

Update to the 2016 Annual Technology Projects Benefits Report

Prepared: December 2017

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IT Project Benefits Achievement Plan (Version 2)

To complete this document fully, please read all of the colored sections and fill in the white cells.

For assistance in completing this form, please contact your PSB analyst.

Section 1. What are the purposes of the Benefit Achievement Plan (BAP)?

1. To achieve a clear understanding and focus on the benefits of a project prior to its beginning
2. To update projected benefits of the project as it moves through stages of project approval, implementation, and post-project closure
3. To establish accountability for identifying and achieving benefits
4. To ensure that benefits are achieved

King County Department/Agency Name	Department of Executive Services/Office of Emergency Management/E-911 Program Office
Project Title	E-911 System Security
Project Number	1127690

Section 2. Business Owner Accountability

Business Owners are responsible for achieving project benefits and ensuring this Benefit Achievement Plan (BAP) is regularly updated and completed when benefits are achieved. Business Owners are required to be at the deputy department director or higher.

Aaron Barak, Chief Technology Officer

Section 3. Who is involved in developing the BAP?

The development of the BAP should include significant involvement from the business operations or management staff related to this project and the services it will support. Consider involving staff who will be using the technology to help identify the benefits of the project. KCIT business analysts or technology project staff may assist in benefit identification and documentation. List the staff who contribute to the BAP below:

Name	Title / Agency	Project Role
Deb Flewelling	E-911 Program Manager/E-911 Program Office	E-911 Program Manager
Tom Ahlborn	Project Manager/KCIT	Project Manager
Laura Pitarys	E-911 Finance Manager /E-911 Program Office	Finances
Steve Lagreid	E-911 PSAP Equipment Administrator	Installation in PSAPs
Beth Wigley	E-911 PSAP Equipment Administrator	Installation in PSAPs, Retrieve and Review Security Logs
PSAP E-911 IT Staff	IT System Specialists	Project Team, Contact at each PSAP

Section 4. When should the BAP be started, updated and completed?

The BAP is intended to be an iterative, evolving document that will be updated as the project evolves, as information is refined or scope changes, and when benefits are finally achieved. Department and agencies (the business owners of project benefits) are required to update this document at the following times or actions:

1. To support initial project request during “gate two” phase of conceptual review.
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5. Up to one year after project completion and then annually until it is determined by the business owners that anticipated benefits have been achieved or no further benefits are expected.

Once the project is complete and benefits are achieved and reported, no additional reporting is required.

Please update the document online. Do not delete your previous text. Update the text as necessary and date those updates. Make sure that you upload the updated version to Innotas. The intent is for this single document to show the history of benefits over the course of the project. List any changes in the table in section 5. (If there are no changes, type none)

Section 5. How long will it take to complete the BAP?

Completion of the BAP depends on the project’s complexity. In general, it should take a few hours to complete this BAP form once there is a shared understanding of the project and what value it will bring to the County. More complex and costly projects may require more extensive analysis. To improve this process in the future, please record the time spent on this in the table below at each stage of revision:

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Project implementation	10/11/15	Marlys Davis	New, initial draft	2 hours
2016 Annual Report	06/13/17	Tom Ahlborn	Updated Section 3 (Project team) and Category 1	30 Min
Annual Report	08/08/17	Tom Ahlborn	Updated description of project benefits	30 Min

Section 6. Description of Project Benefits

Identify the category(ies) of benefits your project will provide and include narrative descriptions of estimated benefits. The benefits of IT investments generally fit into the following four categories:

- 1) External service benefits: Improving the quality or quantity of services provided to the public
- 2) Internal service benefits: Improving internal operations, including the quality or quantity of internal services
- 3) Maintaining service levels by replacing or upgrading older technology or reducing risk of system failures
- 4) Reduced cost to produce services (internal or external)

Each category is described below. Most projects will have benefits in one or two categories. If the project does not have benefits in a category, there is no need to provide information for that category.

What is the primary benefit of your project? After reviewing the benefit categories below, please identify the primary type of benefit for the project. For most projects, the primary type benefit will be Category #2 improving internal operations or Category #3 replacing or upgrading older technology.

Primary project benefit? (Check only one)

- Category #1: External service benefits: Improving the quality or quantity of services provided to the public
- Category #2: Internal service benefits: Improving internal operations, including the quality or quantity of internal services
- Category #3: Maintaining service levels by replacing or upgrading older technology
- Category #4: Reduced cost or cost avoidance to produce services

Category #1: External service benefits: Improving the quality or quantity of services provided to the public. This category is intended for projects that directly benefit the public. This includes improved quality of service, such as faster response times and better access to services for the public.

Example: If this project to upgrade our licensing software is approved, licenses will be issued in two business days instead of the four days currently required. This is largely due to the ability of the new software to check national and state databases more efficiently. About one-quarter of our customers currently complain about the delay in obtaining a license and this time reduction is expected to eliminate almost all complaints and allow staff resources to be directed to other customer services.

Example: If this project to accept on-line reservations is approved, residents will be able to schedule athletic fields over the Internet and make payments by credit card. This will allow scheduling to occur at any time, rather than the current limited hours available for in-person or phone reservations. In-person and phone reservations will still be available.

The above examples are summaries. Please respond to each question listed below rather than provide a summary.

- 1. Describe why you expect the proposed IT investment to produce the benefit(s).**
- 2. How will you measure the benefit(s)? (How will you know if the benefit has been achieved?)**
- 3. What is the current baseline for this measure?**
- 4. What is the target for this measure? (How much improvement will this project achieve?)**
- 5. When is the benefit likely to be achieved?**

Category #2: Internal service benefits: Improving internal operations, including the quality or quantity of internal services. Be sure to explain the value of such improvements to your operations.

Example: If this project to acquire hand-held devices and develop custom software is approved, inspectors will be able to check an average of 10 sites per day compared with the average of 6 currently checked. This will allow the agency to handle the 20% increase in workload projected in the next three years without adding more staff.

Example: If this project to implement a systems management tool for the Service Center is implemented we will be able to reduce the duration of technology outages during major incidents by 30%. We also will reduce the wait time for customers on hold with the Service Center. These improvements will allow us to redirect an existing position to other priorities.

Example: The Active Directory Consolidation project is part of an overall effort to promote IT standardization. This project will make the current management of user accounts, applications, and devices easier for IT administrators at Public Health because the end user experience will also be improved by having a single sign-on to applications such as Lync, SharePoint, and Outlook. Our success will be measured by having a single set of procedures and security models rather than the multiple ones that now exist.

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4. *What is the target for this measure? (How much improvement will this project achieve?)*
5. *When is the benefit likely to be achieved?*

Category #3: Projects that maintain service at current levels by either replacing or upgrading older technology, reducing the risk of system failures, or providing regulatory compliance. If the project will result in improvements to external or internal services or cost savings, please note those benefits in the appropriate categories.

***Example:** This project will upgrade PeopleSoft from 9.0 to 9.2. This upgrade is necessary because vendor support for 9.0 will be ending in 2015 and that creates a large risk for the County. Without vendor support the County will not receive tax and regulatory updates and will likely result in errors in complying with tax and regulatory issues.*

***Example:** This project will implement an Advanced Authentication solution which will allow King County to comply with U. S. Department of Justice - Federal Bureau of Investigation, Criminal Justice Information Services (CJIS) Security Policy Version 5.0, Section 5.6.2.2. Effective September 30, 2013, advanced authentication (AA) must be in place in order to access sensitive CJIS information.*

1. *Describe why you are proposing to upgrade or replace existing technology. Please include age of existing technology and the average life cycle replacement for this type of technology. The current system needs to be upgraded to support future technology advancements, as well as, assessing the security risk associated with the new technology.*
2. *If the primary reason for the project is risk reduction project, please estimate the probability of the risk or describe how likely it is to occur. Due to the current call delivery methodology, i.e., cama trunk conversion, the probability of risk is low; however, moving into the NG911 platform and more exposure to the Internet, the risk level increases. To obtain a baseline, a security assessment should be completed prior to moving to a new platform.*

Category #4: Reduced cost to produce service (external or internal) or cost avoidance

This category is for those projects that will reduce the costs to deliver a county service (external or internal). The information provided here should be consistent with the information in the cost-benefit analysis (CBA) form. Please describe how the cost savings will be used by your organization. This category also includes cost avoidance. Cost avoidance is those costs that the County would need to pay, has the capacity and intent to pay, but will be avoided due to the project.

***Example:** Reduced cost to produce service. If this project to install accounts payable software is approved, we will automate three tasks that are currently done manually by agency and central purchasing employees. Based on experience of other users of the software, this will reduce processing time from the current average of ten days to less than one. This will allow us to take advantage of prompt payment discounts for over \$15,000,000 of annual*

purchases. These discounts average 2%, yielding annual savings of about \$300,000. This will result in savings in department expenditures for those items qualifying for prompt payment discounts.

Example: Cost Avoidance. Moving to this new vendor that uses a SaaS product, we will avoid the need to upgrade the system to the newest version which goes end-of-life at the end of next year. We were required to make this upgrade due to regulatory reasons, so this represents a cost avoidance of \$100,000.

The above examples are summaries. Please respond to each question listed below rather than provide a summary.

1. Describe why you expect the proposed IT investment to reduce costs?
2. How will you measure the cost reduction or cost avoidance? (How will you know if the benefit has been achieved)
3. What is the current baseline?
4. What is the target for this measure? (How much savings will this project achieve)
5. When is the cost reduction likely to be achieved?

Section 7. Benefit Achievement Summary

To be completed when benefits have been achieved or no further benefits are expected. For each of the benefits you identified above, explain whether benefits were achieved at target levels. Please include both quantitative measures and qualitative descriptions of benefits, including any monetary benefits. Use the measures identified above. If not achieved, explain why.

Example: This project, to repair an emergency radio tower, was successfully completed in April 2014. The anticipated benefit was to maintain current service levels at 99.999% up time for an additional 5 years. This project is currently functioning at 99.999% up-time and will report annually for the next 5 years on up-time levels.

If one of these towers failed physically, the cost to the county would be enormous, generally in the neighborhood of \$500K - \$1 Million per tower depending on the construction techniques and size. User agencies on the emergency radio system will benefit by having infrastructure systems in place that will be assured of not experiencing catastrophic failures due to lack of maintenance.

Example: This project to automate accounts payable software was implemented and did improve the processing time average. The average time was reduced from 10 to 2 days, not quite reaching the 1 day target. Additionally, only 20% of purchases received a prompt payment discount resulting in less cost swings than anticipated. We did not meet the target because there were fewer purchases that qualified for prompt payment than originally estimated.

Example:

Metric Description	Metrics	Baseline	Target	Actual
Reduce cost to deliver service. This project reduced processing time from the current average of ten days to less than one allowing us to take advantage of	Processing Time annual savings, and percentage of purchases receiving prompt payment discounts	<ul style="list-style-type: none"> • 10 days processing time • 10 percent of purchases are receiving discount • Savings of \$100,000 	<ul style="list-style-type: none"> • 1 day processing time • 30 percent of purchases are receiving prompt payment discounts • \$400,000 savings 	<ul style="list-style-type: none"> • 2 day processing time • 20 percent of purchases are receiving prompt payment discounts • \$200,000 savings

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King County Department/Agency Name	Department of Executive Services/Office of Emergency Management/E-911 Program Office
Project Title	Text-to-911
Project Number	1127689

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Name	Title / Agency	Project Role
Kathy Lombardo	E-911 Program Manager/E-911 Program Office	E-911 Program Manager
Deb Flewelling	E-911 Program Manager/E-911 Program Office	E-911 Program Manager
Kayreen Lum	E-911 Program Manager III/E-911 Program Office	Training, Public Education, Statistics
Tom Ahlborn	Project Manager/ KCIT PMO	Project Manager
Steve Lagreid	E-911 PSAP Network Administrator	Installation in PSAPs
Beth Wigley	E-911 PSAP Network Administrator	Installation in PSAPs

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		Tom Ahlborn	Updated Category #1	

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1. Describe why you expect the proposed IT investment to produce the benefit(s).

Interim text-to-911 will provide individuals who are deaf, hard of hearing, or have speech disabilities with direct access to 911. In addition, people who are in a domestic violence or another situation in which they must silently contact 911 will be able to do so. Suicidal persons have also demonstrated that they are willing to text but not call 911. In disaster situations or low cell coverage situations, texts will often get through when voice calls cannot.

2. How will you measure the benefit(s)? (How will you know if the benefit has been achieved?)

Maintain statistics for texts to 911, track the quantity of emergency texts to 911. Tracking an appropriate text, i.e., an emergency where the caller is unable to speak vs. a real text, i.e., still an emergency, but should have called. Texting will also be tracked for non-emergency type interactions, testing and training, as well as, percentage of abandoned texts, percentage of unreadable texts and system uptime.

3. What is the current baseline for this measure?

The PSAPs currently have no capability of receiving text-to-911, so the baseline is 0; however, we know in 2015, there were 3030 bounce back texts for all of King County.

4. What is the target for this measure? (How much improvement will this project achieve?)

There is no target. The number of texts received will correspond to the need for emergency response from the public.

5. When is the benefit likely to be achieved?

Immediately upon completion of the project December 2017. PSAPs who have implemented text-to-911 have begun to receive emergency texts within the first few days.

Category #2: Internal service benefits: Improving internal operations, including the quality or quantity of internal services. Be sure to explain the value of such improvements to your operations.

Example: If this project to acquire hand-held devices and develop custom software is approved, inspectors will be able to check an average of 10 sites per day compared with the average of 6 currently checked. This will allow the agency to handle the 20% increase in workload projected in the next 3 years without adding more staff.

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King County Department/Agency Name	Department of Executive Services, Office of Risk Management
Project Title	Risk Management Information Software System Replacement
Project Number	TBD

Section 2. Business Owner Accountability

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Name	Title / Agency	Project Role
Jennifer Hills	Director / Office of Risk Management	Project sponsor
Chauntelle Hellner	Business and Finance Manager / Office of Risk Management	

Section 4. When should the Benefit Achievement Plan be started, updated and completed?

The BAP is intended to be an iterative, evolving document that will be updated as the project evolves, as information is refined or scope changes, and when benefits are finally achieved. Department and agencies (the business owners of project benefits) are required to update this document at the following times or

actions:

1. To support initial project request during “gate two” phase of conceptual review.
2. For the annual Benefits report that PSB compiles.
3. To support funding release requests. If there are no changes, simply indicate “review only” in the revision table.
4. When a material scope change is identified and reported.
5. Up to one year after project completion and then annually until it is determined by the business owners that anticipated benefits have been achieved or no further benefits are expected.

Once the project is complete and benefits are achieved and reported, no additional reporting is required.

Please update the document online. Do not delete your previous text. Update the text as necessary and date those updates. Make sure that you upload the updated version to Innotas. The intent is for this single document to show the history of benefits over the course of the project. List any changes in the table in section 5. (If there are no changes, type none)

Section 5. How long will it take to complete the benefit achievement plan?

Completion of the BAP depends on the project’s complexity. In general, it should take a few hours to complete this BAP form once there is a shared understanding of the project and what value it will bring to the County. More complex and costly projects may require more extensive analysis. To improve this process in the future, please record the time spent on this in the table below at each stage of revision:

Revision History Table

Stage	Date	Revised By	Description	How long did it take?
<i>Please use conceptual review, budget process, funding release, annual report, project implementation, or project completion.</i>	<i>Date this document was updated</i>	<i>Who did the document updates?</i>	<i>A brief summary of what changed in the document. If this is an initial draft, please indicate new. If nothing has changed, indicate “review only”.</i>	<i>How long did it take to complete or revise the form at this stage?</i>
Conceptual review	5/8/15	Chauntelle Hellner	New, initial draft	
Budget process <u>2016 Annual Report</u>	TBD <u>2/6/17</u>	<u>Chauntelle Hellner</u>	<u>Annual Update for PSB</u>	
Project implementation	TBD			
Project completion	TBD			

Section 6. Description of Project Benefits

Identify the category(ies) of benefits your project will provide and include narrative descriptions of estimated benefits. The benefits of IT investments generally fit into the following four categories:

- 1) External service benefits: Improving the quality or quantity of services provided to the public
- 2) Internal service benefits: Improving internal operations, including the quality or quantity of internal services
- 3) Maintaining service levels by replacing or upgrading older technology or reducing risk of system failures
- 4) Reduced cost to produce services (internal or external)

Each category is described below. Most projects will have benefits in one or two categories. If the project does not have benefits in a category, there is no need to provide information for that category.

What is the primary benefit of your project? After reviewing the benefit categories below, please identify the primary type of benefit for the project. For most projects, the primary type benefit will be Category #2 improving internal operations or Category #3 replacing or upgrading older technology.

Primary project benefit? (Check only one)

- Category #1: External service benefits: Improving the quality or quantity of services provided to the public
- Category #2: Internal service benefits: Improving internal operations, including the quality or quantity of internal services
- Category #3: Maintaining service levels by replacing or upgrading older technology
- Category #4: Reduced cost or cost avoidance to produce services

Category #1: External service benefits: Improving the quality or quantity of services provided to the public. This category is intended for projects that directly benefit the public. This includes improved quality of service, such as faster response times and better access to services for the public.

Example: If this project to upgrade our licensing software is approved, licenses will be issued in two business days instead of the four days currently required. This is largely due to the ability of the new software to check national and state databases more efficiently. About one-quarter of our customers currently complain about the delay in obtaining a license and this time reduction is expected to eliminate almost all complaints and allow staff resources to be directed to other customer services.

Example: If this project to accept on-line reservations is approved, residents will be able to schedule athletic fields over the Internet and make payments by credit card. This will allow scheduling to occur at any time, rather than the current limited hours available for in-person or phone reservations. In-person and phone reservations will still be available.

The above examples are summaries. Please respond to each question listed below rather than provide a summary.

1. Describe why you expect the proposed IT investment to produce the benefit(s).
2. How will you measure the benefit(s)? (How will you know if the benefit has been achieved?)
3. What is the current baseline for this measure?
4. What is the target for this measure? (How much improvement will this project achieve?)
5. When is the benefit likely to be achieved?

Category #2: Internal service benefits: Improving internal operations, including the quality or quantity of internal services. Be sure to explain the value of such improvements to your operations.

Example: If this project to acquire hand-held devices and develop custom software is approved, inspectors will be able to check an average of 10 sites per day compared with the average of 6 currently checked. This will allow the agency to handle the 20% increase in workload projected in the next three years without adding more staff.

Example: If this project to implement a systems management tool for the Service Center is implemented we will be able to reduce the duration of technology outages during major incidents by 30 percent. We also will reduce the wait time for customers on hold with the Service Center. These improvements will allow us to redirect an existing position to other priorities.

Example: The Active Directory Consolidation project is part of an overall effort to promote IT standardization. This project will make the current management of user accounts, applications, and devices easier for IT administrators at Public Health because the end user experience will also be improved by having a single sign-on to applications such as Lync, SharePoint, and Outlook. Our success will be measured by having a single set of procedures and security models rather than the multiple ones that now exist.

The above examples are summaries. Please respond to each question listed below rather than provide a summary.

1. Describe why you expect the proposed IT investment to produce the benefit(s).

The Office of Risk Management [Services \(ORMS\)](#) has moved to an Enterprise Risk Management model for managing [cCounty--wide](#) risk. The 2012 Council Performance Audit of ORM provided recommendations on integrating Enterprise Risk Management in strategic and business planning processes. One area that is currently lacking for [ORMS](#) is the ability to provide real-time data and [useful-updated loss](#) reports to help managers incorporate risk data into their business planning process. This is a key component of Enterprise Risk Management.

Currently [ORMS](#) requires a KCIT Application Developer with coding expertise to write reports in the RiskMaster reporting tool. The system does not allow for general users to generate reports or retrieve

data. Additionally, once the data is received from KCIT, the Enterprise Risk Management Program Manager must spend a significant amount of time manipulating the data to make it a useful management tool for agencies.

The new software solutions on the market provide sophisticated dashboards and easy reporting of real time data for any user to access. Reports are customizable and can be automatically generated from the system and delivered to any County e-mail address. This will allow for production of quality, useful reports and will reduce the amount of time spent on retrieval and manipulation of data. This will enhance the maturity of the Enterprise Risk Management Program as it will allow the Program Manager to spend more time on high value data analysis and departments will benefit from the ability to make data driven decisions.

2. How will you measure the benefit(s)? (How will you know if the benefit has been achieved?)
 - A. We will have a schedule of automatically generated dashboards and reports on claims data delivered and tailored to each agency. The current system reporting capabilities are limited and take a high level of effort. The benefit will be measured by the ability to have dashboards with data at a glance, alerts with important indicators, and information for agencies more readily available. The measure will be better defined after implementation. The baseline is no current access to claims data without assistance from KCIT.
 - B. All staff in ORM will have the ability to generate reports and easily access data from the claims system. Managers will be able to pull performance data without assistance from KCIT to help manage their staff; and Tort Claims Investigators will be able to use real time data to manage their workloads. We will measure this by working with KCIT to get an estimate of current report requests to identify the difference after implementation and staff are trained on dashboards and reports.
 - C. Enterprise Risk Management Program manager will spend less time on data retrieval and formatting, and more time on high level data analysis to better advise agencies on loss exposures. This will be measured by the difference between the time spent retrieving and manipulating data currently and post implementation.
 - D. Agencies feel they have adequate and timely data regarding claims and losses to incorporate in their decision making process. We will ask agencies if the data they receive from ORMS is timely and valuable. The target is 80% or more agencies report risk-related data is timely and valuable. Shortly after implementation, ORMS will meet with agencies individually to offer customizable reports based on agency needs. Six months later we will survey agency customers to determine if any adjustments are needed and if the data they receive from ORMS is timely and valuable.-
3. What is the current baseline for this measure?
 - A. Currently we do not have the ability to automatically generate dashboards and reports for agencies.
 - B. Currently there is no ability for individual users to pull data from the system. All requests must go through KCIT and this delays the ability to use data to manage day to day operations.
 - C. The Enterprise Risk Management Program manager currently spends 15% of his time or 6 hours a week on the initial retrieval and formatting of data before he can start analyzing.

D. In 2012, ORM conducted a County wide survey of all agencies and the consistent response was a need for more claims and loss data.

4. *What is the target for this measure? (How much improvement will this project achieve?)*

A. The target is the ability to generate dashboards and reports for agencies. The improvement is that managers will have access to the data easily tailored to their operations to enhance decision making.

B. The ability for all users to pull valuable real-time data as needed. This will greatly improve the ability to manage work and provide good customer service to County agencies, public records requestors, and claimants.

C. The target is for the Enterprise Risk Management Program manager to reduce the number of hours spent per week on the initial retrieval and formatting of data from 6 hours on average down to 2, increasing his capacity for high level data analysis.

D. ~~A~~When agencies ~~are~~ will be surveyed 1 year after implementation regarding their ~~, they report~~ satisfaction ~~with the timeliness and value of~~ with data reported to them from ORMS.

5. *When is the benefit likely to be achieved?*

All of these benefits will be achieved within 2 months of the system going live. The goal is to see these benefits by ~~July of 2016~~ January 2018.

Agencies will be surveyed in December of 2016~~8~~ regarding their satisfaction of Risk Management lines of business including data reporting.

Updated 2/6/17

Category #3: Projects that maintain service at current levels by either replacing or upgrading older technology, reducing the risk of system failures, or providing regulatory compliance. If the project will result in improvements to external or internal services or cost savings, please note those benefits in the appropriate categories.

Example: *This project will upgrade PeopleSoft from 9.0 to 9.2. This upgrade is necessary because vendor support for 9.0 will be ending in 2015 and that creates a large risk for the County. Without vendor support the County will not receive tax and regulatory updates and will likely result in errors in complying with tax and regulatory issues.*

Example: *This project will implement an Advanced Authentication solution which will allow King County to comply with U. S. Department of Justice - Federal Bureau of Investigation, Criminal Justice Information Services (CJIS) Security Policy Version 5.0, Section 5.6.2.2. Effective September 30, 2013, advanced authentication (AA) must be in place in order to access sensitive CJIS information.*

1. Describe why you are proposing to upgrade or replace existing technology. Please include age of existing technology and the average life cycle replacement for this type of technology.

The Office of Risk Management Services (ORMS) purchased CSC's RiskMaster in 1999. The product is 16 years old and the cCounty has extended the support contract with CSC three times. This software was recently upgraded to comply with Medicare reporting requirements. This upgrade has introduced a more cumbersome interface that has slowed claims processing by an estimated 20% which diminishes -ORMS's ability to conduct its operations in a timely manner.

Additionally, since 1999 other risk management information systems have been introduced to the market. RiskMaster focuses primarily on claims management and has not kept pace with other risk management automation solutions for true risk assessment, prediction and mitigation of risk. It is difficult to retrieve data from RiskMaster to meet the enterprise risk management needs of our office, provide timely loss reporting to departments, and retrieve responsive records for public records requests.

2. If the primary reason for the project is risk reduction project, please estimate the probability of the risk or describe how likely it is to occur.

Category #4: Reduced cost to produce service (external or internal) or cost avoidance

This category is for those projects that will reduce the costs to deliver a county service (external or internal). The information provided here should be consistent with the information in the cost-benefit analysis (CBA) form. Please describe how the cost savings will be used by your organization. This category also includes cost avoidance. Cost avoidance is those costs that the County would need to pay, has the capacity and intent to pay, but will be avoided due to the project.

Example: Reduced cost to produce service. If this project to install accounts payable software is approved, we will automate three tasks that are currently done manually by agency and central purchasing employees. Based on experience of other users of the software, this will reduce processing time from the current average of ten days to less than one. This will allow us to take advantage of prompt payment discounts for over \$15,000,000 of annual purchases. These discounts average 2%, yielding annual savings of about \$300,000. This will result in savings in department expenditures for those items qualifying for prompt payment discounts.

Example: Cost Avoidance. Moving to this new vendor that uses a SaaS product, we will avoid the need to upgrade the system to the newest version which goes end-of-life at the end of next year. We were required to make this upgrade due to regulatory reasons, so this represents a cost avoidance of \$100,000.

The above examples are summaries. Please respond to each question listed below rather than provide a summary.

1. Describe why you expect the proposed IT investment to reduce costs?
2. How will you measure the cost reduction or cost avoidance? (How will you know if the benefit has been achieved)
3. What is the current baseline?
4. What is the target for this measure? (How much savings will this project achieve)
5. When is the cost reduction likely to be achieved?

Section 7. Benefit Achievement Summary

Benefit Achievement Summary

To be completed when benefits have been achieved or no further benefits are expected. For each of the benefits you identified above, explain whether benefits were achieved at target levels. Please include both quantitative measures and qualitative descriptions of benefits, including any monetary benefits. Use the measures identified above. If not achieved, explain why.

Example: This project, to repair an emergency radio tower, was successfully completed in April 2014. The anticipated benefit was to maintain current service levels at 99.999% up time for an additional five years. This project is currently functioning at 99.999% up-time and will report annually for the next five years on up-time levels.

If one of these towers failed physically, the cost to the county would be enormous, generally in the neighborhood of \$500K - \$1 Million per tower depending on the construction techniques and size. User agencies on the emergency radio system will benefit by having infrastructure systems in place that will be assured of not experiencing catastrophic failures due to lack of maintenance.

Example: This project to automate accounts payable software was implemented and did improve the processing time average. The average time was reduced from 10 days to 2 days, not quite reaching the 1 day target. Additionally, only 20 percent of purchases received a prompt payment discount resulting in less cost swings than anticipated. We did not meet the target because there were fewer purchases that qualified for prompt payment than originally estimated.

Example:

Metric Description	Metrics	Baseline	Target	Actual
Reduce cost to deliver service. This project reduced processing time from the current average of ten days to less than one allowing us to take advantage of prompt payment discounts.	Processing Time annual savings, and percentage of purchases receiving prompt payment discounts	<ul style="list-style-type: none"> • 10 days processing time • 10 percent of purchases are receiving discount • Savings of \$100,000 	<ul style="list-style-type: none"> • 1 day processing time • 30 percent of purchases are receiving prompt payment discounts • \$400,000 savings 	2 day processing time 20 percent of purchases are receiving prompt payment discounts \$200,000

savings

<u>Metric Description</u>	<u>Metrics</u>	<u>Baseline</u>	<u>Target</u>	<u>Actual</u>
<u>Increased access to claims data. This project will give ORMS staff access to data to better manage work and</u>	<u>Access to view claims data.</u>	<ul style="list-style-type: none"> <u>No current user access. Requests go through KCIT.</u> 	<ul style="list-style-type: none"> <u>Users have dashboard access with customized information to meet needs.</u> 	
<u>Agency Reporting – this project will give ORMS the ability to produce reports and loss information for ORMS and Agency Use</u>	<u>The number of report requests sent to KCIT</u>	<ul style="list-style-type: none"> <u>5-10 individual report requests per month</u> 	<ul style="list-style-type: none"> <u>Users run their own reports – less than 1 per month requested to KCIT</u> 	
<u>Enterprise Risk Management – This project will give the ERM program staff more time to analyze data and deliver services to agencies</u>	<u>Amount of time spent retrieving and manipulating data prior to analyzing.</u>	<ul style="list-style-type: none"> <u>35 hours per month spent pulling, manipulating and formatting data.</u> 	<ul style="list-style-type: none"> <u>5 hours per month.</u> 	

These metrics will be better defined as the solution is implemented.

IT Project Benefits Achievement Plan (Version 3)

To complete this document fully, please read all of the colored sections and fill in the white cells.

For assistance in completing this form, please contact your PSB analyst.

Section 1. What are the purposes of the Benefit Achievement Plan (BAP)?

1. To achieve a clear understanding and focus on the benefits of a project prior to its beginning
2. To update projected benefits of the project as it moves through stages of project approval, implementation, and post-project closure
3. To establish accountability for identifying and achieving benefits
4. To ensure that benefits are achieved

King County Department/Agency Name	Department of Executive Service / Facilities Management Division
Project Title	Comprehensive Facilities Asset Management (CFAM)
Project Number	1124148

Section 2. Business Owner Accountability

Business Owners are responsible for achieving project benefits and ensuring this Benefit Achievement Plan (BAP) is regularly updated and completed when benefits are achieved. Business Owners are required to be at the deputy department director or higher.

Caroline Whalen, County Administrative Officer

Section 3. Who is involved in developing the BAP?

The development of the BAP should include significant involvement from the business operations or management staff related to this project and the services it will support. Consider involving staff who will be using the technology to help identify the benefits of the project. KCIT business analysts or technology project staff may assist in benefit identification and documentation. List the staff who contribute to the BAP below:

Name	Title / Agency	Project Role
Glenn Evans	PPM IV, FMD	IA Lead
Loren Klabunde	Project Manager, KCIT	KCIT Lead
Andy Kim	Business Analyst, KCIT	KCIT Support
Gail Houser	Former RES Manager, FMD	SME – RES
Michael Kulish	Permits & Acquisitions Supervisor, FMD	SME - RES
Tom Paine	Acting Leasing Supervisor, FMD	SME - RES
Jim Loveless	Sales Supervisor, FMD	SME - RES
Jim Burt	Capital Planning and Development Section Manager, FMD	Provide expertise and staff for SME input
Leo Griffin	Assistant Operations Section Manager <u>and</u> Acting Operations Section Manager, FMD	SME - Operations and internal service issues <u>and</u> Provide expertise and staff for SME input
Kamma Kure	Operations Section PPM, FMD	SME – Space & move management
Hanh Mai	Financial Unit Manager, FMD	SME – Operating costs
Ameer Faquir	Building Services Section Manager, FMD	Provide expertise and staff for SME input Building operations & maintenance, security
Denise Gregory Wyatt	HR SDM, FMD	SME – HR/Labor impacts
Gail Snow	Manager, RALS Archives, Records Management, & Mail Services	Review & advise on compliance with WAC 434.663 (retention & disposition of digital records)

Section 4. When should the Benefit Achievement Plan be started, updated and completed?

The BAP is intended to be an iterative, evolving document that will be updated as the project evolves, as information is refined or scope changes, and when benefits are finally achieved. Department and agencies (the business owners of project benefits) are required to update this document at the following times or actions:

1. To support initial project request during “gate two” phase of conceptual review.
2. For the annual Benefits report that PSB compiles.
3. To support funding release requests. If there are no changes, indicate “review only” in the revision table.
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Section 5. How long will it take to complete the benefit achievement plan?

