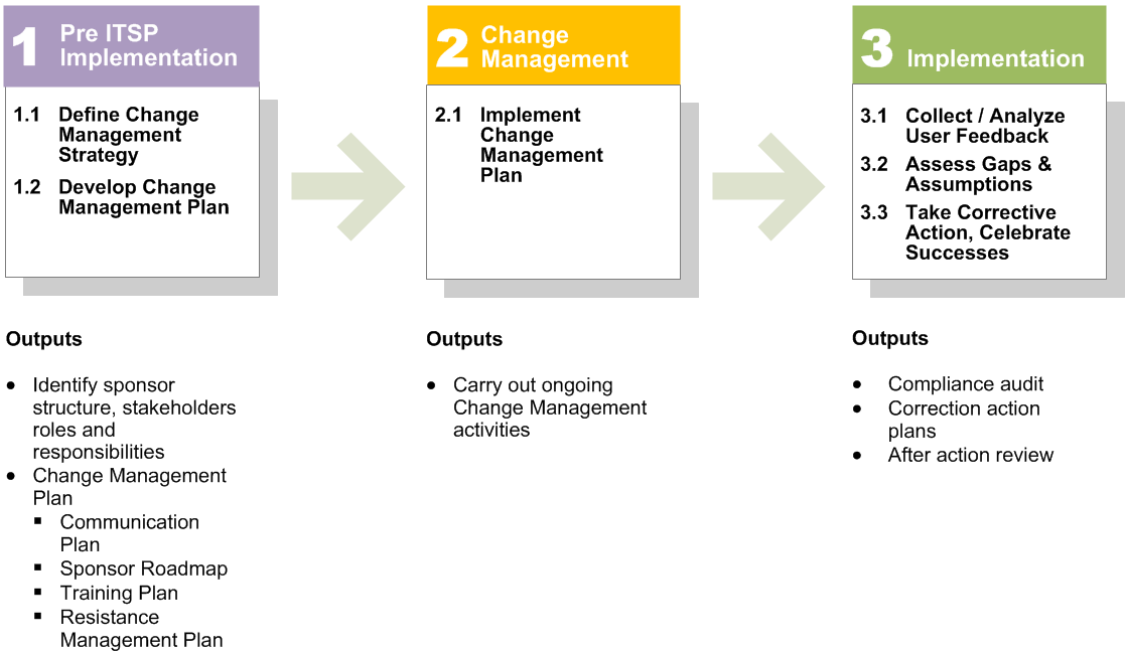
- The ITSP project identified a number of Information Technology initiatives, which if implemented correctly, will transform how City services are provided. This type of technology and organizational change will require effective change management to ensure the highest likelihood of success. This is particularly true with small cities, where one of the existing challenges is limited staff resources.

Recommendations

- Adopt and implement Change Management Best Practices as ITSP initiatives are implemented. There are a number of Change Management models which can be considered. The one illustrated below is a common one which incorporates the key components of an effective Change Management program.

© 2017

Figure M 3.1: Proposed IT Change Management Model



- Implement a formal Change Management Process, with the following activities:
  - ***Sponsor Roadmap:*** Identify the sponsor structure, stakeholder roles and responsibilities.
  - ***Communication Plan:*** Establish and execute a communication plan to support ITSP initiatives; possible components could include (but not be limited to) the following:
    - Publish a ITSP Newsletter posted on the City's Intranet, highlighting current and planned IT initiatives, highlighting how suggestions made by staff in the ITSP Project are being carried out. Celebrate End User and IT successes.
    - Publish a ITSP Newsletter posted on the City's Website, notify the public of planned and ongoing initiatives that will improve customer service. Celebrate E-Government success stories.
    - Establish End User Groups of newly deployed technologies.
    - Establish User Groups for Enterprise projects such as ERP, Accela, Work Order, and Website.
    - Encourage and recognize the participation of "Super Users" (staff who become highly proficient in the use of new technologies).
    - Establish City, Community, Business, Regional Government forums to discuss ongoing and planned ITSP initiatives.
  - ***Training Plan:*** Implement the training recommendations in the ITSP, formalizing an ongoing IT training program for City staff. Develop a curriculum of classes, prerequisites, and course descriptions.
  - ***Resistance Management Plan:*** Provide feedback mechanisms for staff and management, such as:
    - Suggestion Box or User Tips on the City's Intranet.
    - End User Groups (Quality Circles) for different technologies and / or disciplines.

- Implement the recommendation to adopt Business Process Improvement techniques where end users can work with an IT Business Analyst to identify new requirements and / or shortcomings and feed-back loops on newly deployed technologies.
- Carryout a Post Implementation Evaluation of the ITSP on a yearly basis.
- Utilize performance measurement techniques to gauge the progress of the ITSP implementation.
- Make necessary adjustments to planned initiatives based on changing business and / or service delivery requirements.
- Make necessary changes to planned initiatives based on changes or innovations in technology that significantly affect the return on investment.

Benefits

Change management will allow the City to achieve the following:

- Implement a formal process for facilitating the most efficient implementation of the ITSP initiatives, via clear executive sponsorship and leadership.
- Foster enterprise communication and coordination.
- Provide a mechanism to identify and address staff objections and resistance early, allowing the City to take steps to mitigate concerns and reduce risk before they become significant issues.
- Provide the highest likelihood of success.

© 2017

Section 4

Appendix

4.1 Glossary

	Term	Definition
1.	**Access Control**	The term "access control" denotes a technique used to define or restrict the rights of individuals or application programs to obtain data from, or place data onto, a storage device.
2.	**Administrator**	A role responsible for the day to day operation of the corporate records management policy. The tasks attributed to Administrators may be divided between several roles, with titles such as Records Manager, Records Officer, Archivist, etc.
3.	**As-Is Business Process Map**	Graphical business process model used to depict the existing condition of a business process. Used for the analysis of current business process steps and activities. Typically produced with input from business subject matter experts / business process owners.
4.	**Automated Workflow**	The tasks, procedural steps, organizations or people, required input and output information, and tools needed for each step in a business process. A workflow approach to analyzing and managing a business process can be combined with an object-oriented programming approach, which tends to focus on documents, data, and databases. This is commonly referred to as 'Automated Workflow."

	Term	Definition
5.	**Backbone**	Another term for bus, the main wire that connects nodes. The term is often used to describe the main network connections composing the Internet
6.	**Bulk Load**	An automatic data import of scanned documents utilizing the indexing schema attributes for subsequent search and retrieval of electronic documents / records stored in an ECMS.
7.	**Business Intelligence (BI)**	Often described as "the set of techniques and tools for the transformation of raw data into meaningful and useful information for business analysis purposes. BI technologies are capable of handling large amounts of unstructured data to help identify, develop and create new strategic business opportunities. BI allows for the easy interpretation of large volumes of data. Identifying new opportunities and implementing an effective strategy based on insights, providing businesses with a competitive market advantage. BI technologies provide historical, current and predictive views of business operations. Common functions of business intelligence technologies are reporting, online analytical processing, analytics, data mining, process mining, complex event processing, business performance management, benchmarking, text mining, predictive analytics and prescriptive analytics.
8.	**Business Process Improvement**	Business process improvement (BPI) is a systematic approach to help an organization optimize its underlying processes to achieve more efficient results. The methodology was first documented in H. James Harrington's 1991 book Business Process Improvement.
9.	**CCTV**	Closed-circuit television (CCTV), also known as video surveillance, is the use of video cameras to transmit a signal to a specific place, on a limited set of monitors.
10.	**Change Management**	An approach to transitioning individuals, teams, and organizations to a desired future state. It focuses on how people and teams are affected by an organizational transition. It deals with many different disciplines, from behavioral and social sciences to information technology and business solutions. In a project management context, change management may refer to the change control process wherein changes to the scope of a project are formally introduced and approved.
11.	**Customer Relationship Management Software**	Short for customer relationship management, CRM entails all aspects of interaction a company has with its customer, whether it be sales or service related.
12.	**Departmental Software**	Software providing functionality specific to a department in an organization, features and functions not required by any other department. In government, and example might be a Library Information System or Police Department 911 system, both systems which no other department requires. Departmental application software solves department specific problems and may integrate with enterprise systems.

© 2017

	Term	Definition
13.	**DOD 5015.2**	Design Criteria Standard for Electronic Records Management Applications, DOD 5015.2-STD: A DOD and NARA approved set of requirements for Electronic Records Management applications.
14.	**E-Commerce**	E-commerce is business that is conducted over the Internet using any of the applications that rely on the Internet, including interactive and transactional functions, e.g., online payments, registration and application submittals.
15.	**E-Government**	A generic term that refers to any government functions or processes that are carried out in digital form over the Internet. Local, state and federal governments essentially set up central Web sites from which the public (both residents and businesses) can find public information, download government forms and contact government representatives.
16.	**Electronic Document Management System (EDMS)**	Functionality to support the computerized management of electronic and paper-based documents. Associated components include a system to convert paper documents to electronic form, a mechanism to capture documents from authoring tools, a database to organize the storage of documents, and a search mechanism to locate the documents.
17.	**Enterprise Architecture**	A discipline for proactively and holistically leading enterprise responses to disruptive forces by identifying and analyzing the execution of change toward desired business vision and outcomes. EA delivers value by presenting business and IT leaders with signature-ready recommendations for adjusting policies and projects to achieve target business outcomes that capitalize on relevant business disruptions.
18.	**Enterprise-wide**	Deployment or use of a single software application throughout all departments, divisions, or components of the organization.
10.	**Enterprise Content Management System (ECMS)**	An automated system with the functionality to capture, manipulate, retrieve, and publish the entire inventory of digital assets (e.g., web pages, office documents, databases, scanned images, e-mail) created by an organization.
20.	**Electronic Record**	The information recorded in a form that requires a computer or other machine to process it and that satisfies the legal definition of a record according to section 3301 of **title** 44 of United States Code (USC).
21.	**Electronic Records Management System (ERMS)**	A collection of hardware, software, staff, policies, and procedures that work in concert to enable an agency to effectively manage records electronically. A software product that identifies, classifies, and disposes of records according to specified records disposition policies.

© 2017

	Term	Definition
22.	**Enterprise Resource Planning System (ERP)**	Business management software that allows an organization to use a system of integrated applications to manage the business: e.g., Finance, Human Resources, Asset Management, Customer Relationship Management, Project Management, Business intelligence, to name a few.
23.	**Enterprise Software**	Enterprise applications (e.g. CRM, ERP, BI) assist an organization in solving enterprise problems. They integrate with other enterprise systems.
24.	**E-Services**	The concept of e-service (short for electronic service) represents one prominent application of utilizing the use of information and communication technologies (ICTs) in different areas. 'E-Service constitutes the online services available on the Internet, whereby a valid transaction of buying and selling (procurement) is possible, as opposed to the traditional websites, whereby only descriptive information are available, and no online transaction is made possible.'
25.	**Ethernet**	A local-area network (LAN) architecture that uses a bus or star topology and supports data transfer rates of 10 Mbps.
26.	**Fiber Optics**	A high-bandwidth transmission technology that uses light to carry digital information. One fiber telephone cable carries hundreds of thousands of voice circuits. These cables, or light guides, replace conventional coaxial cables and wire pairs. Fiber transmission facilities occupy far less physical volume for an equivalent transmission capacity, which is a major advantage in crowded ducts. Optical fiber is also immune to electrical interference.
27.	**File Plan**	A document containing the identifying number, title, description, and disposition authority of files held or used in an office.
28.	**E-Forms**	Program development tools that build applications by designing electronic forms for data entry, update or processing. Electronic forms are generally designed with visual programming tools that allow fields, buttons and logos to be drawn directly on screen.
29.	**E-Signatures**	An electronic sound, symbol, or process attached to or associated with a contract or other record and used as the legal equivalent of a written signature.
30.	**Geographic Information System (**GIS)	GIS is a collection of computer hardware, software and geographic data for capturing, managing, analyzing and displaying every form of geographically referenced information, often called spatial data.
31.	**Image Capture (scanning)**	A process whereby documents are scanned into a system and stored electronically. Imaging is the digital capture, storage, manipulation and delivery of copies of digitized originals, which may be texts, manuscripts, pictures or other information types.

