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**MEMORANDUM**

TO: The Honorable County Council

FROM: Brent R. Statler, County Auditor 

DATE: December 4, 2017

RE: 2018 County Risk Assessment and Audit Plan

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Please find attached the County Risk Assessment and proposed Audit Plan for fiscal year 2018.

If you have any questions, please feel free to contact me at extension 3920.

**Copy to** Honorable Steve Ehlmann, County Executive  
Joann Leykam, Director of Administrator

Enclosure



***COUNTY AUDITOR'S OFFICE  
2018 RISK ASSESSMENT  
& AUDIT PLAN***

***December 2017***

# **COUNTY DEPARTMENTAL RISK ASSESSMENT**

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## I. Purpose of Risk Assessment

The level of risk associated with St. Charles County Government varies from department to department and program to program. The definition of risk can be broken into four elements:

- **Strategic Risks** - Risks that relate to doing the wrong things.
- **Operating Risks** - Risks that relate to doing the right things the wrong way.
- **Financial Risks** - Risks that relate to losing financial resources or incurring unacceptable liabilities.
- **Information Risks** - Risks that relate to inaccurate or non-relevant information, unreliable systems, and inaccurate or misleading reports.

Utilizing a structured risk assessment methodology (see Attachment 3) enables the County Auditor to quantify the level of risk related to County departments and processes. On the basis of the risk scores calculated for each department, and factoring in previous audit coverage, the Auditor's Office can then develop an appropriate audit schedule that will ensure adequate review of all County operations.

It should be noted that a high-risk assessment score in this report does **not** signify that a department or process is currently being operated in an ineffective or inefficient manner. Attachment 3 details the risk assessment process. A high-risk assessment score simply signifies that if operational processes were to break down, the impact on County Government as a whole would be high, and the probability that something could go wrong is high because of the environment in which the business unit operates. A high-risk assessment score is in no manner a reflection of the quality of current operations, but simply a reflection of the business risk surrounding the operations.

## II. Overall Departmental Risk Scores

**Attachment 1** details the overall risk scores for each of the County's Departments and Offices. The colors of red, yellow, and green are used to depict the level of risk and the need for audit emphasis associated with a particular Department or Office. **Red** denotes high risk and high audit emphasis, **yellow** denotes moderate risk and moderate audit emphasis, and **green** denotes low risk and low audit emphasis. Departments or Offices with a total risk score of 47 or greater are depicted in red. Departments and Offices with a total risk score of greater than 37 but less than 47 are depicted in yellow. Departments and Offices with a total risk score of less than 37 are depicted in green. **Orange** denotes a review that will be conducted on an annual basis.

The current audit plan is based on placing all Departments and Offices rated in the risk areas on a minimum audit cycle. All high risk areas (red) will be on a three-four year cycle, moderate risk areas (yellow) on a four-five year cycle, all low risk areas (green) placed on a five+ year cycle, and all orange areas will be audited on an annual basis. However, this office is still working toward minimal audit cycle for all county auditable areas.

### III. Proposed Audit Schedule

The final step in the risk assessment process is to schedule the audits. As stated previously, this process is normally achieved by initially scheduling audits directed at the highest risk areas. Audits have been scheduled using a combination of risk score, previous audit coverage, and available staff resources.

**Attachment 2** details the proposed audit schedule for all Departments and Offices for the fiscal years 2018 through 2021. The table lists previous audit dates and the proposed audit dates for the current Departments and Offices affecting St. Charles County operations. This audit plan will be revisited on an annual basis, and any adjustments due to increased risk, change in County services, or County Council directives will be incorporated into the annual revisions.

Following is a listing of the County Departments and Offices that will be audited during 2018:

- Fixed Assets
- Economic Development Center Contract
- Public Health Department – Division of Health Services
- County Executive Office
- Information Systems Department – Network Services
- Educational Assistance Fund
- Family Arena – Financial Operations
- Facilities Maintenance Department
- County Registrar’s Office
- County Assessor’s Office
- County Collector’s Office
- Employee Activity Fund
- Community Development – Building and Code Enforcement Division
- Parks Department
- Emergency Communications – Radio Division
- Department of Finance

In addition to the normal Department/Office audits, the Auditor’s Office allocates time to conduct special project reviews and contract reviews during 2018. These audits are specific to financial, compliance, or operational activities that appear to be high risks for County operations. Audit staff will conduct the reviews as time is available during Department and Office audits.