Completion of the BAP depends on the project’s complexity. In general, it should take a few hours to complete this BAP form once there is a shared understanding of the project and what value it will bring to the County. More complex and costly projects may require more extensive analysis. To improve this process in the future, please record the time spent on this in the table below at each stage of revision:

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Conceptual Review	3/25/15	Glenn Evans	New, initial draft	8 hours
Conceptual Review	4/2/15	Molly Cherkin	Review & feedback	3 hours
2017-18 Budget (review)	5/30/16	Anthony Wright	Review & feedback	2 hours
2017-18 Budget Revisions	7/2/15	Glenn Evans	Revision & thinning of Section 6 for Budget Process	5 hours
2017-18 Budget Revisions	10/8/15	Glenn Evans	Responding to Council staff comments and questions	8 hours
2017-18 Budget Revisions	4/27/16	Glenn Evans	Overall review & updated Section 3 for Budget Process	1 hour
2017-18 Budget Revisions	5/31/16	Glenn Evans	Revised participants in Section 3 for Budget Process	1 hour
2017-18 Budget Revisions	6/23/16	Glenn Evans	Revised Section 6 for Budget Process	2 hours
2016 Annual Report	10/10/16	Glenn Evans	Revised section 6 to incorporate Council Staff suggestions	6 hours
2016 Annual Report	6/12/17	Glenn Evans	Incorporate Council staff input	16 hours

Section 6. Description of Project Benefits

Identify the category(ies) of benefits your project will provide and include narrative descriptions of estimated benefits. The benefits of IT investments generally fit into the following four categories:

- 1) External service benefits: Improving the quality or quantity of services provided to the public
- 2) Internal service benefits: Improving internal operations, including the quality or quantity of internal services
- 3) Maintaining service levels by replacing or upgrading older technology or reducing risk of system failures
- 4) Reduced cost to produce services (internal or external)

Each category is described below. Most projects will have benefits in one or two categories. If the project does not have benefits in a category, there is no need to provide information for that category.

What is the primary benefit of your project? After reviewing the benefit categories below, please identify the primary type of benefit for the project. For most projects, the primary type benefit will be Category #2 improving internal operations or Category #3 replacing or upgrading older technology.

Primary project benefit? (Check only one)

- Category #1: External service benefits: Improving the quality or quantity of services provided to the public
- Category #2: Internal service benefits: Improving internal operations, including the quality or quantity of internal services
- Category #3: Maintaining service levels by replacing or upgrading older technology
- Category #4: Reduced cost or cost avoidance to produce services

Category #1: External service benefits: Improving the quality or quantity of services provided to the public. This category is intended for projects that directly benefit the public. This includes improved quality of service, such as faster response times and better access to services for the public.

Example: If this project to upgrade our licensing software is approved, licenses will be issued in two business days instead of the four days currently required. This is largely due to the ability of the new software to check national and state databases more efficiently. About one-quarter of our customers currently complain about the delay in obtaining a license and this time reduction is expected to eliminate almost all complaints and allow staff resources to be directed to other customer services.

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1. **Describe why you expect the proposed IT investment to produce the benefit(s).**
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4. **What is the target for this measure? (How much improvement will this project achieve?)**
5. **When is the benefit likely to be achieved?**

Category #2: Internal service benefits: Improving internal operations, including the quality or quantity of internal services. Be sure to explain the value of such improvements to your operations.

Example: If this project to acquire hand-held devices and develop custom software is approved, inspectors will be able to check an average of 10 sites per day compared with the average of 6 currently checked. This will allow the

agency to handle the 20% increase in workload projected in the next three years without adding more staff.

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The above examples are summaries. Please respond to each question listed below rather than provide a summary.

1. Describe why you expect the proposed IT investment to produce the benefit(s).

Facilities Management Division (FMD) – Real Estate Services (RES) section’s current issues include:

- Reliance on outdated and inefficient business processes using multiple non-integrated systems such as Excel spreadsheets,
- Paper-based leases and physical filing methods without any structured digital data which make it difficult for agents to manage leases and quickly analyze key lease information, and
- Siloed and non-standardized RES workflows which reduces flexibility for FMD to manage overloads and backlogs.

The above issues have impaired real estate transactions and property management responsibilities with incomplete and inaccurate data, exposing the county to risks from ownership-related liability, increased costs, and lost revenues from expired or unadjusted leases. In addition, a 7/26/2016 County Auditor report confirmed these inadequacies and recommended RES to develop a more complete and reliable inventory of the county’s real estate portfolio. CFAM is a tool that will facilitate industry standard procedures and best practices, which are not currently incorporated in most of RES’s processes, and will provide the following four benefits:

- A. Improve Operational Efficiency – The CFAM project will transform the RES operation from a paper-based system to a structured data software system. Since these software systems are designed based on facilities management/real estate industry best practices, establishing data standardizations and workflow standardizations for RES will be an inevitable outcome. Data standardizations will eliminate time-wasting activities such as fixing data errors, searching for lease information through physical files, and producing manual reports and allow staff to reallocate their saved time to either address backlogs, improve business processes, and/or seek new business opportunities. Workflow standardizations will also eliminate individual workflows (silos) and provide flexibility for management to reallocate staff to address chronic backlogs.
- B. Reduce Costs on Leases – The ability to quickly search for lease information along with robust reporting capabilities will reduce late payment penalties on leases.
- C. Increase Revenue on Leaseholds – The ability to quickly search for lease information along with robust reporting capabilities will allow staff to ensure rents are adjusted to market rates for leased County properties.
- D. Establish Data-driven Decision Capabilities – By providing the ability to consolidate and cross-

correlate the majority of FMD's currently disparate facility-related data and workflows, CFAM will provide decision-makers with tools to better understand the characteristics, costs, and current and potential future uses of all real property asset within FMD's responsibility. Edit 6/12/17: In addition, the ability to track actual time and cost of RES's various workflows will help inform decisions relating to program staffing, project planning and prioritization, and fee structures.

2. How will you measure the benefit(s)? (How will you know if the benefit has been achieved?)

- A. Improve Operational Efficiency – Edit 6/12/17: During the planning process, RES will identify major processes that are currently facing backlog, quantify the amount of backlog of each process, and set targets for reducing the backlogged work. In other words, RES will measure the work that can be accomplished with the more efficient process and the freed up workload. RES will track the reduction in backlogs of tax title and surplus property sales and of expired leases; the number of "side systems" used for tracking and reporting on inventories; and the number of new and existing lease and other contract documents that are stored and used in digital rather than paper form.
- B. Reduce Costs on Leases – Reduced percentage of leases where County is paying late penalties.
- C. Increase Revenue on Leaseholds – Reduced percentage of County leaseholds where market rate adjustments are either not applied or delayed.
- D. Establish Data-driven Decision Capabilities – Edit 6/12/17: During the planning process, RES will identify the types of information and analytical questions that can be used to help decision makers better manage the County's real property assets. These should align with RES strategic goals. While the quality improvement from better decisions will be difficult to quantify (because there will be no corresponding worse decisions to compare to), an increase in the number of new analytical tools and their frequency of use will be considered indicators of improved decision quality.

3. What is the current baseline for this measure?

Baselines for many of these measures will be established in 2017 as RES implements the actions recommended in the Line of Business Plan.

- A. Improve Operational Efficiency – Edit 6/12/17: During the planning process, RES will identify major processes that are currently facing backlog, and quantify the amount of backlog (i.e. # of transactions, # of leases, etc.) due to each process. RES's work backlog of approximately 1,200 tax title properties, 80 surplus properties, and 20 expired leases will be used as a baseline for workflow efficiencies; there are currently effectively no working lease and contract documents stored or used in digital form.
- B. Reduce Costs on Leases – Currently estimated that approximately 15% of leases are currently paying late penalties (Existing data is not reliable and this baseline will need to be refined).
- C. Increase Revenue on Leaseholds – Currently estimated that approximately 15% of leaseholds are currently not paying market rate rent (Existing data is not reliable and this baseline will need to be refined).

- D. Establish Data-driven Decision Capabilities – Edit 6/12/17: During the planning process, RES will identify the types of input (or data) currently used to make decisions, and describe the effort it takes to produce reports that use this data. RES currently uses market driven “comparable property” data, assessor and appraisal data, FMD historical and projected cost data, and (tenant) Agency metrics to assess space needs and develop real property strategy. Gathering and compiling the data required for the analyses needed to support real estate decisions currently takes an estimated 25% of an FTE’s time annually. With the exception of property sales, there are no existing tools for gathering RES’s labor and other cost data for negotiating and managing leases, purchasing property, or processing permits, so “zero tools” would be a baseline for those workflows.

4. What is the target for this measure? (How much improvement will this project achieve?)

- Improve Operational Efficiency – Edit 6/12/17: During the planning process, RES will quantify goal for reduction of backlogs (i.e. # of transactions, # of leases, etc.). Reduce tax title, property surplus, and expired lease backlogs by 5% each in the first full year of implementation; 50% of all new leases and contracts and their abstracts used as working files will be in digital form after two full years of implementation; 5% of existing paper leases and contracts will be digitized and/or have digitized abstracts after two full years of implementation.
- Reduce Costs on Leases – Reduce the number of leases paying late penalties by Edit 6/12/17: 1/35% every 2 years, until reaching 0% over 6 years.
- Increase Revenue on Leaseholds – Reduce the number of leaseholds not paying market rate rent by Edit 6/12/17: 1/35% every 2 years, until reaching 0% over 6 years.
- Establish Data-driven Decision Capabilities – Edit 6/12/17: During the planning process, RES will identify the number of new reports and the strategic goals that will be impacted with this new tool. The types of reports and the decision descriptions should also be identified. FTE effort for gathering data in support of real estate decisions should decline to nearly zero. Activities performed and recorded inside the system during the course of normal workflows will inform new tools (reports) counting, measuring, and predicting metrics such as (at a minimum):
 - a. Number of leases executed per period, by Real Property Agent, and by County (tenant) Agency;
 - b. Time required for each property transaction by type, phase, and County Agency;
 - c. Number of property sales and purchases per period, by Real Property Agent and County Agency, and FMD labor time for each transaction;
 - d. Permits per period by type, and FMD labor time for each permit and permit type.

These metrics will allow identification and prediction of resource and budget needs, average transaction time by type and Agent, cost of each transaction, and transaction volumes by Agent, to help identify areas where policy, process, or performance improvements are needed.

5. When is the benefit likely to be achieved?

- A. Improve Operational Efficiency – Edit 6/12/17: During the planning process, RES will identify target date of when benefit will be achieved. Beginning Q1 2019, first benefit achieved Q1 2020.
- B. Reduce Costs on Leases – Beginning Q1 2019, with full implementation by 2024.

C. Increase Revenue on Leaseholds – Beginning Q1 2019, with full implementation by 2024.

D. Establish Data-driven Decision Capabilities – ~~Edit 6/12/17: During the planning process, RES will identify target date of when benefit will be achieved.~~ Beginning Q1 2019, with first benefit achieved Q1 2020.

Summary Table:

Benefits & Measures	Baseline	Target	Actual as of 12/2016
Benefit A: Improved Operational Efficiency (Edit 6/12/17)			
a) TBD (# of transactions, # of leases, etc.) <u>Reduced backlogs in tax title and surplus sales;</u> b) <u>Reduced expired lease count;</u> c) <u>Reduced “side system” use;</u> a)d) Create digitized “working” versions of contracts, leases, and abstracts.	a) <u>Backlogs of 1,200 tax titles, 80 surplus properties;</u> b) <u>20 expires leases;</u> c) <u>Unknown – at least 8;</u> a)d) ZeroTBD	a) <u>Reduce by 5% per year;</u> b) <u>Reduce by 1/3 each year</u> c) <u>Zero</u> a)d) 50% of new (post adoption) and 5% of existingTBD documents, two years after adoption.	n/a
Benefit B: Reduced Costs on Leases (Edit 6/12/17)			
Reduced number % of leases where County is paying late penalties	Approx. 15% of leases are paying late penalties (the baseline is to be refined)	5% <u>1/3</u> reduction every 2 years until reaching 0% over 6 years	n/a
Benefit C: Increased Revenue on Leaseholds (Edit 6/12/17)			
Reduced number % of County leaseholds where market rate adjustments are either not applied or delayed	Approx. 15% of leaseholds are not paying market rate rent (the baseline is to be refined)	1/3 <u>5%</u> reduction every 2 years until reaching 0% over 6 years	n/a
Benefit D: Established Data-driven Decision Capabilities (Edit 6/12/17)			
TBD types of information and analytical questions that can be used to help decision makers better manage the County’s real property assets <u>Increased number and utility of internal, integrated tools for a) decisionmaking, and b) process, cost, and other process and workflow metrics</u>	a) <u>.25 FTE annually for data gathering;</u> a)b) ZeroTBD	a) <u>Nominal effort;</u> a)b) Approximately six metric tools per line of businessTBD	n/a

Category #3: Projects that maintain service at current levels by either replacing or upgrading older technology, reducing the risk of system failures, or providing regulatory compliance. If the project will result in improvements to external or internal services or cost savings, please note those benefits in the appropriate categories.

Example: This project will upgrade PeopleSoft from 9.0 to 9.2. This upgrade is necessary because vendor support for 9.0 will be ending in 2015 and that creates a large risk for the County. Without vendor support the County will not receive tax and regulatory updates and will likely result in errors in complying with tax and regulatory issues.

Example: This project will implement an Advanced Authentication solution which will allow King County to comply with U. S. Department of Justice - Federal Bureau of Investigation, Criminal Justice Information Services (CJIS) Security Policy Version 5.0, Section 5.6.2.2. Effective September 30, 2013, advanced authentication (AA) must be in place in order to access sensitive CJIS information.

1. **Describe why you are proposing to upgrade or replace existing technology. Please include age of existing technology and the average life cycle replacement for this type of technology.**
2. **If the primary reason for the project is risk reduction project, please estimate the probability of the risk or describe how likely it is to occur.**

Category #4: Reduced cost to produce service (external or internal) or cost avoidance

This category is for those projects that will reduce the costs to deliver a county service (external or internal). The information provided here should be consistent with the information in the cost-benefit analysis (CBA) form. Please describe how the cost savings will be used by your organization. This category also includes cost avoidance. Cost avoidance is those costs that the County would need to pay, has the capacity and intent to pay, but will be avoided due to the project.

Example: Reduced cost to produce service. If this project to install accounts payable software is approved, we will automate three tasks that are currently done manually by agency and central purchasing employees. Based on experience of other users of the software, this will reduce processing time from the current average of ten days to less than one. This will allow us to take advantage of prompt payment discounts for over \$15 million of annual purchases. These discounts average 2%, yielding annual savings of about \$300,000. This will result in savings in department expenditures for those items qualifying for prompt payment discounts.

Example: Cost Avoidance. Moving to this new vendor that uses a SaaS product, we will avoid the need to upgrade the system to the newest version which goes end-of-life at the end of next year. We were required to make this upgrade due to regulatory reasons, so this represents a cost avoidance of \$100,000.

The above examples are summaries. Please respond to each question listed below rather than provide a summary.

1. **Describe why you expect the proposed IT investment to reduce costs?**
2. **How will you measure the cost reduction or cost avoidance? (How will you know if the benefit has been achieved)**
3. **What is the current baseline?**
4. **What is the target for this measure? (How much savings will this project achieve)**
5. **When is the cost reduction likely to be achieved?**

Section 7. Benefit Achievement Summary

For each of the benefits you identified above, explain whether benefits were achieved at target levels. Please include both quantitative measures and qualitative descriptions of benefits, including any monetary benefits. Use the measures identified above. If not achieved, explain why.

Example: This project, to repair an emergency radio tower, was successfully completed in April 2014. The anticipated benefit was to maintain current service levels at 99.999% up time for an additional five years. This project is currently functioning at 99.999% up-time and will report annually for the next 5 years on up-time levels.

If one of these towers failed physically, the cost to the county would be enormous, generally in the neighborhood of \$500K - \$1 million per tower depending on the construction techniques and size. User agencies on the emergency radio system will benefit by having infrastructure systems in place that will be assured of not experiencing catastrophic failures due to lack of maintenance.

Example: This project to automate accounts payable software was implemented and did improve the processing time average. The average time was reduced from 10 to 2 days, not quite reaching the 1 day target. Additionally, only 20% of purchases received a prompt payment discount resulting in less cost swings than anticipated. We did not meet the target because there were fewer purchases that qualified for prompt payment than originally estimated.

Example:

Metric Description	Metrics	Baseline	Target	Actual
Reduce cost to deliver service. This project reduced processing time from the current average of 10 days to less than one allowing us to take advantage of prompt payment discounts.	Processing time, annual savings, and % of purchases receiving prompt payment discounts	<ul style="list-style-type: none"> 10 days processing time 10% of purchases are receiving discount Savings of \$100,000 	<ul style="list-style-type: none"> 1 day processing time 30% of purchases are receiving prompt payment discounts \$400,000 savings 	<ul style="list-style-type: none"> 2 day processing time 20% of purchases are receiving prompt payment discounts \$200,000 savings

IT Project Benefits Achievement Plan (Version 2)

To complete this document fully, please read all of the colored sections and fill in the white cells.

For assistance in completing this form, please contact your PSB analyst.

Section 1. What are the purposes of the Benefit Achievement Plan (BAP)?

1. To achieve a clear understanding and focus on the benefits of a project prior to its beginning
2. To update projected benefits of the project as it moves through stages of project approval, implementation, and post-project closure
3. To establish accountability for identifying and achieving benefits
4. To ensure that benefits are achieved

King County Department/Agency Name	Department of Executive Services/Records and Licensing Services Divisions/Archives, Records Management and Mail Services
Project Title	King County Records Management System Upgrade
Project Number	1129348

Section 2. Business Owner Accountability

Business Owners are responsible for achieving project benefits and ensuring this Benefit Achievement Plan (BAP) is regularly updated and completed when benefits are achieved. Business Owners are required to be at the deputy department director or higher.

Caroline Whalen, Director Department of Executive Services

Section 3. Who is involved in developing the BAP?

The development of the BAP should include significant involvement from the business operations or management staff related to this project and the services it will support. Consider involving staff who will be using the technology to help identify the benefits of the project. KCIT business analysts or technology project staff may assist in benefit identification and documentation. List the staff who contribute to the BAP below:

Name	Title / Agency	Project Role
Norm Alberg	DES Records and Licensing Services Director	Project Sponsor
Deborah Kennedy	Archives, Records Management and Mail Services Manager	Project Contact
Gail Snow	Records and Information Manager	Project lead, subject matter expert
Sean Bouffiou	DES Records and Licensing Service Finance Manager	Participate, advise, and contribute
Selected Public Records Committee Members	Various Agencies, Agency Records Officers	Participate, advise, and contribute
Shelby Miklethun	Public Records Program Manager, DES Office of Civil Rights and Open Government	Participate, advise, and contribute

Section 4. When should the BAP be started, updated and completed?

The BAP is intended to be an iterative, evolving document that will be updated as the project evolves, as information is refined or scope changes, and when benefits are finally achieved. Department and agencies (the business owners of project benefits) are required to update this document at the following times or actions:

1. To support initial project request during "gate two" phase of conceptual review.
2. For the annual Benefits report that PSB compiles.
3. To support funding release requests. If there are no changes, indicate "review only" in the revision table.
4. When a material scope change is identified and reported.
5. Up to one year after project completion and then annually until it is determined by the business owners that anticipated benefits have been achieved or no further benefits are expected.

Once the project is complete and benefits are achieved and reported, no additional reporting is required.

Please update the document online. Do not delete your previous text. Update the text as necessary and date those updates. Make sure that you upload the updated version to Innotas. The intent is for this single document to show the history of benefits over the course of the project. List any changes in the table in section 5. (If there are no changes, type none)

Section 5. How long will it take to complete the benefit achievement plan?

Completion of the BAP depends on the project's complexity. In general, it should take a few hours to complete this BAP form once there is a shared understanding of the project and what value it will bring to the County. More complex and costly projects may require more extensive analysis. To improve this process in the future, please record the time spent on this in the table below at each stage of revision:

Revision History Table

Stage	Date	Revised By	Description	How long did it take?
<i>Please use conceptual review, budget process, funding release, annual report, project implementation, or project completion.</i>	<i>Date this document was updated</i>	<i>Who did the document updates?</i>	<i>A brief summary of what changed in the document. If this is an initial draft, please indicate new. If nothing has changed, indicate "review only".</i>	<i>How long did it take to complete or revise the form at this stage?</i>
Conceptual review	3/23/16	Deb Kennedy/ Gail Snow	New, initial draft	1.25 hours
Business Case		Marivic Kokorowski	New, initial draft	
BAP Revision	6/27/16	Deb Kennedy	Revisions in response to early feedback	1 hour
BAP Revision	9/26/2016	Deb Kennedy	Revisions in response to council staff comments	
2016 Annual Report	1/10/2017	Andrew Cronholm	Review as required for 2016 Annual Reporting; no changes made, new project for 2017	20 mins
<u>Implementation</u>	6/16/2017	Sean Bouffiou, <u>Gail Snow</u>	Added <u>target</u> dates to anticipated benefits	<u>60 Minutes</u>

Section 6. Description of Project Benefits

Identify the category(ies) of benefits your project will provide and include narrative descriptions of estimated benefits. The benefits of IT investments generally fit into the following four categories:

- 1) External service benefits: Improving the quality or quantity of services provided to the public
- 2) Internal service benefits: Improving internal operations, including the quality or quantity of internal services
- 3) Maintaining service levels by replacing or upgrading older technology or reducing risk of system failures
- 4) Reduced cost to produce services (internal or external)

Each category is described below. Most projects will have benefits in one or two categories. If the project does not have benefits in a category, there is no need to provide information for that category.

What is the primary benefit of your project? After reviewing the benefit categories below, please identify the primary type of benefit for the project. For most projects, the primary type benefit will be Category #2 improving internal operations or Category #3 replacing or upgrading older technology.

Primary project benefit? (Check only one)

- Category #1: External service benefits: Improving the quality or quantity of services provided to the public
- Category #2: Internal service benefits: Improving internal operations, including the quality or quantity of internal services
- Category #3: Maintaining service levels by replacing or upgrading older technology
- Category #4: Reduced cost or cost avoidance to produce services

Category #1: External service benefits: Improving the quality or quantity of services provided to the public. This category is intended for projects that directly benefit the public. This includes improved quality of service, such as faster response times and better access to services for the public.

Example: If this project to accept on-line reservations is approved, residents will be able to schedule athletic fields over the Internet and make payments by credit card. This will allow scheduling to occur at any time, rather than the current limited hours available for in-person or phone reservations. In-person and phone reservations will still be available.

The above examples are summaries. Please respond to each question listed below rather than provide a summary.

1. *Describe why you expect the proposed IT investment to produce the benefit(s).*
2. *How will you measure the benefit(s)? (How will you know if the benefit has been achieved?)*
3. *What is the current baseline for this measure?*
4. *What is the target for this measure? (How much improvement will this project achieve?)*
5. *When is the benefit likely to be achieved?*

Category #2: Internal service benefits: Improving internal operations, including the quality or quantity of internal services. Be sure to explain the value of such improvements to your operations.

1. ***Describe why you expect the proposed IT investment to produce the benefit(s).***
This project will replace the obsolete King County Electronic Records Management System with a new system better able to meet King County's records management needs while ensuring the continued capture, maintenance, access, and disposition of more than 8 million electronic records and the inventory of more than 120 thousand boxes managed by the system. In addition, a newer technology will be able to support integration with existing and planned enhancements to the county's IT environment and will provide improved usability including integrated records and document management software solution that includes workflow and business process automation.
2. ***How will you measure the benefit(s)? (How will you know if the benefit has been achieved?)***

Usage of the new system: Statistics from the new solution will show how many users and documents are filed to the system quarterly and how many new boxes of inactive physical records are sent to the King County Records Center for storage.

Requests: Statistics will be gathered to track customer requests for circulating boxes of physical records as well as number of electronic record searches and exports.

Disposition: Additional statistics will track the number of records—both electronic and physical—that reach the end of their retention period and are disposed of either by destruction or transfer to the King County Archives.

Customer feedback: Feedback from a usability survey will rate user experience and inform how the system is being used and potential improvements.

Number of document management, workflow, and business process automated using the system.

3. ***What is the current baseline for this measure?***

- Usage statistics will be compared with statistics from the current system.
- Request statistics for physical records will be compared with statistics from the current system. The baseline for request statistics of electronic records is zero.
- Disposition statistics for physical records will be compared with statistics from the current system. The baseline for disposition statistics of electronic records is zero.
- Baseline for customer feedback is zero.
- Baseline for document management, workflow, and business process automation using this system is zero.

4. ***What is the target for this measure? (How much improvement will this project achieve?)***

The target for increased usage is 45%.

The target for request statistics is status quo for physical records. For electronic records the target is an increase of 10% per year.

The target is 75% of disposition eligible records dispose of annually.

20% of customers responding to usability survey.

Five document management, workflow, or business processes are automated using the system tools.

5. ***When is the benefit likely to be achieved?***

One year after close of project.

Update June 16, 2017:

Usage of the system – Target Usage Goal Date: July 31, 2020

Request Statistic –Target Goal is to establish a baseline July 31, 2019 (date to be revisited once the new system has been implemented for all existing users.

Disposition – Currently unable to disposition records from the legacy system. Target Goal Date: July 31, 2019

Baseline for customer feedback – Target Goal Date: Survey completed by July 31, 2019.

Five (5) automated processes completed – Target Date July 31, 2019.

Category #3: Projects that maintain service at current levels by either replacing or upgrading older technology, reducing the risk of system failures, or providing regulatory compliance. If the project will result in improvements to external or internal services or cost savings, please note those benefits in the appropriate categories.

Example: This project will upgrade PeopleSoft from 9.0 to 9.2. This upgrade is necessary because vendor support for 9.0 will be ending in 2015 and that creates a large risk for the County. Without vendor support the County will not receive tax and regulatory updates and will likely result in errors in complying with tax and regulatory issues.

Example: This project will implement an Advanced Authentication solution which will allow King County to comply with U. S. Department of Justice - Federal Bureau of Investigation, Criminal Justice Information Services (CJIS) Security Policy Version 5.0, Section 5.6.2.2. Effective September 30, 2013, advanced authentication (AA) must be in place in order to access sensitive CJIS information.

- ~~1. Describe why you are proposing to upgrade or replace existing technology. Please include age of existing technology and the average life cycle replacement for this type of technology.~~
 This project will replace the obsolete King County Electronic Records Management System (KC ERMS) software, Autonomy Records Manager (ARM), vendor is terminating support as of February 28, 2017, with a new system that is better able to meet King County’s records management needs while ensuring the continued capture, maintenance, access, and disposition of more than 836 million electronic records and the inventory of more than 120 thousand boxes currently managed by the system. In addition, a newer technology will be able to support integration with existing and planned enhancements to the county’s IT environment and will provide improved usability. The new solution will continue to support best run and transparent government by:
1. Providing a centralized, secure, and economical repository for the storage of the county’s electronic records throughout their lifecycle (i.e. from the time the records are created, through their active use until completion of the disposition process)
 2. Managing the inventory, circulation, and disposition of physical records in inactive records storage at the King County Records Center
 3. Facilitating the response to public records requests and litigation discovery actions through robust search capabilities.
 4. Supporting compliance with RCW 40.14 Preservation and Destruction of Public Records, WAC 434-663 Imaging Systems, Standards for Accuracy and Durability, and WAC 434-662 Preservation of Electronic Public Records.

~~These benefits will be achieved at close of project December 31, 2018.~~

Measure	Baseline	Target	Bene fit
Number of document management, workflow, and business processes automated and made more efficient using the system. Several records management processes require multiple approvals from multiple	Baseline for document management, workflow, and business process automation using this system is zero. These are new functions becoming available with the new system.	Five document management, workflow, or business processes are automated using the system tools resulting in operational efficiencies for users.	1, 2, & 4

programs automating these workflows will eliminate forms, facilitate tracking, and speed approvals.	Baseline will be set one year after close of project.		
Requests: Statistics will be gathered to track customer requests for circulating boxes of physical records as well as number of electronic record searches and exports.	Request statistics for physical records will be compared with statistics from the current system. The baseline for request statistics of electronic records is zero. Baseline will be set one year after close of project.	The target for request statistics is status quo for physical records, which shows maintenance of current level of service. For electronic records the target is an increase of 10% per year.	2 & 3
Disposition: Additional statistics will track the number of records—both electronic and physical—that reach the end of their retention period and are disposed of either by destruction or transfer to the King County Archives.	Disposition statistics for physical records will be compared with statistics from the current system. The baseline for disposition statistics of electronic records is zero. Disposition of electronic records has not been implemented in current system. Baseline will be set one year after close of project.	The target is 75% of disposition eligible records dispose of annually.	1 & 2
Usage of the new system: Statistics from the new solution will show how many users and documents are filed to the system quarterly and how many new boxes of inactive physical records are sent to the King County Records Center for storage.	Usage statistics will be compared with statistics from the current system.	The target for increased usage is 45%	1 & 2
Customer feedback: Feedback from a usability survey will rate user experience and inform how the system is being used and potential improvements.	Baseline for customer feedback is zero. This information is not currently collected. Baseline will be set one year after close of project by surveying customers who were migrated from Autonomy to HP Records Manager.	80% of customers responding to usability survey provide a favorable response	All

2. If the primary reason for the project is risk reduction project, please estimate the probability of the risk or describe how likely it is to occur.

Risk reduction is not the primary reason for this project. Most of the risks identified in the Business Case are reduced to zero if the project is approved. There is a risk in not knowing the actual costs for operations and maintenance, which will be outlined in a contract with the vendor, HP, if this project is approved. In the CBA, estimates entered begin with the same O&M cost as our current vendor for the legacy system, increased by 3% per year.

± Migration

- a. Vendor experience affects time and resources needed. Lack of experience in the size, systems or type of migration will increase the amount of time and resources needed for the migration.

- b. Mitigation plan: selected a vendor that has experience in migrating at least 3 TB of records between records management systems, preferably the same records management systems affected by this project.
- 2. Customizations
 - a. More customizations can affect ongoing maintenance of the solution. If a solution needs many and/or major customizations, there could be a risk that system upgrades are more difficult to apply.
 - b. Mitigation plan: when possible, utilize out-of-the-box features and functionality
- 3. Training
 - a. Agencies may have different black-out dates of when they are unavailable to engage with training
 - b. Mitigation plan: conduct a roll-out for training, engaging with agencies early to plan to train during their off-peak timeframes
- 4. Legacy system maintenance during project
 - a. Maintaining ongoing operations with legacy system during prior to migration.
 - b. Mitigation plan: Coordinate with KCIT to ensure no changes are made to the county's IT environment that would render KC ERMS inoperable during the migration period. Operate parallel production systems until migration is complete and current users have received training on the new system. Sequence user transition based on established criteria.

Category #4: Reduced cost to produce service (external or internal) or cost avoidance

This category is for those projects that will reduce the costs to deliver a county service (external or internal). The information provided here should be consistent with the information in the cost-benefit analysis (CBA) form. Please describe how the cost savings will be used by your organization. This category also includes cost avoidance. Cost avoidance is those costs that the County would need to pay, has the capacity and intent to pay, but will be avoided due to the project.

Example: Reduced cost to produce service. *If this project to install accounts payable software is approved, we will automate three tasks that are currently done manually by agency and central purchasing employees. Based on experience of other users of the software, this will reduce processing time from the current average of ten days to less than one. This will allow us to take advantage of prompt payment discounts for over \$15,000,000 of annual purchases. These discounts average 2%, yielding annual savings of about \$300,000. This will result in savings in department expenditures for those items qualifying for prompt payment discounts.*

Example: Cost Avoidance. *Moving to this new vendor that uses a SaaS product, we will avoid the need to upgrade the system to the newest version which goes end-of-life at the end of next year. We were required to make this upgrade due to regulatory reasons, so this represents a cost avoidance of \$100,000.*

The above examples are summaries. Please respond to each question listed below rather than provide a summary.

1. Describe why you expect the proposed IT investment to reduce costs?
2. How will you measure the cost reduction or cost avoidance? (How will you know if the benefit has been achieved)
3. What is the current baseline?
4. What is the target for this measure? (How much savings will this project achieve)
5. When is the cost reduction likely to be achieved?

Section 7. Benefit Achievement Summary

For each of the benefits you identified above, explain whether benefits were achieved at target levels. Please include both quantitative measures and qualitative descriptions of benefits, including any monetary benefits. Use the measures identified above. If not achieved, explain why.