© 2017

	Term	Definition
32.	**Infrastructure**	An enterprise's entire collection of hardware, software, networks, data centers and facilities used to develop, test, operate, monitor and/or support information technology services.
33.	**Interoperability**	The ability of software and hardware on different machines from different vendors to share data.
34.	**ISP**	Short for Internet Service Provider, it refers to a company that provides Internet services, including personal and business access to the Internet.
35.	**IT Governance**	The processes that ensures the effective and efficient use of IT in enabling an organization to achieve its goals. IT demand governance (what IT should work on) is the process by which organizations ensure the effective evaluation, selection, prioritization, and funding of competing IT investments; oversee their implementation; and extract measurable business benefits. ITG is a business investment decision-making and oversight process, and it is a business management responsibility. IT supply-side governance (how IT should do what it does) is concerned with ensuring that the IT organization operates in an effective, efficient and compliant fashion, and it is primarily a CIO responsibility.
36.	**ITS**	Short for Federal Intelligent Transportation Systems, it is a broad range of wireless and wired communications-based information and electronics technologies that are integrated into transportation system and in vehicles themselves. ITS is made up of 16 types of technology based systems.
37.	**Life Cycle**	The records life cycle is the life span of a record from its creation or receipt to its final disposition. It is usually described in three stages: creation, maintenance and use, and final disposition.
38.	**Metadata**	In the context of records management, meta-data is the structured or semi-structured information which enables the creation, management and use of records through time and within and across domains in which they are created.
39.	**Open Data**	The idea that some data should be freely available to everyone to use and republish as they wish, without restrictions from copyright, patents or other mechanisms of control. The goals of the open data movement are similar to those of other "Open" movements such as open source, open hardware, open content, and open access. The term "open data" is recent, gaining popularity with the rise of the Internet and World Wide Web and, especially, with the launch of open-data government initiatives such as Data.gov and Data.gov.uk.

© 2017

	Term	Definition
40.	**Optical Character Recognition (OCR)**	The recognition of printed or written text characters by a computer. This involves analysis of the scanned-in image and then translation of the character image into character codes, such as American Standard Code for Information Interchange (ASCII). OCR is applied to image (raster) files to create text-searchable files.
41.	**PBX System**	A private branch exchange (PBX) phone system that's delivered as a hosted service, typically by one of the major telephone companies.
42.	**Portable Document Format (PDF)**	This format is proprietary to Adobe Inc., and is widely used as a de-facto data exchange method.
43.	**ThirdWave Rapid Workflow Process Modeling®**	US Patent 8615423 B1: A method of rapid workflow process modeling, which is established according to a triangulation principle. The method integrates issues of management, operation and technology including information technology that are three fundamentals of a triangulation principle to characterize challenges and opportunities for process improvement of any organization including military units, governmental agencies and public and private business sectors. Specifically, the method is comprised of seven steps such as the As-Is process mapping, problem statements, impact statements, solution statements, benefit statements, To-Be process mapping and cost benefit analysis for generating a quantitative projection of the business cost reduction. Application of the method is able to comprehensively and effectively address challenges and opportunities for all aspects of the organizational process improvement and Enterprise Architecture.
44.	**Record**	The information, regardless of medium, that details business transactions. Records include all books, papers, maps, photographs, machine-readable materials, and other documentary materials, regardless of physical form or characteristics. Records are made or received by an Agency under Federal law or in connection with the transaction of public business. Records are preserved or appropriate for preservation by that Agency or its legitimate successor as evidence of the organization, functions, policies, decisions, procedures, operations, or other activities of the Government, or because of the value of data in the record.
45.	**Records Manager**	Individuals who are responsible for records management administration.

© 2017

	Term	Definition
46.	**Retention Period**	The length of time that a record must be kept before it can be destroyed. Records not authorized for destruction are designated for permanent retention. Retention periods for temporary records may be expressed in two ways: • A fixed period from the time records in the series or system is created. Normally, a fixed period that follows their regular cutoff dates. For example, the phrase "destroy after 2 years" provides continuing authority to destroy records in a given series 2 years after their creation (normally 2 years after their regular cutoff date). • A fixed period after a predictable event. Normally, a fixed period following the systematic cutoff applied after completion of an event. The wording in this case depends on the kind of action involved.
47.	**Retention Schedule**	A plan for the management of records listing types of records and how long they should be retained by the organization for business purposes; the purpose is to provide continuing authority to dispose of, transfer, or archive records.
48.	**SAN**	A storage area network (SAN) is a network that provides access to consolidated, block level data storage. SANs are primarily used to enhance storage devices, such as disk arrays, tape libraries, and optical jukeboxes, accessible to servers so that the devices appear to the operating system as locally attached devices.
49.	**Service-Oriented Architecture** (**SOA**)	An architectural pattern in computer software design in which application components provide services to other components via a communications protocol, typically over a network. The principles of service-orientation are independent of any vendor, product or technology, Services can be combined to provide the functionality of a large software application.[3] SOA makes it easier for software components on computers connected over a network to cooperate. Every computer can run any number of services, and each service is built in a way that ensures that the service can exchange information with any other service in the network without human interaction and without the need to make changes to the underlying program itself.
50.	**Taxonomy**	The study of the general principles of scientific classification: systematics; classification; especially: orderly classification of plants and animals according to their presumed natural relationships. Taxonomy is a high-level, hierarchical classification for documents and records that facilitates the management (storage, access, retrieval, revision, archiving, and disposition) of recorded information throughout its life cycle. A taxonomy is a living document that changes as the work within the company changes. It is never final because organizations constantly change their content types, processes and organizational structures.

© 2017

	Term	Definition
51.	**ThirdWave Strategic Planning Triangulation© Methodology**	ThirdWave's Strategic Planning Triangulation methodology is a powerful technique that facilitates validation of data through cross verification from two or more sources. This is accomplished by the collection and synthesis of data from three: Management perspective (Organizational, policy and finance), Operational perspective (business process and practices), and Information Technology perspective (enterprise-wide systems). In particular, it refers to the application and combination of several research methods in the study of the same phenomenon to produce comprehensive and thorough strategies based on a compelling business case.
52.	**To-Be Business Process Map**	Graphical business process model used to depict the future state (To-Be) condition of a business process. Used for the design of a reengineered business process steps and activities. Typically produced with input from business subject matter experts / business process owners.
53.	**Waterfall Methodology**	The waterfall model is a sequential design process, used in software development processes, in which progress is seen as flowing steadily downwards (like a waterfall) through the phases of conception, initiation, analysis, design, construction, testing, production/implementation and maintenance.
54.	**Web Browser**	Web browser is a software application used to locate, retrieve and display content on the World Wide Web, including Web pages, images and video.
55.	**Wi-Fi**	Wireless-Fidelity certification mark issued by the Wi-Fi Alliance to certify that a product conforms to the 802.11b, g and a standards for WLANs.
56.	**XO ISP Bandwidth**	Bandwidth Shaping. The process of manipulating, managing or controlling (shaping) portions of a network connection to the outside world and determining an allowed bandwidth consumption based on types of activities. The term is commonly used in conjunction with Internet Service Providers (ISP), where it refers to a tool that is used to limit or direct bandwidth consumption by users.

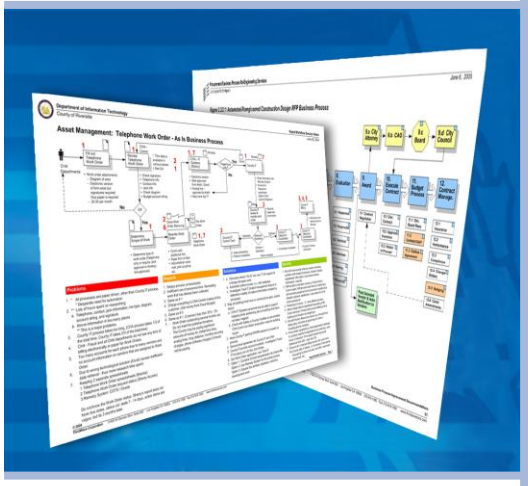
5.

© 2017
ThirdWave Corp 11400 W. Olympic Blvd. Suite 200 Los Angeles CA 90064 310.914.0186 V 310.312.9513 F

ATTACHMENT 3:

ITSP Implementation Roadmap

PROBLEMS
IMPACTS
SOLUTIONS
BENEFITS
RAPID WORKFLOW®



CITY OF GOLETA

Technology Assessment and Strategic Plan

IT Strategic Plan Roadmap

February 2, 2018

31 YEARS

Thought Leadership,
Exceptional Performance &
Results since 1987

ThirdWave

ThirdWave Corporation
Information Systems Intelligently Applied

11400 W. Olympic Blvd. Suite 200
Los Angeles, CA 90064
www.ThirdWaveCorp.com
310.914.0186

Table of Contents

Information Technology Strategic Plan: Volume 2 - Roadmap

Section 1 Introduction 1

1.1 Introduction to the ITSP Implementation Roadmap 1
1.2 ITSP Vision, Mission and Values 2
1.3 ITSP Roadmap Framework 2
1.4 ITSP Implementation Roadmap Objectives 3
1.5 ITSP Implementation Roadmap Guiding Principles 3

Section 2 Information Technology Strategic Plan Initiatives 5

2.1 Technology Initiatives 5
2.2 Prioritization Criteria & Process 6
Figure 2.2.1: ITSP Roadmap Initiative Prioritization Criteria 6
Figure 2.2.2: Prioritized ITSP Roadmap Technology Initiatives 7

Section 3 Budget Estimate 9

3.1 Budget Overview 9
3.2 ITSP Technology Innovation Fund 10
Figure 3.2.1: 5 Year Base Investment Summary (Excludes ongoing yearly costs) 10
Figure 3.2.2: 5-Year ITSP Roadmap Budget Estimate 11
Figure 3.2.3: Year 1 Budget Estimate 12
Figure 3.2.4: Year 2 Budget Estimate 13
Figure 3.2.5. Year 3 Budget Estimate 14
Figure 3.2.6: Year 4 Budget Estimate 15
Figure 3.2.7: Year 5 Budget Estimate 15
Figure 3.2.8: ITSP 5 Year Sustainability Resources Investment 16
Figure 3.2.9: Total ITSP Investment Summary 17

Section 4 5 Year Information Technology Strategic Plan Roadmap 18

4.1 ITSP Roadmap Implementation Principles 18
4.1.1 Technology Implementation Principles 18
4.2 5 Year Implementation Timeline 20
Figure 4.2.1: ITSP Roadmap Year 1 – 5 Timeline 21

Section 5 City & Community Benefits 22

5.1 Sorted ITSP Roadmap Benefits 22
Figure 5.1.1: Summary of Potential Benefits Across All City Departments 23

Section 6 Closing Recommendation 26

6.1 Adoption & Funding 26

© 2018

ThirdWave Corp 11400 W. Olympic Blvd. Suite 200 Los Angeles CA 90064 310.914.0186 V 310.312.9513 F

Section 1
Introduction

1.1 Introduction to the ITSP Implementation Roadmap

This document provides the City of Goleta a five-year IT Strategic Plan & Roadmap (ITSP Roadmap), including phased and prioritized Information Technology initiatives. The Roadmap addresses the acquisition and implementation of Strategic Business Technologies, in addition to addressing the sustainability of the ITSP Roadmap with IT human resources.

Volume 1, the Information Technology Strategic Plan Findings and Recommendations document articulates the opportunities identified in the course of the project. This document is a management tool that identifies prioritized ITSP Roadmap initiatives that should be carried out, and gross investment estimates.

As with any planning document, the ITSP Roadmap should be revisited and refreshed on a yearly basis. Updates should consider changing circumstances in a variety of areas: e.g., the City's economic position, community demographics, emerging Information Technologies, and fluctuations in the state of the economy. Moreover, yearly performance evaluations should be carried out to measure completed initiatives and make necessary adjustments.

The following pages lay out a pragmatic implementation roadmap that will ensure the successful deployment of the ITSP. It reflects sound investments in technologies specific to the City of Goleta, addressing the following:

- The criteria used to prioritize ITSP Roadmap Initiatives;
- Implementation Roadmap over a 5-year timeline; and,
- IT staff resources required to sustain the ITSP implementation.