## IV. Audit Staffing

The County Auditor's staff consists of four full-time personnel (County Auditor, Assistant County Auditor, and two Staff Auditors) and one part-time intern. The total available hours<sup>1</sup> for all personnel in the County Auditor's Office is 7,707 hours. Estimated total audit hours<sup>2</sup> available for 2018 are 6,147 hours, resulting in an average staff utilization rate of 79.6%<sup>3</sup>.

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1 Available hours excludes hours for PTO, holidays and estimated sick leave.

2 Audit Hours is available hours less non-audit hours (Administrative, Training, etc)

3 Audit Hours Available divided by Total Hours Available = Utilization Rate

## OVERALL DEPARTMENT RISK SCORES 2018

County Department	Total Score (Imp+Prob)
Municipal Court	57.0
Collector of Revenue	56.5
Emergency Comm. - Radio System Division	56.5
Dept. of Finance	55.5
Election Authority	55.0
Family Arena - Financial Operations	54.0
County Assessor	49.5
County Executive Office	49.5
Workforce Development	49.5
Police - Field Operations	48.5
Recorder of Deeds	48.5
Highway Dept.	47.5
Information Systems - Div. of Network Services	47.5
Public Health – Div. of Health Services	47.0
Dept. of Corrections	46.0
Prosecuting Attorney	45.5
Self-Insurance Fund	45.5
Police - Criminal Investigations	45.0
Police - Special Enforcement	45.0
Information Systems - Div. of Tech Services & BAS	44.5
Police - Administrative Services	44.0
Comm. Dev. – Div. of Building & Code Enforcement	43.0
Fixed Assets	43.0
Emergency Comm. - Fire/EMS Division	42.0
Public Administrator	42.0
Roads and Traffic Department	42.0
County Counselor	41.0
Family Arena - Building Operations	41.0
Circuit Clerk	40.5
Human Resources	40.0
County Council Office	39.5
Parks Department	39.5
Public Health - Div. of Preparedness & CRI Grants	39.5
Capital Projects Fund	39.0
Facilities Maintenance	38.5
Public Health - Div. of Humane Services	38.0
Emergency Comm. - Police Dispatch Division	37.0
Juvenile Justice Center	37.0
Pub. Health - Div. of Environmental Health	37.0
Sheriff's Department	37.0
Emergency Comm. - 911 Division	36.5
Fleet Management	36.5
Comm. Dev. - Dev. Review Division	35.5

County Department	Total Score (Imp+Prob)
Comm. Dev. - Planning & Zoning Division	34.5
Medical Examiner	34.0
Children and Family Services Fund	32.5
County Registrar	31.5
Housing Authority Fund	30.5
Merit Commission	30.0
Airport	29.5
Treatment Court	29.5
Board of Equalization	28.0
Economic Development Center	27.5
Sanitary Sewer Lateral Program (Required every 3 years)	25.5
Indigent Program	25.5
Domestic Violence Fund	25.0
Surplus Sales Tax Money	25.0
Community Assistance Board	24.5
Law Library	24.5
Educational Assistance Fund	22.0
Univ. of Missouri Extension Council	22.0
Section 125 Fund	20.5
Communications	19.5
Shared Leave Program	19.5
Criminal Fines Fund	19.0
County Soil District	18.0
Developmental Disabilities Resource Board	15.0
Employee Activity Fund	14.5
Darst Drainage District	12.0
Green's Bottom Drainage District	8.5
Cemetery Trust Fund	8.0
Hancock Drainage District	8.0



**PROPOSED AUDIT SCHEDULE  
2018**

County Department	Last Audit
Economic Development	2013
Public Health - Div. of Health Services	2014
Information Systems - Network Services	2011
County Executive Office	2005
Community Dev. - Building & Code Enforcement	2012
Facilities Maintenance	2012
County Registrar	2013
County Assessor	2013
Parks Department	2013
County Collector	2014
Employee Activity Fund	2013
Educational Assistance Fund	2013
Fixed Assets	2017
Family Arena Financial Operations	2014
Emergency Communications - Radio Division	-
Finance Department	2015