Example: *This project, to repair an emergency radio tower, was successfully completed in April 2014. The anticipated benefit was to maintain current service levels at 99.999% up time for an additional five years. This project is currently functioning at 99.999% up-time and will report annually for the next 5 years on up-time levels.*

If one of these towers failed physically, the cost to the county would be enormous, generally in the neighborhood of \$500K - \$1 Million per tower depending on the construction techniques and size. User agencies on the emergency radio system will benefit by having infrastructure systems in place that will be assured of not experiencing catastrophic failures due to lack of maintenance.

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Example:

Metric Description	Metrics	Baseline	Target	Actual
<i>Reduce cost to deliver service. This project reduced processing time from the current average of ten days to less than one allowing us to take advantage of prompt payment discounts.</i>	<i>Processing Time annual savings, and percentage of purchases receiving prompt payment discounts</i>	<ul style="list-style-type: none"> • 10 days processing time • 10% of purchases are receiving discount • \$100,000 savings 	<ul style="list-style-type: none"> • 1 day processing time • 30% of purchases are receiving prompt payment discounts • \$400,000 savings 	<ul style="list-style-type: none"> • 2 day processing time • 20% of purchases are receiving prompt payment discounts • \$200,000 savings

Metric Description	Metrics	Baseline	Target	Actual
Usage of new system	# of people using system, number of documents are filed to the system quarterly; how many new boxes of inactive physical records are sent to the King County Records Center for storage	Pre-implementation numbers	Overall increase of 45% usage	
Requests	Customer requests for circulating boxes of physical records; number of electronic record searches and exports.	<ul style="list-style-type: none"> • Pre-implementation numbers for physical records numbers • No baseline for electronic records searches 	<ul style="list-style-type: none"> • 0 for physical records • Increase of 10%/year for electronic records 	<ul style="list-style-type: none"> •
Disposition	# of records—both electronic and physical—that reach the end of their	<ul style="list-style-type: none"> • Disposition statistics for physical records 	75% of disposition eligible records dispose of annually	<ul style="list-style-type: none"> •

	retention period and are disposed of either by destruction or transfer to Archives.	<ul style="list-style-type: none"> Disposition statistics for electronic records is zero 		
Customer Feedback	Feedback from a usability survey will rate user experience and inform how the system is being used and potential improvements.	Zero	20% of customers responding to usability survey	
Automation	# of document management, workflow, and business process automated using the system.	Zero	Five document management, workflow, or business processes are automated using the system tools.	

IT Project Benefits Achievement Plan (Version 2)

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For assistance in completing this form, please contact your PSB analyst.

Section 1. What are the purposes of the Benefit Achievement Plan (BAP)?

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3. To establish accountability for identifying and achieving benefits
4. To ensure that benefits are achieved

King County Department/ Agency Name	DES-Records and Licensing Services
Project Title	FH Licensing System Collaboration Project
Project Number	1129863

Section 2. Business Owner Accountability

	Business Owners are responsible for achieving project benefits and ensuring this BAP is regularly updated and completed when benefits are achieved. Business Owners are required to be at the deputy department director level or higher.
	Sean Bouffiou, Acting Deputy Director

Section 3. Who is involved in developing the BAP?

	The development of the BAP should include significant involvement from the business operations or management staff related to this project and the services it will support. Consider involving staff who will be using the technology to help identify the benefits of the project. KCIT business analysts or technology project staff may assist in benefit identification and documentation. List the staff who contribute to the BAP below:	
	Name	Title / Agency
	Sean Bouffiou	Acting Deputy Director
	Eddie Cantu	Licensing Manager
	Marcia Thomas	For-hire Licensing Supv.
	Sean Cockbain	Licensing Inspector

Section 4. When should the BAP be started, updated, and completed?

	The BAP is intended to be an iterative, evolving document that will be updated as the project evolves, as information is refined or scope changes, and when benefits are finally achieved. Department and agencies (the business owners of project benefits) are required to update this document at the following times or actions: <ol style="list-style-type: none"> 1. To support initial project request during “Gate 2” phase of conceptual review. 2. For the Annual Benefits Report that PSB compiles. 3. To support funding release requests. If there are no changes, indicate “Review Only” in the revision table.
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4. When a material scope change is identified and reported.
5. Up to one year after project completion and then annually until it is determined by the business owners that anticipated benefits have been achieved or no further benefits are expected.

Once the project is complete and benefits are achieved and reported, no additional reporting is required.

Please update the document online. Do not delete your previous text. Update the text as necessary and date those updates. Make sure that you upload the updated version to Innotas. The intent is for this single document to show the history of benefits over the course of the project. List any changes in the table in section 5. (If there are no changes, type "None")

Section 5. How long will it take to complete the BAP?

Completion of the BAP depends on the project's complexity. In general, it should take a few hours to complete this BAP form once there is a shared understanding of the project and what value it will bring to the County. More complex and costly projects may require more extensive analysis. To improve this process in the future, please record the time spent on this in the table below at each stage of revision:

Revision History Table

Stage	Date	Revised By	Description	How long did it take?
<i>Please use conceptual review, budget process, funding release, annual report, project implementation, or project completion.</i>	<i>Date this document was updated</i>	<i>Who did the document updates?</i>	<i>A brief summary of what changed in the document. If this is an initial draft, please indicate new. If nothing has changed, indicate "review only".</i>	<i>How long did it take to complete or revise the form at this stage?</i>
CR-BC Development	9-03-15	Sean Bouffiou	Initial Draft	3 Hours
CR-BC development	6-28-16	Sean Bouffiou	Update for current submittal, edit per JG comments made in 2015	3 hours
Budget Process	10-31-16	Sean Bouffiou & Andrew Cronholm	Update to reflect council feedback	1 hour
2016 Annual Reporting	1-10-17	Andrew Cronholm	Update for 2016 Annual Reporting; no changes made, new project for 2017	25 mins
Implementation	6-19-17	Sean Bouffiou	Updated for target dates	15 mins

Section 6. Description of Project Benefits

Identify the category(-ies) of benefits your project will provide and include narrative descriptions of estimated benefits. The benefits of IT investments generally fit into the following four categories:

- 1) **External service benefits:** Improving the quality or quantity of services provided to the public
- 2) **Internal service benefits:** Improving internal operations, including the quality or quantity of internal services
- 3) **Maintaining service levels** by replacing or upgrading older technology or reducing risk of system failures
- 4) **Reduced cost** to produce services (internal or external)

Each category is described below. Most projects will have benefits in one or two categories. If the project does not have benefits in a category, there is no need to provide information for that category.

What is the primary benefit of your project? After reviewing the benefit categories below, please identify the primary type of benefit for the project. For most projects, the primary type benefit will be Category #2 improving internal operations or Category #3 replacing or upgrading older technology.

Primary project benefit? (Check only one)

- Category #1: External service benefits: Improving the quality or quantity of services provided to the public
- Category #2: Internal service benefits: Improving internal operations, including the quality or quantity of internal services
- Category #3: Maintaining service levels by replacing or upgrading older technology
- Category #4: Reduced cost or cost avoidance to produce services

CATEGORY #1: External service benefits: Improving the quality or quantity of services provided to the public. This category is intended for projects that directly benefit the public. This includes improved quality of service, such as faster response times and better access to services for the public.

Example: If this project to upgrade our licensing software is approved, licenses will be issued in two business days instead of the four days currently required. This is largely due to the ability of the new software to check national and state databases more efficiently. About one-quarter of our customers currently complain about the delay in obtaining a license and this time reduction is expected to eliminate almost all complaints and allow staff resources to be directed to other customer services.

Example: If this project to accept on-line reservations is approved, residents will be able to schedule athletic fields over the Internet and make payments by credit card. This will allow scheduling to occur at any time, rather than the current limited hours available for in-person or phone reservations. In-person and phone reservations will still be available.

The above examples are summaries. Please respond to each question listed below rather than provide a summary.

A. Describe why you expect the proposed IT investment to produce the benefit(s).

The existing systems were designed to meet internal business needs, and were not intended for web-based customer portals, eCommerce transactions, large-file data sharing with multiple companies, or for handling the complexity of license types and their associated processes. City and County staff viewed product demonstrations from vendors with current technology systems that have been or can be configured to meet the needs of regulators of the for-hire industry and can be optimized to leverage a variety of electronic solutions our customers and policy makers expect.

B. How will you measure the benefit(s)? (How will you know if the benefit has been achieved?)

Improving external customer satisfaction:

- A. A new system will have customer facing portals for for-hire drivers, vehicle owners, and service providers.
- B. A new system will allow for online payment of fees from drivers, vehicle owners, and companies.
- C. A new system will allow for a fully electronic application process for drivers and eliminate the need for maintaining paper-based driver folios.

Gauging external customer satisfaction:

- A. Holding focus groups pre-public launch to test user interface design and configuration
- B. Tracking key metrics on amount and quality of use (e.g., are customers still coming into the RALS counter for service versus using customer facing online portal)

C. What is the current baseline for this measure?

- A. Does not exist in current King County System, a vehicle safety inspection reporting system for approved mechanics is a separate side system recently developed by the City of Seattle.
- B. On-line “eCommerce” is not available with the existing systems.
- C. The current system relies on a paper-based workflow for application processing. Folios for each driver are maintained and must be manually retrieved and filed when not moving through the manual review steps. Customers are not able to track their application status without calling or visiting the office in person.

D. What is the target for this measure? (How much improvement will this project achieve?)

- A. A new system will have customer facing portals for for-hire drivers, vehicle owners, and service providers.
- B. Ability to process payment transactions online, 24/7, for drivers, vehicle owners, and companies.
- C. Fully electronic application process with no paper-based requirements. Customer access to real-time application status, license verification, etc.
- D. Target metrics (i.e., key data points) for improvement will be identified and realized over time as customers learn to use the system.

E. When is the benefit likely to be achieved?

- A. For Drivers and Vehicle Owners upon implementation and go-live of the initial system. Company related portals will depend on the project schedule. (Estimated June, 2018)
- B. Upon system implementation and go-live. (Estimated June, 2018)
- C. Upon system implementation and go-live. (Estimated June, 2018)
- D. TDB as metrics are identified.

CATEGORY #2: Internal service benefits: Improving internal operations, including the quality or quantity of internal services. Be sure to explain the value of such improvements to your operations.

Example: If this project to acquire hand-held devices and develop custom software is approved, inspectors will be able to check an average of 10 sites per day compared with the average of 6 currently checked. This will allow the agency to handle the 20% increase in workload projected in the next three years without adding more staff.

Example: If this project to implement a systems management tool for the Service Center is implemented we will be able to reduce the duration of technology outages during major incidents by 30%. We also will reduce the wait time for customers on hold with the Service Center. These improvements will allow us to redirect an existing position to other priorities.

Example: The Active Directory Consolidation project is part of an overall effort to promote IT standardization. This project will make the current management of user accounts, applications, and devices easier for IT administrators at Public Health because the end user experience will also be improved by having a single sign-on to applications such as Lync, SharePoint, and Outlook. Our success will be measured by having a single set of procedures and security models rather than the multiple ones that now exist.

The above examples are summaries. Please respond to each question listed below rather than provide a summary.

1. Describe why you expect the proposed IT investment to produce the benefit(s).

The current system does not meet current business needs. A consolidated system would place driver and vehicle information together in one system. In addition, company licensing data may be maintained electronically as well. A shared system will overcome the challenges of two separate systems with staff from one side (jurisdiction) not having access to information in the other jurisdiction's system and, as such, produces many new benefits. However, some operational improvements are also possible. For example, the new system will reduce or eliminate inefficiencies related to paper-flow issues. Electronic web-based applications will allow for simultaneous access to for-hire applications, records, etc., thus streamlining the process and reducing processing bottlenecks.

2. How will you measure the benefit(s)? (How will you know if the benefit has been achieved?)

- A. A new system will allow for more efficient data transfers of large files between the City/County and regulated companies
- B. A new system, if shared between the City and County, would allow both jurisdictions access to the same system and data, rather than having to rely on two separate systems with different functions and limited access.
- C. A new system will provide greater opportunities to integrate third party data sources into the application process to validate accuracy and status at or near the point of entry, avoiding downstream errors and increasing efficiency and timeliness
- D. A new system would include production management tools, including multi-level dashboards for status and performance monitoring. This provides for better visibility of production work, estimating work in progress, analyzing work performance for quality and quantity.
- E. A new system would include more robust operations reports and an ad-hoc data query and report writing capabilities. This makes responding to public disclosure requests more efficient.
- F. A new system will include tools for batch processing of For-hire Permit applications (may not remain pending licensing decisions).
- G. A new system will allow for a fully electronic application process for drivers and eliminate the need for maintaining paper-based driver folios. Time currently spent filing and retrieving paper documents will be reprioritized for value added work such as reviewing and processing application materials. Access to files will be immediate.

3. What is the current baseline for this measure?

- A. SFTP web portal for manual data transfer to confidential user accounts.
- B. Staff (Seattle or KC) must request updated files or data ad hoc from the other jurisdiction's system.
- C. No integration with existing systems
- D. No dashboards or production management tools exist in the existing systems
- E. Ad-hoc reports must be created by KCIT programmers
- F. No batch processing tools exists in the current systems; batch processing is handled via a "side system" of Excel based review spreadsheets and control logs (batch processing requirements may not remain due to proposed changes in licensing requirements).
- G. Application data is maintained in the existing county system, applications and supporting materials are maintained in individual paper based folios. Folios must be filed and retrieved in order to review and process. Some folios must be requested from the Records Center.

4. What is the target for this measure? (How much improvement will this project achieve?)

- A. Direct access to all system functionality and data are available to staff of both agencies without having to request it from the other jurisdiction.
- B. Direct access to all system functionality and data are available to staff of both agencies without having to request it from the other jurisdiction.
- C. Integration with VSID (Seattle's Vehicle Safety Inspection Database), integrated or simplified data exporting and uploading for background checks, Driver's abstract report, etc.,
- D. Production dashboards provide current work in progress status; summary reports for weekly/monthly/annual production exist and can be schedule.
- E. Agency staff can create and schedule regular reports; individual production performance can be monitored and audited.
- F. Applications can be automatically uploaded and processing can be done in batch efforts that eliminate unnecessary process overhead on an individual application basis (as an example, opening and closing files or applications, only to move to the next document review).
- G. Applications and accounts (Driver, Vehicles, Owners, etc.) are maintained electronically, no more filing and retrieving paper files. Multiple staff can access accounts simultaneously.

5. When is the benefit likely to be achieved?

- A. Upon System implementation (Estimated June, 2018)
- B. Upon System implementation (Estimated June, 2018)
- C. Upon System implementation (VSID), background checks and driver abstract data (TBD) (Estimated June, 2018)
- D. Upon Systems implementation (Estimated June, 2018)
- E. Upon Systems implementation (Estimated June, 2018)
- F. Upon Systems implementation (if batch processing remains a business need) (Estimated June, 2018)
- G. Upon Systems implementation (Estimated June, 2018)

CATEGORY #3: Projects that maintain service at current levels by either replacing or upgrading older technology, reducing the risk of system failures, or providing regulatory compliance. If the project will result in improvements to external or internal services or cost savings, please note those benefits in the appropriate categories.

Example: This project will upgrade PeopleSoft from 9.0 to 9.2. This upgrade is necessary because vendor support for 9.0 will be ending in 2015 and that creates a large risk for the County. Without vendor support the County will not receive tax and regulatory updates and will likely result in errors in complying with tax and regulatory issues.

Example: This project will implement an Advanced Authentication solution which will allow King County to comply with U. S. Department of Justice - Federal Bureau of Investigation, Criminal Justice Information Services (CJIS) Security Policy Version 5.0, Section 5.6.2.2. Effective September 30, 2013, advanced authentication (AA) must be in place in order to access sensitive CJIS information.

- 1. Describe why you are proposing to upgrade or replace existing technology. Please include age of existing technology and the average life cycle replacement for this type of technology.**
- 2. If the primary reason for the project is risk reduction project, please estimate the probability of the risk or describe how likely it is to occur.**

CATEGORY #4: Reduced cost to produce service (external or internal) or cost avoidance

This category is for those projects that will reduce the costs to deliver a county service (external or internal). The information provided here should be consistent with the information in the cost-benefit analysis (CBA) form. Please describe how the cost savings will be used by your organization. This category also includes cost avoidance. Cost avoidance is those costs that the County would need to pay, has the capacity and intent to pay, but will be avoided due to the project.

Example: *Reduced cost to produce service.* *If this project to install accounts payable software is approved, we will automate three tasks that are currently done manually by agency and central purchasing employees. Based on experience of other users of the software, this will reduce processing time from the current average of ten days to less than one. This will allow us to take advantage of prompt payment discounts for over \$15 million of annual purchases. These discounts average 2%, yielding annual savings of about \$300,000. This will result in savings in department expenditures for those items qualifying for prompt payment discounts.*

Example: *Cost Avoidance.* *Moving to this new vendor that uses a SaaS product, we will avoid the need to upgrade the system to the newest version which goes end-of-life at the end of next year. We were required to make this upgrade due to regulatory reasons, so this represents a cost avoidance of \$100,000.*

The above examples are summaries. Please respond to each question listed below rather than provide a summary.

1. ***Describe why you expect the proposed IT investment to reduce costs?***
2. ***How will you measure the cost reduction or cost avoidance? (How will you know if the benefit has been achieved)***
3. ***What is the current baseline?***
4. ***What is the target for this measure? (How much savings will this project achieve)***
5. ***When is the cost reduction likely to be achieved?***

Section 7. Benefit Achievement Summary

For each of the benefits you identified above, explain whether benefits were achieved at target levels. Please include both quantitative measures and qualitative descriptions of benefits, including any monetary benefits. Use the measures identified above. If not achieved, explain why.

Example: *This project, to repair an emergency radio tower, was successfully completed in April 2014. The anticipated benefit was to maintain current service levels at 99.999% up time for an additional 5 years. This project is currently functioning at 99.999% up-time and will report annually for the next 5 years on up-time levels.*

If one of these towers failed physically, the cost to the county would be enormous, generally in the neighborhood of \$500K - \$1 million per tower, depending on the construction techniques and size. User agencies on the emergency radio system will benefit by having infrastructure systems in place that will be assured of not experiencing catastrophic failures due to lack of maintenance.

Example: *This project to automate accounts payable software was implemented and did improve the processing time average. The average time was reduced from 10 to 2 days, not quite reaching the 1 day target. Additionally, only 20% of purchases received a prompt payment discount resulting in less cost swings than anticipated. We did not meet the target because there were fewer purchases that qualified for prompt payment than originally estimated.*

Example:

Metric Description	Metrics	Baseline	Target	Actual
Reduce cost to deliver service. This project reduced processing time from the current average of 10 days to >1 allowing us to take advantage of prompt payment discounts.	<ul style="list-style-type: none"> Processing time (in days), % of purchases receiving prompt payment discounts, and Annual savings 	<ul style="list-style-type: none"> 10-day processing time 10% of purchases are receiving discount \$100,000 savings 	<ul style="list-style-type: none"> 1-day processing time 30% of purchases are receiving prompt payment discounts \$400,000 savings 	<ul style="list-style-type: none"> 2-day processing time 20% of purchases are receiving prompt payment discounts \$200,000 savings
Metric Description	Metrics	Baseline	Target	Actual
Gauging Customer Satisfaction	<ul style="list-style-type: none"> New customer-facing online portals New online fee payment options Reduction in the use of paper-based driver folios 	<ul style="list-style-type: none"> Zero Zero Zero 	<ul style="list-style-type: none"> Fully functioning portals for all customer types Ability to process payment transactions online 24/7 for all customer types Fully electronic application process with no paper-based requirements 	<ul style="list-style-type: none">

IT Project Benefits Achievement Plan (Version 2)

To complete this document fully, please read all of the colored sections and fill in the white cells.

For assistance in completing this form, please contact your PSB analyst.

Section 1. What are the purposes of the Benefit Achievement Plan (BAP)?

1. To achieve a clear understanding and focus on the benefits of a project prior to its beginning
2. To update projected benefits of the project as it moves through stages of project approval, implementation, and post-project closure
3. To establish accountability for identifying and achieving benefits
4. To ensure that benefits are achieved

King County Department/Agency Name	DNRP, Parks and Recreation Division
Project Title	Parks Facility Scheduling System Replacement
Project Number	1124159

Section 2. Business Owner Accountability

Business Owners are responsible for achieving project benefits and ensuring this Benefit Achievement Plan (BAP) is regularly updated and completed when benefits are achieved. Business Owners are required to be at the deputy department director or higher.

Katy Terry, Assistant Director of the Parks and Recreation Division

Section 3. Who is involved in developing the Benefit Achievement Plan?

The development of the BAP should include significant involvement from the business operations or management staff related to this project and the services it will support. Consider involving staff who will be using the technology to help identify the benefits of the project. KCIT business analysts or technology project staff may assist in benefit identification and documentation. List the staff who contribute to the BAP below:

Name	Title / Agency	Project Role
Leslie Arai	KCIT	Project Manager
Gary Hocking	IT SD Manager	Project Advisor
Doug Hodson	Finance Manager	Project Advisor
Jennifer Lehman	Business Finance Officer	Project Team Member
Macile Assink	Business Finance Officer	Project Team Member
Helen Wolski	Recreation Coordinator	Project Team Member

Section 4. When should the BAP be started, updated and completed?

The BAP is intended to be an iterative, evolving document that will be updated as the project evolves, as information is refined or scope changes, and when benefits are finally achieved. Department and agencies (the business owners of project benefits) are required to update this document at the following times or actions:

1. To support initial project request during "gate two" phase of conceptual review.
2. For the annual Benefits report that PSB compiles.
3. To support funding release requests. If there are no changes, indicate "review only" in the revision table.
4. When a material scope change is identified and reported.
5. Up to one year after project completion and then annually until it is determined by the business owners that anticipated benefits have been achieved or no further benefits are expected.

Once the project is complete and benefits are achieved and reported, no additional reporting is required.

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Section 5. How long will it take to complete the BAP?

Completion of the BAP depends on the project’s complexity. In general, it should take a few hours to complete this BAP form once there is a shared understanding of the project and what value it will bring to the County. More complex and costly projects may require more extensive analysis. To improve this process in the future, please record the time spent on this in the table below at each stage of revision:

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2015/2016 Budget Process	11/4/14	Jennifer Lehman	New, initial draft	
2015 Annual Benefits Update	2/23/16	Jennifer Lehman	No changes to anticipated benefits.	
2016 Annual Benefits Update	2/15/17	Jennifer Lehman	No changes to anticipated benefits.	

Section 6. Description of Project Benefits

Identify the category(ies) of benefits your project will provide and include narrative descriptions of estimated benefits. The benefits of IT investments generally fit into the following four categories:

- 1) **External service benefits:** Improving the quality or quantity of services provided to the public
- 2) **Internal service benefits:** Improving internal operations, including the quality or quantity of internal services
- 3) **Maintaining service levels** by replacing or upgrading older technology or reducing risk of system failures
- 4) **Reduced cost** to produce services (internal or external)

Each category is described below. Most projects will have benefits in one or two categories. If the project does not have benefits in a category, there is no need to provide information for that category.

What is the primary benefit of your project? After reviewing the benefit categories below, please identify the primary type of benefit for the project. For most projects, the primary type benefit will be Category #2 improving internal operations or Category #3 replacing or upgrading older technology.

Primary project benefit? (Check only one)

- Category #1: External service benefits: Improving the quality or quantity of services provided to the public**
- Category #2: Internal service benefits: Improving internal operations, including the quality or quantity of internal services**

Category #3: Maintaining service levels by replacing or upgrading older technology

Category #4: Reduced cost or cost avoidance to produce services

Category #1: External service benefits: Improving the quality or quantity of services provided to the public. This category is intended for projects that directly benefit the public. This includes improved quality of service, such as faster response times and better access to services for the public.

Example: If this project to upgrade our licensing software is approved, licenses will be issued in two business days instead of the four days currently required. This is largely due to the ability of the new software to check national and state databases more efficiently. About one-quarter of our customers currently complain about the delay in obtaining a license and this time reduction is expected to eliminate almost all complaints and allow staff resources to be directed to other customer services.

Example: If this project to accept on-line reservations is approved, residents will be able to schedule athletic fields over the Internet and make payments by credit card. This will allow scheduling to occur at any time, rather than the current limited hours available for in-person or phone reservations. In-person and phone reservations will still be available.

The above examples are summaries. Please respond to each question listed below rather than provide a summary.

1. Describe why you expect the proposed IT investment to produce the benefit(s).

By creating a web portal for customers to reserve facilities, register for classes, and pay online, the proposed IT system is anticipated to improve customer experience by providing more options for customers to access parks services.

2. How will you measure the benefit(s)? (How will you know if the benefit has been achieved?)

The division will measure the public satisfaction with the web portal by inserting a short survey at the end of the online reservation process about the customer's experience with booking and paying online.

Furthermore, the division will measure the proportion of bookings and payments via the web portal versus traditional methods (in person and over the phone).

3. What is the current baseline for this measure?

Currently, the only way for customers to book and pay for reservations/registrations are over the phone, in person, and mail. Several customers have requested the ability to book and pay online.

4. What is the target for this measure? (How much improvement will this project achieve?)

The division strives for a positive reception of the web portal. The target is survey results indicating 75% of users are satisfied with the new system, including easy of navigation and useful information.

Furthermore, the division anticipates a material amount of bookings and payments will shift towards the web portal. According to an [American Customer Satisfaction Survey](#) from January 2014, roughly one-third of all users of federal services interface with agencies most frequently via websites.

5. When is the benefit likely to be achieved?

There is likely to be a transition and education period for Parks' customers to get acquainted with the web portal. The division anticipates to shift the amount of transactions occurring to the web portal by Q3 2018 six months after implementation, and to yield survey results indicating 75% of

users in favor of the new system- by Q1 2019 ~~one year after implementation.~~

Category #2: Internal service benefits: Improving internal operations, including the quality or quantity of internal services. Be sure to explain the value of such improvements to your operations.

***Example:** If this project to acquire hand-held devices and develop custom software is approved, inspectors will be able to check an average of 10 sites per day compared with the average of 6 currently checked. This will allow the agency to handle the 20% increase in workload projected in the next three years without adding more staff.*

***Example:** If this project to implement a systems management tool for the Service Center is implemented we will be able to reduce the duration of technology outages during major incidents by 30 percent. We also will reduce the wait time for customers on hold with the Service Center. These improvements will allow us to redirect an existing position to other priorities.*

***Example:** The Active Directory Consolidation project is part of an overall effort to promote IT standardization. This project will make the current management of user accounts, applications, and devices easier for IT administrators at Public Health because the end user experience will also be improved by having a single sign-on to applications such as Lync, SharePoint, and Outlook. Our success will be measured by having a single set of procedures and security models rather than the multiple ones that now exist.*

The above examples are summaries. Please respond to each question listed below rather than provide a summary.

1. Describe why you expect the proposed IT investment to produce the benefit(s).

By allowing customers to enter their information directly into the booking and payment system, for example camp sites and picnic shelters, the proposed IT project is expected to free up Parks employees' time for other higher-level duties. In doing so, Parks employees' time can be dedicated to other activities such as timely follow-up to customer questions, coordinating booking of larger events including timely review of required paperwork for the larger events (e.g. insurance documentation), and more frequent bank reconciliation.

Parks does not anticipate any staff reductions due to this project because some reservations, such as ballfields, weddings, and birthday parties, will continue to be booked via traditional methods.

2. How will you measure the benefit(s)? (How will you know if the benefit has been achieved?)

Parks will roughly measure the resources currently spent on reservations, and describe how that freed-up staff time is used.

Parks will also measure whether timeliness for other higher-level duties improves. For example:

- improve the frequency of changing lock combinations at camping facilities from monthly to weekly; and
- reduce the median follow-up time to customer questions to within the work day.

3. What is the current baseline for this measure?

Currently, Parks has four FTEs spending a significant amount of time dedicated to reservations and bookings (>75%), and another eight FTEs who spend a portion of their time (<50%) on reservations, particularly during the busy, summer season.

4. What is the target for this measure? (How much improvement will this project achieve?)

This project is anticipated to shift the number of FTEs currently spending a significant amount of time to reservations and bookings to only a portion of their time (<50%) on reservations.

5. *When is the benefit likely to be achieved?*

~~Within two years of implementation~~ By 2020, Parks anticipates the number of staff spending a significant amount of time dedicated to reservations and bookings to shift to spending only a portion of their time (<50%) on reservations. As the business process surrounding online reservations and bookings is developed, a more thorough timeline will be identified.

Category #3: Projects that maintain service at current levels by either replacing or upgrading older technology, reducing the risk of system failures, or providing regulatory compliance. If the project will result in improvements to external or internal services or cost savings, please note those benefits in the appropriate categories.

Example: This project will upgrade PeopleSoft from 9.0 to 9.2. This upgrade is necessary because vendor support for 9.0 will be ending in 2015 and that creates a large risk for the County. Without vendor support the County will not receive tax and regulatory updates and will likely result in errors in complying with tax and regulatory issues.

Example: This project will implement an Advanced Authentication solution which will allow King County to comply with U. S. Department of Justice - Federal Bureau of Investigation, Criminal Justice Information Services (CJIS) Security Policy Version 5.0, Section 5.6.2.2. Effective September 30, 2013, advanced authentication (AA) must be in place in order to access sensitive CJIS information.

1. *Describe why you are proposing to upgrade or replace existing technology. Please include age of existing technology and the average life cycle replacement for this type of technology.*

Parks and Recreation Division is currently using an information system from CLASS Software Solutions (now called The Active Network) as its registration and scheduling system, as well as tracking accounts receivable on user fees and entrepreneurial efforts. This application is vital to division operations.

King County's 200 parks provide venues to meet the increasing recreation demands of our growing population. King County Parks today operates 82 athletic fields available for a variety of team sports and other activities, 29 play areas, 26 picnic shelters, 2 equestrian arenas, regional and back-country trails, a campground and a world-class aquatic center. King County Parks processes over 26,000 bookings, 3,000 user groups, and manages close to \$4 million in revenue annually through its current system, CLASS.

CLASS has been in operation since March 2000. Since that time, the Division underwent a business transition plan, adopted by the King County Council that emphasizes community and corporate partnerships and greatly reduced the division's dependence on King County's general fund. Since 2003, the Division has successfully taken many strategic actions that have generated revenue or created efficiencies, including implementing or increasing user fees and establishing corporate and community partnerships that enhance park amenities and maximize the investment of taxpayers' dollars.

However, The Active Network is phasing out CLASS Software Solutions. The company has announced that it will no longer support the software system beyond 2017. As a result, the Division seeks a replacement solution to reliably support three business offices (Marymoor Park, King County Aquatic Center, and the Regional Scheduling Office) to do their jobs more effectively and help the public continue to have seamless process to book facilities and classes through King County Parks.

The Division is seeking a SaaS solution for this system. This type of solution is continually updated by

the system vendor. A very long life cycle is anticipated, but cannot really be quantified at this time due to the relatively short period of time the current SaaS vendor model has been in place.

2. If the primary reason for the project is risk reduction project, please estimate the probability of the risk or describe how likely it is to occur.

The CLASS software system may fail if a replacement system is not fully implemented before 2017, resulting in permanent data loss and significant, manual- and paper-intensive process workarounds.

Prior to 2017, it is likely the system will experience delays or errors as Active Network begins phasing out support for the system, but still remain functional. To mitigate this risk, the Division is investing in virtual server storage and SQL standard server to ensure CLASS continues to be operational until a replacement is implemented.

After 2017, it is guaranteed the system will fail without regular support from Active Network.

Category #4: Reduced cost to produce service (external or internal) or cost avoidance

This category is for those projects that will reduce the costs to deliver a county service (external or internal). The information provided here should be consistent with the information in the cost-benefit analysis (CBA) form. Please describe how the cost savings will be used by your organization. This category also includes cost avoidance. Cost avoidance is those costs that the County would need to pay, has the capacity and intent to pay, but will be avoided due to the project.

Example: Reduced cost to produce service. *If this project to install accounts payable software is approved, we will automate three tasks that are currently done manually by agency and central purchasing employees. Based on experience of other users of the software, this will reduce processing time from the current average of ten days to less than one. This will allow us to take advantage of prompt payment discounts for over \$15 million of annual purchases. These discounts average 2%, yielding annual savings of about \$300,000. This will result in savings in department expenditures for those items qualifying for prompt payment discounts.*

Example: Cost Avoidance. *Moving to this new vendor that uses a SaaS product, we will avoid the need to upgrade the system to the newest version which goes end-of-life at the end of next year. We were required to make this upgrade due to regulatory reasons, so this represents a cost avoidance of \$100,000.*

The above examples are summaries. Please respond to each question listed below rather than provide a summary.