© 2018

ThirdWave Corp 11400 W. Olympic Blvd. Suite 200 Los Angeles CA 90064 310.914.0186 V 310.312.9513 F

1.2 ITSP Vision, Mission and Values

The following outlines the City of Goleta's ITSP Roadmap vision, mission and values:

Vision

Provide a comprehensive roadmap fostering the use of proven state-of-the-practice Information Technologies in the most strategic, innovative, cost effective and efficient ways possible to support internal City operations, extraordinary customer service delivery, civic participation and community wellbeing.

Mission

Ensure IT investments and strategic business technologies are customer focused, sound, and deliver the highest possible value to the City and its constituents.

Values

Information Technology actions are guided by values integral to everything the City's IT organization does:

Excellence: Lead with a clear vision, communicate, form partnerships, and take full ownership and responsibility in fulfilling our mission. Our Information technology work is relevant, timely, and delivered with superior customer service that reflects our commitment to collaboration and the highest standards of quality.

Transparency: Uphold a standard of municipal transparency, accountability, and reliability. We conscientiously run our IT operations to promote a City workforce that is worthy of the public trust.

Innovation: Constantly seek new ways to accomplish our work through efficiencies and collaboration to generate extraordinary transformative results. We are dedicated to delivering creative, innovative and forward-looking solutions.

1.3 ITSP Roadmap Framework

The ITSP Roadmap will foster a transformative framework for how the City leverages its Information Technologies. The City will embrace Information Technology as a strategic enabler, embedding it as a critical and fundamental component in all the City does. The City will continue to ensure the use and application of Information Technologies stays aligned with, and supportive of, an efficient and responsive delivery of services to all of the City's constituents – residents and businesses (a third of the City's community) and visitors.

By aligning Information Technology in support of the City's business and service delivery processes, the City of Goleta will become a more agile organization that is better able to support

the City's vision and strategic plan. Moreover, the Roadmap will allow the City to leverage emerging trends and evolving technologies. Through investment in Information Technology, the City will develop and implement innovative and cost-effective approaches for improving the quality and delivery of needed services to its community.

1.4 ITSP Implementation Roadmap Objectives

The objectives of the ITSP Roadmap are to:

- Invest in IT systems based on a rational and impartial assessment of both tangible and intangible benefits, and a realistic assessment of project costs, benefits and risks;
- Reduce the cost of operations and service delivery, while improving the quality of services delivered to customers through responsible IT investment; and,
- Deliver IT services, internally to the City and externally to the residents of Goleta in a cost-effective manner.

1.5 ITSP Implementation Roadmap Guiding Principles

ThirdWave recommends that the City of Goleta adopt a new set of guiding principles related to the implementation of Information Technologies. ThirdWave recommends the following principles be adopted for implementing the ITSP Roadmap:

1.	**Leadership**	Embrace technology as a strategic enabler and utilize IT to improve the way City staff perform their jobs and deliver services to residents and businesses.
2.	**Communications**	Foster effective communications between the City and constituents to keep all parties involved and informed on the progress of IT initiatives. Goleta will keep the public informed on the use of technology in the City via its website, transparency / citizen engagement and other appropriate means.
3.	**IT Governance**	Adopt a formal management process to ensure that IT initiatives are properly vetted for consistency with the ITSP Roadmap, IT industry trends, are fiscally sound, and are effective in improving operating efficiencies and customer service prior to proceeding with IT initiatives.
4.	**Enterprise Approach**	Encourage an enterprise approach when procuring, implementing and managing the City's Information Technologies. An enterprise approach deploys systems that address needs across multiple departments and/or can share data across multiple applications. The City will utilize state-of-the-practice technology ensuring investments are effectively leveraged across departments, businesses and constituents while employing economies of scale

wherever possible. Information Technologies will foster cost containment and/or the highest return on investments possible.

5. Strategic Investments IT assets, systems, skills and support operations will be viewed as strategic investments that are critical in attaining internal City-wide business and external service delivery objectives. This includes buying technologies whose fundamental architecture is positioned to be used for years, and/or are not proprietary systems that cannot share data or talk to other systems.

6. Accountability Create an environment that encourages accountability through service level agreements, performance measures and individual responsibility, including the City contracted service providers. Proposed City IT/contracted staff will deliver IT projects on schedule; and respond to technical support requests within specified times.

7. Proven Technology Implement contemporary, but proven, technologies that maximize future options by emphasizing open standards (systems whose architecture allows them to speak to other systems). Applications should use Commercial Off-the-Shelf software wherever possible, and should be web based, cloud-based, wireless ready, employing a Service Oriented Architecture, and GIS enabled, where appropriate and applicable.

8. Efficiencies Decisions regarding funding for future technology initiatives should be based on a Business Process Improvement assessment using a formal and standard Continuous Improvement methodology, e.g., Lean, Kaizen, Rapid Workflow®, or other similar method. The resulting data will be used to produce a comprehensive business case that takes both tangible and intangible costs and benefits of the project into account each time funding requests are made. These should be part of a best practice IT Governance process.

9. Accessibility Implement Information Technology that provides all internal and external customers easy and timely access to online information and services. The City will strive to make data available for the benefit of the public.

© 2018

ThirdWave Corp 11400 W. Olympic Blvd. Suite 200 Los Angeles CA 90064 310.914.0186 V 310.312.9513 F

Section 2
ITSP Initiatives

2.1 Technology Initiatives

The *Volume I ITSP Findings and Recommendations* document identified management, business process and technology solutions for enhancing the organization and service delivery environment at City of Goleta over the next five years.

The initial list of potential ITSP Roadmap initiatives was consolidated, reduced and combined (where appropriate) to produces the final list. The final combined list of ITSP initiatives was prioritized in this document, bringing the final number to twenty (20) technology initiatives planned over 5 years.

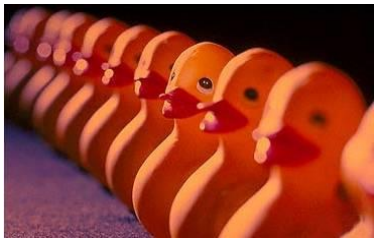
The final list of solutions relates to five Information Technology categories: infrastructure, hardware, departmental software, enterprise software, and E-Government solutions. Other solutions in the ITSP Findings & Recommendation document, not contained in this document, include operational and/or policy recommendations related to the use, operation and management of the City's IT portfolio.

IT solutions identified in the requirements definition phase of the project were vetted to produce the final list used in the prioritization process. Information Technology initiatives are described in some detail in *Volume I ITSP Findings & Recommendations,* July 3, 2017, which will act as a reference document over the fiver year Roadmap.

© 2018

ThirdWave Corp 11400 W. Olympic Blvd. Suite 200 Los Angeles CA 90064 310.914.0186 V 310.312.9513 F

2.2 Prioritization Criteria & Process



The ITSP Roadmap initiatives noted above were processed through a prioritization model, which included a range of performance parameters aligned with common municipal business objectives and tangible internal/public benefits.

This criterion was used by the City/ThirdWave Project Team to identify a preliminary sorting of initiatives. The sequencing of initiatives was subsequently reviewed and further sorted by the City's management team. A final prioritization was carried out by the City/ThirdWave, taking into account technology prerequisites, related applications, optimum sequencing of IT initiatives and investment balancing.

The figure below describes the criteria employed to prioritize ITSP Roadmap initiatives, using a weighted rating system as described below.

Figure 2.2.1: ITSP Roadmap Initiative Prioritization Criteria

Business Case Benefit Rating

5	**High:**	Provides significant benefit to internal operating efficiency/extraordinary customer service.
3	**Medium:**	Provides some benefit to internal operating efficiency/extraordinary customer service.
1	**Low:**	Provides limited benefit to internal operating efficiency/extraordinary customer service.

Prioritization Application of Criteria

1. Internal or External ITSP Requirement
- The number of times an initiative was identified in the requirements definition phase of the project, including the Rapid Workflow® workshops, Management Interviews, Online Staff Survey, or IT Focus Groups.
- Provides the architecture/infrastructure required to implement other key projects;
- Facilitates collaboration; and/or,
- Enterprise solution, highly leverageable, benefiting the City as a whole.

2. Improved Staff Productivity
- Staff time savings;
- Fosters internal operating efficiencies;
- Improves organizational practices, aligning them with enterprise / departmental goals; and/or,
- Enhances the ability to share data.

3. Improved Customer Services
- Significantly improves customer service;
- Provides online 24x7 convenience; and/or,
- Provides Web-enabled services for faster/easier service to the public.

4. Cost Savings

- Provides the potential for hard dollar savings;
- Potential deferred expenses; and/or,
- Provides cost avoidance opportunities.

5. Economic Development

- Provides the potential of economic development benefits to the City. For instance, attract new businesses and industries to the City, or increased tourist to the Goleta micro-economy.

Figure 2.2.2 below provides a list of the final technology initiatives identified in the prioritization process, grouped into yearly phases for management consideration and budgeting.

Figure 2.2.2: Prioritized ITSP Roadmap Technology Initiatives

Legend:

M	Management Initiatives
INF	Infrastructure Systems
HW	Hardware
DSW	Departmental Software
ESW	Enterprise Software
EGOV	E-Government Applications

Year 1	Type	Department	
1.1	EGOV	Enterprise	E-Commerce Application
1.2	ESW	Enterprise	GIS Strategic Plan, Consolidation, Coverages
1.3	ESW	Enterprise	City Council Request Tracking
1.4	ESW	Enterprise	Customer Relationship Management
1.5	EGOV	Enterprise	E-Government Strategy
1.6	ESW	Enterprise	E-Forms / E-Signatures
1.7	ESW	Departmental	Inventory / Asset Management / Work Order
1.8	DSW	Departmental	Special Events Tracking Application

Year 2	Type	Department	Description:
2.1	HW	Departmental	Mobile Devices
2.2	EGOV	Enterprise	Implement Intranet
2.3	ESW	Departmental	Project Management Application
2.4	ESW	Enterprise	ECMS Taxonomy
2.5	ESW	Enterprise	Enterprise Content Management: RM. AW
2.6	HW	Departmental	PCs (Library Faster - Replacement Cycle)

Year 3	Type	Department	Description
3.1	INF	Enterprise	Internet Speed
3.2	INF	Departmental	Library: Fast Wireless
3.3	EGOV	Enterprise	Vision/Site Enhancements

© 2018

ThirdWave Corp 11400 W. Olympic Blvd. Suite 200 Los Angeles CA 90064 310.914.0186 V 310.312.9513 F

Figure 2.2.2: Prioritized ITSP Roadmap Technology Initiatives: *continued*

Year 4	Type	Department	Description
4.1	ESW	Enterprise	Backfile Conversion
4.2	ESW	Enterprise	ERP Financials, Risk Management, Insurance

Year 5	Type	Department	Description
5.1	INF	Enterprise	Server Closet

A description of each strategic initiative listed above is provided in the *Volume 1: ITSP Findings & Recommendations* document.

Section 3
Budget Estimate

3.1 Budget Overview

The ITSP budget estimate reflects a comprehensive analysis, drawing on specific data collected in the course of the City's project. It provides a management planning budgeting tool.

While every effort has been made to project the approximate cost of the proposed ITSP initiatives (i.e., gross order of magnitude estimates), **the City should be aware that technology hardware and software vendor prices vary widely, both in pricing models, product suites, hosting/on premise, bundling and maintenance options.**

Moreover, the cost of implementation vendors/systems integrators can vary even more than system vendors, depending on the geographic location, size of the firm, overhead costs and business model.

The following pages provide high level budget estimates, or investment requirements, for a phased 5-year implementation of the City of Goleta's ITSP Roadmap.

It should be noted that the budget estimate represents gross level of effort estimates using the currently available data; **it does not represent a price quote**. Furthermore, budget estimates do not include detailed and/or total training costs, data conversion costs, and other system integration related costs. These costs can only be developed when the solution is known, the specific number of staff to be trained has been identified and the training approach determined, i.e., Train-the-Trainer, professional training services, internal training, etc.

High level budget estimates have been determined by:

- Applying industry best practice estimating for the implementation of Information Systems;
- Past experience carrying similar IT initiatives;
- Data provided by the City, based on staff research; or
- Data researched by the City and ThirdWave.