## Proposed Audit Schedule – Years 2019-2021

County Department	Year
Hancock Drainage District	2019
County Council Office	2019
Fixed Assets	2019
Police - Bur. Criminal Investigations	2019
Highway Department	2019
Workforce Development	2019
Green's Bottom Drainage Dist.	2019
Election Authority	2019
Lateral Sewer Program	2019
Development Disabilities Resource	2019
Univ. of Missouri Ext. Council	2019
CAB - Homeless & Indigent Fund	2019
Circuit Clerk	2019
Indigent Program	2019
Corrections	2019
Public Health - Div. of Preparedness & CRI Grants	2019
Municipal Court	2019
Self-Insurance Fund	2019
Recorder of Deeds	2019
Human Resources	2019
Communications	2020
Airport	2020
Criminal Fines Fund	2020
Cemetery Trust Fund	2020
Surplus Sales Tax Money (741)	2020
Treatment Court	2020
County Soil District	2020
Information Systems - Tech Serv. & BAS	2020
Public Health - Div. of Environmental & Protection	2020
Roads and Traffic Department	2020
Family Arena - Building Operations	2020
Emergency Communications - EMS/Fire Division	2020
Sheriff Department	2020
Community Development - Planning & Zoning	2020
Juvenile Detention	2020
Fixed Assets	2020
Police- Bur. Field Operations	2020

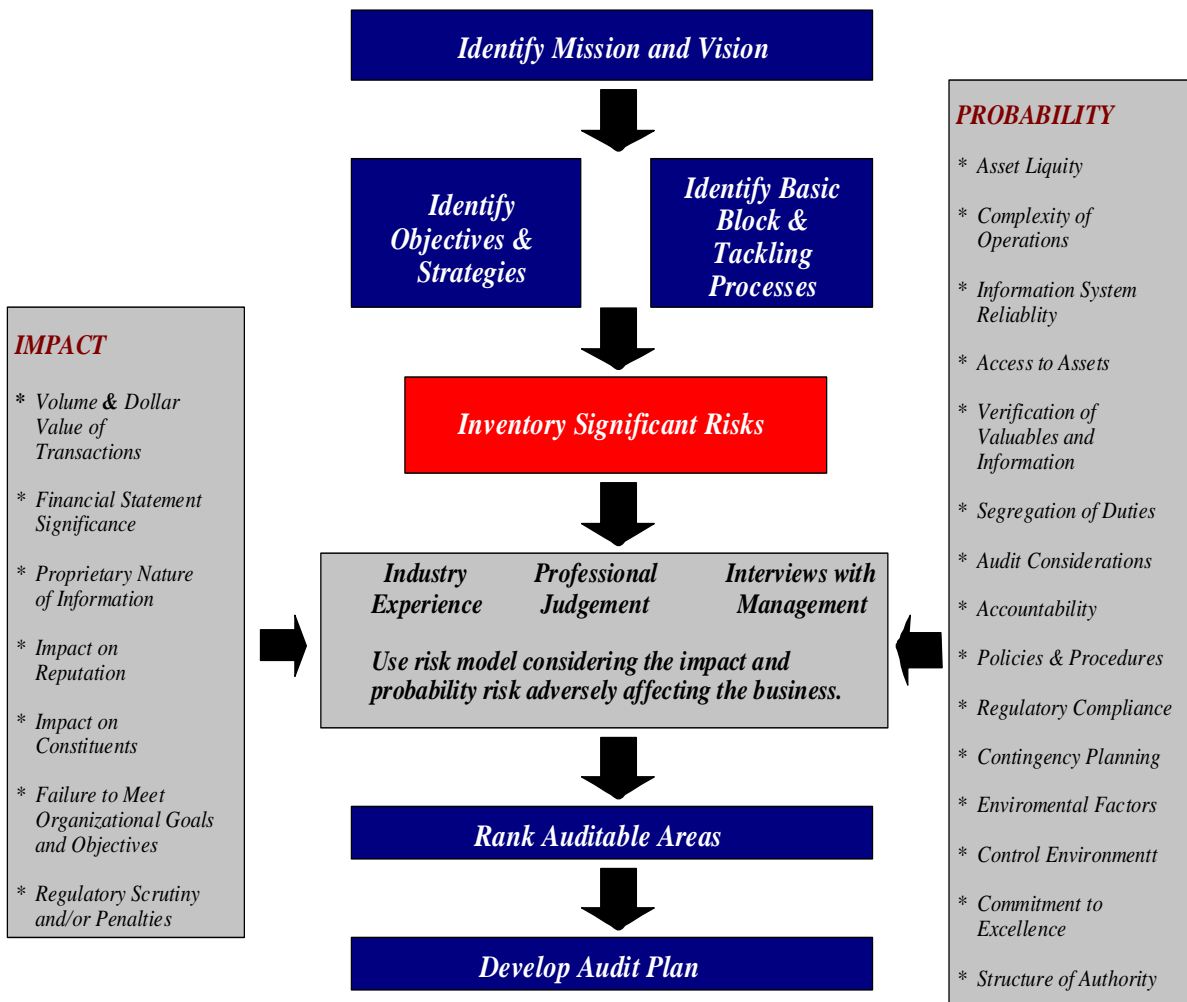
<b>Police - Bur. Special Enforcement</b>	<b>2020</b>
<b>Merit Commission</b>	<b>2021</b>
<b>Section 125 Agency Fund</b>	<b>2021</b>
<b>Travel &amp; Training Review</b>	<b>2021</b>
<b>Board of Equalization</b>	<b>2021</b>
<b>Public Administrator</b>	<b>2021</b>
<b>Fixed Assets</b>	<b>2021</b>
<b>Medical Examiner</b>	<b>2021</b>
<b>Fleet Management</b>	<b>2021</b>
<b>Public Health - Humane Services Division</b>	<b>2021</b>
<b>Children &amp; Family Services Fund</b>	<b>2021</b>
<b>Public Health - Div. of Health Services</b>	<b>2021</b>
<b>County Collector</b>	<b>2021</b>
<b>Family Arena Financial Operations</b>	<b>2021</b>
<b>Finance Department</b>	<b>2021</b>
<b>Police - Administrative Services</b>	<b>2021</b>
<b>Domestic Violence Board</b>	<b>2021</b>
<b>Information Systems - Network Services</b>	<b>2021</b>
<b>Prosecuting Attorney</b>	<b>2021</b>