1. Describe why you expect the proposed IT investment to reduce costs?
2. How will you measure the cost reduction or cost avoidance? (How will you know if the benefit has been achieved)
3. What is the current baseline?
4. What is the target for this measure? (How much savings will this project achieve)
5. When is the cost reduction likely to be achieved?

Section 7. Benefit Achievement Summary

To be completed when benefits have been achieved or no further benefits are expected. For each of the benefits you identified above, explain whether benefits were achieved at target levels. Please include both quantitative measures and qualitative descriptions of benefits, including any monetary

benefits. Use the measures identified above. If not achieved, explain why.

Example: This project, to repair an emergency radio tower, was successfully completed in April 2014. The anticipated benefit was to maintain current service levels at 99.999% up time for an additional 5 years. This project is currently functioning at 99.999% up-time and will report annually for the next 5 years on up-time levels.

If one of these towers failed physically, the cost to the county would be enormous, generally in the neighborhood of \$500K - \$1 million per tower depending on the construction techniques and size. User agencies on the emergency radio system will benefit by having infrastructure systems in place that will be assured of not experiencing catastrophic failures due to lack of maintenance.

Example: This project to automate accounts payable software was implemented and did improve the processing time average. The average time was reduced from 10 to 2 days, not quite reaching the 1 day target. Additionally, only 20% of purchases received a prompt payment discount resulting in less cost swings than anticipated. We did not meet the target because there were fewer purchases that qualified for prompt payment than originally estimated.

Example:

Metric Description	Metrics	Baseline	Target	Actual
Reduce cost to deliver service. This project reduced processing time from the current average of ten days to less than one allowing us to take advantage of prompt payment discounts.	Processing time, annual savings, and percentage of purchases receiving prompt payment discounts	<ul style="list-style-type: none"> • 10 days processing time • 10% of purchases are receiving discount • Savings of \$100,000 	<ul style="list-style-type: none"> • 1 day processing time • 30% of purchases are receiving prompt payment discounts • \$400,000 savings 	<ul style="list-style-type: none"> • 2 day processing time • 20% of purchases are receiving prompt payment discounts • \$200,000 savings

Perfect Mind, the replacement facility scheduling program, went live January 2017. Online registration and booking will be incrementally rolled out throughout 2017. Benefit achievement progress reporting will begin in next year's report.

IT Project Benefits Achievement Plan (Version 5 - updated 2/13/17)

To complete this document fully, please read all of the colored sections and fill in the white cells.
For assistance in completing this form, please contact your PSB analyst.

Section 1. What are the purposes of the Benefit Achievement Plan (BAP)?

1. To achieve a clear understanding and focus on the benefits of a project prior to its beginning
2. To update projected benefits of the project as it moves through stages of project approval, implementation, and post-project closure
3. To establish accountability for identifying and achieving benefits
4. To ensure that benefits are achieved

King County Department/Agency Names	DNRP – WTD, DOT and FBOD (update 6/16/15)
Project Title	IBIS and Business Objects Retirement
EBS Project Number	745408050 Phase 3 = operating project (50% cost shared with DOT) Phase 1-2: WTD project #1047326 and DOT project #1112497

Section 2. Business Owner Accountability

Business Owners are responsible for achieving project benefits and ensuring this Benefit Achievement Plan (BAP) is regularly updated and completed when benefits are achieved. Business Owners are required to be at the deputy department director or higher.

Business Owner Name and Title: Tim Aratani, Finance Manager, WTD

Section 3. Who is involved in developing the BAP?

The development of the BAP should include significant involvement from the business operations or management staff related to this project and the services it will support. Consider involving staff who will be using the technology to help identify the benefits of the project. KCIT business analysts or technology project staff may assist in benefit identification and documentation. List the staff who contribute to the BAP below:

Name	Title / Agency	Project Role
Molly Cherkin	Business Analyst, KCIT	Business Analyst
Max Foster	Business Finance Officer, DNRP	WTD SPOC
Margaret Brownell	Service Delivery Manager, KCIT	Project Lead/Director
Lyza Gatmaytan	Web Developer, KCIT	Project Manager

Section 4. When should the BAP be started, updated and completed?

The BAP is intended to be an iterative, evolving document that will be updated as the project evolves, as information is refined or scope changes, and when benefits are finally achieved. Department and agencies (the business owners of project benefits) are required to update this document at the following times or actions:

1. To support initial project request during “gate two” phase of conceptual review.
2. For the annual Benefits report that PSB compiles.
3. To support funding release requests. If there are no changes, indicate “review only” in the revision table.
4. When a material scope change is identified and reported.

5. Up to one year after project completion and then annually until it is determined by the business owners that anticipated benefits have been achieved or no further benefits are expected.

Once the project is complete and benefits are achieved and reported, no additional reporting is required.

Please update the document online. Do not delete your previous text. Update the text as necessary and date those updates. Make sure that you upload the updated version to Innotas. The intent is for this single document to show the history of benefits over the course of the project. List any changes in the table in section 5. (If there are no changes, type none)

Section 5. How long will it take to complete the BAP?

Completion of the BAP depends on the project's complexity. In general, it should take a few hours to complete this BAP form once there is a shared understanding of the project and what value it will bring to the County. More complex and costly projects may require more extensive analysis. To improve this process in the future, please record the time spent on this in the table below at each stage of revision:

Revision History Table

Stage	Date	Revised By	Description	How long did it take?
<i>Please use conceptual review, budget process, funding release, annual report, project implementation, or project completion.</i>	<i>Date this document was updated</i>	<i>Who did the document updates?</i>	<i>A brief summary of what changed in the document. If this is an initial draft, please indicate new. If nothing has changed, indicate "review only".</i>	<i>How long did it take to complete or revise the form at this stage?</i>
Budget Process	9/3/13	Molly Cherkin	New, Initial draft	4 hours
Budget Process	9/5/13	Max Foster and team	Research, collaboration for choosing metrics	4 hours
Budget Process	10/16/13	Molly Cherkin	Re-doing BAP in new form	30 minutes
2014 Annual report/project implementation – Phase 3	3/17/15	Lyza Gatmaytan	Review, project status update.	1 hour
2014 Annual report – Phase 3	6/16/15	Lyza Gatmaytan	Annual review, incorporating changes requested by Beth Mountsier/KC Council.	1 hour
2014 Annual report – Phase 3	7/8/15	Lyza Gatmaytan	Incorporate Phase 3 description - change requested by Beth Mountsier/KC Council.	30 mins.
2015 Report on Phase 1 and 2 Implementation	6/21/16	Max Foster and team	Prepare statistics and prepare draft summary	6 hours
2015 Annual Report – Phase 2 has been completed, Phase 3 currently in Contract Negotiation	6/21/16	Max Foster	Updates on benefits realized for Phase 2 and project status for Phase 3 as requested by Jennifer Giambattista/KC Council.	6 hours
2016 Annual Report - Phase 3 is in the middle of	2/13/2017	Max foster	Phase 3 as requested by PSB (Gauhar S.) Ongoing project.	10 mins.

implementation and is on time and on budget.			No changes to anticipated benefits.	

Section 6. Description of Project Benefits

Identify the category (ies) of benefits your project will provide and include narrative descriptions of estimated benefits. The benefits of IT investments generally fit into the following four categories:

- 1) **External service benefits:** Improving the quality or quantity of services provided to the public
- 2) **Internal service benefits:** Improving internal operations, including the quality or quantity of internal services
- 3) **Maintaining service levels** by replacing or upgrading older technology, reducing risk of system failures, or providing regulatory compliance
- 4) **Reduced cost** to produce services (internal or external)

Each category is described below. Most projects will have benefits in one or two categories. If the project does not have benefits in a category, there is no need to provide information for that category.

What is the primary benefit of your project? After reviewing the benefit categories below, please identify the primary type of benefit for the project. For most projects, the primary type benefit will be Category #2 improving internal operations or Category #3 replacing or upgrading older technology.

Primary project benefit? (Check only one)

(primary for Phases 1-2) Category #1: External service benefits: Improving the quality or quantity of services provided to the public
 (secondary for Phases 1-2) Category #2: Internal service benefits: Improving internal operations, including the quality or quantity of internal services.

(primary for Phase 3) Category #3: Maintaining service levels by replacing or upgrading older technology, reducing risk of system failures, or providing regulatory compliance.

(secondary for Phases 1-3) Category #4: Reduced cost or cost avoidance to produce services.

Category #1: External service benefits: Improving the quality or quantity of services provided to the public. This category is intended for projects that directly benefit the public. This includes improved quality of service, such as faster response times and better access to services for the public.

Example: If this project to upgrade our licensing software is approved, licenses will be issued in two business days instead of the four days currently required. This is largely due to the ability of the new software to check national and state databases more efficiently. About one-quarter of our customers currently complain about the delay in obtaining a license and this time reduction is expected to eliminate almost all complaints and allow staff resources to be directed to other customer services.

Example: If this project to accept on-line reservations is approved, residents will be able to schedule athletic fields over the Internet and make payments by credit card. This will allow scheduling to occur at any time, rather than the current limited hours available for in-person or phone reservations. In-person and phone reservations will still be available.

The above examples are summaries. Please respond to each question listed below rather than provide a summary.

[Update as of 02/22/2017:](#)

The project is ongoing (currently, in Phase 3). The Category 1 benefits and measures were related to Phases 1-2 of the project. Phase 3 benefits fall under Category 3.

1. Describe why you expect the proposed IT investment to produce the benefit(s).

- Reduce cycle times - If this project is approved, WTD staff will be able to more quickly and efficiently access relevant data so they can provide **accurate and timely responses to customer inquiries** and keep up with ongoing operational duties. Specifically, the following cycle times will be decreased as a result of the solution's implementation:
 - Response to escrow request
 - Early pay-off (unapplied receipts)
 - Early pay-off (escrow request)
 - Lien request preparation
 - Returned item processing
 - Overpayment research
- Reduce deficit - If this project is approved, WTD staff will have more time and resources to focus on **decreasing the backlog of work** (including decreasing a \$1.9 million deficit in "at-risk" delinquent accounts) resulting in part from the current inefficient data retrieval process.
 - *Note: The \$1.9 M deficit only refers to "at-risk" accounts, accounts on which a lien can be filed and thus WTD staff is more likely to be able to collect payment ("at risk" accounts are those within 30 days of being 3 years delinquent and older that do not have a lien against the property).*

2. How will you measure the benefit(s)? (How will you know if the benefit has been achieved?)

- Decreased cycle times
- Decreased balance of delinquent payments

3. What is the current baseline for this measure?

- Cycle times
 - Response to escrow request – 2 days
 - Average of 250 escrows received daily. Average response time is 2 days. If no research is needed to complete the request, it takes between 5 - 20 minutes to respond. However in most cases additional research is needed and/or WTD staff must contact local agency for confirmation which may take up to a week to complete the original escrow request. This project's focus is to reduce this research delay.
 - Early pay-off (unapplied receipts) – 1 day
 - On average, this process takes about 1 day. Of the 14,000 invoices that are mailed out each month, WTD gets approximately 7 to 15 pay-offs daily in the unapplied receipts. It takes anywhere from 60 - 90 minutes to process, depending on how fast the invoices are printed. This cycle time is also affected by a glitch in the Oracle Concurrent Manager, which may increase the processing time to overnight. From the pay-off, WTD also has to complete the process by closing future invoices and closed/inactive accounts. If this leads to refunds, which often happens, the process can take 1 hour to days to find the correct data. This project's focus is to reduce the delay's from the system and missing data in the EBS customer records.
 - Early pay-off (escrow request) – 15 minutes
 - For payoffs due to an escrow request, it takes 5 to 15 minutes to process the early payoff.

- Lien request preparation – 2 hours
 - Preparation for lien requests takes approximately 2 hours.
- Returned item processing – 1 hour per item
 - There are currently approximately 7,022 items of outstanding returned mail. Cycle time varies depending upon how much research and account maintenance is needed for each piece. Estimated cycle time per piece is 10 minutes to 1 hour.
- Delinquent deficit – \$1.9 million as of 8/31/2013
 - WTD pulls this report annually and as of 8/31/2013, the deficit for the “at-risk” accounts was \$1.9 million.

4. What is the target for this measure? (How much improvement will this project achieve?)

- Cycle times
 - Response to escrow request – 5 to 60 minutes depending on the amount of research needed
 - Early pay-off (unapplied receipts) – 15 to 75 minutes
 - Early pay-off (escrow request) - 5 minutes
 - Lien request preparation – 45 to 60 minutes.
 - 15 minutes for drafting Intent to File Lien (then 3 weeks to deliver via post office processing) and 30 to 45 minutes processing time (with up to one day for signature approval) to file lien.
 - Returned item processing– 10 to 30 minutes to process each item (and the elimination of the backlog)
- Delinquent deficit –
 - The total deficit will be less than one million by 8/31/2014

5. When is the benefit likely to be achieved?

- Cycle times - likely decrease within 2 months of implementation
- Delinquent deficit – 1 year
 - The deficit would reduce over 5-10 years as each property with a lien changes hands. The amount at risk would become \$0 within 12 to 24 months. Any amounts delinquent over 3 years will have lien filed so the actual amount will not have an “at risk” status.

NOTE: The Capacity Charge Section will undertake a Lean Business Process Improvement Project starting with a Lean Event in October 2013.

Updated 6/21/16:

Phase 3 (underway, target completion of 9/30/2017): IBIS and Business Objects Retirement Project

- The IBIS data will be migrated to a stable inexpensive environment to support demand for continued use of data. Data will be migrated in a format that can be queried to produce business critical reports.
- The IBIS Financial and Business Objects Reporting systems are outdated and unstable, program software incompatibility problems have prevented users from accessing needed data. Special workstations with very old configurations have been put in place to resolve the issue.
- Phase 3 has processed through vendor selection and contract development and can proceed once the final contract details have been finalized. KCIT has conducted an OPS ART analysis and has approved the project after obtaining security architectural improvement commandments from the vendor. DOT/Transit, DNRP/Wastewater and FBOD/FMS have reviewed the project and a project financing plan has been developed.

Commented [SG1]: Moved this update from Section 7 to Section 6 since this work is still ongoing and Section 7 is designed for reporting on completed projects/phases.

Category #2: Internal service benefits: Improving internal operations, including the quality or quantity of internal services. Be sure to explain the value of such improvements to your operations.

Example: If this project to acquire hand-held devices and develop custom software is approved, inspectors will be able to check an average of 10 sites per day compared with the average of 6 currently checked. This will allow the agency to handle the 20% increase in workload projected in the next 3 years without adding more staff.

Example: If this project to implement a systems management tool for the Service Center is implemented we will be able to reduce the duration of technology outages during major incidents by 30%. We also will reduce the wait time for customers on hold with the Service Center. These improvements will allow us to redirect an existing position to other priorities.

Example: The Active Directory Consolidation project is part of an overall effort to promote IT standardization. This project will make the current management of user accounts, applications, and devices easier for IT administrators at Public Health because the end user experience will also be improved by having a single sign-on to applications such as Lync, SharePoint, and Outlook. Our success will be measured by having a single set of procedures and security models rather than the multiple ones that now exist.

The above examples are summaries. Please respond to each question listed below rather than provide a summary.

1. Describe why you expect the proposed IT investment to produce the benefit(s).
2. How will you measure the benefit(s)? (How will you know if the benefit has been achieved?)
3. What is the current baseline for this measure?
4. What is the target for this measure? (How much improvement will this project achieve?)
5. When is the benefit likely to be achieved?

Category #3: Projects that maintain service at current levels by either replacing or upgrading older technology, reducing the risk of system failures, or providing regulatory compliance. If the project will result in improvements to external or internal services or cost savings, please note those benefits in the appropriate categories.

Example: This project will upgrade PeopleSoft from 9.0 to 9.2. This upgrade is necessary because vendor support for 9.0 will be ending in 2015 and that creates a large risk for the County. Without vendor support the County will not receive tax and regulatory updates and will likely result in errors in complying with tax and regulatory issues.

Example: This project will implement an Advanced Authentication solution which will allow King County to comply with U. S. Department of Justice - Federal Bureau of Investigation, Criminal Justice Information Services (CJIS) Security Policy Version 5.0, Section 5.6.2.2. Effective September 30, 2013, advanced authentication (AA) must be in place in order to access sensitive CJIS information.

1. **Describe why you are proposing to upgrade or replace existing technology. Please include age of existing technology and the average life cycle replacement for this type of technology.**
 - HP ends all support for the HP-UX operating system used by IBIS and Business Objects on December 31, 2015.
 - BRC does not have the resources or knowledge to provide support moving forward.

- IBIS and Business Objects software programs are very old and have not been upgraded. It is very fragile.
- Program software incompatibility. KC employee/standard workstations can no longer access IBIS and Business Objects. Extra "IBIS only" workstations with very old configurations have been put in place to resolve the issue.

Update of 08/07/2017:

As part of Phase 3, the IBIS and Business Objects servers will be shut down and replaced with a cloud based OLTP reporting tool called Performance Center. The primary benefit of this phase will be retaining the ability to respond to public information requests and potential grant audit related inquiries. Federal DOT grants require access to the information through the late 2020's and WTS loans require access for a similar period.

2. **If the primary reason for the project is risk reduction project, please estimate the probability of the risk or describe how likely it is to occur.**

Category #4: Reduced cost to produce service (external or internal) or cost avoidance

This category is for those projects that will reduce the costs to deliver a county service (external or internal). The information provided here should be consistent with the information in the cost-benefit analysis (CBA) form. Please describe how the cost savings will be used by your organization. This category also includes cost avoidance. Cost avoidance is those costs that the County would need to pay, has the capacity and intent to pay, but will be avoided due to the project.

***Example: Reduced cost to produce service.** If this project to install accounts payable software is approved, we will automate three tasks that are currently done manually by agency and central purchasing employees. Based on experience of other users of the software, this will reduce processing time from the current average of ten days to less than one. This will allow us to take advantage of prompt payment discounts for over \$15,000,000 of annual purchases. These discounts average 2%, yielding annual savings of about \$300,000. This will result in savings in department expenditures for those items qualifying for prompt payment discounts.*

***Example: Cost Avoidance.** Moving to this new vendor that uses a SaaS product, we will avoid the need to upgrade the system to the newest version which goes end-of-life at the end of next year. We were required to make this upgrade due to regulatory reasons, so this represents a cost avoidance of \$100,000.*

The above examples are summaries. Please respond to each question listed below rather than provide a summary.

1. Describe why you expect the proposed IT investment to reduce costs?

A market research was conducted Q4 2014 to identify possible solutions to replace IBIS and Business Objects. One of the proposed solutions is a Cloud-based ITL with BI. Cost is projected at \$20,000 for Data Migration and Implementation, and \$45,000 for Annual Subscription.

2. How will you measure the cost reduction or cost avoidance? (How will you know if the benefit has been achieved)

Implementation success measures incorporated into the project – UAT acceptance, implementation for 3-6 months with no problems/errors, cost reduction.

3. What is the current baseline?

Yearly cost for maintaining IBIS and Business Objects in 2014 is \$141,289.92.

4. What is the target for this measure? (How much savings will this project achieve)

Approximately an annual savings of \$90,000.

5. When is the cost reduction likely to be achieved?

Q1 2016 (updated 6/16/2015) Now Q2 2017.

Section 7. Benefit Achievement Summary

To be completed when benefits have been achieved or no further benefits are expected. For each of the benefits you identified above, explain whether benefits were achieved at target levels. Please include both quantitative measures and qualitative descriptions of benefits, including any monetary benefits. Use the measures identified above. If not achieved, explain why.

Example: This project, to repair an emergency radio tower, was successfully completed in April 2014. The anticipated benefit was to maintain current service levels at 99.999% up time for an additional 5 years. This project is currently functioning at 99.999% up-time and will report annually for the next 5 years on up-time levels.

If one of these towers failed physically, the cost to the county would be enormous, generally in the neighborhood of \$500K - \$1 Million per tower depending on the construction techniques and size. User agencies on the emergency radio system will benefit by having infrastructure systems in place that will be assured of not experiencing catastrophic failures due to lack of maintenance.

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Example:

Metric Description	Metrics	Baseline	Target	Actual
Reduce cost to deliver service. This project reduced processing time from the current average of ten days to less than one allowing us to take advantage of prompt payment discounts.	Processing Time annual savings, and percentage of purchases receiving prompt payment discounts	<ul style="list-style-type: none"> 10 days processing time 10% of purchases are receiving discount \$100,000 savings 	<ul style="list-style-type: none"> 1 day processing time 30% of purchases are receiving prompt payment discounts \$400,000 savings 	<ul style="list-style-type: none"> 2 day processing time 20% of purchases are receiving prompt payment discounts \$200,000 savings

Update of 08/07/2017:

Phases 1-2 (bringing capacity charge data into EBS and eliminating reliance on two systems to do routine daily work) have been completed (EBS project #1122195 closed out). The target outcomes set for Phases 1-2 and related to timeliness and accuracy have been accomplished. Also, increased collection activities for liens and intents to lien has largely eliminated the AR delinquency issue. See below for more detail.

Currently, the project is in Phase 3. Phase 3 is an operating project. The target completion date for this phase is 09/30/2017.

Phase 2: CCP Data Migration from IBIS to EBS (updated 6/16/15)

- CCP data migration from IBIS to EBS eliminated accessing two AR systems as part of the daily workflow
- Migrating the IBIS data to EBS was a precursor to a LEAN process improvement process for CCP
- The IBIS data migration project was conducted as a model for future EBS system improvement projects by the BRC Review Board and management.

Project update 6/21/16:

- Project was implemented in Dec-2014 with IBIS access removed CCP users in early 2015.
- All IBIS data that was needed to perform transactions in EBS was successfully migrated from IBIS to EBS eliminating the need to look at two systems to perform routine business activities.
- The cycle times for transactions totally within Oracle EBS AR have dropped because of the elimination of the need to consult two systems.
- Escrow requests however have not reduced in cycle times due to the need to review assessor data and other public records. The cycle time would have been significantly higher if IBIS 2 data wasn't implemented.
- Volumes have increased for escrow requests and change of ownerships due to continued increases in new construction and mortgage refinances. CCP is able to accommodate the increased workload due to the ease in accessing data on one system.
- Additional staff resources and the ease in accessing data in one system have helped to eliminate backlogs in returned mail, change of ownership and intents to lien.
- Moving IBIS data into EBS has enabled the Phase 3 project to move forward.

Measure	Baseline	Target	Results (updated 6/21/2016)
Decreased cycle times	2 days	5 to 60 minutes	3 days (heavier volume, limited staff)
Decreased balance of delinquent payments	\$1.9 million (as of 8/31/2013)	<\$1 million by 8/31/2014	<\$3.6 million
Early pay-off (unapplied receipts)	1 day	15 to 75 minutes	No change due to scanner issue.
Early pay-off (escrow request)	15 minutes	5 minutes	1 minute 17 seconds
Lien request preparation	2 hours	45 to 60 minutes	30-45 minutes
Returned item processing	1 hour/item	10-30 minutes/item	10-20 minutes/item
Cost savings	Annual cost of \$141K to maintain IBIS and Business Objects	Cost savings of \$90K/year beginning Q2.2017 Q1.2016 due to migration to a Cloud-based solution and shutting down the three IBIS servers	Delay in achieving this target from the original Q1.2016 to Q2.2017

Update of 08/07/2017:

Lien request cycle times were worse due to huge growth in the requests. This has been reduced to 1.5 days total cycle time and the system time has been reduced to under 5 minutes. WTD is developing an automated system that will fulfill most escrow requests on demand with no need for WTD personnel to work on the requests.

No improvement in early pay-off requests was due to a scanner issues in FBOD-Treasury. This issue has been resolved. Additional work has been done so that unapplied receipts will be automatically applied to all accounts with a higher level of internal control. A test project has been on-going with Soos Creek since August demonstrating this functionality. A full scale roll out will be done for all districts later in 2017. Currently the work is being done in under the 15 to 75 minutes per day goal. But with these improvements this time with be reduced to a very small amount.

IT Project Benefits Achievement Plan (Version 2)

To complete this document fully, please read all of the colored sections and fill in the white cells.
For assistance in completing this form, please contact your PSB analyst.

Section 1. What are the purposes of the Benefit Achievement Plan (BAP)?

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2. To update projected benefits of the project as it moves through stages of project approval, implementation, and post-project closure
3. To establish accountability for identifying and achieving benefits
4. To ensure that benefits are achieved

King County Department/Agency Name	DNRP/DNRP Administration
Project Title	Project Information Center – Green Building/Sustainability Module
Project Number	1127457

Section 2. Business Owner Accountability

Business Owners are responsible for achieving project benefits and ensuring this Benefit Achievement Plan (BAP) is regularly updated and completed when benefits are achieved. Business Owners are required to be at the deputy department director or higher.

Bob Burns, Deputy Director, Department of Natural Resources and Parks

Section 3. Who is involved in developing the BAP?

The development of the BAP should include significant involvement from the business operations or management staff related to this project and the services it will support. Consider involving staff who will be using the technology to help identify the benefits of the project. KCIT business analysts or technology project staff may assist in benefit identification and documentation. List the staff who contribute to the BAP below:

Name	Title / Agency	Project Role
Nori Catabay	Green Building Team Program Manager/King County	Requirements Advisory – Green Building Ordinance
Hans Erickson	Project Controls Managers <u>Supervisor</u> /WTD/DNRP	DNRP Capital Data Integration Coordinator - Budgeting and Quarterly Reporting
Sid Bender <u>Tricia Davis</u>	Capital Manager <u>Budget</u> <u>Supervisor</u> /PSB	PSB Contact

Section 4. When should the BAP be started, updated and completed?

The BAP is intended to be an iterative, evolving document that will be updated as the project evolves, as information is refined or scope changes, and when benefits are finally achieved. Department and agencies (the business owners of project benefits) are required to update this document at the following times or actions:

1. To support initial project request during “gate two” phase of conceptual review.
2. For the annual Benefits report that PSB compiles.
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4. When a material scope change is identified and reported.
5. Up to one year after project completion and then annually until it is determined by the business owners that anticipated benefits have been achieved or no further benefits are expected.

Once the project is complete and benefits are achieved and reported, no additional reporting is required.

Please update the document online. Do not delete your previous text. Update the text as necessary and date those updates. Make sure that you upload the updated version to Innotas. The intent is for this single document to show the history of benefits over the course of the project. List any changes in the table in section 5. (If there are no changes, type none)

Section 5. How long will it take to complete the BAP?

Completion of the BAP depends on the project's complexity. In general, it should take a few hours to complete this BAP form once there is a shared understanding of the project and what value it will bring to the County. More complex and costly projects may require more extensive analysis. To improve this process in the future, please record the time spent on this in the table below at each stage of revision:

Revision History Table

Stage	Date	Revised By	Description	How long did it take?
<i>Please use conceptual review, budget process, funding release, annual report, project implementation, or project completion.</i>	<i>Date this document was updated</i>	<i>Who did the document updates?</i>	<i>A brief summary of what changed in the document. If this is an initial draft, please indicate new. If nothing has changed, indicate "review only".</i>	<i>How long did it take to complete or revise the form at this stage?</i>
Budget Process	9/21/15	See Section 3	Revision required for new BAP format	1 hour draft/1 hour including participant review
2016 Annual Report (project approved in 2015-16 Supplemental; currently reviewing business requirements)	02/28/2017	Nori Catabay	Updated Section 6 to reflect a greater number of projects reporting on Green Building than when project was originally proposed	1 hour
<u>2016 Annual Report</u>	<u>06/25/2017</u>	<u>Nori Catabay</u> <u>Gaukhar</u> <u>Serikbayeva</u>	<u>Updated Section 2 and 6 in response to Council staff feedback</u>	<u>1 hour</u>

Section 6. Description of Project Benefits

Identify the category(ies) of benefits your project will provide and include narrative descriptions of estimated benefits. The benefits of IT investments generally fit into the following four categories:

- 1) **External service benefits:** Improving the quality or quantity of services provided to the public
- 2) **Internal service benefits:** Improving internal operations, including the quality or quantity of internal services
- 3) **Maintaining service levels** by replacing or upgrading older technology or reducing risk of system failures
- 4) **Reduced cost** to produce services (internal or external)

Each category is described below. Most projects will have benefits in one or two categories. If the project does not have benefits in a category, there is no need to provide information for that category.

What is the primary benefit of your project? After reviewing the benefit categories below, please identify the primary type of benefit for the project. For most projects, the primary type benefit will be Category #2 improving internal operations or Category #3 replacing or upgrading older technology.

Primary project benefit? (Check only one)

- Category #1: External service benefits: Improving the quality or quantity of services provided to the public
- Category #2: Internal service benefits: Improving internal operations, including the quality or quantity of internal services
- Category #3: Maintaining service levels by replacing or upgrading older technology
- Category #4: Reduced cost or cost avoidance to produce services

Category #1: External service benefits: Improving the quality or quantity of services provided to the public. This category is intended for projects that directly benefit the public. This includes improved quality of service, such as faster response times and better access to services for the public.

Example: If this project to upgrade our licensing software is approved, licenses will be issued in two business days instead of the four days currently required. This is largely due to the ability of the new software to check national and state databases more efficiently. About one-quarter of our customers currently complain about the delay in obtaining a license and this time reduction is expected to eliminate almost all complaints and allow staff resources to be directed to other customer services.

Example: If this project to accept on-line reservations is approved, residents will be able to schedule athletic fields over the Internet and make payments by credit card. This will allow scheduling to occur at any time, rather than the current limited hours available for in-person or phone reservations. In-person and phone reservations will still be available.

The above examples are summaries. Please respond to each question listed below rather than provide a summary.

Note: Since Category #1 is a relatively lower value project benefit category as compared to the other benefit categories, see the responses to below to categories 2, 3, and 4.

1. Describe why you expect the proposed IT investment to produce the benefit(s).
2. How will you measure the benefit(s)? (How will you know if the benefit has been achieved?)
3. What is the current baseline for this measure?
4. What is the target for this measure? (How much improvement will this project achieve?)
5. When is the benefit likely to be achieved?

Category #2: Internal service benefits: Improving internal operations, including the quality or quantity of internal services. Be sure to explain the value of such improvements to your operations.

Example: If this project to acquire hand-held devices and develop custom software is approved, inspectors will be able to check an average of 10 sites per day compared with the average of 6 currently checked. This will allow the agency to handle the 20% increase in workload projected in the next 3 years without adding more staff.

Example: If this project to implement a systems management tool for the Service Center is implemented we will be able to reduce the duration of technology outages during major incidents by 30%. We also will reduce the wait time for customers on hold with the Service Center. These improvements will allow us to redirect an existing position to other priorities.

Example: The Active Directory Consolidation project is part of an overall effort to promote IT standardization. This project will make the current management of user accounts, applications, and devices easier for IT administrators

at Public Health because the end user experience will also be improved by having a single sign-on to applications such as Lync, SharePoint, and Outlook. Our success will be measured by having a single set of procedures and security models rather than the multiple ones that now exist.

The above examples are summaries. Please respond to each question listed below rather than provide a summary.

1. Describe why you expect the proposed IT investment to produce the benefit(s).

Benefit #1: Better reporting [and more effective performance management](#) because the accuracy [and accessibility](#) of the data will be improved. Better reporting will provide more transparency and better information for all users.

Benefit #2: Improve Green Building/Sustainability program compliance by integrating with the County CIP budget and reporting system (i.e. Project Information Center/PIC). This will put staff time to better use toward project implementation, management, green building [execution training](#) and technical assistance.

Benefit #3: [A centralized system will provide agency users with consistent data entry, workflows, control measures, reviews and management of green building ordinance requirements](#)

In addition, this request will serve as an effort to respond to the King County Auditor's Green Building Ordinance Performance Audit. The Audit recommended implementation of a system for collecting, verifying, analyzing and communicating data reported under the Green Building Ordinance.

The investment in system architecture will improve the overall quality of green building reporting data.

PSB, the Green Building Team and Program Manager have limited resources available to devote to capital project oversight. Efficient data base structure and reporting value are essential given the hundreds of [high cost](#) projects requiring oversight.

The investment in [development of a the architecture of the](#) Green Building/Sustainability Tab in the Project Information Center will free up [approximately hundreds of significant](#) hours in staff time that could be better used toward project implementation, management, green building [execution training](#) and technical assistance.