All proposed solutions identified in the ITSP Roadmap should be **thoroughly reviewed and go through the formal development of project requirements, specifications and preliminary work breakdown structures, resource allocation planning and development of MS Project Schedules prior to the issuance of solicitation documents or implementation by technology vendors/integrators.**

3.2 ITSP Technology Innovation Fund

ThirdWave recommends that Information Technology assume a new level of strategic importance at the City of Goleta, and that an IT Innovation Fund be established to successfully execute and sustain the implementation of the ITSP Roadmap.

The ITSP Roadmap phase of the project carried out a comprehensive analysis of project technology investments in total systems costs including: one-time hardware/software costs, ongoing software maintenance costs, and professional services costs.

The figure below provides a summary of projected ITSP investment needs.

Figure 3.2.1: 5 Year Base Investment Summary (Excludes ongoing yearly costs)

	Software/Hardware	Software Maintenance	Professional Services
Year 1	255,000	55,500	298,000
Year 2	120,000	26,400	120,000
Year 3	85,000	0	35,000
Year 4	200,000	40,000	140,000
Year 5	10,000	0	7,000
	$670,000	**$121,900**	**$600,000**
	48%	**9%**	**43%**

Figure 3.2.2 on the following page provides an overview of the 5-year ITSP Roadmap Budget estimate. Figure 3.2.8 below, ITSP 5 Year Sustainability Resources Investment, provides budget estimates for IT sustainability staff resources.

Figure 3.2.2: 5-Year ITSP Roadmap Budget Estimate

YR 1	Type	Initative	YR 1	YR 2	YR 3	YR 4	YR 5
1.1	EGOV	E-Commerce Application	45,000	5,500	5,500	5,500	5,500
1.2	ESW	GIS Strategic Plan, Consolidation, Coverages	100,000	0	0	0	0
1.3	ESW	City Council Request Tracking	44,000	6,000	6,000	6,000	6,000
1.4	ESW	Customer Relationship Management	82,000	11,000	11,000	11,000	11,000
1.5	EGOV	E-Government Strategy	30,000	0	0	0	0
1.6	ESW	E-Forms / E-Signatures	24,000	2,200	2,200	2,200	2,200
1.7	ESW	Inventory / Asset Management / Work Order	160,000	22,000	22,000	22,000	22,000
1.8	DSW	Special Events/Alcohol Permits Application	68,000	8,800	8,800	8,800	8,800

YR 2	Type	Initative	YR 1	YR 2	YR 3	YR 4	YR 5
2.1	HW	Mobile Devices		7,000	0	0	0
2.2	EGOV	Impement Intranet		25,000	0	0	0
2.3	ESW	Project Management Application		34,000	4,400	4,400	4,400
2.4	ESW	ECMS Taxonomy		14,000	0	0	0
2.5	ESW	Enterprise Content Management: RM. AW		160,000	22,000	22,000	22,000
2.6	HW	PCs (Library Faster - Replacement Cycle)		0	0	0	0

YR 3	Type	Initative	YR 1	YR 2	YR 3	YR 4	YR 5
3.1	INF	Internet Speed			37,000	0	0
3.2	INF	Library: Fast Wireless			30,000	0	0
3.3	EGOV	Vision/Site Enhancements			53,000	0	0

YR 4	Type	Initative	YR 1	YR 2	YR 3	YR 4	YR 5
4.1	ESW	Backfile Conversion				40,000	0
4.2	ESW	ERP Financials, Risk Manage., Insurance				300,000	40,000

YR 5	Type	Initative	YR 1	YR 2	YR 3	YR 4	YR 5
5.1	INF	Server Closet					17,000

553,000	**295,500**	**201,900**	**421,900**	**138,900**
			TOTAL 5 YEAR ESTIMATE	**1,611,200**

© 2018

The figures below provide high level investment requirements for a phased multiple year implementation of the City of Goleta's ITSP Roadmap.

Figure 3.2.3: Year 1 Budget Estimate

YR 1	Type	Initative	YR 1	YR 2	YR 3	YR 4	YR 5
1.1	EGOV	E-Commerce Application	45,000	5,500	5,500	5,500	5,500
1.2	ESW	GIS Strategic Plan, Consolidation, Coverages	100,000	0	0	0	0
1.3	ESW	City Council Request Tracking	44,000	6,000	6,000	6,000	6,000
1.4	ESW	Customer Relationship Management	82,000	11,000	11,000	11,000	11,000
1.5	EGOV	E-Government Strategy	30,000	0	0	0	0
1.6	ESW	E-Forms / E-Signatures	24,000	2,200	2,200	2,200	2,200
1.7	ESW	Inventory / Asset Management / Work Order	160,000	22,000	22,000	22,000	22,000
1.8	DSW	Special Events/Alcohol Permits Application	68,000	8,800	8,800	8,800	8,800

Note:

The footnotes below provide a synopsis of assumptions for each of the ITSP initiatives listed over the 5-year timeline.

Phase 1		Notes
1.1	***EGOV***	***E-Commerce Application:*** *This cost reflects professional development services to implement an e-commerce solution for the City's website, provided by a System Integrator. City staff/management identified numerous opportunities for implementing online payment applications identified in the management interviews, City Staff Online Survey and Rapid Workflow® workshops. The City's website currently has a negligible number of E-Commerce applications.*
1.2	***ESW***	***GIS Strategic Plan, Consolidation, Coverages:*** *This cost reflects professional consulting services to develop a strategy and consolidate GIS coverages. This initiative includes creating natural resources GIS coverage including hazards, noise, solutions, environment, biology, and flood zones. The City has numerous technical, operational and management challenges, including multiple versions of GIS or GIS-lite software, outdated data, lack of versioning and clearly defined staff roles, and is disconnected form the IT functions at the City.*
1.3	***ESW***	***City Council Request Tracking:*** *This cost reflects software for a small city, ongoing software maintenance costs and professional implementation services. This was identified as a need in the management interview with the City Manager.*
1.4	***ESW***	***Customer Relationship Management:*** *This cost reflects professional implementation services, commercial CRM software for a small city and ongoing software maintenance costs. This requirement was identified in the Public Records Request workshop and 3 management interviews: Planning & Environmental Services, Neighborhood Services, Advanced Planning Director, and Public Works Director. The existing conditions are inefficient, has legal exposures, and impacts deadlines.*

© 2018

1.5 ***EGOV*** ***E-Government Strategy:*** *This cost reflects professional services to develop the E-Government Strategy focusing on benchmarking the City's website design, content and online services, establishing a website focused on online service delivery. The City is not fully leveraging web-services, and is not positioned to adopt emerging technologies such as Smart City and Internet of Things solutions.*

1.6 ***ESW*** ***E-Forms / E-Signatures:*** *This represents onetime software costs, ongoing software maintenance cost and one-time professional implementation services. E-Form requirements were identified in the ITSP project as requirements in management with the Public Information Manager and Finance Director, and the online staff survey. Electronic forms can be used to build applications for many departments across the City including on-line / E-Government applications for the public*

1.7 ***ESW*** ***Inventory / Asset Management / Work Order Software:*** *This cost reflects software for a small city, ongoing software maintenance costs and professional implementation services. This solution should provide the following: Inventory Management, Asset Management, Work Orders, Maintenance, Preventive Maintenance and Construction Project + Capital Program Management functionality in an integrated suite. This need was identified in the workshop with Public Works to address a number of challenges including a lack of an asset database or asset management process. City staff can't currently schedule work in a cost-effective manner and lack the ability to do predictive maintenance.*

1.8 ***DSW*** ***Special Events/Alcohol Permits Application:*** *This cost reflects software for a small city, ongoing software maintenance costs and professional implementation services. This need was identified in the Neighborhood Services management interview and online survey.*

Figure 3.2.4: Year 2 Budget Estimate

YR 2	Type	Initative	YR 1	YR 2	YR 3	YR 4	YR 5
2.1	HW	Mobile Devices		7,000	0	0	0
2.2	EGOV	Impement Intranet		25,000	0	0	0
2.3	ESW	Project Management Application; Service Now		34,000	4,400	4,400	4,400
2.4	ESW	ECMS Taxonomy		14,000	0	0	0
2.5	ESW	Enterprise Content Management: RM. AW		160,000	22,000	22,000	22,000
2.6	HW	PCs (Library Faster - Replacement Cycle)		0	0	0	0

Year 2		Notes
2.1	***HW***	***Mobile Devices:*** *This cost reflects the procurement of mobile devices for City staff that require access to information in the field. The only mobile devices the City has are iPads for the City Council (all 5 members), PIO and Public Works. This is not allowing the City take advantage of mobile workplace and mobile workforce opportunities.*
2.2	***EGOV***	***Implement an Intranet:*** *This cost reflects professional services to design and deploy a City Intranet. The City does not currently have an Intranet, which is a tool for internal communications, collaborations and posting of City-wide documents, all of which support internal operating efficiencies.*

2.3 ESW ***Project Management Application:*** *This cost reflects software for a small city, ongoing software maintenance costs and professional implementation services. This requirement was identified in the workshop with Public Works. Existing challenges include slipped schedules, lack of budget controls, scope creep, and a lack of a consistent project management approach.*

2.4 ESW ***ECMS Taxonomy:*** *This cost reflects an initiative that will be carried out by a consultant with the participation of City staff representing all departments. It includes a document inventory, preparation of taxonomy spreadsheets for each department, and taxonomy workshops. The end product is a high-level hierarchical classification specification facilitating the management and disposition of electronic documents/records in an electronic document management system. This need was identified in several Rapid Workflow® workshops and management interviews. The lack of a taxonomy results in non-compliance in records management, lost documents, lack of version control, staff time and duplicate documents.*

2.5 ESW ***Enterprise Content Management:*** *This initiative includes the procurement of Imaging, Content Management, Records Management software, ongoing software maintenance costs and professional implementation services. This need was identified in several Rapid Workflow® workshops and management interviews. The lack of a taxonomy results in non-compliance in records management, lost documents, lack of version control, staff time and legal exposures.*

2.6 HW ***PCs (Library Faster - Replacement Cycle):*** *This cost reflects the procurement of new PCs and basic Microsoft software for 30 PC, 10 per year for the Library. This need was identified in a management interview with the Library, which is impacting the ability of the library's patrons to use the web.*

Figure 3.2.5: Year 3 Budget Estimate

YR 3	Type	Initative	YR 1	YR 2	YR 3	YR 4	YR 5
3.1	INF	Internet Speed			37,000	0	0
3.2	INF	Library: Fast Wireless			30,000	0	0
3.3	EGOV	Vision/Site Enhancements			53,000	0	0

Year 3 Notes

3.1 INF ***Internet Speed:*** *This cost reflects the procurement of infrastructure required to improve the performance of the City's Internet speed, and professional installation services. This need was identified in management interview with the City's PIO. The existing condition affects the effective use of web-based applications, internally as well as the public's use of online solutions.*

3.2 INF ***Library: Fast Wireless:*** *This cost reflects the procurement of wireless systems to improve the Library's wireless infrastructure, and professional installation services. This need was identified in the Library management interview. The existing condition affects wireless devices and Internet PCs at the Library, and results in complaints from the public or the public checking out.*

3.3 EGOV ***Vision/Web Site Enhancements:*** *This cost reflects professional services to enhance the City website. This need was identified in the Website Enterprise workshop and the Staff Online Survey by numerous staff. This initiative includes adding interactive forms, e-commerce functionality to improve accessibility and online convenience to the public.*

Figure 3.2.6: Year 4 Budget Estimate

YR 4	Type	Initative	YR 1	YR 2	YR 3	YR 4	YR 5
4.1	ESW	Backfile Conversion				40,000	0
4.2	ESW	ERP Financials, Risk Manage., Insurance				300,000	40,000

Year 4 **Notes**

4.1 ESW ***Backfile Conversion:*** *This cost reflects professional services to carry out scanning of hardcopy documents/records the City determines to be valuable enough to image and store in an Enterprise Content Management System. This need was identified in the Public Works Land Development Design Rapid Workflow® workshop and management interview with the Advanced Planning Director. Backfile conversion allows providing city documents/records to city staff and the public, where appropriate – supporting open and transparent government.*

4.2 ESW ***ERP Financials, Risk Manage., Insurance:*** *This cost reflects the procurement of an Enterprise Resource Management system, software maintenance costs, and professional implementation services. This system should provide AP/AR, Risk Management and Insurance tracking functionality. This need was identified in the Accounts Receivables Rapid Workflow® workshops and management interview with the Finance Director. The existing system is cumbersome, archaic and not user friendly which results in wasted staff time, large liability on balance sheet and Finance receives funds for unknown receivables.*

Figure 3.2.7: Year 5 Budget Estimate

YR 5	Type	Initative	YR 1	YR 2	YR 3	YR 4	YR 5
5.1	INF	Server Closet					17,000

Year 5

5.1 INF **Server Closet:** This cost reflects building a new Server Closet, including labor and materials to implement a better designed and dedicated room: racks, environment, HVAC, Halon, etc. The existing server closet has space constraints, overhead sprinkler heads, which is not an appropriate server environment. The existing condition poses potential safety issues, and the network could go down due to water leaks and overheating of the space. The closet should be secured and easily accessible for service, maintenance, and support.