## Risk Assessment Methodology

The Risk Analysis Methodology consists of the following five-part process:

- Developing the risk assessment model;
- Identifying department activities;
- Scoring department risk by utilizing the impact and probability factors and weights;
- Ranking the auditable areas; and
- Developing the audit plan.

The **Risk Analysis Model** is based upon the following two elements: Impact and Probability. *Impact* evaluates the effect resulting from a breakdown in an operation's environment, processes, and/or controls. *Probability* evaluates the likelihood that an incident will occur. Impact is broken out into seven (7) evaluation factors, while probability is broken out into fifteen (15) evaluation factors. Each of these factors is then given a weight according to their importance in evaluating the overall risk of a process. Following is an exhibit that depicts the risk model utilized for this risk assessment.



The table below lists the impact and probability factors, along with a description of each factor and the related assigned factor weight.

<b>RISK FACTOR DEFINITION TABLE</b>			
	<b>Factor</b>	<b>Definition</b>	<b>Weight</b>
<b>Impact Factors</b>			
1	Volume and Dollar Value of Transactions	A measure of exposure arising from the volume and/or dollar value of transactions. The higher value of either the annual volume or annual dollar value should be selected when scoring this risk factor.	10%
2	Financial Statement Significance	A measure of exposure arising from the audit unit's relationship to the asset, liability and revenue accounts.	5%
3	Proprietary Nature of Information	A measure of the degree of loss or embarrassment arising from the misuse of information produced or collected by the business operations.	10%
4	Impact on Reputation	A measure of the reputation effect on the County government, government unit, and/or citizenry resulting from a process or control breakdown. The greater the potential negative affects a business unit or process can have on the County's reputation, the greater the related impact score. A primary area used to evaluate reputation is Quality of Service that includes the aspects of cost, delivery, safety, work output, and relationships. Generally, functions that deal directly with external groups and suppliers will have a greater degree of visibility/potential negative effect on the County's reputation. Negative publicity or notoriety from an error is an additional factor associated with the County's reputation. Therefore, the greater the degree of involvement in activities in which the occurrence of an error could catch the public attention, the greater the impact on the County's reputation.	20%
5	Impact on Constituents	A measure of the effect on County constituent (taxpayers) services resulting from a process or control breakdown. Activities that, if performed incorrectly or inefficiently, would significantly disrupt, delay, or slow down constituent services will receive high impact scores in this area. The question to ask when evaluating is, if this activity were disrupted, delayed, or slowed down in any way, how services to the county constituents would be affected. If the answer is significantly, the activity will have a high impact score.	20%