Once system is available, the following will be implemented:

- a) Provide 2 training sessions per year. The training will instruct agency capital project managers on how to utilize the PIC system to enter green building reporting requirements.
- b) Provide more oversight on green projects: This time will be spent reviewing information on existing projects being reported, projects being proposed, following up on project issues and green building opportunities, working with the county divisions to address problems, assisting agencies with requests for help with problems, and training other division staff to do these same activities.

2. How will you measure the benefit(s)? (How will you know if the benefit has been achieved?)

~~Once the architecture changes have been completed, two measures will be utilized:~~

Benefit #1: Better reporting and more effective performance management because the accuracy and accessibility of the data will be improved. Better reporting will provide more transparency and better information for all users.

- a) Percentage of Green Building Ordinance applicable projects entering reporting green building information
- ~~b) Number of projects providing data for all reporting criteria~~ Percentage of users sorting and reviewing data by agency and project type to support performance management.
- ~~c)~~

Benefit #2: Update of 06/2017: Freeing up staff time to allow more time for data quality control, project implementation, management, green building training and technical assistance to agencies.

- a) Ratio of time ~~Number of hours reduced spent~~ by staff on improving, analyzing, and utilizing data (e.g., to provide training and assisting agencies to address problems, following up on project issues and green building opportunities) to time spent on aggregating data and creating reports (survey).

Update of 07/2017:

Benefit #3: ~~Survey of~~ Better experience for users because of consistent data entry, workflows, control measures, reviews and management of green building ordinance requirements

- a) Percent of users satisfied with green building data and reports (survey)

3. **What is the current baseline for this measure?**

Benefit #1:

- a) Percentage of Green Building Ordinance applicable projects entering reporting green building information: ~~0~~ 92%
- b) ~~Number of projects providing data for all reporting criteria: 0~~ N/A. To be set by end of 2018.

Benefit #2:

- a) Update of 06/2017: Number of hours by staff: Approximately 3,5605,200 hours Ratio of time spent by staff on improving, analyzing, and utilizing data vs. time spent on aggregating data and creating reports: N/A. The baseline will be set in Q4 2018. Currently, PSB, the Green Building Team and Program Manager have limited resources available to devote to green building and sustainability oversight.

Benefit #3:

- a) Update of 06/2017: Percent of users satisfied with green building data and reports: 0%N/A. To be set by end of 2018.

4. **What is the target for this measure? (How much improvement will this project achieve?)**

Benefit #1: Update of 06/2017

- a) % of Green Building Ordinance applicable projects reporting green building information: 1st year — 75%. —By Year 3 - 100%.
- b) 1st year — 5300 projects. all projects. 75% satisfaction of users that utilize/analyze Green Building data for performance management (Q4, 2021)

Benefit #2

- a) Ratio of time spent by staff on improving, analyzing, and utilizing data vs. time spent on aggregating data and creating reports: target is to be set in Q1 2019. Reduce time on reporting by 1700 hours

Benefit #3:

- a) % of users satisfied with green building data and reports: 75%.

Summary table of measures

Benefit	Measure	Baseline	Target
<u>Benefit 1:</u> Better reporting because the accuracy of the data will be improved. Better reporting will provide more transparency and better information for all users.	a) % of Green Building Ordinance applicable projects <u>entering reporting</u> green building information	<u>92%0</u>	<u>Year 1 — 75%. Year 3 (Q4, 2021) - 100%.</u>
	b) <u>% of users sorting and reviewing data by agency and project type to support performance management</u>	<u>N/A. To be set by end of 2018</u>	<u>75% satisfaction of users utilize/analyze the Green Building data for performance management (Q4, 2021)</u>
<u>Benefit 2:</u> Freeing up staff time (from aggregating data and creating reports) toward data quality control, project implementation, management, green building training and technical assistance.	a) Ratio of time spent by staff on improving, analyzing, and utilizing data vs. time spent on aggregating data and creating reports	TBD during survey development Q4 2018	TBD during survey development <u>Q1 Q2 2019</u>
<u>Benefit 3:</u> Better experience for users because of consistent data entry, workflows, control measures, reviews and management of green building ordinance requirements	% of users satisfied with the green building data and reports (survey)	<u>N/A. To be set by end of 2018.</u>	<u>75% satisfaction (Q4, 2021)</u>

5. When is the benefit likely to be achieved?

When project is completed, starting in 2019~~7~~ for the 2018~~6~~ reporting cycle. The benefits to be achieved and measured by end of 2021. (Update of 02~~6~~7/2017)

Category #3: Projects that maintain service at current levels by either replacing or upgrading older technology, reducing the risk of system failures, or providing regulatory compliance. If the project will

result in improvements to external or internal services or cost savings, please note those benefits in the appropriate categories.

Example: This project will upgrade PeopleSoft from 9.0 to 9.2. This upgrade is necessary because vendor support for 9.0 will be ending in 2015 and that creates a large risk for the County. Without vendor support the County will not receive tax and regulatory updates and will likely result in errors in complying with tax and regulatory issues.

Example: This project will implement an Advanced Authentication solution which will allow King County to comply with U. S. Department of Justice - Federal Bureau of Investigation, Criminal Justice Information Services (CJIS) Security Policy Version 5.0, Section 5.6.2.2. Effective September 30, 2013, advanced authentication (AA) must be in place in order to access sensitive CJIS information.

1. Describe why you are proposing to upgrade or replace existing technology. Please include age of existing technology and the average life cycle replacement for this type of technology.

Green building reporting is currently paper-based, with eight different divisions sending hundreds of reporting forms and hundreds of green building checklists to the Green Building Team Program Manager. Documents are currently saved separately in the Solid Waste Division with the Green Building Team Program Manager. This IT request will change by providing an electronic paperless centralized database, accessible to all divisions responsible for reporting. The Green Building Team Manager will have access to the PIC and be allowed to extract reported information necessary for annual performance measures, and [Strategic Climate Action Plan Progress Report annual reports](#) to Council. Information will be more accurate and consistent.

The age of existing technology system is 12 years old.

The average life cycle for SQL databases is dependent on the ability to keep pace with developments in SQL programming database products provided by Microsoft. Provided that the database is supported by KCIT and updated to current versions of SQL, which is part of the annual maintenance done by KCIT, the life cycle of the replacement database is not impacted by the programming platform.

2. If the primary reason for the project is risk reduction project, please estimate the probability of the risk or describe how likely it is to occur.

Primary reason is not risk reduction.

Category #4: Reduced cost to produce service (external or internal) or cost avoidance

This category is for those projects that will reduce the costs to deliver a county service (external or internal). The information provided here should be consistent with the information in the cost-benefit analysis (CBA) form. Please describe how the cost savings will be used by your organization. This category also includes cost avoidance. Cost avoidance is those costs that the County would need to pay, has the capacity and intent to pay, but will be avoided due to the project.

Example: Reduced cost to produce service. If this project to install accounts payable software is approved, we will automate three tasks that are currently done manually by agency and central purchasing employees. Based on experience of other users of the software, this will reduce processing time from the current average of ten days to less than one. This will allow us to take advantage of prompt payment discounts for over \$15,000,000 of annual purchases. These discounts average 2%, yielding annual savings of about \$300,000. This will result in savings in department expenditures for those items qualifying for prompt payment discounts.

Example: Cost Avoidance. Moving to this new vendor that uses a SaaS product, we will avoid the need to upgrade the system to the newest version which goes end-of-life at the end of next year. We were required to make this upgrade due to regulatory reasons, so this represents a cost avoidance of \$100,000.

The above examples are summaries. Please respond to each question listed below rather than provide a summary.

1. Describe why you expect the proposed IT investment to reduce costs?
2. How will you measure the cost reduction or cost avoidance? (How will you know if the benefit has been achieved)
3. What is the current baseline?
4. What is the target for this measure? (How much savings will this project achieve)
5. When is the cost reduction likely to be achieved?

Section 7. Benefit Achievement Summary

To be completed when benefits have been achieved or no further benefits are expected. For each of the benefits you identified above, explain whether benefits were achieved at target levels. Please include both quantitative measures and qualitative descriptions of benefits, including any monetary benefits. Use the measures identified above. If not achieved, explain why.

Example: This project, to repair an emergency radio tower, was successfully completed in April 2014. The anticipated benefit was to maintain current service levels at 99.999% up time for an additional 5 years. This project is currently functioning at 99.999% up-time and will report annually for the next 5 years on up-time levels.

If one of these towers failed physically, the cost to the county would be enormous, generally in the neighborhood of \$500K - \$1 Million per tower depending on the construction techniques and size. User agencies on the emergency radio system will benefit by having infrastructure systems in place that will be assured of not experiencing catastrophic failures due to lack of maintenance.

Example: This project to automate accounts payable software was implemented and did improve the processing time average. The average time was reduced from 10 to 2 days, not quite reaching the 1 day target. Additionally, only 20% of purchases received a prompt payment discount resulting in less cost swings than anticipated. We did not meet the target because there were fewer purchases that qualified for prompt payment than originally estimated.

Example:

Metric Description	Metrics	Baseline	Target	Actual
Reduce cost to deliver service. This project reduced processing time from the current average of 10 days to <1 day allowing us to take advantage of prompt payment discounts.	Processing time, annual savings, and percentage of purchases receiving prompt payment discounts	<ul style="list-style-type: none"> • 10 days processing time • 10% of purchases are receiving discount • Savings of \$100,000 	<ul style="list-style-type: none"> • 1 day processing time • 30% of purchases are receiving prompt payment discounts • \$400,000 savings 	<ul style="list-style-type: none"> • 2 day processing time • 20% of purchases are receiving prompt payment discounts • \$200,000 savings

IT Project Benefits Achievement Plan (Version 3)

To complete this document fully, please read all of the colored sections and fill in the white cells.
For assistance in completing this form, please contact your PSB analyst.

Section 1. What are the purposes of the Benefit Achievement Plan (BAP)?

1. To achieve a clear understanding and focus on the benefits of a project prior to its beginning
2. To update projected benefits of the project as it moves through stages of project approval, implementation, and post-project closure
3. To establish accountability for identifying and achieving benefits
4. To ensure that benefits are achieved

Department/ Agency Name	DOA
Project Title	KC Interagency Property Tax Accounting System (PTAS)
Project Number	1123944
Project Timeframe	Phase I (Planning & Design): Jan 1, 2017 – Jun 30, 2018

Section 2. Business Owner Accountability

Business Owners are responsible for achieving project benefits and ensuring this BAP is regularly updated and completed when benefits are achieved. Business Owners are required to be at the deputy department director level or higher.

Al Dams, Chief Deputy Assessor (al.dams@kingcounty.gov; 206-263-2255)

Section 3. Who is involved in developing the BAP?

The development of the BAP should include significant involvement from the business operations or management staff related to this project and the services it will support. Consider involving staff who will be using the technology to help identify the benefits of the project. KCIT business analysts or technology project staff may assist in benefit identification and documentation. List the staff who contribute to the BAP below:

Name	Title / Agency	Project Role
Al Dams	Chief Deputy Assessor	Business Owner
Don Saxby	IT PPM I	Project Manager
Brendan Camarda	Budget Coordinator	Budget coordination with PSB
Jonathan Larson	PPM IV	Project Support
Richard Watson	Administrative Services Division Director	Business/Procurement Support

Section 4. When should the BAP be started, updated, and completed?

The BAP is intended to be an iterative, evolving document that will be updated as the project evolves, as information is refined or scope changes, and when benefits are finally achieved. Department and agencies (the business owners of project benefits) are required to update this document at the following times or actions:

1. To support initial project request during "Gate 2" phase of conceptual review.
2. For the Annual Benefits Report that PSB compiles.
3. To support funding release requests. If there are no changes, indicate "Review Only" in the revision table.
4. When a material scope change is identified and reported.
5. Up to one year after project completion and then annually until it is determined by the business owners that anticipated benefits have been achieved or no further benefits are expected.

Once the project is complete and benefits are achieved and reported, no additional reporting is required.

Please update the document online. Do not delete your previous text. Update the text as necessary and date those updates. Make sure that you upload the updated version to Innotas. The intent is for this single document to show the history of benefits over the course of the project. List any changes in the table in Section 5. If there are no changes, type "None."

Section 5. How long will it take to complete the BAP?

Completion of the BAP depends on the project's complexity. In general, it should take a few hours to complete this BAP form once there is a shared understanding of the project and what value it will bring to the County. More complex and costly projects may require more extensive analysis. To improve this process in the future, please record the time spent on this in the table below at each stage of revision:

BAP Revision History Table

Stage	Date	Revised By	Description	How long did it take?
<i>Please use conceptual review, budget process, funding release, annual report, project implementation, or project completion.</i>	<i>Date this document was updated</i>	<i>Who did the document updates?</i>	<i>A brief summary of what changed in the document. If this is an initial draft, please indicate new. If nothing has changed, indicate "review only".</i>	<i>How long did it take to complete or revise the form at this stage?</i>
Budget Process	06/16/16	Rich Watson, Al Dams, Brendan Camarda, Jonathan Larson	New, initial draft	1.5 hrs.
Budget Process	06/17/16	Rich Watson, Brendan Camarda	New, initial draft	2.0 hrs.
Budget Process	08/25/16	Rich Watson, Brendan Camarda, Al Dams	New, Initial draft	2.0 hr.
Budget Process	09/16/16	Rich Watson, Al Dams, Brendan Camarda, Jonathan Larson	New, Initial draft	1.0 hr.
Budget Process	10/03/16	Rich Watson, Al Dams, Brendan Camarda, Jonathan Larson	New, Initial draft	2.0 hr.
2016 Annual Report	06/16/17	Andrew Cronholm	Minor updates to Section 6	15 min
2017 2 nd Omnibus	07/10/17	Rich Watson, Al Dams, Brendan Camarda, Jonathan Larson	Revised the entire BAP	4.0 hrs
2017 2 nd Omnibus	9/1/2017	Andrew Cronholm and Gauhar Serikbayeva	Revised the entire BAP	4.0 hrs
2017 2 nd Omnibus	9/1/2017	Rich Watson, Brendan Camarda, Iris Hoffner	Review Revised BAP	1.0 hr

Section 6. Description of Project Benefits

Clearly identify the primary category (select only one) and secondary category (-ies) of benefits your project will provide.

- 1) **External service benefits:** Improving the quality or quantity of services provided to the public
- 2) **Internal service benefits:** Improving internal operations, including the quality or quantity of internal services
- 3) **Maintaining service levels** by replacing or upgrading older technology or reducing risk of system failures
- 4) **Reduced cost** to produce services (internal or external)

Include narrative descriptions of estimated benefits.

Primary vs. secondary category of benefits: Each category is described below. After reviewing the below descriptions, please clearly distinguish the primary type of benefit that is driving the project from the secondary. While most projects will have benefits from more than one category, please select only one that is the primary reason for the project. Identify secondary categories if the agency intends to measure those benefits in addition to the primary benefit(s). For most projects, the primary type benefit will be Category #2 improving internal operations or Category #3 replacing or upgrading older technology.

Benefit Category	Primary <i>(select only one)</i>	Secondary <i>(select all that apply)</i>
Category #1: External service benefits: Improving the quality or quantity of services provided to the public	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Category #2: Internal service benefits: Improving internal operations, including the quality or quantity of internal services	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Category #3: Maintaining service levels by replacing or upgrading older technology	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Category #4: Reduced cost or cost avoidance to produce services	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CATEGORY #1: External service benefits: Improving the quality or quantity of services provided to the public. This category is intended for projects that directly benefit the public. This includes improved quality of service, such as faster response times and better access to services for the public.

Example: If this project to upgrade our licensing software is approved, licenses will be issued in two business days instead of the four days currently required. This is largely due to the ability of the new software to check national and state databases more efficiently. About one-quarter of our customers currently complain about the delay in obtaining a license and this time reduction is expected to eliminate almost all complaints and allow staff resources to be directed to other customer services.

Example: If this project to accept on-line reservations is approved, residents will be able to schedule athletic fields over the Internet and make payments by credit card. This will allow scheduling to occur at any time, rather than the current limited hours available for in-person or phone reservations. In-person and phone reservations will still be available.

The above examples are summaries. Please respond to each question listed below rather than provide a summary.

1. Describe why you expect the proposed IT investment to produce the benefit(s).

The current system is highly cumbersome and inefficient, which results in inordinate customer service wait times for taxpayers and jurisdictions needing information and transactions. In addition, the State Auditor has cited the County a number of times for lack of precision in levy rate calculation.

The new PTAS will be a Cloud-based system reliant on state of the art computing programming language, architecture, and updated business processes. It will have features and new

functionalities that will allow DOA to improve its property tax services to jurisdictions. For example, DOA intends for the system to calculate with greater accuracy the levy rate for distribution to taxing jurisdictions. DOA also anticipates that the system will provide forecasting and query tools that will enable the County to respond faster to queries from taxing jurisdictions, hence supporting budget development of those jurisdictions.

DOA will define the full spectrum of new features and functionalities after completing Phase I of the project, which consists of the RFI, proof of concept, and RFP. In summary, Category 1 Benefits include:

- Improved accuracy and fairness of the County's distribution of the property tax revenue to taxing jurisdictions and to address State Auditor's Office (SAO) audit recommendations.
- Taxing jurisdictions receive a timely response to their budget request prior to tax roll certification thanks to seamless operation of the property tax assessment, administration and collection system.
- Taxing jurisdictions receive levy rate calculations in less time.

2. How will you measure the benefit(s)? (How will you know if the benefit has been achieved?)

Category 1 Measure 1. Level of precision of levy rate calculations (in decimal points)

Category 1 Measure 2. Number of days for taxing districts to receive a response to their budget request prior to the tax roll certification.

Category 1 Measure 3. Cycle time to provide taxing jurisdictions with levy rate calculation/ property tax budget information.

3. What is the current baseline for this measure?

- 1) Five (5) decimal places
- 2) Taxing jurisdictions receive their budget request information approximately 30 - 45 days prior to receiving a certified tax roll
- 3) Levy rate cycle currently takes ten (10) weeks.

4. What is the target for this measure? (How much improvement will this project achieve?)

The following targets are tentative and will be finalized after the vendor is selected (upon completion of Phase I set for Q2.2018):

- 1) Ten (10) decimal places
- 2) Taxing jurisdictions receive their budget request information approximately 7 – 10 days prior to receiving a certified tax roll
- 3) Levy rate cycle completed within two (2) weeks.

5. When is the benefit likely to be achieved?

The benefits will be achieved at the end of the first tax roll cycle following the implementation of the new PTAS system. The exact timing of the benefits will be set in mid-2018, after completing Phase I, and after vendor and application solution selection.

CATEGORY #2: Internal service benefits: Improving internal operations, including the quality or quantity of internal services. Be sure to explain the value of such improvements to your operations.

Example: *If this project to acquire hand-held devices and develop custom software is approved, inspectors will be able to check an average of 10 sites per day compared with the average of 6 currently checked. This will allow the agency to handle the 20% increase in workload projected in the next 3 years without adding more staff.*

Example: If this project to implement a systems management tool for the Service Center is implemented we will be able to reduce the duration of technology outages during major incidents by 30%. We also will reduce the wait time for customers on hold with the Service Center. These improvements will allow us to redirect an existing position to other priorities.

Example: The Active Directory Consolidation project is part of an overall effort to promote IT standardization. This project will make the current management of user accounts, applications, and devices easier for IT administrators at Public Health because the end user experience will also be improved by having a single sign-on to applications such as Lync, SharePoint, and Outlook. Our success will be measured by having a single set of procedures and security models rather than the multiple ones that now exist.

The above examples are summaries. Please respond to each question listed below rather than provide a summary.

1. Describe why you expect the proposed IT investment to produce the benefit(s).

The current system is cumbersome, inefficient, and places costly demands on the staff and IT support services to DOA and FBOD. It relies on paper handoffs and the batch processing of many jobs to administer property tax accounts. The new PTAS will be a Cloud-based system reliant on state of the art computing programming language, architecture, and updated business processes. It will automate many of the tax collection management processes and integrate with the County's accounting system. A full spectrum of new features and functionalities will be further defined upon completion of Phase I of the project, which consists of the RFI, the proof of concept, and the RFP.

The benefit of completing Phase I will be ensuring that the County receives solid bids from qualified vendors in response to its RFP for the PTAS (Phase I). The remaining benefits in this category will be realized at the end of the project, after implementing Phase II, and include:

- Increased period for appraisers to capture new construction revenue in the current fiscal year (Phase II)
- Timely production of the tax roll by the Assessor's Office thanks to prevented failures of property tax assessment, administration, and collection system (Phase II).

2. How will you measure the benefit(s)? (How will you know if the benefit has been achieved?)

Category 2 Measure 1. Number of quality bids from qualified vendors (Phase I)

Category 2 Measure 2. Number of days added to new construction collection period (Phase II)

Category 2 Measure 3. Number of business days between the date the tax roll is certified by the Assessor and the Treasury tax bill mail due date (Phase II)

3. What is the current baseline for this measure?

- 1) n/a
- 2) June to August
- 3) Tax roll is certified and sent to Treasury one (1) day prior to Treasury's tax bill mail due date.

4. What is the target for this measure? (How much improvement will this project achieve?)

Targets 2-3 are tentative and will be finalized after the vendor is selected (upon completion of Phase I set for Q2.2018):

- 1) At least one quality bid from qualified vendor(s) to choose from (Phase I).
- 2) TBD and validated post vendor selection (Phase II).

- 3) Tax roll is certified and sent to Treasury at least five (5) business days prior to Treasury's tax bill mail due date (Phase II).

5. When is the benefit likely to be achieved?

- 1) Number of bids received in response to the RFP will be known in Q4.2017 - Q1.2018
- 2) TBD*
- 3) TBD*

* These benefits will be achieved at the end of the first tax roll cycle following the implementation of the new PTAS system. The exact timing of the benefits will be set in mid-2018, after completing Phase I and after vendor and application solution selection.

CATEGORY #3: Projects that maintain service at current levels by either replacing or upgrading older technology, reducing the risk of system failures, or providing regulatory compliance. If the project will result in improvements to external or internal services or cost savings, please note those benefits in the appropriate categories.

Example: This project will upgrade PeopleSoft from 9.0 to 9.2. This upgrade is necessary because vendor support for 9.0 will be ending in 2015 and that creates a large risk for the County. Without vendor support the County will not receive tax and regulatory updates and will likely result in errors in complying with tax and regulatory issues.

Example: This project will implement an Advanced Authentication solution which will allow King County to comply with U. S. Department of Justice - Federal Bureau of Investigation, Criminal Justice Information Services (CJIS) Security Policy Version 5.0, Section 5.6.2.2. Effective September 30, 2013, advanced authentication (AA) must be in place in order to access sensitive CJIS information.

1. Describe why you are proposing to upgrade or replace existing technology. Please include age of existing technology and the average life cycle replacement for this type of technology.

This is the *primary* benefit category for this project. The current PTAS is over 40 years old and has grown from a database and software stored on the County's mainframe. While it has been re-hosted on virtual machines, it remains a collection of incompatible software components that cannot answer to new integrated services required by taxpayers. There is no single "system of record" which contributes to errors and inefficiencies in business processes. Furthermore, it replicates the old business processes from the mainframe and therefore requires a lot of maintenance and labor to keep up the basic operations.

2. If the primary reason for the project is risk reduction project, please estimate the probability of the risk or describe how likely it is to occur.

By retiring the old system and migrating to new system, the County will prevent failure of its property tax assessment, administration and collection system. The current system experiences approximately 20–25% downtime. This poses significant risks for Treasury of not meeting the tax bill mail due date. The target for the new PTAS is <1% downtime.

CATEGORY #4: Reduced cost to produce service (external or internal) or cost avoidance

This category is for those projects that will reduce the costs to deliver a county service (external or internal). The information provided here should be consistent with the information in the cost-benefit analysis (CBA) form. Please describe how the cost savings will be used by your organization. This category also includes cost avoidance. Cost avoidance is those costs that the County would need to pay, has the capacity and intent to pay, but will be avoided due to the project.

Example: Reduced cost to produce service. If this project to install accounts payable software is approved, we will automate three tasks that are currently done manually by agency and central purchasing employees.

Based on experience of other users of the software, this will reduce processing time from the current average of ten days to less than one. This will allow us to take advantage of prompt payment discounts for over \$15 million of annual purchases. These discounts average 2%, yielding annual savings of about \$300,000. This will result in savings in department expenditures for those items qualifying for prompt payment discounts.

Example: Cost Avoidance. *Moving to this new vendor that uses a SaaS product, we will avoid the need to upgrade the system to the newest version which goes end-of-life at the end of next year. We were required to make this upgrade due to regulatory reasons, so this represents a cost avoidance of \$100,000.*

The above examples are summaries. Please respond to each question listed below rather than provide a summary.

1. Describe why you expect the proposed IT investment to reduce costs?

King County's construction boom in the recent years has put significant demands on the County's property appraisal operation due to increased parcel count, exemptions, and appeals. Grave inefficiencies of the current PTAS system further challenge DOA's capacity to manage this volume of appraisal work. While DOA continues incorporating the LEAN principles into its business processes, upgrading the current system will be the single biggest solution that will allow DOA to absorb the increased volume of property appraisal without adding new FTEs.

Hence, the Category 4 benefit of this project includes:

- Avoid increasing the FTE to effectively absorb increased parcel count, exemptions, and appeals work product volume.

2. How will you measure the cost reduction or cost avoidance? (How will you know if the benefit has been achieved)

- Number of new FTE to meet increased demand for appraisal

3. What is the current baseline?

- Zero

4. What is the target for this measure? (How much savings will this project achieve)

- Zero

5. When is the cost reduction likely to be achieved?

- TBD after the vendor and the solution are determined and Phase II/implementation is fully mapped.

Section 7. Benefit Achievement Summary

To be completed when benefits have been achieved or no further benefits are expected. For each of the benefits you identified above, explain whether benefits were achieved at target levels. Please include both quantitative measures and qualitative descriptions of benefits, including any monetary benefits. Use the measures identified above. If not achieved, explain why.

Example: *This project, to repair an emergency radio tower, was successfully completed in April 2014. The anticipated benefit was to maintain current service levels at 99.999% up time for an additional 5 years. This project is currently functioning at 99.999% up-time and will report annually for the next 5 years on up-time levels.*

If one of these towers failed physically, the cost to the county would be enormous, generally in the neighborhood of \$500K - \$1 million per tower, depending on the construction techniques and size. User agencies on the

emergency radio system will benefit by having infrastructure systems in place that will be assured of not experiencing catastrophic failures due to lack of maintenance.

Example: This project to automate accounts payable software was implemented and did improve the processing time average. The average time was reduced from 10 days to 2 days, not quite reaching the 1 day target. Additionally, only 20% of purchases received a prompt payment discount resulting in less cost swings than anticipated. We did not meet the target because there were fewer purchases that qualified for prompt payment than originally estimated.

Example:

Metric Description	Metrics	Baseline	Target	Actual
Reduce cost to deliver service. This project reduced processing time from the current average of 10 days to >1 allowing us to take advantage of prompt payment discounts.	<ul style="list-style-type: none"> Processing time (in days), % of purchases receiving prompt payment discounts, and Annual savings 	<ul style="list-style-type: none"> 10-day processing time 10% of purchases are receiving discount \$100,000 savings 	<ul style="list-style-type: none"> 1-day processing time 30% of purchases are receiving prompt payment discounts \$400,000 savings 	<ul style="list-style-type: none"> 2-day processing time 20% of purchases are receiving prompt payment discounts \$200,000 savings

IT Project Benefits Achievement Plan (Version 2)

To complete this document fully, please read all of the colored sections and fill in the white cells.
For assistance in completing this form, please contact your PSB analyst.

Section 1. What are the purposes of the Benefit Achievement Plan (BAP)?

1. To achieve a clear understanding and focus on the benefits of a project prior to its beginning
2. To update projected benefits of the project as it moves through stages of project approval, implementation, and post-project closure
3. To establish accountability for identifying and achieving benefits
4. To ensure that benefits are achieved

King County Department/ Agency Name	Department of Transportation / Fleet Administration Division
Project Title	Automatic Vehicle Location for Non-Revenue Vehicles
Project Number	1129703

Section 2. Business Owner Accountability

Business Owners are responsible for achieving project benefits and ensuring this Benefit Achievement Plan (BAP) is regularly updated and completed when benefits are achieved. Business Owners are required to be at the deputy department director or higher.

Jennifer Lindwall, Division Director, Fleet Administration Division

Section 3. Who is involved in developing the BAP?

The development of the BAP should include significant involvement from the business operations or management staff related to this project and the services it will support. Consider involving staff who will be using the technology to help identify the benefits of the project. KCIT business analysts or technology project staff may assist in benefit identification and documentation. List the staff who contribute to the benefit achievement plan below:

Name	Title / Agency	Project Role
Jennifer Lindwall	Division Director, Fleet	Business Owner
Nora Jagielo	Project Manager III, Fleet	Fleet Lead / Project Coordinator
Mike Berman	DOT IT Service Delivery Manager / KCIT	Project Oversight
Scott Niskanen	KCIT Project Manager II	Project Manager

Section 4. When should the Benefit Achievement Plan be started, updated and completed?

The BAP is intended to be an iterative, evolving document that will be updated as the project evolves, as information is refined or scope changes, and when benefits are finally achieved. Department and agencies

(the business owners of project benefits) are required to update this document at the following times or actions:

1. To support initial project request during “gate two” phase of conceptual review.
2. For the annual Benefits report that PSB compiles.
3. To support funding release requests. If there are no changes, simply indicate “review only” in the revision table.
4. When a material scope change is identified and reported.
5. Up to one year after project completion and then annually until it is determined by the business owners that anticipated benefits have been achieved or no further benefits are expected.

Once the project is complete and benefits are achieved and reported, no additional reporting is required.

Please update the document online. Do not delete your previous text. Update the text as necessary and date those updates. Make sure that you upload the updated version to Innotas. The intent is for this single document to show the history of benefits over the course of the project. List any changes in the table in section 5. (If there are no changes, type none)

Section 5. How long will it take to complete the benefit achievement plan?

Completion of the BAP depends on the project’s complexity. In general, it should take a few hours to complete this BAP form once there is a shared understanding of the project and what value it will bring to the County. More complex and costly projects may require more extensive analysis. To improve this process in the future, please record the time spent on this in the table below at each stage of revision:

Revision History Table

Stage	Date	Revised By	Description	How long did it take?
<i>Please use conceptual review, budget process, funding release, annual report, project implementation, or project completion.</i>	<i>Date this document was updated</i>	<i>Who did the document updates?</i>	<i>A brief summary of what changed in the document. If this is an initial draft, please indicate new. If nothing has changed, indicate “review only”.</i>	<i>How long did it take to complete or revise the form at this stage?</i>
Budget Process	5/24/16	Nora Jagielo	New, initial draft	2 hours
Budget Process	6/7/16	Nora Jagielo	Revision after early feedback	2 hours
Budget Process	8/31/16	Nora Jagielo	Revision after rater’s group feedback	1 hour
Budget Process	9/13/16	Nora Jagielo	Revision after Council staff feedback	1 hour
Annual Report	7/11/17	Scott Niskanen	Revision after Council staff feedback	2 hours
Annual Report	8/3/17	Nora Jagielo	Revision after Council staff feedback	1 hour

Section 6. Description of Project Benefits

Identify the category(ies) of benefits your project will provide and include narrative descriptions of estimated benefits. The benefits of IT investments generally fit into the following four categories:

- 1) External service benefits: Improving the quality or quantity of services provided to the public
- 2) Internal service benefits: Improving internal operations, including the quality or quantity of internal services
- 3) Maintaining service levels by replacing or upgrading older technology or reducing risk of system failures
- 4) Reduced cost to produce services (internal or external)

Each category is described below. Most projects will have benefits in one or two categories. If the project does not have benefits in a category, there is no need to provide information for that category.

What is the primary benefit of your project? After reviewing the benefit categories below, please identify the primary type of benefit for the project. For most projects, the primary type benefit will be Category #2 improving internal operations or Category #3 replacing or upgrading older technology.

Primary project benefit? (Check only one)

- Category #1: External service benefits: Improving the quality or quantity of services provided to the public
- Category #2: Internal service benefits: Improving internal operations, including the quality or quantity of internal services
- Category #3: Maintaining service levels by replacing or upgrading older technology
- Category #4: Reduced cost or cost avoidance to produce services

Category #1: External service benefits: Improving the quality or quantity of services provided to the public. This category is intended for projects that directly benefit the public. This includes improved quality of service, such as faster response times and better access to services for the public.