The ITSP Findings and Recommendations document also highlighted the need for the City to retain a minimum level of in-house IT resources. The following figures provides a gross budget estimate for the necessary resources to sustain the City's strategic Information Technologies over time.

Figure 3.2.8: ITSP 5 Year Sustainability Resources Investment

City Sustainability IT Staff Resources					
IT Supervisor / Manager	110,000	115,500	121,275	127,339	133,706
Application Support Specialist	86,000	90,300	94,815	99,556	104,534
Database Administrator	92,000	96,600	101,430	106,502	111,827
Business Analyst	74,000	77,700	81,585	85,664	89,947
	362,000	**380,100**	**399,105**	**419,060**	**440,013**

Notes: The following resources reflect average personnel costs if IT professionals, actual salaries will vary. A 5% cost of living increase is included in the staff costs. These salaries are not fully burdened.

IT Supervisor / Manager: $110,000 - $120,000
Responsible for the management of information systems programs; oversee, direct, and coordinate the work of lower level IT staff; select, supervise, train, and evaluate staff; participate in the development and administration of IT goals, objectives, and procedures; prepare and administer project budgets; prepare clear and concise administrative and financial reports; evaluate and prioritize hardware and software requests and needs. Work with lower level IT staff to prepare work plans and time estimates for projects and proposed systems; develop and administer contracts with IT vendors. Work with City departments to analyze problems, identify alternative solutions, proposed projects and implement system solutions in support of City goals. Communicate clearly and concisely, both orally and in writing; and establish and maintain effective working relationships with IT/City staff and management.

Application Support Administrator: $84,000 - $94,000
Supports "off the shelf" software including installing, configuring, testing, monitoring and troubleshooting. Responsible for the application security process, user setup, role privilege definition, assignment and security permissions and overseeing the installation and/or upgrade of software package releases. Typically requires more than 5 years of experience.

Database Administrator: $90,000 - $120,000
Specific skills and tools in this category could include: Oracle, MS SQL, ESRI-SDE, database management and monitoring tools. Fully responsible for installation of the database software, new releases and upgrades, and supporting products. Creates and manages multiple databases, tablespaces and indexes. Maintains databases up to current security standards. Monitors, tunes, diagnoses, resolves problems with the databases and their performance. Develops and maintains a backup and recovery strategy for all databases. Establishes standards and procedures. Typically requires a BA/BS or equivalent, database management certification preferred and a minimum of 6 years' experience with administering relational database technology.

Business Analyst: $84,000 - $110,000
Performs more complex business process analysis to determine potential needs and works with internal customers to identify changes or improvements to the functionality and efficiency of these processes. Documents business requirements and creates flowcharts. Recommends information technology solutions to meet business needs and coordinates the planning, development, and implementation of these solutions. Typically requires a BA/BS or equivalent and 6 or more years of experience analyzing and evaluating business processes.

(The Business Analyst is a resource whose responsibilities might be carried out by a management analyst with some experience and expertise with Information technology.)

The figure below provides a total investment summary including ITSP technology initiatives and IT sustainability resources. The summary represents a gross level of magnitude investment that will take the City of Goleta to the next level in its evolution as an innovative, high performing City.

Figure 3.2.9: Total ITSP Investment Summary

City Sustainability IT Staff Resources	YR1	YR2	YR3	YR4	YR5
IT Strategic Plan	553,000	295,500	201,900	421,900	138,900
Sustainability IT Staff Resources	362,000	380,100	399,105	419,060	440,013
	915,000	**675,600**	**601,005**	**840,960**	**578,913**
				5 Year Total	3,611,478
				Average/Year	722,296

© 2018

ThirdWave Corp 11400 W. Olympic Blvd. Suite 200 Los Angeles CA 90064 310.914.0186 V 310.312.9513 F

Section 4
5 Year ITSP Roadmap

4.1 ITSP Roadmap Implementation Principles

The ITSP Roadmap illustrates the prioritized sequencing and projected timelines for strategic initiatives over a 5-year period. The Roadmap represents the logical and well-planned implantation phases of the Information Technology Strategic Plan.

The following pages provide yearly project schedules reflecting the final prioritized IT Initiatives identified in the ITSP Roadmap Project ***as of this writing***. However, it bears noting that this Roadmap is a living document. **As a planning and implementation document, this document is subject to continuous review and adjustment as the City's organization needs, financial position, new technologies emerge, and the City's Information Technology portfolio changes.**

4.1.1 Technology Implementation Principles

The ITSP Roadmap adheres to a framework comprised of a number of general operating principles, as outlined below:

1. ***Build a solid and secure infrastructure foundation*:** The ITSP Roadmap assumes that the City's network and communications infrastructure is sound and secure, allowing for the deployment of various strategic technologies. This is a prerequisite to the deployment of departmental and enterprise applications.

2. ***Focus on economies of scale in the investment and deployment of initiatives:*** For instance, the implementation of city-wide (enterprise) systems, such as Customer Relationship Management, Inventory / Asset Management / Work Order systems, will meet the needs *for several departments;* the E-Government applications can assume a "write-once use many" approach where an Online Payments application can be used to address several online payment requirements across numerous departments and applications.

3. ***Provide staff with sufficient tools of the trade***: The ITSP Roadmap focuses on providing staff with the fundamental tools needed to provide City services ***and*** interface with all of the Goleta community, i.e., contemporary departmental and enterprise application software, mobile devices, and web-enabled service delivery solutions.

4. ***Recognize deployment prerequisites:*** The ITSP Roadmap recognizes that deployment of certain solutions requires up-stream system preparation, i.e., upgrading the City's network, ubiquitous remote access to data for City staff working in the field, and so on. In some cases, this may require the City to acquire enabling hardware and/or software technologies either in-house or through "cloud-based" service providers.

5. ***Utilize parallel deployment approaches to fast track initiatives:*** To the extent possible, based on available resources, some ITSP Roadmap initiatives will occur in parallel using appropriate City IT resources (proposed in this document) and/or service providing firms to execute IT projects and initiatives. However, multiple enterprise systems should be deployed at the same time with caution and proper planning, as that might unnecessarily tax the workload of existing City staff.

6. ***Use IT best practices for the execution and management of ITSP Roadmap initiatives:*** All development and implementation projects will use formal industry standard PMBOK® (the Project Management Institute's *Project Management Body of Knowledge*) Project Management methodology and a uniform Enterprise Architecture, Structured Development Life Cycle (SDLC) methods, development tools and databases.

7. ***Allocate sufficient IT resources to ensure sustainability:*** The ITSP Roadmap currently includes IT initiatives of varying scale and complexity over the next several years. This represents a significant workload given the City's size and the current lack of IT staff resources. The implementation will require that the City place a high level of importance on IT staff resource allocation (City staff, contractors and/or consultants) to successfully deploy and effectively sustain the IT Strategic Plan.

4.2 5 Year Implementation Timeline

The figures on the following pages provides an overview of the proposed 5-year Roadmap. In general, the 5-year plan follows the prioritization identified in Section 2 of this document. The following should be noted:

- Projects anticipated to be carried out by existing IT resources without a solicitation phase are shown with a solid bar indicating approximate deployment timelines. (The solid bar indicates the projected implementation timelines, not the upfront requirements definition and solicitation timelines.)

- ***Projects requiring requirements definition and/or a solicitation*** process are shown with a light-colored bar preceding the solid dark color bar, which indicates the deployment timelines. ITSP Roadmap initiatives that require a solicitation process tend to be the larger and more complex projects. These projects will generally be carried out by external professional resources supported by internal City IT staff/subject matter experts. From a planning perspective, the solicitation timelines are important because they imply:
  - A formal <u>requirements definition effort</u>;
  - The formation of staff resources for the development of RFP documents;
  - The formation of end user evaluation and selection committees;
  - The assignment of appropriate IT staff resources and/or external professional services for the execution of the initiatives;
  - The assignment of appropriate City staff back fill resources for the execution of large IT projects, i.e., ERP systems; and,
  - The identification of appropriate Change Management activities.

- Ongoing ITSP Roadmap initiatives are shown with a dashed line.

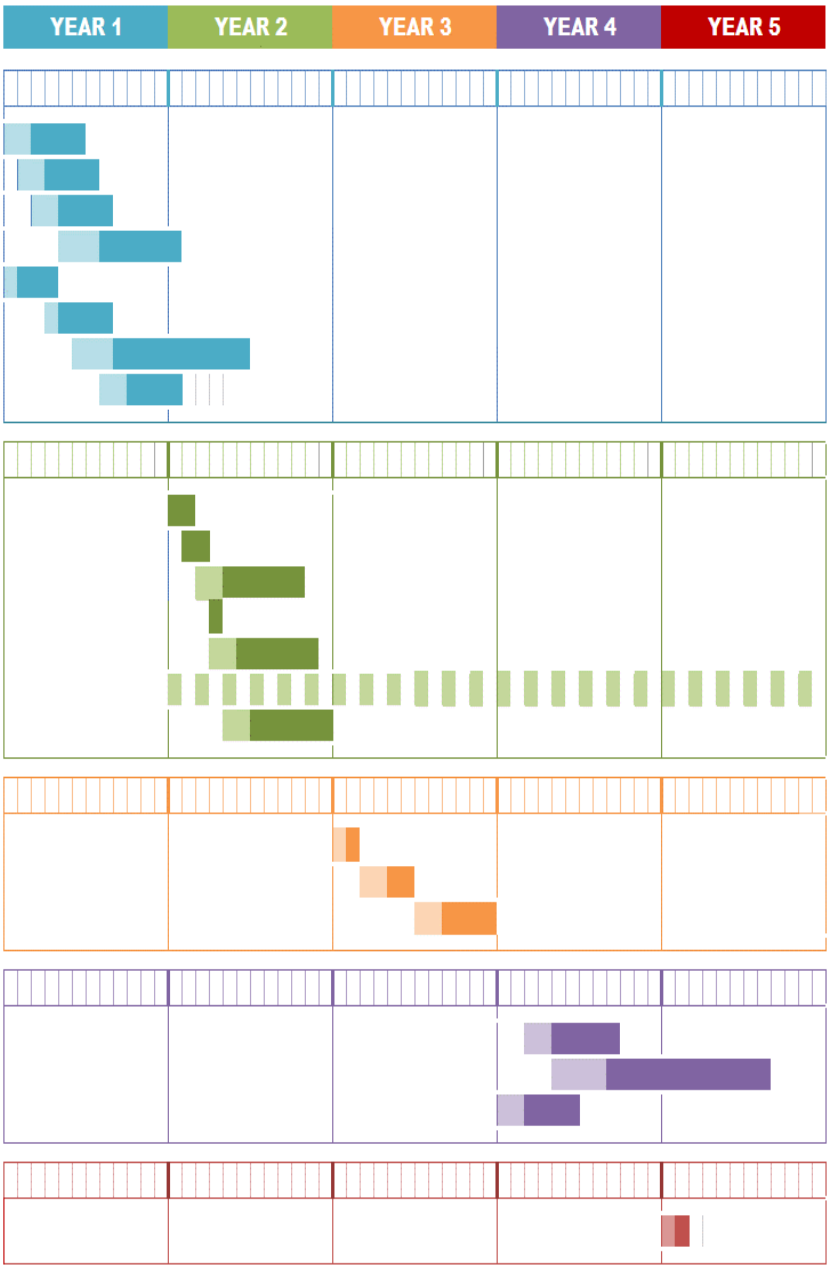
- The timing of ITSP Roadmap initiatives is subject to change based on the availability of funding, either at the department or enterprise level.