**RISK FACTOR DEFINITION TABLE**

	<i>Factor</i>	<i>Definition</i>	<i>Weight</i>
6	Failure to Meet Organizational Goals and Objectives	The greater the effect that a business unit or process has on the County or department meeting strategic objectives and goals, the greater the related impact score.	15%
7	Regulatory Scrutiny and/or Penalties	The greater the extent activities and reports are governed by enforceable standards, regulations, and/or legal requirements the greater the possibility of noncompliance.	20%
<b>Probability Factors</b>			
1	Asset Liquidity	The probability of fraud or other loss occurring in a particular audit unit as reflected in the ease with which assets, including information, can be readily converted into cash for personal gain, causing a loss.	5%
2	Complexity of Operations	A measure of the difficulty in performing a process or function. As a process or function becomes more complex, the greater the opportunity for errors to be associated with producing the products and services.	10%
3	Information System Reliability	A measure of the exposure concerning the level of automation reliability of the technology used in the department. The automation environment includes mainframes and various alternate platforms such as microcomputers, Local Area Networks, and mid-range computer systems.	5%
4	Access to Assets	Measures the availability of assets to personnel and/or the public. The more available assets are to County personnel and/or the public the greater the risk that the asset may be misappropriated.	5%
5	Verification of Valuables and Information	Measures the performance and documentation of confirmations/settlements/edits of the accuracy of transactions at those points in the processing flow where there is an intervention; a transfer of accountability; or an entry processing, output, distribution or transfer or information.	5%
6	Segregation of Duties	Measures the assignment of responsibility in a manner that precludes any individual from processing valuables or data transactions in their entirety, and from maintaining records of the transactions or changes in which that individual participates.	10%

**RISK FACTOR DEFINITION TABLE**

	<i>Factor</i>	<i>Definition</i>	<i>Weight</i>
7	Audit Considerations	Considers the existence of data, via manual or automated methods, that substantiate the accuracy of action taken, and evidence of the proper storage and maintenance of valuables, data and systems and application software. The timing and results of previous audits are also considered when ranking the business unit. Significant prior audit findings and high-risk areas identified but not yet audited will receive high consideration.	5%
8	Accountability	Considers the assignment of responsibility for the control of valuables and data, the processing of transactions, and/or the fulfillment of the entity's mission in such a manner that each individual involved in a transaction can be identified and held accountable for the portion of the transaction for which they participated.	10%
9	Policy & Procedures	Considers the importance of a complete set of written instructions that guide personnel in the successful execution of their duties and the duties of the office for which they work.	5%
10	Regulatory Compliance	Measures the existence of and potential non-compliance with accounting and procedural requirements relating to applicable Missouri State Statutes, the St. Charles County Charter and external policies and procedures (i.e., Personnel Administration Program, Purchasing Policy, etc.).	10%
11	Contingency Planning	Evaluates the need for management to provide tested and documented alternative procedures and processing capabilities for manual and automated functions to be implemented in case of emergency or abnormal conditions which restrict normal processing (including the availability of necessary data, software, hardware, documentation, and human resources.).	5%
12	Environmental Factors	Evaluates the need for preventative and detective measures to be taken by management to minimize service disruptions; promote the integrity of the information and the computer services; and protect County valuables, facilities, equipment, and personnel.	5%
13	Control Environment	Measures the need for management's promotion and support of an ethical environment as well as employee's compliance with County policies that promote ethical behavior.	10%

<b>RISK FACTOR DEFINITION TABLE</b>			
	<b>Factor</b>	<b>Definition</b>	<b>Weight</b>
14	Commitment to Excellence	Measures the needed ability to accomplish today's business objectives and to manage anticipated changes through effective recruiting and training of personnel. Also, consideration is given to the retention, placement and advancement of assigned personnel.	5%
15	Structure of Authority	Measures the degree to which roles, responsibilities, and authority need to be clearly defined, communicated, and understood by all assigned personnel.	5%

**Identifying Department Activities** is performed by utilizing various research techniques. Some of the techniques used to identify and develop department activities included Internet research, review of audit files, and interviews with County personnel. The activities identified were at a high level of abstraction.

**Scoring Department Risk** is the central process of the risk assessment. Once all of the activities of a department are identified, each of the activities is weighed according to the activities' significance to the overall department's mission and objective. Each impact and probability factor is then separately evaluated and assigned a point level (0-40), with zero representing the lowest level of risk, and 40, the highest. The individual factor scores for a particular function are then multiplied by the function weight, and added together to obtain the individual score for that individual risk factor. Individual risk factor scores are then multiplied by the risk weight. The weighted risk factor elements are then added together to obtain the respective total impact and probability score for each department.

**Ranking the Auditable Areas** is achieved by sorting each department by their respective total risk score. Sections III and IV of this report contain the final risk scores of the departments/processes and provide matrixes depicting the risk standing of the departments/processes.

**Developing the Audit Plan** is normally achieved by initially scheduling audits for the highest risk areas. However, because of the relative infancy of the audit department and because all departments have not been reviewed, audits were scheduled using a combination of risk score, previous audit coverage, and available audit resources to ensure that all auditable areas of the County will be audited within a three year period. At the end of this four-year period, the audit department, with direction from the County Council, will reassess the direction of audit emphasis.