***Example:** If this project to upgrade our licensing software is approved, licenses will be issued in two business days instead of the four days currently required. This is largely due to the ability of the new software to check national and state databases more efficiently. About one-quarter of our customers currently complain about the delay in obtaining a license and this time reduction is expected to eliminate almost all complaints and allow staff resources to be directed to other customer services.*

***Example:** If this project to accept on-line reservations is approved, residents will be able to schedule athletic fields over the Internet and make payments by credit card. This will allow scheduling to occur at any time, rather than the current limited hours available for in-person or phone reservations. In-person and phone reservations will still be available.*

The above examples are summaries. Please respond to each question listed below rather than provide a summary.

1. Describe why you expect the proposed IT investment to produce the benefit(s).
2. How will you measure the benefit(s)? (How will you know if the benefit has been achieved?)
3. What is the current baseline for this measure?
4. What is the target for this measure? (How much improvement will this project achieve?)

5. *When is the benefit likely to be achieved?*

Category #2: Internal service benefits: Improving internal operations, including the quality or quantity of internal services. Be sure to explain the value of such improvements to your operations.

Example: *If this project to acquire hand-held devices and develop custom software is approved, inspectors will be able to check an average of 10 sites per day compared with the average of 6 currently checked. This will allow the agency to handle the 20% increase in workload projected in the next three years without adding more staff.*

Example: *If this project to implement a systems management tool for the Service Center is implemented we will be able to reduce the duration of technology outages during major incidents by 30%. We also will reduce the wait time for customers on hold with the Service Center. These improvements will allow us to redirect an existing position to other priorities.*

Example: *The Active Directory Consolidation project is part of an overall effort to promote IT standardization. This project will make the current management of user accounts, applications, and devices easier for IT administrators at Public Health because the end user experience will also be improved by having a single sign-on to applications such as Lync, SharePoint, and Outlook. Our success will be measured by having a single set of procedures and security models rather than the multiple ones that now exist.*

The above examples are summaries. Please respond to each question listed below rather than provide a summary.

1. *Describe why you expect the proposed IT investment to produce the benefit(s).*

Implementing Automatic Vehicle Location (AVL) will yield significant benefits including access to web-based vehicle use information that can be used to make transparent decisions regarding King County's non-revenue vehicle operations.

A. Access to Vehicle odometer readings & frequency of use information

- a. **Status quo:** Odometer readings are captured when the driver manually enters the current reading when obtaining fuel or when the vehicle is brought in for service. Fleet Administration (Fleet) averages approximately 75 fuel transaction errors per week that must be manually resolved. Fuel transactions are migrated into FASTER (Fleet's asset management system) on approximately a two week delay and in most cases vehicles come in for service only a couple of times per year. Additionally, the number of days vehicles are used is captured by agencies with assigned vehicles in various formats including hand-written logs or online calendars. There is no centralized database that captures and stores frequency of use information.
- b. **After implementation:** AVL will provide real-time access to accurate non-revenue vehicle odometer readings and will feed directly into FASTER along with vehicle usage data. This will allow Fleet to schedule preventative maintenance (oil changes and safety inspections) more proactively and increase the reliability of vehicle replacement projections. **Agencies can then use this information to rotate, pool, or downsize vehicles to distribute usage evenly across their fleet.**

B. **Remote vehicle diagnostics**

- a. **Status quo:** Vehicle repair codes are downloaded using a diagnostics computer when the vehicle is in the shop for service. We do not have the ability to capture vehicle errors or repairs codes remotely at this time.
- b. **After implementation: AVL will provide access to remote vehicle engine diagnostics in real-time (e.g., check engine light or other error codes) and will facilitate prompt repair scheduling before larger, more costly issues arise.**

C. **Vehicle idling**

- a. **Status Quo:** Only a subset of vehicles and equipment are capable of tracking the total hours spent idling. If the asset does track it, the information can be gathered when the vehicle is in the shop for service using a diagnostics computer. Some of the newer vehicles track the cumulative “idle hours” on the on-board computer system. This information is captured manually by the technician on a work order. We do not have the ability to capture and report aggregate vehicle idling information at this time.
- b. **After implementation:** AVL has the capability to track the total hours a vehicle spends idling, alert managers when vehicles are idling for prolonged periods, and store the information in a reportable database. The hardware is able to track when an engine is running but not accumulating mileage. **We expect to see a decrease in vehicle idling when agencies use this information to quantify potential fuel savings and implement anti-idling strategies and best practices.**

D. **Determining asset location**

- a. **Status Quo:** If a vehicle is lost or stolen, we can extrapolate information from its last known location, but it is often anecdotal and imprecise. If a vehicle breaks down, the driver must verbally describe their location to the shop or tow truck driver.
- b. **After implementation: If a vehicle or piece of equipment is lost, stolen, or broken down we will be able to locate it immediately on a map and take the appropriate actions to recover it.** Geo-fences can be programmed to track how often vehicles leave and enter pre-defined areas (i.e. King County, a park, etc.).

2. *How will you measure the benefit(s)? (How will you know if the benefit has been achieved?)*

- A. **Use of vehicle odometer readings and frequency of use information to improve utilization rates:** This benefit will be achieved when real-time vehicle odometer readings feed directly into FASTER and agencies are using the accurate vehicle odometer and frequency of use data to improve utilization rates. Utilization rates will be measured as part of the biennial budget cycle.
- B. **Remote vehicle diagnostics:** This benefit will be measured by capturing the number of remote error codes generated and the number of repair appointments that are scheduled as a result.
- C. **Vehicle idling:** This benefit will be achieved when vehicle idling is reduced.
- D. **Determining asset location:** This benefit will be achieved when we have the ability to locate lost or stolen assets that are equipped with AVL.

3. *What is the current baseline for this measure?*

- A. **Use of vehicle odometer readings and frequency of use information to improve utilization rates:** A new baseline for annual vehicle mileage and days of use will be established at the end of year 1.
- B. **Remote vehicle diagnostics:** The current baseline is not captured and will be established at the end of year 1.
- C. **Vehicle idling:** The current baseline is not captured because we do not have the ability to capture idle hours unless the vehicle is in the shop for service. The baseline will be established at the end of year 1.
- D. **Determining asset location:** The current baseline is zero because we do not have the ability to determine an assets geographic location remotely.

4. *What is the target for this measure? (How much improvement will this project achieve?)*

- A. **Use of vehicle odometer readings and frequency of use information to improve utilization rates:** The target for light duty vehicles is 7,200 miles per year or used on 70 percent of available working days.
- B. **Remote vehicle diagnostics:** The target is to have immediate access to remote vehicle diagnostics information and schedule appointments for vehicles transmitting error codes within three business days. A goal will be established after the baseline is defined.
- C. **Vehicle idling:** The target is to have access to vehicle idling information in real-time. Fleet will also include the total idle hours for each agency as part of the quarterly performance measures. A goal will be established after the baseline is defined. Fleet will work with agencies to establish goals as part of the baseline process. We believe a 5 percent reduction is possible in year 2, however, this estimate may change in year 1 as more accurate data becomes available.
- D. **Determining asset location:** The target is to have the precise location of a lost or stolen asset.

5. *When is the benefit likely to be achieved?*

The monetary benefits associated with canceling the existing AVL subscriptions in Roads Services and Solid Waste will be realized no later than June 30, 2018. The go-live for these two groups will be prioritized due to their emergent needs.

The projects technical benefits will be achieved by December 31, 2018. This will allow us to ensure the data is being collected properly, the reports are working as intended, and users are able to access the information.

Benefits related to reduced idling and decreased fuel consumption will vary by agency, but we expect to start realizing these benefits as early as Q1 2019, however, more complete results are expected in 2020.

Category #3: Projects that maintain service at current levels by either replacing or upgrading older technology, reducing the risk of system failures, or providing regulatory compliance. If the project will result in improvements to external or internal services or cost savings, please note those benefits in the appropriate categories.

Example: This project will upgrade PeopleSoft from 9.0 to 9.2. This upgrade is necessary because vendor support for 9.0 will be ending in 2015 and that creates a large risk for the County. Without vendor support the County will not receive tax and regulatory updates and will likely result in errors in complying with tax and regulatory issues.

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Example: Cost Avoidance. Moving to this new vendor that uses a SaaS product, we will avoid the need to upgrade the system to the newest version which goes end-of-life at the end of next year. We were required to make this upgrade due to regulatory reasons, so this represents a cost avoidance of \$100,000.

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5. When is the cost reduction likely to be achieved?

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***Example:** This project, to repair an emergency radio tower, was successfully completed in April 2014. The anticipated benefit was to maintain current service levels at 99.999% up time for an additional five years. This project is currently functioning at 99.999% up-time and will report annually for the next five years on up-time levels.*

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Example:

Metric Description	Metrics	Baseline	Target	Actual
Reduce cost to deliver service. This project reduced processing time from the current average of ten days to less than one allowing us to take advantage of prompt payment discounts.	Processing Time annual savings, and percentage of purchases receiving prompt payment discounts	<ul style="list-style-type: none"> • 10-day processing time • 10% of purchases are receiving discount • \$100,000 savings 	<ul style="list-style-type: none"> • 1-day processing time • 30% of purchases are receiving prompt payment discounts • \$400,000 savings 	<ul style="list-style-type: none"> • 2-day processing time • 20% of purchases are receiving prompt payment discounts • \$200,000 savings

IT Project Benefits Achievement Plan (Version 2)

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4. To ensure that benefits are achieved

King County Department/Agency Name	King County International Airport
Project Title	Maximo Upgrade
Project Number	1028664

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Business Owners are responsible for achieving project benefits and ensuring this Benefit Achievement Plan (BAP) is regularly updated and completed when benefits are achieved. Business Owners are required to be at the deputy department director or higher.

Robert I. Burke Randall D. Berg, Airport Director

Section 3. Who is involved in developing the BAP?

The development of the BAP should include significant involvement from the business operations or management staff related to this project and the services it will support. Consider involving staff who will be using the technology to help identify the benefits of the project. KCIT business analysts or technology project staff may assist in benefit identification and documentation. List the staff who contribute to the BAP below:

Name	Title / Agency	Project Role
Michael Colmant	Deputy Director	Project Manager Project Sponsor
Joel Abanes <u>Tamara Davis</u>	Info Systems Specialist <u>KCIT IT Services Manager</u>	Provide technical assistance on Maximo - <u>Cityworks</u>
Kent Sherburne Vacant <u>Morlene Mitchell</u>	Fin & Admin Svcs Mgr	Provide assistance to Project Manager
Cheryl Boudreau	KCIT Project Manager	Assist KCIA with project management activities

Section 4. When should the BAP be started, updated and completed?

The BAP is intended to be an iterative, evolving document that will be updated as the project evolves, as information is refined or scope changes, and when benefits are finally achieved. Department and agencies (the business owners of project benefits) are required to update this document at the following times or actions:

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Completion of the BAP depends on the project's complexity. In general, it should take a few hours to complete this BAP form once there is a shared understanding of the project and what value it will bring to the County. More complex and costly projects may require more extensive analysis. To improve this process in the future, please record the time spent on this in the table below at each stage of revision:

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Budget Process	2013	Gary Tripp	Added the additional budget of \$278,640 received in the 2013-14 budget ordinance.	2 hours
Update (2/6/15): Conceptual Review	Feb, 2015	Kent Sherburne -Retired Recruitment in process	KCIT assisted KCIA in conducting a solutions analysis of existing KC asset management systems. Spent \$58,000 on this stage that went from April 2014 to Jan 2015. Since no system has yet to be chosen or implemented it will be another 1-2 years before benefits will start to be achieved.	1 hour
Update: Annual Report	Feb 12, 2016	Cheryl Boudreau	Azteca was recently chosen as vendor to implement City/Works as asset management solution.	.5 hour
<u>Update: Annual Report</u>	<u>Feb 15, 2017</u>	<u>Mike Colmant,</u> <u>Cheryl Boudreau</u>	<u>2016 - BAP update for an ongoing project</u> <u>Updating Finance Administrative Service Manager, Morlene Mitchell</u> <u>Updating KCIT technical services manager, Tamara Davis</u> <u>Added update to Section 7- Benefit Achievement Summary</u>	<u>.5 hour</u>

<u>Revised 2017 Annual Report</u>	<u>August 4, 2017</u>	<u>Mike Colmant, Morlene Mitchell, Cheryl Boudreau</u>	<u>Updated Category #2 responses to provide more quantifiable measurement.</u>	<u>2 hours</u>

Section 6. Description of Project Benefits

Identify the category(ies) of benefits your project will provide and include narrative descriptions of estimated benefits. The benefits of IT investments generally fit into the following four categories:

- 1) **External service benefits:** Improving the quality or quantity of services provided to the public
- 2) **Internal service benefits:** Improving internal operations, including the quality or quantity of internal services
- 3) **Maintaining service levels** by replacing or upgrading older technology or reducing risk of system failures
- 4) **Reduced cost** to produce services (internal or external)

Each category is described below. Most projects will have benefits in one or two categories. If the project does not have benefits in a category, there is no need to provide information for that category.

What is the primary benefit of your project? After reviewing the benefit categories below, please identify the primary type of benefit for the project. For most projects, the primary type benefit will be Category #2 improving internal operations or Category #3 replacing or upgrading older technology.

Primary project benefit? (Check only one)

- Category #1: External service benefits: Improving the quality or quantity of services provided to the public
- Category #2: Internal service benefits: Improving internal operations, including the quality or quantity of internal services
- Category #3: Maintaining service levels by replacing or upgrading older technology
- Category #4: Reduced cost or cost avoidance to produce services

Category #1: External service benefits: Improving the quality or quantity of services provided to the public. This category is intended for projects that directly benefit the public. This includes improved quality of service, such as faster response times and better access to services for the public.

Example: If this project to upgrade our licensing software is approved, licenses will be issued in two business days instead of the four days currently required. This is largely due to the ability of the new software to check national and state databases more efficiently. About one-quarter of our customers currently complain about the delay in obtaining a license and this time reduction is expected to eliminate almost all complaints and allow staff resources to be directed to other customer services.

Example: If this project to accept on-line reservations is approved, residents will be able to schedule athletic fields over the Internet and make payments by credit card. This will allow scheduling to occur at any time, rather than the current limited hours available for in-person or phone reservations. In-person and phone reservations will still be available.

The above examples are summaries. Please respond to each question listed below rather than provide a summary.

1. Describe why you expect the proposed IT investment to produce the benefit(s).

2. *How will you measure the benefit(s)? (How will you know if the benefit has been achieved?)*
3. *What is the current baseline for this measure?*
4. *What is the target for this measure? (How much improvement will this project achieve?)*
5. *When is the benefit likely to be achieved?*

Category #2: Internal service benefits: Improving internal operations, including the quality or quantity of internal services. Be sure to explain the value of such improvements to your operations.

Example: *If this project to acquire hand-held devices and develop custom software is approved, inspectors will be able to check an average of 10 sites per day compared with the average of 6 currently checked. This will allow the agency to handle the 20% increase in workload projected in the next 3 years without adding more staff.*

Example: *If this project to implement a systems management tool for the Service Center is implemented we will be able to reduce the duration of technology outages during major incidents by 30%. We also will reduce the wait time for customers on hold with the Service Center. These improvements will allow us to redirect an existing position to other priorities.*

Example: *The Active Directory Consolidation project is part of an overall effort to promote IT standardization. This project will make the current management of user accounts, applications, and devices easier for IT administrators at Public Health because the end user experience will also be improved by having a single sign-on to applications such as Lync, SharePoint, and Outlook. Our success will be measured by having a single set of procedures and security models rather than the multiple ones that now exist.*

The above examples are summaries. Please respond to each question listed below rather than provide a summary.

1. **Describe why you expect the proposed IT investment to produce the benefit(s).**
The investment will improve internal processing and reporting, functionality, and the accuracy of the data. The current system's reporting capability has declined. For example, the cost roll-up feature does not work anymore so supervisors have to try to piece together different data on an excel spreadsheet; the inventory report does not pick up all of the data you need extracted so you have to manually intervene to piece together the right data. There are database capacity limitations on the system that is slowing the response time down significantly so supervisors and those inputting data are spending more time with the system.
2. **How will you measure the benefit(s)? (How will you know if the benefit has been achieved?)**
The benefits will be achieved if the system saves labor in producing reports, enhances data accuracy since errors are more likely when piecing together reports from different fields and files, and reduces the labor time in inputting and extracting data.
3. **What is the current baseline for this measure?**
 - a) Time spent in extracting data and producing a report from current system can take several hours instead of minutes. Depending on the requested report the Inventory Specialist spends about 10 hours per week entering data, 5 hours per week extracting data and 3+ hours a week generating report. The F, Fiscal Specialist and Work Order Analyst can spend up to six hours per person per week inputting, gathering and extracting data. The Work Order Analyst spends up to 30 hours per week entering data, extracting and manipulating data through Microsoft Excel's Query

~~functionality to produce the desired reports which then needs to be manipulated through Microsoft Excel's Query functionality to produce the desired report.~~ These actual roles will not change, however implementing Cityworks will allow staff personnel to be more efficient in incorporating analytics in their reporting output and in performing studies on managing workloads. In addition, Cityworks will allow the Inventory Specialist to have several Store Rooms, instead of just one main room. This will allow for ease in inventory planning, tracking, and updating. We are currently in the process of establishing several store rooms at the maintenance facility in preparation for migrating to Cityworks. What is germane here is the Cityworks inventory accountability functions will allow improved efficiencies with the trades person and the inventory specialist being able to readily track, maintain and order up to date parts and supplies.

- b) Data accuracy of standard reports further manipulated outside the system introduces risks to data integrity.
- c) Maximo does not support extracting data to provide customized reporting.

4. What is the target for this measure? (How much improvement will this project achieve?)

- a) The target is to spend approximately 50% less time inputting data into the system and extracting reports. The quantitative element is in the "input" of data for reports generation. Cityworks allows direct interfacing from all sections, i.e. Operations, Safety, Admin, and Maintenance (over 40 staff) can enter data directly into the system, without data loss and with "ALL" being able to see and use the data. Currently an Operations staff person calls in work orders and or sends an email to Maintenance Admin for reportable items. Then a person has to decipher and enter it into one of the files (an example is environmental work orders). With the implementation of Cityworks, Operations would directly input data into the system and all would see it, without a middle person and the potential for information loss. In addition, it is estimated that the new system will cut data entry, system utilization for inventory and purchasing and report generation allowing the Inventory Specialist more dedicated time for parts and material research, acquisition and most importantly timely distribution.
- b) Data accuracy will be enhanced by the ability to pull data directly out of the system and yield better results for analysis of material handling, parts ordering, and payments against work orders. Since the tools to produce reports will be more refined, it will allow the Maintenance Section staff the ability to provide Airport management with reports that can more accurately track work order fulfillment and asset management as well as perform trend analysis and more accurate forecasting. Data accuracy and timeliness are expected to enable just-in-time reordering thereby reducing inventory cost.
- c) Cityworks data querying and exporting functionality will enable users to extract and integrate data into customizable reports.

5. When is the benefit likely to be achieved?

~~Within 3 months after installation and training in the new system.~~ Go-live is scheduled for end of Q4 2017. Initial benefit will be achieved within the first 90 days after migration and the start of daily use by employees. It may take between 3 months and 6 months to fully maximize the benefit of Cityworks, as data input from all sections within the Airport begin implementing the system. Currently the Maintenance Shop meets weekly with the individual Trades and Utilities to strategize implementation and migration of Maintenance Plans (daily, monthly, quarterly,

annuals, Work Orders, Ready Spare Parts Inventories, Technical and Mechanical libraries, Inspections, etc.). It will take a while to work through the “challenges” with the old and new in each area, streamline the information for Cityworks usage and then fully utilize it in the Cityworks system. The full benefit should be achieved at the 6 month point.

Category #3: Projects that maintain service at current levels by either replacing or upgrading older technology, reducing the risk of system failures, or providing regulatory compliance. If the project will result in improvements to external or internal services or cost savings, please note those benefits in the appropriate categories.

***Example:** This project will upgrade PeopleSoft from 9.0 to 9.2. This upgrade is necessary because vendor support for 9.0 will be ending in 2015 and that creates a large risk for the County. Without vendor support the County will not receive tax and regulatory updates and will likely result in errors in complying with tax and regulatory issues.*

***Example:** This project will implement an Advanced Authentication solution which will allow King County to comply with U. S. Department of Justice - Federal Bureau of Investigation, Criminal Justice Information Services (CJIS) Security Policy Version 5.0, Section 5.6.2.2. Effective September 30, 2013, advanced authentication (AA) must be in place in order to access sensitive CJIS information.*

1. Describe why you are proposing to upgrade or replace existing technology. Please include age of existing technology and the average life cycle replacement for this type of technology.
2. If the primary reason for the project is risk reduction project, please estimate the probability of the risk or describe how likely it is to occur.

Category #4: Reduced cost to produce service (external or internal) or cost avoidance

This category is for those projects that will reduce the costs to deliver a county service (external or internal). The information provided here should be consistent with the information in the cost-benefit analysis (CBA) form. Please describe how the cost savings will be used by your organization. This category also includes cost avoidance. Cost avoidance is those costs that the County would need to pay, has the capacity and intent to pay, but will be avoided due to the project.

***Example:** Reduced cost to produce service. If this project to install accounts payable software is approved, we will automate three tasks that are currently done manually by agency and central purchasing employees. Based on experience of other users of the software, this will reduce processing time from the current average of ten days to less than one. This will allow us to take advantage of prompt payment discounts for over \$15 million of annual purchases. These discounts average 2%, yielding annual savings of about \$300,000. This will result in savings in department expenditures for those items qualifying for prompt payment discounts.*

***Example:** Cost Avoidance. Moving to this new vendor that uses a SaaS product, we will avoid the need to upgrade the system to the newest version which goes end-of-life at the end of next year. We were required to make this upgrade due to regulatory reasons, so this represents a cost avoidance of \$100,000.*

The above examples are summaries. Please respond to each question listed below rather than provide a summary.

1. Describe why you expect the proposed IT investment to reduce costs?
2. How will you measure the cost reduction or cost avoidance? (How will you know if the benefit has been achieved)

3. *What is the current baseline?*
4. *What is the target for this measure? (How much savings will this project achieve)*
5. *When is the cost reduction likely to be achieved?*

Section 7. Benefit Achievement Summary

To be completed when benefits have been achieved or no further benefits are expected. For each of the benefits you identified above, explain whether benefits were achieved at target levels. Please include both quantitative measures and qualitative descriptions of benefits, including any monetary benefits. Use the measures identified above. If not achieved, explain why.

Example: *This project, to repair an emergency radio tower, was successfully completed in April 2014. The anticipated benefit was to maintain current service levels at 99.999% up time for an additional 5 years. This project is currently functioning at 99.999% up-time and will report annually for the next 5 years on up-time levels.*

If one of these towers failed physically, the cost to the county would be enormous, generally in the neighborhood of \$500K - \$1 Million per tower depending on the construction techniques and size. User agencies on the emergency radio system will benefit by having infrastructure systems in place that will be assured of not experiencing catastrophic failures due to lack of maintenance.

Example: *This project to automate accounts payable software was implemented and did improve the processing time average. The average time was reduced from 10 to 2 days, not quite reaching the 1 day target. Additionally, only 20% of purchases received a prompt payment discount resulting in less cost swings than anticipated. We did not meet the target because there were fewer purchases that qualified for prompt payment than originally estimated.*

Example:

Metric Description	Metrics	Baseline	Target	Actual
<i>Reduce cost to deliver service. This project reduced processing time from the current average of ten days to less than one allowing us to take advantage of prompt payment discounts.</i>	<i>Processing Time annual savings, and percentage of purchases receiving prompt payment discounts</i>	<ul style="list-style-type: none"> • 10 days processing time • 10% of purchases are receiving discount • Savings of \$100,000 	<ul style="list-style-type: none"> • 1 day processing time • 30% of purchases are receiving prompt payment discounts • \$400,000 savings 	<ul style="list-style-type: none"> • 2 day processing time • 20% of purchases are receiving prompt payment discounts • \$200,000 savings

Benefits have not been achieved because the project has not started.

Update (2/6/15): Benefits have not been achieved because project is at the stage of -evaluating three replacement systems (EAM, M5, and City/Works) to meet KCIA’s functional requirements.

Update (2/12/2016): Benefits have not been achieved because the project just recently chose replacement system City/Works. Contract negotiations in process.

Update (2/15/2017): Benefits have not been achieved because project has not implemented system and provided training. Accomplishments since last update:

- Contract negotiation completed May 20, 2016
- Set-up IT environment and install software on test system October 27, 2016
- Requirements gathering complete December 30, 2016
- Final Design and Implementation activities are in process

Updated (8/4/2017): Benefits have not been achieved because project has not implemented system and provided training. Expected go-live at end of Q4 2017.

IT Project Benefits Achievement Plan (Version 2)

To complete this document fully, please read all of the colored sections and fill in the white cells.
For assistance in completing this form, please contact your PSB analyst.

Section 1. What are the purposes of the Benefit Achievement Plan (BAP)?

1. To achieve a clear understanding and focus on the benefits of a project prior to its beginning
2. To update projected benefits of the project as it moves through stages of project approval, implementation, and post-project closure
3. To establish accountability for identifying and achieving benefits
4. To ensure that benefits are achieved

King County Department/Agency Name	DOT/Transit
Project Title	Capital Management and Reporting System
EBS Project Number	1028812 , Appropriation A00580

Section 2. Business Owner Accountability

Business Owners are responsible for achieving project benefits and ensuring this Benefit Achievement Plan (BAP) is regularly updated and completed when benefits are achieved. Business Owners are required to be at the deputy department director or higher.

Business Owner Name and Title: ~~Kevin Desmond, Transit General Manager~~
Rob Gannon, ~~Acting~~ Transit General Manager

Section 3. Who is involved in developing the BAP?

The development of the BAP should include significant involvement from the business operations or management staff related to this project and the services it will support. Consider involving staff who will be using the technology to help identify the benefits of the project. KCIT business analysts or technology project staff may assist in benefit identification and documentation. List the staff who contribute to the BAP below:

Name	Title / Agency	Project Role
Liviu Prisecaru	IT Project Manager II, DOT Transit Division	Project Manager
Jill Krecklow	Finance Manager, DOT Transit Division	Stakeholder
Randy Witt	Design & Construction Manager DOT Transit Division	Stakeholder

Section 4. When should the BAP be started, updated and completed?

The BAP is intended to be an iterative, evolving document that will be updated as the project evolves, as information is refined or scope changes, and when benefits are finally achieved. Department and agencies (the business owners of project benefits) are required to update this document at the following times or actions:

1. To support initial project request during "gate two" phase of conceptual review.
2. For the annual Benefits report that PSB compiles.
3. To support funding release requests. If there are no changes, indicate "review only" in the revision table.
4. When a material scope change is identified and reported.
5. Up to one year after project completion and then annually until it is determined by the business owners that anticipated benefits have been achieved or no further benefits are expected.

Once the project is complete and benefits are achieved and reported, no additional reporting is required.

Please update the document online. Do not delete your previous text. Update the text as necessary and date those updates. Make sure that you upload the updated version to Innotas. The intent is for this single document to show the history of benefits over the course of the project. List any changes in the table in section 5. (If there are no changes, type none)

Section 5. How long will it take to complete the BAP?

Completion of the BAP depends on the project's complexity. In general, it should take a few hours to complete this BAP form once there is a shared understanding of the project and what value it will bring to the County. More complex and costly projects may require more extensive analysis. To improve this process in the future, please record the time spent on this in the table below at each stage of revision:

Revision History Table

Stage	Date	Revised By	Description	How long did it take?
<i>Please use conceptual review, budget process, funding release, annual report, project implementation, or project completion.</i>	<i>Date this document was updated</i>	<i>Who did the document updates?</i>	<i>A brief summary of what changed in the document. If this is an initial draft, please indicate new. If nothing has changed, indicate "review only".</i>	<i>How long did it take to complete or revise the form at this stage?</i>
Conceptual Review	06/20/14	Liviu Prisecaru	New, initial draft	1 hour
Conceptual Review	08/14/14	Kathleen McMurray	Revision	3 hours
2014 Annual Report	02/19/15	Liviu Prisecaru	Review only	.25 hours
2015 Annual Report	02/06/16	Liviu Prisecaru	Review only	.25 hours
2015 Annual Report	04/01/16	Kathleen McMurray	1. Updated Business Owner 2. Updated Section 3 to only include current staff 2. Updated Section 6, Cat 2	1 hour
2016 Annual Report	02/17/17	Liviu Prisecaru	Review only. This project is currently underway.	.25 hours
2016 Annual Report	06/23/2017	Jill Krecklow	Include dates for benefit achievement per council staff direction.	.25 hours

Section 6. Description of Project Benefits

Identify the category(ies) of benefits your project will provide and include narrative descriptions of estimated benefits. The benefits of IT investments generally fit into the following four categories:

- 1) External service benefits: Improving the quality or quantity of services provided to the public
- 2) Internal service benefits: Improving internal operations, including the quality or quantity of internal services
- 3) Maintaining service levels by replacing or upgrading older technology, reducing risk of system failures, or providing regulatory compliance
- 4) Reduced cost to produce services (internal or external)

Each category is described below. Most projects will have benefits in one or two categories. If the project does not have benefits in a category, there is no need to provide information for that category.

What is the primary benefit of your project? After reviewing the benefit categories below, please identify the primary type of benefit for the project. For most projects, the primary type benefit will be Category #2 improving internal operations or Category #3 replacing or upgrading older technology.

Primary project benefit? (Check only one)

- Category #1: External service benefits: Improving the quality or quantity of services provided to the public
- Category #2: Internal service benefits: Improving internal operations, including the quality or quantity of internal services
- Category #3: Maintaining service levels by replacing or upgrading older technology, reducing risk of system failures, or providing regulatory compliance
- Category #4: Reduced cost or cost avoidance to produce services

Category #1: External service benefits: Improving the quality or quantity of services provided to the public. This category is intended for projects that directly benefit the public. This includes improved quality of service, such as faster response times and better access to services for the public.

Example: If this project to upgrade our licensing software is approved, licenses will be issued in two business days instead of the four days currently required. This is largely due to the ability of the new software to check national and state databases more efficiently. About one-quarter of our customers currently complain about the delay in obtaining a license and this time reduction is expected to eliminate almost all complaints and allow staff resources to be directed to other customer services.

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2. How will you measure the benefit(s)? (How will you know if the benefit has been achieved?)
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4. What is the target for this measure? (How much improvement will this project achieve?)
5. When is the benefit likely to be achieved?

Category #2: Internal service benefits: Improving internal operations, including the quality or quantity of internal services. Be sure to explain the value of such improvements to your operations.

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Example: *If this project to implement a systems management tool for the Service Center is implemented we will be able to reduce the duration of technology outages during major incidents by 30%. We also will reduce the wait time for customers on hold with the Service Center. These improvements will allow us to redirect an existing position to other priorities.*

Example: *The Active Directory Consolidation project is part of an overall effort to promote IT standardization. This project will make the current management of user accounts, applications, and devices easier for IT administrators at Public Health because the end user experience will also be improved by having a single sign-on to applications such as Lync, SharePoint, and Outlook. Our success will be measured by having a single set of procedures and security models rather than the multiple ones that now exist.*

The above examples are summaries. Please respond to each question listed below rather than provide a summary.

1. Describe why you expect the proposed IT investment to produce the benefit(s).

Metro Transit Division manages a 6 year Capital Improvement Program (CIP) worth over \$1.4 billion. The program encompasses facility, IT and bus procurement project activities that are performed by several different Transit sections using their own systems, processes and methods. Project data in Transit is maintained in dispersed and non-integrated, mostly manual systems. Creating consolidated Transit CIP reporting from the existing data is problematic, lacks timeliness and is limited to what is available for manual compilation. Compiling the data is very time consuming and by the time the final reports are created, some of the data may be already outdated, making it impossible to use for the identification of problems or issues with a project. Further, the need for improved CIP reporting and revised practices has been part of several audit recommendations. Transit's response to these audit recommendations identified a management and reporting system as a necessary item to fully implement improvements. Audits have included:

- **1999:** Transit Management Audit of the King County Department of Transportation (performed by Doolittle and Company) several recommendations regarding capital program management and reporting
- **2005:** Performance Audit of Transit Capital Planning and Management – Executive response to the audit identifies the need for a capital management and reporting system with the goal at that time of evaluating Oracle Projects as part of the ABT process.
- **2009:** Performance Audit of Transit – recommendations for the capital program reporting and the overall recommendation of making more data driven decisions require us to be able to gather and report information on the capital program in a consistent manner.
- The Washington State Auditor, also completed an audit of King County's capital programs which has resulted in the development of several standards and reporting requirements which currently are difficult to implement without a system.