- ***The ITSP Roadmap proposed here is not cast in concrete*** and should be reviewed on a yearly basis and revised as appropriate.

Figure 4.2.1: ITSP Roadmap Years 1 – 5 Timeline

LEGEND (Typical)

- Execution of Initiative
- Requirements / Solicitation
- Ongoing Initiative



YR 1

1.1	EGOV	E-Commerce Application
1.2	ESW	GIS Strategic Plan, Consolidation, Coverages
1.3	ESW	City Council Request Tracking
1.4	ESW	Customer Relationship Management
1.5	EGOV	E-Government Strategy
1.6	ESW	E-Forms / E-Signatures
1.7	ESW	Inventory / Asset Management / Work Order
1.8	DSW	Special Events Tracking Application

YR 2

2.1	HW	Mobile Devices
2.2	EGOV	Implment Intranet
2.3	ESW	Project Management Application
2.4	ESW	ECMS Taxonomy
2.5	ESW	Enterprise Content Management: RM. AW
2.6	HW	PCs (Library Faster - Replacement Cycle)
2.7	DSW	Inspection Application

YR 3

3.1	INF	Internet Speed
3.2	INF	Library: Fast Wireless
3.3	EGOV	Vision/Site Enhancements

YR 4

4.1	ESW	Backfile Conversion
4.2	ESW	ERP Financials, Risk Management, Insurance
4.3	EGOV	City Website Enhancements

YR 5

5.1	INF	Server Closet

© 2018

Section 5
City & Community Benefits

5.1 Sorted ITSP Roadmap Benefits

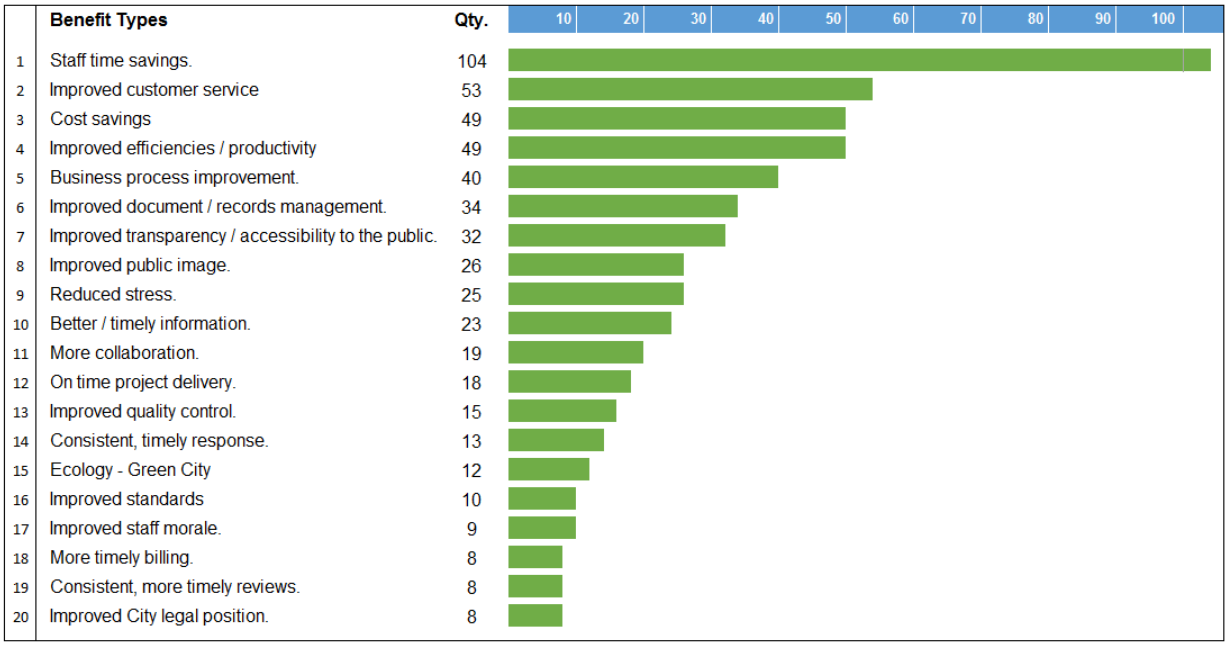
A number of quantitative and qualitative benefits were identified in the ITSP Roadmap project indicating considerable opportunity for enhancing internal operations and service delivery to the public. Qualitative business process improvement and service delivery benefits were split equally across external (customer focused) and internal benefits. And while the benefits were not quantified in benefits in terms of dollars, the list below provides a general indicator of the magnitude if the opportunity.

The figure on the following page provides a compiled list of potential ITSP Roadmap benefits identified by City staff and management if the initiatives identified in the ITSP were implemented. This list indicates that the top 10 substantial benefits of implementing an enterprise driven ITSP Roadmap are the outcomes all municipalities strive for.

1. Improved staff efficiency
2. Improved customer services
3. Cost savings
4. Staff time savings
5. Improved accuracy/accountability
6. Quality improvement
7. Improved staff morale
8. Staff satisfaction
9. Reduced 311 costs
10. Improved business processes

© 2018

Figure 5.1.1: Summary of Potential Benefits Across All City Departments



The top 10 potential benefits identified include the following: (The number in the parenthesis indicates he number of times a benefit was identified in the Rapid Workflow® workshops with the City's business process owners/subject matter experts.)

1. **Staff time savings** (104)
   According to City staff, management and ThirdWave's findings, funding the ITSP Roadmap will allow for better use of staff time and time-savings, a significant benefit allowing the City to sustain its organizational business model by containing the number of city staff levels. The implementation of the ITSP Roadmap will allow existing City staff to better meet the growing service demands of the City's constituents.

2. **Improved customer service** (53)
   Execution of the ITSP Roadmap will improve the levels of customer service, internally amongst City staff and externally to constituents. In both cases, systematizing data/ information and transactions replaces the need to physically go to the City and/or manage City operations and services with hardcopy documents. Web-enabled applications will allow the public 24x7x365 convenience. Even though City staff appreciates providing face-to-face services, the use of online applications will allow the public self-services options which are increasingly the norm with progressive E-Government agencies.

3. **Cost savings** (49)
   Implementing the ITSP Roadmap will reduce the City's operating costs in several areas by reducing: the amount of hardcopy documents, duplicate staff work, wasted staff time, the cost of driving back and forth to City facilities by field staff, etc. City constituents will also

see cost savings by accessing City information and services on-line, without having to drive to City Hall receive services or gather information.

4. **Improved efficiency and productivity** (49)
Execution of the ITSP Roadmap will further the efficient use of staff time, in terms of executing common work tasks, looking for information, not re-keying data into redundant systems, and/or looking for (and gathering) information from numerous disparate systems. The implementation of systems that automate workflows and provide online services will streamline business processes. The implementation of a contemporary Enterprise Content Management System will make information accessible internally to City staff and the external customer – on a self-service model. Execution of the ITSP Roadmap will improve staff productivity by fostering a workplace where more can be done, and better services provided to the community, with existing resources.

5. **Business Process Improvement** (40)
The adoption and funding of the ITSP Roadmap will provide significant opportunity to streamline the execution of City work activities in many areas. This will result in improved internal operations and enhanced service delivery to City customers.

6. **Improved Document / Records Management** (34)
Implementing the ITSP Roadmap will enhance the City's ability to manage documents and legal records more effectively. Enterprise Content Management was one of the most often identified technologies in the course of the project, including the Rapid Workflow® workshops and Management Interviews.

7. **Improved transparency / accessibility to the public** (32)
Implementing the ITSP Roadmap will enhance the ability of the City to adopt a greater degree of transparency with regard to City information. For the pubic, the ITSP Roadmap will facilitate an Open Government policy and enhanced transparency.

8. **Improved public image** (26)
Implementing the ITSP Roadmap will bring the City's adoption of technology to comparable position of other progressive cities of the same size. Today constituents have a certain level of expectation on how information and services are provided, both internally and online. The initiatives identified in the ITSP Roadmap will significantly mitigate numerous areas where the city's systems are substandard by today's standards in local government.

9. **Reduced staff stress** (25)
Implementing the ITSP Roadmap will reduce and mitigate a number of workplace/ business process situations where City staff is experiencing considerable frustration and stress. The use of automation will streamline many business processes which currently rely on manual methods, which will enhance service delivery and decrease stress.

10. Better, timely information (23)

Implementing the ITSP Roadmap will significantly improve the ability of City staff to produce and store more consistent and accurate information. This applies to the majority of City departments including better financial data, improved access to data to public works crews in the field, and more accurate reports across all departments – including providing information to the City Council when they request it.

The top 10 benefits identified above, and the remaining quantitative and qualitative benefits provide a compelling business case for approving and funding the City of Goleta's ITSP Roadmap.

Section 6
Closing Recommendations

6.1 Adoption & Funding

Based on the voluminous amount of data collected from City staff and management, the findings and recommendations of the ITSP Roadmap project, and the opportunities for making substantial progress in the use of emerging Information Technologies, ThirdWave recommends that the City of Goleta Information Technology Strategic Plan and Roadmap be approved, funded and adopted by the City.

Doing so will result in business process improvement, increased operational efficiencies, and enhanced service delivery to constituents while containing operational costs. It will also position the City to evolve as a leading municipality in how it leverages emerging technologies for the benefit of the Goleta community, including resident, businesses and visitors.

Adoption of the ITSP represents a timely quantum leap into the future. Moreover, this document provides a comprehensive strategy that can be leveraged over the next five years (and beyond) to facilitate excellence in municipal services, civic participation, and community wellbeing.

© 2018

ATTACHMENT 4:

Section 5—Status of Information Technology

CITYGATE ASSOCIATES, LLC
MANAGEMENT CONSULTANTS

CITY OF GOLETA, CA

SECTION 5: FROM THE INDEPENDENT OPERATIONAL AND ORGANIZATIONAL ASSESSMENT FOR THE CITY MANAGER AND NEIGHBORHOOD SERVICES AND PUBLIC SAFETY DEPARTMENTS

APRIL 12, 2019

CITYGATE ASSOCIATES, LLC
WWW.CITYGATEASSOCIATES.COM
2250 EAST BIDWELL ST., STE. 100
FOLSOM, CA 95630
PHONE: (916) 458-5100
FAX: (916) 983-2090

CITY OF GOLETA

This page was intentionally left blank

SECTION 5—STATUS OF INFORMATION TECHNOLOGY

FROM THE INDEPENDENT OPERATIONAL AND ORGANIZATIONAL ASSESSMENT FOR THE CITY MANAGER AND NEIGHBORHOOD SERVICES AND PUBLIC SAFETY DEPARTMENTS

5.1 COMPARISON OF PROPOSED STAFF-GENERATED STRATEGIC PLAN WITH OTHER IT RELATED STUDIES

5.1.1 Background

Citygate's overview of data and information for the purposes of the IT portion of this study included three volumes of work that are all, as of the writing of this report, in preliminary draft format and therefore not yet publicly available. The draft formats in all three are not yet completed because City staff is engaged in an ongoing effort to resolve issues and complete further work related to each document.

Two of these volumes are works produced and not yet fully completed and/or accepted by the City, under a former contract with an outside vendor, ThirdWave Corporation (www.thirdwavecorp.com). The third (and latest) volume is work initiated by City staff, in an attempt to consolidate and improve upon the prior work completed by the outside vendor. These volumes are:

- **SPR** – Strategic Plan and Roadmap Volume One – Findings and Recommendations, in draft form
- **SPR** – Strategic Plan and Roadmap Volume Two – Roadmap, in draft form. Volume One and Two ITSP and Roadmap (SPR) in draft form, authored by ThirdWave Corporation
- **ITSP** – A summary document, in draft form, entitled the City of Goleta Information Technology Strategic Plan, authored by City staff

Citygate received access to these draft documents as a means of making the most effective and efficient review of the City's IT needs after hearing numerous questions, comments, and concerns during the interviews regarding the current and future state of technology in the City. Citygate's effort goes somewhat beyond the project scope of looking at IT in the context of only the two Departments that are the subject of this review, but it makes sound use of the time, effort, and expenditure the City has already invested in these draft documents. The goal of Citygate's work became one of providing a useful framework, including priority steps, based on best practices, for future decision-making around IT management and provision.

