





# GIS Consolidation/Redesign

## DMAIC Process Summary

<p>Define - completed</p> 	<p>GIS function comprised of 8 key GIS business processes, 10 subprocesses, 151 tasks GIS maintenance and use currently concentrated in 5 departments (EU, Fire, IT, Planning, Public Works) GIS will expand to 7 departments (adding Electric and Parks) as EAM comes online.</p> <p>Note: the FTEs below include future work that is estimated based on EAM needs known at this time. In addition, these numbers do not reflect actual existing resources committed to GIS.</p> <p>FTEs performing key business processes (17 total staff, 11.2 FTEs of work, 9.7 FTEs available*):</p> <p>*Due to loss of part time/annuitant staff and previous staff reductions</p> <ul style="list-style-type: none"> <li>• 5.3 FTEs Database management/maintenance</li> <li>• 2.9** FTEs Mapping and geoprocessing ** future redefinition of core team may affect this number</li> <li>• 1.2 FTEs Business solution support</li> <li>• 0.6 FTEs Program management</li> <li>• 0.5 FTEs Application support</li> <li>• 0.5 FTEs Application development</li> <li>• 0.13 FTEs Server management – Server based GIS</li> <li>• 0.06 FTEs Server management – Operating System</li> </ul> <p>Weaknesses/risks of citywide GIS function have been identified:</p> <ul style="list-style-type: none"> <li>• Competing priorities</li> <li>• Inefficient resource allocation</li> <li>• Ineffective enterprise GIS vision</li> <li>• Underutilization of GIS</li> <li>• Ineffective communication</li> <li>• Insufficient training</li> </ul>
<p>Measure - completed</p> 	<p>Total cost of service \$996,521 (salary and benefits only, does not include revenue offsets)</p> <p>Cost to perform key business processes:</p> <ul style="list-style-type: none"> <li>• \$450,292 (46%) Database maintenance/management <ul style="list-style-type: none"> <li>○ \$143,308 (2880 hours, 33%) AutoCAD Layer Maintenance</li> <li>○ \$109,803 (2817 hours, 24%) SDE Layer Maintenance <ul style="list-style-type: none"> <li>▪ 213 Layers estimated to be added to Enterprise GIS in 2010-2011 (4 User Request, 209 EAM need)</li> </ul> </li> <li>○ \$78,904 (1430 hours, 18%) NonSDE Layer Maintenance</li> </ul> </li> <li>• \$232,849 (23%) Mapping and geoprocessing</li> <li>• \$128,091 (13%) Business solution support</li> <li>• \$74,564 (7%) Program management</li> <li>• \$48,223 (5%) Application support</li> <li>• \$44,531 (4%) Application development</li> <li>• \$12,374 (1%) Server management – Server based GIS</li> <li>• \$5,597 (&lt;1%) Server management – Operating system</li> </ul> <p>The following are produced:</p> <ul style="list-style-type: none"> <li>• Ad hoc requests for maps, reports, analyses, data packages, notifications <ul style="list-style-type: none"> <li>○ internal customers (49% of mapping/geoprocessing)</li> <li>○ external customers (15% of mapping/geoprocessing)</li> </ul> </li> <li>• Programmed output (32% of mapping/geoprocessing)</li> <li>• Business analysis</li> <li>• Data (125 layers)</li> <li>• Software applications, tools, and services</li> </ul>

	<p>Problem statement has been developed, quantification is in progress</p>
<p>Analyze - in progress</p> 	<p>Factors with the largest impact on processes have been identified:</p> <ol style="list-style-type: none"> <li>1. Competing priorities – the GIS team has difficulty managing and responding to competing priorities</li> <li>2. Inefficient resource allocation – the GIS team is impacted by inefficient resource allocation</li> <li>3. Ineffective enterprise GIS vision – the GIS team is impacted by an unclear enterprise GIS vision</li> </ol> <p>Root causes have been identified for the top three factors impacting the GIS function:</p> <ul style="list-style-type: none"> <li>• Competing priorities – not communicating at executive level, reactive to external influences, no management oversight, no core group oversight, silo/department focus, department-first/city-second view</li> <li>• Inefficient resource allocation – no awareness of GIS need at management level, resources reside in different reporting/financial structure, resources not cross-trained, inconsistent service model, tasks not in job description, no time/resources</li> <li>• Ineffective enterprise GIS vision – focused on the immediate, not demonstrating business value, not communicating at executive level, nothing to communicate</li> </ul> <p>Identifying value/non-value steps and tasks in our work processes (to be done) Evaluating service levels (to be done)</p>
<p>Improve - in progress</p> 	<p>Processes identified for possible analysis and improvement</p> <ul style="list-style-type: none"> <li>• Address maintenance process</li> <li>• Data collection process</li> <li>• Landbase maintenance process</li> <li>• Layer maintenance processes (AutoCAD, nonSDE, SDE)</li> <li>• Work Request processes (internal customers, external customers, programmed output)</li> <li>• Management and control/supervision</li> </ul> <p>Draft (high-level) solutions list developed:</p> <ul style="list-style-type: none"> <li>• Development of measures for balanced scorecard in progress</li> <li>• Prioritization of list is in progress</li> <li>• Identification of short/mid/long term goals is in progress</li> </ul>
<p>Control - future step</p> 