If this project is approved, the new Capital Management and Reporting System (CMRS) would support improvements in the CIP that include project management standardization, process efficiencies, increased reporting accuracy and improved capital project delivery rates:

1. Project management standards. All capital projects in Transit will be managed within the CMRS utilizing standards established during the course of this project. These standards will be scalable to project size and complexity and are expected to result in improved visibility to project delivery performance throughout the organization.

2. Process efficiencies. The project is expected to result in efficiencies due to the elimination of the need to extract and consolidate data from dissimilar sources. Transit and King County project reporting and budget processes are expected to be streamlined as a result of using a single data source.

3. Accurate and timely reporting. The project is expected to result in more accurate reporting because the data and processes used to create the data will have less variability across the organization. Consolidated CIP reporting will not require the manual manipulation to form the information into a single data structure – thus saving time and reducing the likelihood of errors.

4. Capital project performance. Better project planning and the ability to identify issues early through timely reporting is intended to improve project performance, including capital project delivery rates. For example, the new system will have historical information, including project schedules, that can be used to help identify trends and improve overall project management.

2. How will you measure the benefit(s)? (How will you know if the benefit has been achieved?)

1. Project management standards. This benefit will be measured by using the number and percentage of Transit capital projects that are maintaining all data required by the Capital Management and Reporting System (CMRS). Data requirements will include information to support reporting as well as standard project management practices.

2. Process efficiencies. This benefit will be achieved when the need to extract and consolidate capital project data from dissimilar or manual systems is eliminated.

3. Accurate and timely reporting. This benefit will be measured by the speed with which consolidated CIP reports are prepared (less 'stale' data) and CIP report recipients' satisfaction with output.

4. Capital project performance. As part of this project, Transit will identify performance metrics to demonstrate performance in meeting major milestones, and budget metrics. Examples could include:

- Percent of projects setting a baseline as compared to planned.
- Roll up portfolio wide- construction/implementation contract dollars awarded year to date compared to plan
- Final project results – scope, schedule and budget compared to baseline
- Roll up portfolio of final project results - % delivered scope on time and on budget

3. What is the current baseline for this measure?

1. Project management standards. Currently, Transit capital projects are not managed within a central system. Therefore, the baseline for this measure is zero. The percent of projects following standard practices is not known.

2. Process efficiencies. Currently, Transit staff must extract and consolidate project data from dissimilar systems. As an example, Transit capital program data must be manually entered into the King County budget system.

3. Accurate and timely reporting. Currently, it takes Transit staff hours to prepare limited consolidated CIP reports and this allows for very limited analysis of the information. CIP report recipients' will be surveyed to determine their current satisfaction level with the accuracy of reports.

4. Capital project performance. As part of this project, Transit will identify specific performance and budget metrics. If no baseline data exist, then the first year of data can be used as a baseline. ~~Transit's overall annual program "accomplishment rate" is currently 90%. Transit's overall capital program annual accomplishment rate, as measured by expense, has been ranging between 60% and 90% in the recent years.~~

5. What is the target for this measure? (How much improvement will this project achieve?)

1. Project management standards. The target is to have 100% of Transit capital projects managed within the central system and to have 100% of capital projects entering all required data.

2. Process efficiencies. The target is to eliminate the need for Transit staff to extract and consolidate project data from dissimilar and manual systems.

3. Accurate and timely, reporting. Project status updated are performed within 5 days of month closing. Reports on financial elements of project performance are available within 5 days of EBS closing. Targets for other reporting measures will be developed as the project progresses. The target is for Transit staff to spend more time analyzing and interpreting capital program data than developing it. CIP report recipients' will be surveyed to determine their satisfaction level with the accuracy and timeliness of reports using the new Capital Management and Reporting System. It is expected that the target level of satisfaction will be 80% or more as stakeholders become familiar with the system and reports.

4. Capital project performance. Transit will identify specific performance and budget metrics and identify targets as part of this project. ~~The target for Capital Project Delivery information to be readily available and program under expenditure to be reduced to 5%. The target accomplishment rate would therefore be 95%.~~ The target for Capital Project Delivery information to be readily available and program under expenditure will be reduced, improving overall accomplishment rate and helping achieve a goal of 90%.

6. When is the benefit likely to be achieved?

1. Project management standards. The benefit will happen in phases with the first phase establishing a threshold level of required data for all capital projects. The level of data will likely be expanded in subsequent phases of the project. Likely to have 100% of projects entering all required data at each phase. [Update 6/23/2017: Assuming project implementation 4Q/2018, data will be populated by that time].

2. Process efficiencies. The benefit will likely be achieved within 1 year following implementation. [Update 6/23/2017: Based on project implementation of 4Q/2018, this benefit will be achieved by 4Q/2019]

3. Accurate and timely reporting. The benefit will likely be achieved within 2 years following implementation. [Update 6/23/2017: Based on project implementation of 4Q/2018, this benefit will be achieved by 4Q/2020]

4. Capital project delivery rates. The benefit will likely be achieved within 3 years following implementation. [Update 6/23/2017: Based on project implementation of 4Q/2018, this benefit will be achieved by 4Q/2021]

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Example:

Metric Description	Metrics	Baseline	Target	Actual
<i>Reduce cost to deliver service. This project reduced processing time from the current average of ten days to less than one allowing us to take advantage of prompt payment discounts.</i>	<i>Processing Time annual savings, and percentage of purchases receiving prompt payment discounts</i>	<ul style="list-style-type: none"> • 10 days processing time • 10 percent of purchases are receiving discount • Savings of \$100,000 	<ul style="list-style-type: none"> • 1 day processing time • 30 percent of purchases are receiving prompt payment discounts • \$400,000 savings 	<ul style="list-style-type: none"> • 2 day processing time • 20 percent of purchases are receiving prompt payment discounts • \$200,000 savings

IT Project Benefits Achievement Plan (Version 2)

To complete this document fully, please read all of the colored sections and fill in the white cells.
For assistance in completing this form, please contact your PSB analyst.

Section 1. What are the purposes of the Benefit Achievement Plan (BAP)?

1. To achieve a clear understanding and focus on the benefits of a project prior to its beginning
2. To update projected benefits of the project as it moves through stages of project approval, implementation, and post-project closure
3. To establish accountability for identifying and achieving benefits
4. To ensure that benefits are achieved

King County Department/Agency Name	Department of Transportation (DOT)/Transit Division
Project Title	HASTUS Employee Performance Module (EPM)
EBS Project Number	1116893

Section 2. Business Owner

Business Owners are responsible for achieving project benefits and ensuring this Benefit Achievement Plan (BAP) is regularly updated and completed when benefits are achieved. Business Owners are required to be at the deputy department director or higher.

~~Kevin Desmond, Transit General Manager~~ Rob Gannon, Acting Transit General Manager

Section 3. Who is involved in developing the BAP?

The development of the BAP should include significant involvement from the business operations or management staff related to this project and the services it will support. Consider involving staff who will be using the technology to help identify the benefits of the project. KCIT business analysts or technology project staff may assist in benefit identification and documentation. List the staff who contribute to the BAP below:

Name	Title / Agency	Project Role
Ted Harris Jim O'Rourke	Transit Operations Manager, DOT Transit Division	Sponsor
Ralph Keyport Amanda Nightingale	Acting Planning/Technical Support Services Supervisor, DOT Transit Division	Advisor

Section 4. When should the BAP be started, updated and completed?

The BAP is intended to be an iterative, evolving document that will be updated as the project evolves, as information is refined or scope changes, and when benefits are finally achieved. Department and agencies (the business owners of project benefits) are required to update this document at the following times or actions:

1. To support initial project request during "gate two" phase of conceptual review.
2. For the annual Benefits report that PSB compiles.
3. To support funding release requests. If there are no changes, indicate "review only" in the revision table.
4. When a material scope change is identified and reported.
5. Up to one year after project completion and then annually until it is determined by the business owners that anticipated benefits have been achieved or no further benefits are expected.

Once the project is complete and benefits are achieved and reported, no additional reporting is required.

Please update the document online. Do not delete your previous text. Update the text as necessary and date those updates. Make sure that you upload the updated version to Innotas. The intent is for this single document to show the history of benefits over the course of the project. List any changes in the table in section 5. (If there are no changes, type none)

Section 5. How long will it take to complete the BAP?

Completion of the BAP depends on the project's complexity. In general, it should take a few hours to complete this BAP form once there is a shared understanding of the project and what value it will bring to the County. More complex and costly projects may require more extensive analysis. To improve this process in the future, please record the time spent on this in the table below at each stage of revision:

Revision History Table

Stage	Date	Revised By	Description	How long did it take?
<i>Please use conceptual review, budget process, funding release, annual report, project implementation, or project completion.</i>	<i>Date this document was updated</i>	<i>Who did the document updates?</i>	<i>A brief summary of what changed in the document. If this is an initial draft, please indicate new. If nothing has changed, indicate "review only".</i>	<i>How long did it take to complete or revise the form at this stage?</i>
2013 Annual Report	01/21/2014	Ray Burgess	Converted plan from Benefit Realization Plan into Benefit Achievement Plan format	4 hours
2014 Annual Update	02/11/2015	Kathleen McMurray	Review only	.25 hours
2015 Annual Update	01/22/2016	Kathleen McMurray	Review only	.25 hours
2015 Annual Update	04/04/2016	Kathleen McMurray	Added clarifying language	.25 hours
2016 Annual Update	6/06/2017	Jill Krecklow	Review only; project start dependent upon completion of other HASTUS related efforts.	.25 hours

Section 6. Description of Project Benefits

Identify the category(ies) of benefits your project will provide and include narrative descriptions of estimated benefits. The benefits of IT investments generally fit into the following four categories:

- 1) **External service benefits:** Improving the quality or quantity of services provided to the public
- 2) **Internal service benefits:** Improving internal operations, including the quality or quantity of internal services
- 3) **Maintaining service levels** by replacing or upgrading older technology, reducing risk of system failures, or providing regulatory compliance
- 4) **Reduced cost** to produce services (internal or external)

Each category is described below. Most projects will have benefits in one or two categories. If the project does not have benefits in a category, there is no need to provide information for that category.

What is the primary benefit of your project? After reviewing the benefit categories below, please identify the primary type of benefit for the project. For most projects, the primary type benefit will be Category #2 improving internal operations or Category #3 replacing or upgrading older technology.

Primary project benefit? (Check only one)

- Category #1: External service benefits: Improving the quality or quantity of services provided to the public

- Category #2: Internal service benefits: Improving internal operations, including the quality or quantity of internal services
- Category #3: Maintaining service levels by replacing or upgrading older technology, reducing risk of system failures, or providing regulatory compliance
- Category #4: Reduced cost or cost avoidance to produce services

Category #1: External service benefits: Improving the quality or quantity of services provided to the public. This category is intended for projects that directly benefit the public. This includes improved quality of service, such as faster response times and better access to services for the public.

Example: If this project to upgrade our licensing software is approved, licenses will be issued in two business days instead of the four days currently required. This is largely due to the ability of the new software to check national and state databases more efficiently. About one-quarter of our customers currently complain about the delay in obtaining a license and this time reduction is expected to eliminate almost all complaints and allow staff resources to be directed to other customer services.

Example: If this project to accept on-line reservations is approved, residents will be able to schedule athletic fields over the Internet and make payments by credit card. This will allow scheduling to occur at any time, rather than the current limited hours available for in-person or phone reservations. In-person and phone reservations will still be available.

The above examples are summaries. Please respond to each question listed below rather than provide a summary.

1. Describe why you expect the proposed IT investment to produce the benefit(s).
2. How will you measure the benefit(s)? (How will you know if the benefit has been achieved?)
3. What is the current baseline for this measure?
4. What is the target for this measure? (How much improvement will this project achieve?)
5. When is the benefit likely to be achieved?

Category #2: Internal service benefits: Improving internal operations, including the quality or quantity of internal services. Be sure to explain the value of such improvements to your operations.

Example: If this project to acquire hand-held devices and develop custom software is approved, inspectors will be able to check an average of 10 sites per day compared with the average of 6 currently checked. This will allow the agency to handle the 20% increase in workload projected in the next 3 years without adding more staff.

Example: If this project to implement a systems management tool for the Service Center is implemented we will be able to reduce the duration of technology outages during major incidents by 30%. We also will reduce the wait time for customers on hold with the Service Center. These improvements will allow us to redirect an existing position to other priorities.

Example: The Active Directory Consolidation project is part of an overall effort to promote IT standardization. This project will make the current management of user accounts, applications, and devices easier for IT administrators at Public Health because the end user experience will also be improved by having a single sign-on to applications such as Lync, SharePoint, and Outlook. Our success will be measured by having a single set of procedures and security models rather than the multiple ones that now exist.

The above examples are summaries. Please respond to each question listed below rather than provide a summary.

1. **Describe why you expect the proposed IT investment to produce the benefit(s).**

Transit Operations is currently required to manually pull data from multiple systems and paper documents to track operator work performance, unavailability's, accidents and completed training. This data is used to determine potential disciplinary actions, plan training activities and schedule replacement operators on daily driving assignments as needed.

The addition of the HASTUS Employee Performance Module (EPM) will enable Transit Operations to pull all relevant operator data into a single database where it can be tracked and viewed as required. The EPM module has user-defined and modifiable rules for identification of trends and specific issues with an individual operator or a group of operators. User tools will allow Chiefs to create custom queries when trying to manage very specific operator problems or very general workforce problems. The level of tools and access available to the average Chief will increase significantly over the current system version.

Expected benefits:

- a. Reduces the entry by base administrative staff from paper operator records into Laserfiche.
- b. Reduces time spent by Transit Operations chiefs and supervisors gathering and analyzing consolidating personnel records from multiple sources for each operator.
- c. Improved accuracy of employment actions (disciplinary, etc). Current practice is prone to errors due to incomplete or inaccurate information.

2. **How will you measure the benefit(s)? (How will you know if the benefit has been achieved?)**

- a. **Reduces the entry by base administrative staff from paper operator records into Laserfiche** – Success will be measured by a reduction number of paper records to be entered into Laserfiche by the base administrative staff.
- b. **Reduces time spent by Transit Operations chiefs and supervisors gathering and analyzing consolidating paper personnel records from multiple sources for each operator** – Success will be seen in chiefs and supervisors spending less time gathering and analyzing personnel records as the information would available via EPM.
- c. **Improved accuracy of employment actions (disciplinary, etc.). Current practice is prone to errors due to incomplete or inaccurate information** – Success will be the elimination of any error in employment actions for operators.

3. **What is the current baseline for this measure?**

- a. **Reduces the entry by base administrative staff from paper operator records into Laserfiche** – Baseline for this measure is an estimate of 500 hours per month for each base from a survey done by Base Operations.
- b. **Reduces time spent by Transit Operations chiefs and supervisors gathering and analyzing consolidating paper personnel records from multiple sources for each operator** – Baseline for this measure is not recorded as it involves a desk audit and the cost of doing a desk audit is not justified by the estimated time savings.

- c. **Improved accuracy of employment actions (disciplinary, etc.). Current practice is prone to errors due to incomplete or inaccurate information** – Baseline for this measure is not producible as Base Operations does not keep statistics on inaccurate employment actions as they are corrected as soon as discovered. Any error records are buried within the thousands of quality employment actions done annually by Base Operations.

4. **What is the target for this measure? (How much improvement will this project achieve?)**

- a. **Reduces the entry by base administrative staff from paper operator records into Laserfiche** – Should see at least a reduction of 1 hour per day per base the time spent by base administrative staff doing entry from paper operator records into Laserfiche. This equates to a total of approximately 140 hours per month for all seven bus bases.
- b. **Reduces time spent by Transit Operations chiefs and supervisors gathering and analyzing consolidating paper personnel records from multiple sources for each operator** – the EPM module will be used 100% for employment actions with no reliance upon personnel files.
- c. **Improved accuracy of employment actions (disciplinary, etc.). Current practice is prone to errors due to incomplete or inaccurate information** – No errors in employment actions.

Summary Table:

Benefit	Measure	Baseline	Target
Reduced entry by base administrative staff from paper operator records into Laserfiche.	Time spent by the base administrative staff to enter data from paper operator records into Laserfiche.	500 hours per month for each base (from a survey done by Base Operations)	A reduction of 1 hour per day per base the time spent by base administrative staff doing entry from paper operator records into Laserfiche. This equates to a total of approximately 140 hours per month for all seven bus bases.
Reduced time spent by Transit Operations chiefs and supervisors gathering and consolidating personnel records from multiple sources for each operator.	Time spent by chiefs and supervisors gathering and analyzing personnel records	N/A. Baseline for this measure is not recorded as it involves a desk audit and the cost of doing a desk audit is not justified by the estimated time savings.	EPM module is used 100% for employment actions with no reliance upon personnel files
Improved accuracy of employment actions (disciplinary, etc).	# of errors in employment actions for operators	Current practice is prone to errors due to incomplete or inaccurate information. Baseline for this measure is not producible as Base Operations does not keep statistics on inaccurate employment actions as they are corrected as soon as discovered. Any error records	Zero errors

		are buried within the thousands of quality employment actions done annually by Base Operations.	
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5. When is the benefit likely to be achieved?

[New 6/6/2017: This project is currently awaiting the completion of other HASTUS related system implementations and is not expected to begin in 2017. Project initiation will be evaluated as the other efforts are completed. The benefits identified are still valid and are expected to be achieved when the project is implemented. System functionality will be evaluated as part of project planning as new functionality may be available from the core system.] The benefits of the EPM module will [New 1/22/16: begin to] be seen immediately upon implementation but will not be fully realized for at least 6 months. This slow realization of benefits will be due to the changing of procedures and behaviors by the affected base personnel.

Category #3: Projects that maintain service at current levels by either replacing or upgrading older technology, reducing the risk of system failures, or providing regulatory compliance. If the project will result in improvements to external or internal services or cost savings, please note those benefits in the appropriate categories.

Example: This project will upgrade PeopleSoft from 9.0 to 9.2. This upgrade is necessary because vendor support for 9.0 will be ending in 2015 and that creates a large risk for the County. Without vendor support the County will not receive tax and regulatory updates and will likely result in errors in complying with tax and regulatory issues.

Example: This project will implement an Advanced Authentication solution which will allow King County to comply with U. S. Department of Justice - Federal Bureau of Investigation, Criminal Justice Information Services (CJIS) Security Policy Version 5.0, Section 5.6.2.2. Effective September 30, 2013, advanced authentication (AA) must be in place in order to access sensitive CJIS information.

- 1. Describe why you are proposing to upgrade or replace existing technology. Please include age of existing technology and the average life cycle replacement for this type of technology.**
- 2. If the primary reason for the project is risk reduction project, please estimate the probability of the risk or describe how likely it is to occur.**

Category #4: Reduced cost to produce service (external or internal) or cost avoidance

This category is for those projects that will reduce the costs to deliver a county service (external or internal). The information provided here should be consistent with the information in the cost-benefit analysis (CBA) form. Please describe how the cost savings will be used by your organization. This category also includes cost avoidance. Cost avoidance is those costs that the County would need to pay, has the capacity and intent to pay, but will be avoided due to the project.

Example: Reduced cost to produce service. If this project to install accounts payable software is approved, we will automate three tasks that are currently done manually by agency and central purchasing employees. Based on experience of other users of the software, this will reduce processing time from the current average of ten days to less than one. This will allow us to take advantage of prompt payment discounts for over \$15,000,000 of annual purchases. These discounts average 2%, yielding annual savings of about \$300,000. This will result in savings in department expenditures for those items qualifying for prompt payment discounts.

Example: Cost Avoidance. Moving to this new vendor that uses a SaaS product, we will avoid the need to upgrade the system to the newest version which goes end-of-life at the end of next year. We were required to make this upgrade due to regulatory reasons, so this represents a cost avoidance of \$100,000.

The above examples are summaries. Please respond to each question listed below rather than provide a summary.

1. Describe why you expect the proposed IT investment to reduce costs?
2. How will you measure the cost reduction or cost avoidance? (How will you know if the benefit has been achieved)
3. What is the current baseline?
4. What is the target for this measure? (How much savings will this project achieve)
5. When is the cost reduction likely to be achieved?

Section 7. Benefit Achievement Summary

To be completed when benefits have been achieved or no further benefits are expected. For each of the benefits you identified above, explain whether benefits were achieved at target levels. Please include both quantitative measures and qualitative descriptions of benefits, including any monetary benefits. Use the measures identified above. If not achieved, explain why.

Example: This project, to repair an emergency radio tower, was successfully completed in April 2014. The anticipated benefit was to maintain current service levels at 99.999% up time for an additional 5 years. This project is currently functioning at 99.999% up-time and will report annually for the next 5 years on up-time levels.

If one of these towers failed physically, the cost to the county would be enormous, generally in the neighborhood of \$500K - \$1 Million per tower depending on the construction techniques and size. User agencies on the emergency radio system will benefit by having infrastructure systems in place that will be assured of not experiencing catastrophic failures due to lack of maintenance.

Example: This project to automate accounts payable software was implemented and did improve the processing time average. The average time was reduced from 10 to 2 days, not quite reaching the 1 day target. Additionally, only 20% of purchases received a prompt payment discount resulting in less cost swings than anticipated. We did not meet the target because there were fewer purchases that qualified for prompt payment than originally estimated.

Example:

Metric Description	Metrics	Baseline	Target	Actual
Reduce cost to deliver service. This project reduced processing time from the current average of 10 days to <1 day allowing us to take advantage of prompt payment discounts.	Processing Time annual savings, and percentage of purchases receiving prompt payment discounts	<ul style="list-style-type: none"> • 10 days processing time • 10% of purchases are receiving discount • Savings of \$100,000 	<ul style="list-style-type: none"> • 1 day processing time • 30% of purchases are receiving prompt payment discounts • \$400,000 savings 	<ul style="list-style-type: none"> • 2 day processing time • 20% of purchases are receiving prompt payment discounts • \$200,000 savings

IT Project Benefits Achievement Plan (Version 2)

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Section 1. What are the purposes of the Benefit Achievement Plan (BAP)?

1. To achieve a clear understanding and focus on the benefits of a project prior to its beginning
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King County Department/Agency Name	Department of Transportation, Transit
Project Title	HASTUS Planning Module
Project Number	[New 7/20/16] 1124415

Section 2. Business Owner Accountability

Business Owners are responsible for achieving project benefits and ensuring this Benefit Achievement Plan (BAP) is regularly updated and completed when benefits are achieved. Business Owners are required to be at the deputy department director or higher.

~~Kevin Desmond, General Manager~~ Rob Gannon, ~~Interim~~ General Manager [updated 2/17/17]

Section 3. Who is involved in developing the BAP?

The development of the BAP should include significant involvement from the business operations or management staff related to this project and the services it will support. Consider involving staff who will be using the technology to help identify the benefits of the project. KCIT business analysts or technology project staff may assist in benefit identification and documentation. List the staff who contribute to the BAP below:

Name	Title / Agency	Project Role
Marty Minkoff Katie Chalmers	Supervisor, Service Planning	Project Sponsor [updated 6/23/2017]
Jill Krecklow	Finance Manager, Transit	Stakeholder

Section 4. When should the BAP be started, updated and completed?

The BAP is intended to be an iterative, evolving document that will be updated as the project evolves, as information is refined or scope changes, and when benefits are finally achieved. Department and agencies (the business owners of project benefits) are required to update this document at the following times or actions:

1. To support initial project request during "gate two" phase of conceptual review.
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Once the project is complete and benefits are achieved and reported, no additional reporting is required.

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Section 5. How long will it take to complete the BAP?

Completion of the BAP depends on the project’s complexity. In general, it should take a few hours to complete this BAP form once there is a shared understanding of the project and what value it will bring to the County. More complex and costly projects may require more extensive analysis. To improve this process in the future, please record the time spent on this in the table below at each stage of revision:

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Conceptual review	6/5/2014	Yan Zhang	New, initial draft	.5 hours
Budget process	10/2/14	Kathleen McMurray	Updates based upon Council staff feedback.	3 hours
Annual Update	2/11/15	Kathleen McMurray	Review only	.25 hours
Annual Update	1/22/16	Kathleen McMurray	Review only	.25 hours
2017/2018 Budget	7/20/16	Kathleen McMurray	Updated Business Owner, Added Project Number	.25 hours
2016 Annual Update	2/17/17	Diane Sutherland	Review only. This project has not started due to dependence upon HASTUS Upgrade project completion.	.25 hours
2016 Annual Update	6/23/2017	Jill Krecklow	Revised to reflect council staff feedback. Specifically included target dates (QQ/YY) for benefits.	.25 hours

Section 6. Description of Project Benefits

Identify the category(ies) of benefits your project will provide and include narrative descriptions of estimated benefits. The benefits of IT investments generally fit into the following four categories:

- 1) External service benefits: Improving the quality or quantity of services provided to the public
- 2) Internal service benefits: Improving internal operations, including the quality or quantity of internal services
- 3) Maintaining service levels by replacing or upgrading older technology or reducing risk of system failures
- 4) Reduced cost to produce services (internal or external)

Each category is described below. Most projects will have benefits in one or two categories. If the project does not have benefits in a category, there is no need to provide information for that category.

What is the primary benefit of your project? After reviewing the benefit categories below, please identify the primary type of benefit for the project. For most projects, the primary type benefit will be Category #2 improving internal operations or Category #3 replacing or upgrading older technology.

Primary project benefit? (Check only one)

Category #1: External service benefits: Improving the quality or quantity of services provided to the public

- Category #2: Internal service benefits: Improving internal operations, including the quality or quantity of internal services
- Category #3: Maintaining service levels by replacing or upgrading older technology
- Category #4: Reduced cost or cost avoidance to produce services

Category #1: External service benefits: Improving the quality or quantity of services provided to the public. This category is intended for projects that directly benefit the public. This includes improved quality of service, such as faster response times and better access to services for the public.

Example: If this project to upgrade our licensing software is approved, licenses will be issued in two business days instead of the four days currently required. This is largely due to the ability of the new software to check national and state databases more efficiently. About one-quarter of our customers currently complain about the delay in obtaining a license and this time reduction is expected to eliminate almost all complaints and allow staff resources to be directed to other customer services.

Example: If this project to accept on-line reservations is approved, residents will be able to schedule athletic fields over the Internet and make payments by credit card. This will allow scheduling to occur at any time, rather than the current limited hours available for in-person or phone reservations. In-person and phone reservations will still be available.

The above examples are summaries. Please respond to each question listed below rather than provide a summary.

1. Describe why you expect the proposed IT investment to produce the benefit(s).
2. How will you measure the benefit(s)? (How will you know if the benefit has been achieved?)
3. What is the current baseline for this measure?
4. What is the target for this measure? (How much improvement will this project achieve?)
5. When is the benefit likely to be achieved?

Category #2: Internal service benefits: Improving internal operations, including the quality or quantity of internal services. Be sure to explain the value of such improvements to your operations.

Example: If this project to acquire hand-held devices and develop custom software is approved, inspectors will be able to check an average of 10 sites per day compared with the average of 6 currently checked. This will allow the agency to handle the 20% increase in workload projected in the next three years without adding more staff.

Example: If this project to implement a systems management tool for the Service Center is implemented we will be able to reduce the duration of technology outages during major incidents by 30 percent. We also will reduce the wait time for customers on hold with the Service Center. These improvements will allow us to redirect an existing position to other priorities.

Example: The Active Directory Consolidation project is part of an overall effort to promote IT standardization. This project will make the current management of user accounts, applications, and devices easier for IT administrators at Public Health because the end user experience will also be improved by having a single sign-on to applications such as Lync, SharePoint, and Outlook. Our success will be measured by having a single set of procedures and security models rather than the multiple ones that now exist.

The above examples are summaries. Please respond to each question listed below rather than provide a summary.

1. Describe why you expect the proposed IT investment to produce the benefit(s).

- a. Streamlined processes. The Transit Service Planning workgroup currently uses a labor-intensive, Excel-based process to produce draft timetables, which are used to estimate costs and otherwise evaluate transit service design concepts. Service Planning also uses a variety of GIS-based tools to generate spatial views of network design concepts and produce street-by-street instructions for publication in paper-based service change packages. If this project to implement the HASTUS Planning Module is approved, Metro would acquire a new module for HASTUS, the software suite currently used by the Scheduling group to produce vehicle and operator/crew schedules. The new module would be used primarily by the Service Planning group to develop and evaluate route and transit network concepts, including the associated costs.

The HASTUS Planning Module is integrated with other HASTUS modules currently used by Transit for Scheduling and Operations. Incorporating this module would enable planners to easily access current ridership, run-time and trip arrival/departure data and more efficiently incorporate these data in the development of route and network design concepts. This would streamline the service planning task of developing service alternatives and identifying more realistic/accurate cost estimates. It would also reduce steps (and effort) in the handoff of planner guidance to schedulers who could then take that imported planner estimate and develop full vehicle and crew schedules from the same data source inside the same software/platform. This effort may also streamline/simplify the process of creating maps that could then be used for public presentation, both in the planning process or later on for public consumption of live or future transit information.

- b. Elimination of duplicate data entry. Service Planning uses different tools than other workgroups involved in the production of service change data. As a result, Service Planning's Excel-based timetables and paper-based maps and routing instructions must be manually re-created in HASTUS by other workgroups in Transit. If this project to implement the HASTUS Planning Module is approved, the need for other Transit workgroups to re-create this information in order to proceed with the production of transit service change data can be eliminated.

When combined, both a and b are expected to result in savings in labor hours that will be reinvested in higher value activities. The project will determine the exact nature of these savings as well as any new costs associated with this module as part of the business process review.

- c. Improved service efficiencies. If this project to implement the HASTUS Planning Module is approved, process improvements that will be enabled by the addition of the module to Transit's HASTUS application are expected to result in more efficient service. This will increase the amount of service hours available for serving our customers, which will in turn impact ridership, productivity and the overall value Metro provides to King County.

2. How will you measure the benefit(s)? (How will you know if the benefit has been achieved?)

- a. Streamlined processes. We will know that this benefit has been achieved when we realize the aforementioned process efficiencies in developing and evaluating route and transit network concepts, including the associated costs.

- b. Elimination of duplicate data entry. We will know that this benefit has been achieved when Service Planning's Excel-based timetables and paper-based maps and routing instructions do not need to be manually re-created in HASTUS.

For both a and b, Transit will identify the specific bodies of work to be done by freed up hours from these efficiencies .

- c. Improved service efficiencies. We will know that this benefit has been achieved with increases in service trips (Service Trip per Plat/Vehicle Hour) and/or productivity (Riders per Plat/Vehicle Hour).

3. What is the current baseline for this measure?

- a. Streamlined processes. The baseline for this measure will be determined at the early stages of the project when all of the steps that can be eliminated have been identified.
- b. Elimination of duplicate data entry. The baseline for this measure is that it takes hundreds of labor hours each service change to re-create Service Planning's Excel-based timetables and paper-based maps and routing instructions in HASTUS.

For both a and b Transit will identify the work to be done by freed up hours and note the current level of that work.

- c. Improved service efficiencies. The baseline for Service Trip per Plat/Vehicle Hour and/or Riders per Plat/Vehicle Hour is currently zero as we are not able to easily calculate these measures of service efficiency. (Note that these measures are different than the overall system efficiency measures as they enable a comparison of productivity between individual service hours (e.g. how much of a route is in revenue service versus deadhead or layover.) The baseline will be determined during the first year of operation.

4. What is the target for this measure? (How much improvement will this project achieve?)

- a. Streamlined processes. The target for this measure is elimination of unnecessary steps from the process to produce draft timetables, which are used to estimate costs and otherwise evaluate transit service design concepts.
- b. Elimination of duplicate data entry. The target for this measure is the elimination of the need to re-create Service Planning's Excel-based timetables and paper-based maps and routing instructions in HASTUS.

For both a and b Transit will identify the work to be done by freed up hours and note the target level of that work.

- c. Improved service efficiencies. The target is a 2% improvement in these measures.

5. When is the benefit likely to be achieved?

[Updated 6/23/2017]: This project is still in preliminary planning and specific schedule for implementation is not yet available. In order to provide required timelines for benefit achievement, an implementation timeframe of 3Q/2019 is being used for this update.

- a. Streamlined processes. This benefit is likely to be achieved within a year of implementation (3Q2020).
- b. Elimination of duplicate data entry. This benefit is likely to be achieved within a year of implementation (3Q2020).