Because the City and ThirdWave have invested a considerable amount of expenditure and effort to initiate the draft results in three volumes of findings, goals, and objectives, rather than attempting to validate each and every finding, Citygate deferred to the considerable expertise from the staff members and consultant on the front lines of this effort and, as such, is taking the draft

findings at face value. Citygate focused its review and recommendations on improving upon the best these draft volumes have to offer by prioritizing the actionable items that, based upon Citygate's experience, offer the "biggest bang for the buck" while also considering the City's financial and human resource capacity. Citygate also recognizes that the City is already in the middle of an ambitious permitting automation project that dates back to 2011 and is facing significant milestones with this project in the first half of 2019.

Citygate understands that the City intends to utilize the ITSP, when completed, as the primary strategic planning document. Combined with the ThirdWave study, the ITSP, when accepted and completed, will include both strategy and tactics for improving the City's IT toolkit and ultimately for meeting the City's strategic goal of "Enhancing the Efficiency and Transparency of City Operations."

The ITSP establishes the vision, mission, and guiding principles for IT and provides an overview of the goals, strategies, and primary objectives that will guide how the plan is implemented.

The SPR will provide an inventory of possible management and IT initiatives and a prioritized five-year timeline for implementing these initiatives, along with preliminary budget estimates. While a comprehensive effort, the resulting three-draft-document set makes it difficult for one to cross-reference between the City's over-arching strategic goals, the findings related to the in-depth review of current management and IT practices, the specific recommendations relative to these findings, and the necessary implementation priorities, resources, and responsibilities. Citygate offers the following recommendations to overcome this difficulty.

5.2 RECOMMENDATIONS

Table 1—Summary Recommendations

Recommendation	Anticipated Outcome
1. Revise the ITSP to include project accountability, resources, and schedule.	Increased accountability by establishing objectives following S. M. A. R. T. methodology or another similar technique.
2. Revise the ITSP to improve linkage to the Goleta Strategic Plan.	Improved linkage to the Goleta Strategic Plan for ITSP Goals 3, 4, and 5.
3. Improve oversight of IT initiatives and supervision of IT implementation.	Provides collaborative, executive-level IT oversight and "C" level supervision of IT staffing and implementation.
4. Increase participation in IT peer organizations.	City staff has deeper exposure to best practices by "learning from the doers."
5. Reconcile the conflict between the City's overall strategic plan and its IT strategic planning effort relating to financial system upgrade.	The resources required for implementing the City's IT systems are properly prioritized and allocated.
6. Create a collaborative and learning organization focusing first on process, then on projects.	Deeper understanding of the City's customer service challenges and IT tools can be leveraged against these challenges, and City staff is better trained to deliver IT solutions.
7. Focus first on improving the capacity and performance of external IT support and services prior to increasing internal IT staff.	Increases support in critical, early phase ITSP implementation.
8. Establish clear project priorities.	Provides list of one- to two-year project priorities for allocation of financial and HR.

Recommendation #1: In order to provide a concise, easy-to-reference action plan for the desired management and IT initiatives, Citygate recommends that the ITSP be revised to provide the necessary specificity relative to accountability, responsibilities, and schedules for IT initiatives as defined by best-known practices for strategic planning.

At minimum, each objective must clearly identify why the objective is relevant/important, the desired outcome of the objective, the responsible party for completing the objective, the estimated resources necessary, and the schedule for which the objective is to be completed. One can employ the S. M. A. R. T. methodology to accomplish this, or any number of other techniques familiar to City staff.[1] For example, ITSP Goal 1, Strategy A, which pertains to wired/wireless internet access,

[1] Specific, Measurable, Attainable, Relevant, Timely, as established by George T. Doran.

does not include any information relative to intended future capacity, responsible internal and external parties, technologies employed, or estimated dates of completion. As secure wired and wireless local network and internet access is an IT infrastructure-level technology, all current and future IT initiatives depend on a fast, reliable, and secure network backbone.

Recommendation #2:	Revise the ITSP to improve linkage to the Goleta Strategic Plan.

As IT is largely an enabler and not an outcome unto itself, the draft ITSP must reflect the City's overall strategic goals. While draft ITSP Goals 1 and 2 include direct links to the City of Goleta 2017–2019 Strategic Plan (GSP) adopted by the City Council, draft ITSP Goals 3 through 5 lack links to the GSP. For reference, these goals are:

Goal 3: Technology-Capable Workforce – A technology-capable workforce possesses the contemporary training and resources necessary to meet its public service commitments;

Goal 4: Proactive, Accountable IT Service – IT services provided by proactive, accountable, and well-qualified staff; and

Goal 5: Collaborative Decision Making – Promote end-user advocacy among stakeholders and develop meaningful performance metrics in collaboration with internal and external partners.

While not specifically noted in the draft ITSP, these goals are consistent with the GSP strategy to "Enhance the Efficiency and Transparency of City Operations" and the GSP's strategic goal to "Continually Strive to Improve Customer Service." The core values contained in this GSP strategy statement, specifically Core Value 3 – Continuous improvement and professional development, and Core Value 4 – Collaboration through teamwork in support of a common goal, relate directly to ITSP Goals 3 through 5, and the draft ITSP should reference a direct link to this strategic goal in the GSP.

Recommendation #3:	Improve oversight of IT initiatives and supervision of IT implementation.

Goal 5 of the draft ITSP includes strategies to improve the oversight and management of IT initiatives. Citygate agrees fully with this goal. Citygate recommends that the City create a collaborative IT oversight structure to increase understanding among all stakeholders of how Departmental priorities fit with the overarching Citywide priorities and available resources (see project priority #1 in Table 3).

In order to effectively implement along the established priorities, Citygate further recommends that a DCM/ACM or similar C-level staff member have direct supervision of IT efforts. As an improved oversight structure is likely to improve the prioritization, funding, and initiation of IT projects, it is important that the City's organizational structure properly support internal and external IT resources to facilitate successful implementation of those priorities. This will be critical in the early phases of the ITSP implementation, particularly the first five years that will include the implementation of large-scale projects, such as permitting, financial, and asset management systems.

Recommendation #4:	Increase participation in IT peer organizations, such as the Municipal Information Systems Association of California (MISAC).

Peer organizations are a good source for City staff to learn best practices and to learn from current practitioners. If the City is not already represented in MISAC, Citygate recommends a key IT staff member, and perhaps an executive, participate in MISAC and make use of the significant efforts of the City's peer organizations to increase the efficacy of its own IT resources.

Recommendation #5:	Reconcile the conflict between the City's overall strategic plan and its ITSP effort relating to financial system upgrade.

The draft ITSP does not specifically reference the GSP strategy, strategic goal, or objective pertaining to ensuring financial stability. The draft ThirdWave study references financial software implementation in the SPR as a year four priority. This seems a significant disconnect, and staff should reconcile this conflict between the City's overall strategic plan and its IT strategic planning effort. Nevertheless, Citygate does *not* recommend launching a financial software upgrade, such as an ERP system, at the same time as the implementation of the permitting software system, scheduled to go online in April 2019. The SPR's timeline suggesting a year four implementation for a financial system software upgrade may be appropriate. Certainly, this upgrade should be the next priority following successful completion of priorities 1 through 10.

Recommendation #6:	Create a collaborative and learning organization.

Rather than *what* staff should do, some of the objectives in the draft ITSP suggest *how* the IT efforts should be accomplished, such as collaboration and training identified in draft ITSP Goal 3, Strategy A and C. Citygate believes this goal is sound, and staff should incorporate these collaborative practices and increase training opportunities into each of the listed project priorities. The City should adopt Strategy A, Objectives 1, 2, and 3 as a matter of routine.

The objectives documented in Goal 3, Strategy B, Objectives 1, 2, and 3; and Strategy C, Objectives 1 and 2 have not been included among the listed priorities in order to focus on the most important and definable outcomes that are likely to immediately improve the performance of the City's IT systems and the City's service to the community. Based upon the analysis in the SPR, Citygate believes that there are unanswered policy questions, such as in records management. IT initiatives are most successful in cases where policy foundations are deep and firm, and Citygate believes that attempting to implement these projects in the SPR's recommended timeframes will unnecessarily challenge the City's financial, human resource, and project management capacity and lead ultimately to unsatisfactory project implementation. The following table suggests some context within which to prioritize these objectives in the future.

Table 2—Suggested Future Priorities for Unlisted ITSP Objectives

Strategy/Objective	SPR Year	Recommendation
Goal 3, Strategy B:		
Objective 1 – Enterprise Content Management System (ECMS)	2	Focus first on policy foundations for ECMS implementation. When considering categorical applications, such as permitting, finance, and infrastructure/asset management (public works), ensure that these systems have interoperability for document/data sharing.
Objective 2 – E-Document Workflows	1	Defer until financial upgrade, as the most common workflows (and generally highest volume / highest consequence of error) are often timekeeping/payroll and purchase orders / accounts payable approvals, and these are often part of a comprehensive financial system.
Objective 3 – Inventory/Asset Management System	1	Defer as part of a comprehensive public works automation effort, following the financial systems upgrade.
Goal 3, Strategy C:		
Objective 1 – Intranet Implementation	2	Think of this as Priority #11 in order to improve collaboration.
Objective 2 – Project Management Applications	2	Defer comprehensive dashboard-like application as part of a comprehensive performance management initiative, following public works applications.

Recommendation #7:	Focus first on improving the capacity and performance of external IT support and services prior to increasing internal IT staff given the length of time it will likely take to hire and onboard capable staff in the face of seemingly urgent IT infrastructure and application challenges (see project priority #2 in Table 3).
Recommendation #8:	Establish clear project priorities (see **Section 5.3**), especially for infrastructure-level projects.

Given the number of projects identified in the SPR, the City should consider concentrating on a high-priority, two-year project list. Therefore, prioritization of the projects that firm up the City's IT infrastructure and demonstrate the highest degree of linkage to the City's overall strategic plan is critical. As such, Citygate offers these initial 2018–2020 priorities to establish a foundation upon which to build future IT initiatives and to provide solutions to the City's most-pressing customer service issues. Within these priorities are a mix of administrative and technical objectives, and these priorities seek, to the greatest level possible, to blend these objectives such that staff may undertake several at once without overly challenging staffing and financial capacity. Citygate recommends holding other initiatives until the City completes the listed priorities to the satisfaction of the CM.

5.3 PROJECT PRIORITIES

Table 3—Summary Table of Project Priorities

Project Priority	Draft ITSP Link
1. Establish an IT oversight structure.	Goal 5, Strategy A, Objective 1
2. Establish service level agreements or commitments with internal and external stakeholders.	Goal 4, Strategy A and B
3. Improve, document, and forecast server storage and processing capacity.	Goal 1, Strategy A, Objective 2
4. Improve wired and wireless local network and internet performance and capacity.	Goal 1, Strategy A, Objective 1
5. Allocate the necessary financial and staff resources to completing the implementation of the MAGNET permitting system.	Goal 1, Strategy B, Objective 1 Goal 2, Strategy A, Objective 1 and 2 Goal 2, Strategy B, Objective 1
6. Clean up the City website and repair customer-facing systems.	Goal 2, Strategy A, Objectives 1, 2, and 3
7. Provide easy access to OpenGov.	Goal 2, Strategy C
8. Complete disaster recovery and business continuity plans.	-
9. Develop a comprehensive GIS strategy using MAGNET as a guide.	Goal 1, Strategy B, Objective 4
10. Fully implement individual employee computer replacement cycle.	Goal 1, Strategy A

5.3.1 Priority #1

Establish an IT oversight structure consistent with draft ITSP Goal 5: Collaborative Decision Making – Promote end-user advocacy among stakeholders and develop meaningful performance metrics in collaboration with internal and external partner; and Strategy A, Objective 1: IT Steering Committee – Establish leadership team to prioritize City-wide IT projects, reporting to City leadership on IT initiatives.

The core of this effort to create an IT oversight structure is to increase understanding among all stakeholders regarding how departmental priorities fit with the overarching Citywide priorities and available resources and facilitate, not obstruct, the IT project planning and budgeting to meet the City's most pressing needs. Citygate recommends that this committee not just report to City leadership but be City leadership; the committee should include all department heads, without authority to delegate to staff. Citygate further recommends that all IT projects, new and in progress, be identified, reviewed, and funded each year during the budget preparation or mid-term review/adjustment process as appropriate. Increasing the shared knowledge of each of the City's

IT challenges will assist in greater institutional understanding, support, and implementation of IT projects. This review should include adherence to "Open access architecture" (Goal 2, Strategy C, Objective 1) to ensure enterprise interoperability and facilitate content management and workflows.

Ongoing project implementation reviews should *not* be the responsibility of this committee, but rather the CM and the responsible department head should review project implementation directly to increase project accountability. In other words, once everyone agrees on project priorities, IT project lifecycles should be managed the same as any other City initiative: between the principals.

5.3.2 Priority #2

Consistent with draft ITSP Goal 4, both Strategy A and Strategy B, establish outcome-based, as opposed to effort or schedule-based, service level agreements/commitments with existing or new third-party maintenance providers consistent with draft ITSP Goal 4: Proactive, Accountable IT Service – IT Service provided by proactive, accountable, and well-qualified staff. Both Strategy A: Establish responsive and accountable IT service culture; and Strategy B: Strive for continuous "up-time" include important objectives to accomplish this goal.

City staff should strive to achieve this goal in the short- and mid-term by increasing the services offered and by enhancing the accountability for those services with existing or new third-party service providers. Service level agreements/commitments must include metrics for responsibilities, service availability, response times, and business outcomes for which the vendors will be accountable, as well as consequences when standards are not met. Peer organizations, such as MISAC, may be a good source for how other California agencies are formulating service level agreements and commitments with external support providers and between internal departments.

Driving this recommendation in the short- to mid-term is the length of time it will likely take to hire and onboard capable staff in the face of seemingly urgent IT infrastructure and application challenges. In the longer term, there are several factors to consider. City staff must evaluate the financial flexibility offered by third-party contracts in comparison to the cost of fully burdened City staff and the likelihood that in-house staff can stay current with technology trends. The private, competitive marketplace may offer the best available assurance to protect against future budget stress and to protect technology skills from obsolescence. Given the outlined IT urgencies and onboarding challenges, Citygate recommends that any consideration for additional staff be deferred to the next full budget cycle; however, Citygate does not believe that enhancing the productivity of IT support can wait.

5.3.3 Priority #3

Improve, document, and forecast server storage and processing capacity. ThirdWave's draft findings and recommendations identified three key IT infrastructure weaknesses: server storage capacity, server processing capacity, and internet throughput performance. To provide a firm

foundation upon which customer-direct solutions will function, the City must improve its technology infrastructure.

Draft ITSP Goal 1: Reliable, Secure, Infrastructure and Services – Provide technology solutions and services that are current, sustainable, and secure for efficient delivery of public services covers this initiative, and according to Strategy A: Manage Lifecycles for Current Systems, Objective 2, staff has accomplished server storage and processing capacity improvements. However, the draft ITSP does not indicate the new capacity or effective lifespan of these improvements. It is critical to understand the capacity available in order to build future customer service solutions that will rely upon this foundation and avoid future debilitating storage capacity issues, especially given the upcoming MAGNET permitting system milestones and the anticipated digital file conversion.

The draft ITSP does recognize that cloud-based storage may be appropriate under some circumstances, and Citygate recommends that staff evaluate cloud-based solutions as part of the City's overall data storage strategy, consistent with draft ITSP Goal 1, Strategy A, Objective 2. When considering cloud-based storage, the finished ITSP should, at minimum, document the "factors of appropriateness" regarding the implementation of cloud-based storage solutions. For example, the ISTP should document the metrics with which cloud-based storage solutions would be considered and the priorities within which applications will be considered for conversion to cloud-based solutions based upon those metrics.

5.3.4 Priority #4

Improve wired and wireless local network and internet performance and capacity. This is the third IT infrastructure weaknesses identified by ThirdWave. Citygate recommends that Goal 1, Strategy A, Objective 1 – Wired/Wireless Internet Access be implemented as a high priority, and the specifics of what, how, when, and by whom be included in the ITSP. Having a clear vision of the desired result and time frame will enable City staff to anticipate progress, coordinate with dependent technologies, and increase staff and vendor accountability. The current implementation of permitting software with mobile capabilities and future Customer Relationship Manager (CRM), e-commerce, and e-government platforms are critically dependent on high-capacity and high-reliability wired and wireless local network and internet backbones.

5.3.5 Priority #5

Citygate recommends that the City allocate the necessary financial and staff resources to complete the implementation of the MAGNET permitting system, including mobile technologies. Project kickoff was in 2011, and the first half of 2019 includes several key milestones. It appears that MAGNET is the City's most significant digital records (Goal 1, Strategy B, Objective 1), e-commerce, e-government (Goal 2, Strategy A, Objective 1 and 2), and mobile applications (Goal 2, Strategy B, Objective 1) initiative to date. Incidentally, ThirdWave prioritized mobile devices in year two of the ITSP, and this seems appropriate to complete the MAGNET permitting implementation, anticipating the launch of mobile implementation beginning with FY 2019/2020.

Successful completion of the ambitious permitting project will be critical to customer service, employee morale, and the success of future IT endeavors.

5.3.6 Priority #6

Clean up the City website and repair customer-facing systems, consistent with draft ITSP Goal 2, Strategy A, Objectives 1, 2, and 3. Citygate recommends that the City work with current e-government and CRM solution vendors to firm up performance of existing platforms, including City Assist, govDelivery (Granicus), Legistar (Granicus), OpenGov, and visionLive (Granicus).

Even with increasing focus on various social media tools, a city's website remains the central location for official documents and transactions and therefore must be designed to provide easy access to information and services. First in this effort should be to assign a responsible party, with the CM's charge, to shepherd improvements to the City's website to improve access and functionality. Often, this responsibility is placed in the public information office, and best-practice guides are readily available on the internet through technology associations such as MISAC or though vendors such as Granicus. Several of these applications were created or acquired by a single vendor (Granicus), who is among the industry leaders, and Citygate believes that the City has significant leverage to work with Granicus to upgrade and improve the City's online portfolio of products and services without "starting over." City staff should target completion of these efforts in June 2019 to coincide with the general availability of MAGNET, the new permitting system.

5.3.7 Priority #7

Provide easy access to OpenGov (budget and financial information) data on the Finance Department webpage. The City advertised OpenGov in the 2014 State of the City presentation, and the City listed OpenGov in the 2018/2019 Finance Department work plan, with an October 2018 activation date. While the website, goletaca.opengov.com, appears to function with data through 2016/2017, it does not appear to include the most recent data, nor does the historical data or link to goletaca.opengov.com appear readily available on the City's website. This should be considered part of the City's overall website improvement effort.

5.3.8 Priority #8

Complete disaster recovery and business continuity plans consistent with the GSP strategy to "Maintain a Safe Community." Given the relative frequency of disasters in California, such as wildfire, earthquake, and flood, disaster recovery and business-continuity plans are critical practices for local government in order to instill confidence in the local populace concerning the local government in times of calm and to support the community in times of crisis. While the ThirdWave documents reference disaster recovery and business continuity plans in SPR Volume 1, Section 3.2.2, Operational Recommendations, neither the ITSP nor SPR Volume 2 makes provision for this important initiative. Citygate recommends completing this plan as a high priority. The City may consider contracting with a consulting firm and/or working with peer agencies

through MISAC for guidance. City staff should target completion of these plans for December 2019.

5.3.9 Priority #9

Consistent with draft ITSP Goal 1, Strategy B, Objective 4, develop a comprehensive Geographic Information System (GIS) strategy using the tools in MAGNET as a guide. The City has already made a significant investment in this land-based application. In local government, land-based information is an IT infrastructure-level investment as nearly every local government concern, such as census, crime, parks, and streets have a geographic element or parcel identification number. City staff should target completion of these plans for June 2020.

5.3.10 Priority #10

Fully implement the City's individual employee computer replacement cycle. Citygate recommends that the City continue to implement its personal computer replacement cycle outlined in the SPR and consistent with draft ITSP Goal 1, Strategy A. Personal computer replacements should consider actual condition of the equipment, business priorities, and resource availability. Replacement schedules should be considered as part of the annual budget and the five-year budget forecast.

ATTACHMENT 5:

ITSP – Estimated Financial Impact Chart

ITSP - ESTIMATED FINANCIAL IMPACT CHART

Initiative	Description	Est. Cost	Completion Timeline - Calendar Year 2019 Q1	2019 Q2	2019 Q3	2019 Q4	2020 Q1	2020 Q2	2020 Q3	2020 Q4	2021 Q1	2021 Q2	B
Goal 1 - Strategy A	**Manage Lifecycles for Current Systems**	**FY**	**18/19**		**FY 2019/20**				**FY 2020/21**				
Objective 1	Upgrade/Improve Wired/Wireless Network Access	$67,000				X							X
Objective 2	Provide Scalable, Secure Server/Storage Solutions	$12,000						X					
Objective 3	Include Libraries in PC Replacement Program	$33,000				X							
Goal 1 - Strategy B	**Modernize Systems and Optimize Service Delivery**												
Objective 1	Upgrade Financial System Software	$340,000			X								X
Objective 2	Backfile Digital Conversion	$40,000						X					
Objective 3	Upgrade Server/Networking Equipment Closet	$17,000				X							
Objective 4	Upgraded Mobility Solutions	$7,000			X								X
Objective 5	Unified GIS Strategy	$100,000						X					
Goal 2 - Strategy A	**Increase Opportunities to Conduct Business Online**												
Objective 1	E-Government Strategy	$30,000				X							
Objective 2	E-Commerce Application	$67,000						X					
Objective 3	Customer Relationship Management (CRM)	$126,000						X					
Goal 2 - Strategy B	**Develop City-Wide Mobile Application Solutions**												
Objective 1	Mobile Applications	$53,000								X			
Objective 2	Telework/Remote Access	$10,000				X							X
Goal 2 - Strategy C	**Expand Public Access to Informationn**												
Objective 1	Open Access Architecture	TBD	(ThirdWave Vol. 1 Recommendation)										
Goal 3 - Strategy A	**Technology Training and Ongoing Development**												
Objective 1	IT Systems/Application Overviews	TBD											
Objective 2	Training Prerequisite	TBD											
Objective 3	Continuing Development Focus	TBD											
Goal 3 - Strategy B	**Robust, Scalable Enterprise Software Applications**												
Objective 1	Enterprise Content Management System	$226,000								X			
Objective 2	E-Document Workflows	$32,800								X			
Objective 3	Inventory/Asset Management	$248,000	(Defer per Citygate Recommendation)										
Goal 3 - Strategy C	**Collaborative Team Environment**												
Objective 1	Intranet Implementation	$25,000							X				
Objective 2	Project Management Application	$47,200							X				
Goal 4 - Strategy A	**Establish Responsive and Accountable IT Service Culture**												
Objective 1	Provide for Qualified, Capable Internal IT Staff	$380,000							X				
Objective 2	IT Peer Organizations	$1,000		X									X
Objective 3	Establish Response Time Metrics	N/A							X				
Objective 4	Utilize Feedback for Constant Improvement	N/A							X				
Goal 4 - Strategy B	**Strive for Continuous "Up Time"**												
Objective 1	Service Level Agreements (SLAs)	N/A							X				
Objective 2	Strategic Partnering	N/A								X			
Goal 5 - Strategy A	**Establish IT Governance Structure**												
Objective 1	IT Governance Policy	N/A			X								
Objective 2	IT Steering Committee	N/A			X								
Objective 3	Best Practices Business Process Assessment				X								
Goal 5 - Strategy B	**Enhance the Management of IT Projects**	N/A											
Objective 1	Strategically Aligned Project Planning	N/A			X								
Objective 2	Service/Performance Requirements	N/A			X								

B = Initiative currently in-progress and amount partially funded as part of FY 2019/20 budget

Estimated Annual Impact by Fiscal Year	**FY 18/19**	**FY 2019/20**	**FY 2020/21**
Unfunded Total:		**$424,000**	**$764,000**
Partially Funded Total:	**$1,000**	**$425,000**	
FY Totals:	**$1,000**	**$849,000**	**$764,000**

All costs are based on ThirdWave's initial rough estimates and have not been verified by staff