For both a and b, staff should have freed up staff time available for higher value work within one year of implementation (3Q/2020).

- c. Improved service efficiencies. As this benefit can only be measured at a service change event and Transit is moving to two service changes a year by the time this project is implemented, we would anticipate achieving this benefit in 3 years (or 4 service changes after the baseline data is developed) (3Q/2022).

Category #3: Projects that maintain service at current levels by either replacing or upgrading older technology, reducing the risk of system failures, or providing regulatory compliance. If the project will result in improvements to external or internal services or cost savings, please note those benefits in the appropriate categories.

Example: This project will upgrade PeopleSoft from 9.0 to 9.2. This upgrade is necessary because vendor support for 9.0 will be ending in 2015 and that creates a large risk for the County. Without vendor support the County will not receive tax and regulatory updates and will likely result in errors in complying with tax and regulatory issues.

Example: This project will implement an Advanced Authentication solution which will allow King County to comply with U. S. Department of Justice - Federal Bureau of Investigation, Criminal Justice Information Services (CJIS) Security Policy Version 5.0, Section 5.6.2.2. Effective September 30, 2013, advanced authentication (AA) must be in place in order to access sensitive CJIS information.

1. Describe why you are proposing to upgrade or replace existing technology. Please include age of existing technology and the average life cycle replacement for this type of technology.
2. If the primary reason for the project is risk reduction project, please estimate the probability of the risk or describe how likely it is to occur.

Category #4: Reduced cost to produce service (external or internal) or cost avoidance

This category is for those projects that will reduce the costs to deliver a county service (external or internal). The information provided here should be consistent with the information in the cost-benefit analysis (CBA) form. Please describe how the cost savings will be used by your organization. This category also includes cost avoidance. Cost avoidance is those costs that the County would need to pay, has the capacity and intent to pay, but will be avoided due to the project.

Example: Reduced cost to produce service. If this project to install accounts payable software is approved, we will automate three tasks that are currently done manually by agency and central purchasing employees. Based on experience of other users of the software, this will reduce processing time from the current average of ten days to less than one. This will allow us to take advantage of prompt payment discounts for over \$15,000,000 of annual purchases. These discounts average 2%, yielding annual savings of about \$300,000. This will result in savings in department expenditures for those items qualifying for prompt payment discounts.

Example: Cost Avoidance. Moving to this new vendor that uses a SaaS product, we will avoid the need to upgrade the system to the newest version which goes end-of-life at the end of next year. We were required to make this upgrade due to regulatory reasons, so this represents a cost avoidance of \$100,000.

The above examples are summaries. Please respond to each question listed below rather than provide a summary.

1. Describe why you expect the proposed IT investment to reduce costs?
2. How will you measure the cost reduction or cost avoidance? (How will you know if the benefit has been achieved)
3. What is the current baseline?
4. What is the target for this measure? (How much savings will this project achieve)
5. When is the cost reduction likely to be achieved?

Section 7. Benefit Achievement Summary

To be completed when benefits have been achieved or no further benefits are expected. For each of the benefits you identified above, explain whether benefits were achieved at target levels. Please include both quantitative measures and qualitative descriptions of benefits, including any monetary benefits. Use the measures identified above. If not achieved, explain why.

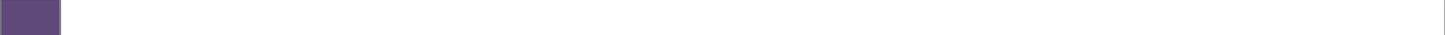
Example: This project, to repair an emergency radio tower, was successfully completed in April 2014. The anticipated benefit was to maintain current service levels at 99.999% up time for an additional 5 years. This project is currently functioning at 99.999% up-time and will report annually for the next 5 years on up-time levels.

If one of these towers failed physically, the cost to the county would be enormous, generally in the neighborhood of \$500K - \$1 Million per tower depending on the construction techniques and size. User agencies on the emergency radio system will benefit by having infrastructure systems in place that will be assured of not experiencing catastrophic failures due to lack of maintenance.

Example: This project to automate accounts payable software was implemented and did improve the processing time average. The average time was reduced from 10 to 2 days, not quite reaching the 1 day target. Additionally, only 20% of purchases received a prompt payment discount resulting in less cost swings than anticipated. We did not meet the target because there were fewer purchases that qualified for prompt payment than originally estimated.

Example:

Metric Description	Metrics	Baseline	Target	Actual
Reduce cost to deliver service. This project reduced processing time from the current average of ten days to less than one allowing us to take advantage of prompt payment discounts.	Processing Time annual savings, and percentage of purchases receiving prompt payment discounts	<ul style="list-style-type: none"> • 10 days processing time • 10% of purchases are receiving discount • \$100,000 savings 	<ul style="list-style-type: none"> • 1 day processing time • 30% of purchases are receiving prompt payment discounts • \$400,000 savings 	<ul style="list-style-type: none"> • 2 day processing time • 20% of purchases are receiving prompt payment discounts • \$200,000 savings



IT Project Benefits Achievement Plan (Version 2)

To complete this document fully, please read all of the colored sections and fill in the white cells.
For assistance in completing this form, please contact your PSB analyst.

Section 1. What are the purposes of the Benefit Achievement Plan (BAP)?

1. To achieve a clear understanding and focus on the benefits of a project prior to its beginning
2. To update projected benefits of the project as it moves through stages of project approval, implementation, and post-project closure
3. To establish accountability for identifying and achieving benefits
4. To ensure that benefits are achieved

King County Department/Agency Name	Department of Transportation/Transit
Project Title	HASTUS Upgrade
EBS Project Number	1111783

Section 2. Business Owner Accountability

Business Owners are responsible for achieving project benefits and ensuring this Benefit Achievement Plan (BAP) is regularly updated and completed when benefits are achieved. Business Owners are required to be at the deputy department director or higher.

Business Owner Name and Title: ~~Kevin Desmond~~ Rob Gannon, General Manager Transit

Section 3. Who is involved in developing the BAP?

The development of the BAP should include significant involvement from the business operations or management staff related to this project and the services it will support. Consider involving staff who will be using the technology to help identify the benefits of the project. KCIT business analysts or technology project staff may assist in benefit identification and documentation. List the staff who contribute to the BAP below:

Name	Title / Agency	Project Role
Jim O'Rourke , Ted Harris	Manager Transit Operations/ Transit	Sponsor [Updated 6/23/2017]
Victor Obeso , Bill Bryant	Manager Service Development/ Transit	Sponsor [updated 6/23/2017]
Ralph Keyport	Supervisor of Planning Technical Support Services/ Transit	Subject Matter Expert
Jon Bez	Supervisor of Scheduling Route Planning/ Transit	Subject Matter Expert [Updated 6/23/2017]
Jill Krecklow	Finance Manager, Transit	Stakeholder

Section 4. When should the BAP be started, updated and completed?

The BAP is intended to be an iterative, evolving document that will be updated as the project evolves, as information is refined or scope changes, and when benefits are finally achieved. Department and agencies (the business owners of project benefits) are required to update this document at the following times or actions:

1. To support initial project request during "gate two" phase of conceptual review.
2. For the annual Benefits report that PSB compiles.
3. To support funding release requests. If there are no changes, indicate "review only" in the revision table.
4. When a material scope change is identified and reported.
5. Up to one year after project completion and then annually until it is determined by the business owners that anticipated benefits have been achieved or no further benefits are expected.

Once the project is complete and benefits are achieved and reported, no additional reporting is required.

Please update the document online. Do not delete your previous text. Update the text as necessary and date those updates. Make sure that you upload the updated version to Innotas. The intent is for this single document to show the history of benefits over the course of the project. List any changes in the table in section 5. (If there are no changes, type none)

Section 5. How long will it take to complete the BAP?

Completion of the BAP depends on the project’s complexity. In general, it should take a few hours to complete this BAP form once there is a shared understanding of the project and what value it will bring to the County. More complex and costly projects may require more extensive analysis. To improve this process in the future, please record the time spent on this in the table below at each stage of revision:

Revision History Table

Stage	Date	Revised By	Description	How long did it take?
<i>Please use conceptual review, budget process, funding release, annual report, project implementation, or project completion.</i>	<i>Date this document was updated</i>	<i>Who did the document updates?</i>	<i>A brief summary of what changed in the document. If this is an initial draft, please indicate new. If nothing has changed, indicate “review only”.</i>	<i>How long did it take to complete or revise the form at this stage?</i>
Funding Release	11/08/2013	Ray Burgess	New, initial draft	8 hours
2013 Annual Report	1/31/2014	Kathleen McMurray	Review only	.25 hours
2013 Annual Report	2/14/2014	Jill Krecklow	Modified benefits discussion	.75 hours
2014 Annual Report	2/12/2015	Cathy Snow	Review only	.25 hours
2015 Annual Report	1/29/2016	Diane Sutherland	Review only	.25 hours
2016 Annual Report	2/17/2017	Diane Sutherland	Review and modified business owner. This project is underway.	.25 hours
2016 Annual Report	6/23/2017	Jill Krecklow	Revise per council staff direction: added quarter/year dates for milestone achievement.	.25 hours

Section 6. Description of Project Benefits

Identify the category(ies) of benefits your project will provide and include narrative descriptions of estimated benefits. The benefits of IT investments generally fit into the following four categories:

- 1) External service benefits: Improving the quality or quantity of services provided to the public
- 2) Internal service benefits: Improving internal operations, including the quality or quantity of internal services
- 3) Maintaining service levels by replacing or upgrading older technology, reducing risk of system failures, or providing regulatory compliance

4) Reduced cost to produce services (internal or external)

Each category is described below. Most projects will have benefits in one or two categories. If the project does not have benefits in a category, there is no need to provide information for that category.

What is the primary benefit of your project? After reviewing the benefit categories below, please identify the primary type of benefit for the project. For most projects, the primary type benefit will be Category #2 improving internal operations or Category #3 replacing or upgrading older technology.

Primary project benefit? (Check only one)

- Category #1: External service benefits: Improving the quality or quantity of services provided to the public
- Category #2: Internal service benefits: Improving internal operations, including the quality or quantity of internal services
- Category #3: Maintaining service levels by replacing or upgrading older technology
- Category #4: Reduced cost or cost avoidance to produce services

Category #1: External service benefits: Improving the quality or quantity of services provided to the public. This category is intended for projects that directly benefit the public. This includes improved quality of service, such as faster response times and better access to services for the public. Please respond to each question listed below rather than provide a summary.

1. *Describe why you expect the proposed IT investment to produce the benefit(s).*
2. *How will you measure the benefit(s)? (How will you know if the benefit has been achieved?)*
3. *What is the current baseline for this measure?*
4. *What is the target for this measure? (How much improvement will this project achieve?)*
5. *When is the benefit likely to be achieved?*

Category #2: Internal service benefits: Improving internal operations, including the quality or quantity of internal services. Be sure to explain the value of such improvements to your operations. Please respond to each question listed below rather than provide a summary.

1. *Describe why you expect the proposed IT investment to produce the benefit(s).*
2. *How will you measure the benefit(s)? (How will you know if the benefit has been achieved?)*
3. *What is the current baseline for this measure?*
4. *What is the target for this measure? (How much improvement will this project achieve?)*
5. *When is the benefit likely to be achieved?*

Category #3: Projects that maintain service at current levels by either replacing or upgrading older technology, reducing the risk of system failures, or providing regulatory compliance. If the project will result in improvements to external or internal services or cost savings, please note those benefits in the appropriate categories.

1. *Describe why you are proposing to upgrade or replace existing technology. Please include age of existing technology and the average life cycle replacement for this type of technology.*

The HASTUS application system is crucial to the scheduling of transit routes and the management of bus and train operators on a daily basis. This system must be available to the multiple customers within Transit for them to perform their jobs.

The current HASTUS software is version 2006 and has only 2 more years of guaranteed maintenance. The version of Crystal Reports that comes with HASTUS 2006 is currently unsupported. The new software, HASTUS 2014, will provide 10 years of guaranteed maintenance. In addition it comes with a fully supported version of Crystal Reports.

2. If the primary reason for the project is risk reduction project, please estimate the probability of the risk or describe how likely it is to occur.

The HASTUS system is an essential component of day to day Transit operations. This project addresses the fact that the risk of system failure would increase if Transit were to operate on a version that was no longer supported by the vendor. The reporting component of the system is already not supported. Changes such as upgrading operating systems and servers by King County increase the risk that older, unsupported software will experience a failure.

[Update 6/23/2017] – Project upgrade occurred 3Q/2016; project will be closed out 2Q/2017

Category #4: Reduced cost to produce service (external or internal) or cost avoidance. This category is for those projects that will reduce the costs to deliver a county service (external or internal). The information provided here should be consistent with the information in the cost-benefit analysis (CBA) form. Please describe how the cost savings will be used by your organization. This category also includes cost avoidance. Cost avoidance is those costs that the County would need to pay, has the capacity and intent to pay, but will be avoided due to the project.

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Metric Description	Metrics	Baseline	Target	Actual

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King County Department/Agency Name

DOT/Transit

Project Title

Mobile Ticketing Pilot Project

EBS Project Number

#1116944 , A00650

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Business Owners are responsible for achieving project benefits and ensuring this Benefit Achievement Plan (BAP) is regularly updated and completed when benefits are achieved. Business Owners are required to be at the deputy department director or higher.

Business Owner Name and Title: ~~Kevin Desmond~~ Rob Gannon, Transit General Manager

Section 3. Who is involved in developing the Benefit Achievement Plan?

The development of the BAP should include significant involvement from the business operations or management staff related to this project and the services it will support. Consider involving staff who will be using the technology to help identify the benefits of the project. KCIT business analysts or technology project staff may assist in benefit identification and documentation. List the staff who contribute to the BAP below:

Name	Title / Agency	Project Role
Liviu Prisecaru	IT Project Manager II, DOT Transit Division	Project Manager
Dan Overgaard	Supervisor, DOT Transit Division	Stakeholder
Kathleen McMurray	Supervisor, DOT Transit Division	Stakeholder
Jill Krecklow	Finance Manager, DOT Transit Division	Finance Manager

Section 4. When should the BAP be started, updated and completed?

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4. When a material scope change is identified and reported.
5. Up to one year after project completion and then annually until it is determined by the business owners that anticipated benefits have been achieved or no further benefits are expected.

Once the project is complete and benefits are achieved and reported, no additional reporting is required.

Please update the document online. Do not delete your previous text. Update the text as necessary and date those updates. Make sure that you upload the updated version to Innotas. The intent is for this single document to show the history of benefits over the course of the project. List any changes in the table in section 5. (If there are no changes, type none)

Section 5. How long will it take to complete the benefit achievement plan?

Completion of the BAP depends on the project's complexity. In general, it should take a few hours to complete this BAP form once there is a shared understanding of the project and what value it will bring to the County. More complex and costly projects may require more extensive analysis. To improve this process in the future, please record the time spent on this in the table below at each stage of revision:

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Conceptual review	06/20/14	Liviu Prisecaru	New, initial draft	2 hours
Conceptual review	7/8/2014	Kathleen McMurray	Updated for Conceptual Review	5 hours
2014 Annual Report	2/19/15	Liviu Prisecaru	Review only	.25 hours
2015 Annual Report	2/06/16	Liviu Prisecaru	Review only	.25 hours
2016 Annual Report	2/17/17	Liviu Prisecaru	Minor updates. This project is currently underway.	.25 hours
2016 Annual Report	6/26/2017	Jill Krecklow	Revised to reflect council staff feedback: removed Category 2 benefits and assigned date for benefit achievement.	.5 hour

Section 6. Description of Project Benefits

Identify the category(ies) of benefits your project will provide and include narrative descriptions of estimated benefits. The benefits of IT investments generally fit into the following four categories:

- 1) External service benefits: Improving the quality or quantity of services provided to the public
- 2) Internal service benefits: Improving internal operations, including the quality or quantity of internal services
- 3) Maintaining service levels by replacing or upgrading older technology, reducing risk of system failures, or providing regulatory compliance
- 4) Reduced cost to produce services (internal or external)

Each category is described below. Most projects will have benefits in one or two categories. If the project does not have benefits in a category, there is no need to provide information for that category.

What is the primary benefit of your project? After reviewing the benefit categories below, please identify the primary type of benefit for the project. For most projects, the primary type benefit will be Category #2 improving internal operations or Category #3 replacing or upgrading older technology.

Primary project benefit? (Check only one)

Category #1: External service benefits: Improving the quality or quantity of services provided to the public [Update 6/26/2017: change benefit category based on conversation with L. Krekel-Zoppi to reflect fact that this is the pilot effort of a new product.]

Category #2: Internal service benefits: Improving internal operations, including the quality or quantity of internal services

Category #3: Maintaining service levels by replacing or upgrading older technology, reducing risk of system failures, or providing regulatory compliance

Category #4: Reduced cost or cost avoidance to produce services

Category #1: External service benefits: Improving the quality or quantity of services provided to the public. This category is intended for projects that directly benefit the public. This includes improved quality of service, such as faster response times and better access to services for the public.

Example: If this project to upgrade our licensing software is approved, licenses will be issued in two business days instead of the four days currently required. This is largely due to the ability of the new software to check national and state databases more efficiently. About one-quarter of our customers currently complain about the delay in obtaining a license and this time reduction is expected to eliminate almost all complaints and allow staff resources to be directed to other customer services.

Example: If this project to accept on-line reservations is approved, residents will be able to schedule athletic fields over the Internet and make payments by credit card. This will allow scheduling to occur at any time, rather than the current limited hours available for in-person or phone reservations. In-person and phone reservations will still be available.

The above examples are summaries. Please respond to each question listed below rather than provide a summary.

1. Describe why you expect the proposed IT investment to produce the benefit(s).

If this project to perform an evaluation of mobile ticketing fare payment technologies is approved, customers will have the opportunity to test a new method for paying their transit fare. Currently, customers can pay for their bus fare using either an ORCA card or cash. This project will evaluate the feasibility of adding mobile ticketing to the list of fare payment methods.

The 2012 Metro Rider Non-rider Survey found that sixty percent of respondents used a smartphone. Of those smartphone users, twenty-three percent paid their bus fare with cash. This represents fourteen percent of all riders. It is expected that this group of riders will experience the greatest benefit from mobile ticketing. These benefits include:

- a. **Convenience.** By paying their transit fare from their smartphone, customers can avoid “fishing” around for cash and worrying about having exact change.
- b. **Faster boarding.** Riders who pay with a mobile ticket instead of cash will not need to wait in line as their change is accepted and processed by the farebox.

Other transit agencies who have implemented mobile ticketing have experienced significant user acceptance of the technology. According to an April 11, 2014 [article](#) in Mass Transit, over 80,000

TriMet (Portland, OR) riders downloaded their mobile ticketing application, and purchased over 1 million tickets in the first seven months of operation. MBTA (Boston, MA) [reported](#) that in the first 9 months after implementing their mobile ticketing system, over 1 million tickets were purchased (representing \$10 million in sales). Metro customers are expected to similarly find mobile ticketing to be a convenient way to pay their bus fare.

Reduced dwell times due to increased use of non-cash forms of payment will benefit riders during peak boarding times on trips through downtown Seattle. This is consistent with one of the lessons learned in the Data and Lessons Learned from Elimination of the Ride Free Area and Start-up of RapidRide C and D Lines [Report](#): *Continue to pursue strategies to speed boarding in downtown Seattle through off-board fare payment.*

2. How will you measure the benefit(s)? (How will you know if the benefit has been achieved?)

The Mobile Ticketing Pilot Project will assess adoption patterns, complexity of the technology and its acceptance by the test participants. All test participants will be surveyed to obtain reactions to various aspects of the test, such as specific fare products, boarding times, the ease of using the particular application and the convenience of mobile ticketing in general. Survey findings will be included in the Mobile Ticketing Pilot Assessment Report. This report will address both the internal and external benefits of this project.

3. What is the current baseline for this measure?

No assessment exists of customer acceptance of mobile ticketing for King County Metro.

4. What is the target for this measure? (How much improvement will this project achieve?)

It is expected that at least 75% of the test participants will find mobile ticketing to be a convenient way to pay their bus fare. It is expected that at least 75% of the test participants will find boarding faster with mobile ticketing, as compared to cash.

5. When is the benefit likely to be achieved?

Two months following the completion of the pilot test, the Mobile Ticketing Pilot Assessment Report will be delivered. This report will contain the test participants' survey results.

[Update 6/26/2017: Report to be delivered to council in 4Q/2017]

Category #2: Internal service benefits: Improving internal operations, including the quality or quantity of internal services. Be sure to explain the value of such improvements to your operations.

Example: If this project to acquire hand-held devices and develop custom software is approved, inspectors will be able to check an average of 10 sites per day compared with the average of 6 currently checked. This will allow the agency to handle the 20% increase in workload projected in the next 3 years without adding more staff..

Example: If this project to implement a systems management tool for the Service Center is implemented we will be able to reduce the duration of technology outages during major incidents by 30%. We also will reduce the wait time for customers on hold with the Service Center. These improvements will allow us to redirect an existing position to other priorities.

Example: The Active Directory Consolidation project is part of an overall effort to promote IT standardization. This project will make the current management of user accounts, applications, and devices easier for IT administrators at Public Health because the end user experience will also be improved by having a single sign-on to applications

such as Lync, SharePoint, and Outlook. Our success will be measured by having a single set of procedures and security models rather than the multiple ones that now exist.

The above examples are summaries. Please respond to each question listed below rather than provide a summary.

[Update 6/26/2017: removed category 2 benefits based on direction from L. Krekel-Zoppi. Focus on external benefits of the new product being introduced by this pilot.]

1. ***Describe why you expect the proposed IT investment to produce the benefit(s).***

If this project to perform an evaluation of mobile ticketing fare payment technologies is approved, Metro will have the opportunity to assess whether or not it makes sense for the County to implement mobile ticketing. The pilot program model allows for proof of concept and study of consumer response, technology effectiveness, and other operational considerations prior to a full-scale investment.

Background

King County Metro currently collects cash fare payment on the bus. This process requires a farebox into which customers insert their fare. Maintaining the farebox system and cash handling costs the agency more than \$5 million a year. In addition, cash collection on the bus has been shown to increase the amount of time that a bus sits in a zone boarding passengers. Less cash collected on the bus would both reduce the costs of cash handling and reduce dwell times. As a result, King County Metro is looking at the possibility of migrating the transit system to cashless on-board payment at a point in the future. In order to reach a cashless on-board environment a number of functional and policy changes will need to be implemented. This Mobile Ticketing Pilot is one step towards removing cash collection, but it is not the only change that would be required, nor is it the sole reason for piloting new ways for customers to purchase fare media.

Taking cash collection off the bus would not mean that customer cannot use cash to purchase fare media, just that it would need to happen off the bus. Cash would still be collected off board through ticket vending machines (TVMs), Metro customer service offices, or third party retail outlets. The goal would be to maximize electronic fare payment methods, including the existing ORCA card and emerging new technologies. By applying various strategies intended to move the penetration of electronic media close to 100%, Metro would then be in a place to consider eliminating the onboard cash fareboxes and avoid the cost to replace the equipment. The cost to replace this equipment is estimated at over \$20 million (not including the on-going operations and maintenance costs for this equipment). Currently fareboxes are the leading source of trouble-calls requiring staff to make repairs while a bus is in service. The cost savings from eliminating cash collection on the bus cannot be fully realized until all cash is removed from the bus.

Whether or not cash is no longer collected on the bus, increasing the use of electronic fare payment media is expected to benefit transit travel times through downtown Seattle. Although the exact date has not been determined, the implementation of North Link will eventually require Metro to bring its bus routes out of the downtown Seattle transit tunnel. The added volumes through downtown Seattle surface streets will benefit from faster boarding (see the [Data and Lessons Learned from Elimination of the Ride Free Area and Start-up of RapidRide C and D Lines Report](#)).

One of the emerging electronic fare payment technologies is mobile ticketing, which provides customers the ability to pay their transit fares using their smartphones. This technology is currently

implemented in numerous transit systems worldwide. Example agencies and vendors provided below:

Transit System	Vendor
Capital Metro (Austin, TX)	Bytemark (NYC)
Dallas Area Rapid Transit (DART) Fort Worth Transportation Authority Denton County Transportation Authority	Unwire (Denmark)
Massachusetts Bay Transportation Authority (MTBA)	Masabi (UK)
NJ Transit	Masabi (UK)
NY Waterway	Bytemark (NYC)
San Diego Metropolitan Transit System (MTS)	Masabi (UK)
South Shore Line, Northern Indiana and Chicago	Bytemark (NYC)
Telefonica O2 (Europe)	Masabi (UK)
TriMet (Portland, OR)	GlobeSherpa (Portland)
Virgin Trains (UK)	Masabi (UK)

Mobile Ticketing Pilot Program

This pilot project will procure a system for test purposes and solicit test participants from the public to evaluate the value of mobile ticketing for King County Metro and its customers. Customer adoption patterns will be assessed to determine if current cash-paying customers are likely to embrace this new technology and thereby increase the use of electronic fare payment media.

In talking with consultants and other agencies, Transit has learned that the cost for mobile ticketing systems range from 8% to 12% of the fare transaction (in other words, up to 12 cents per dollar collected). Since mobile ticketing systems are generally hosted services, these costs include management of the back-end system, revenue processing and management of the application. The pilot project will analyze the cost to operate, maintain and upgrade a mobile ticketing system to help determine if mobile ticketing is a cost effective fare payment option for the County.

If proven beneficial, a project to fully implement mobile ticketing technology for Metro could follow.

2. How will you measure the benefit(s)? (How will you know if the benefit has been achieved?)

The Mobile Ticketing Pilot Project will provide the opportunity to measure potential benefits of implementing mobile ticketing technology. Test participants will be surveyed to assess the likelihood of current transit customers switching from cash to mobile ticketing for fare payment. Additionally, the cost to operate, maintain and upgrade a mobile ticketing system will be gathered from vendor data. These findings will be included in the Mobile Ticketing Pilot Assessment Report.

3. What is the current baseline for this measure?

a. Customers switching from cash. No assessment exists of customers' likelihood of switching from cash to mobile ticketing at Metro.

b. Cost to maintain system. Metro will use cash collection costs as the baseline for this measure:

Collection cost per cash boarding (approximate): \$0.14

Collection cost as a % of cash collections (2013 estimate): 15%

(Note: these are not measures that are routinely reported and the information provided here are estimates and do not include the longer term decision about replacing fareboxes.)

4. ~~What is the target for this measure? (How much improvement will this project achieve?)~~

- ~~a. **Customers switching from cash.** Test participants who currently pay with cash report they would switch to mobile ticketing: 25%~~
- ~~b. **Cost to maintain system.** For the pilot, we will be evaluating the collection cost per transaction and evaluating if it is less than our current cost for cash collections. This analysis may be skewed based on the pricing that is proposed for the pilot; however moving forward the procurement process will help to ensure that transaction costs are as low as possible. It is also unlikely that the pilot will have a significant impact on overall system costs, however transaction level costs can be evaluated. Full recognition of savings won't be possible until and unless all cash collection costs are eliminated. The pilot will provide data upon which a goal can be developed and considered as part of the decision making to move forward with a full roll-out of mobile ticketing.~~

5. ~~When is the benefit likely to be achieved?~~

~~Two months following the completion of the pilot test, the Mobile Ticketing Pilot Assessment Report will be delivered. This report will contain the cost analysis and the results of the tester survey responses.~~

Category #3: Projects that maintain service at current levels by either replacing or upgrading older technology, reducing the risk of system failures, or providing regulatory compliance. If the project will result in improvements to external or internal services or cost savings, please note those benefits in the appropriate categories.

***Example:** This project will upgrade PeopleSoft from 9.0 to 9.2. This upgrade is necessary because vendor support for 9.0 will be ending in 2015 and that creates a large risk for the County. Without vendor support the County will not receive tax and regulatory updates and will likely result in errors in complying with tax and regulatory issues.*

***Example:** This project will implement an Advanced Authentication solution which will allow King County to comply with U. S. Department of Justice - Federal Bureau of Investigation, Criminal Justice Information Services (CJIS) Security Policy Version 5.0, Section 5.6.2.2. Effective September 30, 2013, advanced authentication (AA) must be in place in order to access sensitive CJIS information.*

1. *Describe why you are proposing to upgrade or replace existing technology. Please include age of existing technology and the average life cycle replacement for this type of technology.*
2. *If the primary reason for the project is risk reduction project, please estimate the probability of the risk or describe how likely it is to occur.*

Category #4: Reduced cost to produce service (external or internal) or cost avoidance

This category is for those projects that will reduce the costs to deliver a county service (external or internal). The information provided here should be consistent with the information in the cost-benefit analysis (CBA) form. Please describe how the cost savings will be used by your organization. This category also includes cost avoidance. Cost avoidance is those costs that the County would need to pay, has the capacity and intent to pay, but will be avoided due to the project.

***Example:** Reduced cost to produce service. If this project to install accounts payable software is approved, we will automate three tasks that are currently done manually by agency and central purchasing employees. Based on experience of other users of the software, this will reduce processing time from the current average of ten days to less than one. This will allow us to take advantage of prompt payment discounts for over \$15,000,000 of annual*

purchases. These discounts average 2%, yielding annual savings of about \$300,000. This will result in savings in department expenditures for those items qualifying for prompt payment discounts.

Example: Cost Avoidance. Moving to this new vendor that uses a SaaS product, we will avoid the need to upgrade the system to the newest version which goes end-of-life at the end of next year. We were required to make this upgrade due to regulatory reasons, so this represents a cost avoidance of \$100,000.

The above examples are summaries. Please respond to each question listed below rather than provide a summary.

1. Describe why you expect the proposed IT investment to reduce costs?
2. How will you measure the cost reduction or cost avoidance? (How will you know if the benefit has been achieved)
3. What is the current baseline?
4. What is the target for this measure? (How much savings will this project achieve)
5. When is the cost reduction likely to be achieved?

Section 7. Benefit Achievement Summary

To be completed when benefits have been achieved or no further benefits are expected. For each of the benefits you identified above, explain whether benefits were achieved at target levels. Please include both quantitative measures and qualitative descriptions of benefits, including any monetary benefits. Use the measures identified above. If not achieved, explain why.

Example: This project, to repair an emergency radio tower, was successfully completed in April 2014. The anticipated benefit was to maintain current service levels at 99.999% up time for an additional 5 years. This project is currently functioning at 99.999% up-time and will report annually for the next 5 years on up-time levels.

If one of these towers failed physically, the cost to the county would be enormous, generally in the neighborhood of \$500K - \$1 Million per tower depending on the construction techniques and size. User agencies on the emergency radio system will benefit by having infrastructure systems in place that will be assured of not experiencing catastrophic failures due to lack of maintenance.

Example: This project to automate accounts payable software was implemented and did improve the processing time average. The average time was reduced from 10 to 2 days, not quite reaching the 1 day target. Additionally, only 20% of purchases received a prompt payment discount resulting in less cost swings than anticipated. We did not meet the target because there were fewer purchases that qualified for prompt payment than originally estimated.

Example:

Metric Description	Metrics	Baseline	Target	Actual
Reduce cost to deliver service. This project reduced processing time from the current average of ten days to less than one allowing us to take advantage of	Processing time annual savings, and percentage of purchases receiving prompt payment discounts	<ul style="list-style-type: none"> • 10 days processing time • 10% of purchases are receiving discount • Savings of \$100,000 	<ul style="list-style-type: none"> • 1 day processing time • 30% of purchases are receiving prompt payment discounts • \$400,000 savings 	<ul style="list-style-type: none"> • 2 day processing time • 20% of purchases are receiving prompt payment discounts • \$200,000 savings

	<i>prompt payment discounts.</i>				

IT Project Benefits Achievement Plan (Version 4)

To complete this document fully, please read all of the colored sections and fill in the white cells.

For assistance in completing this form, please contact your PSB analyst.

Section 1. What are the purposes of the Benefit Achievement Plan (BAP)?

1. To achieve a clear understanding and focus on the benefits of a project prior to its beginning
2. To update projected benefits of the project as it moves through stages of project approval, implementation, and post-project closure
3. To establish accountability for identifying and achieving benefits
4. To ensure that benefits are achieved

King County Department/Agency Name	Department of Transportation, Transit
Project Title	Next Generation Wireless (NGW) (Replacement of 4.9 Network and Mobile Access Routers)
Project Number	1124429

Section 2. Business Owner Accountability

Business Owners are responsible for achieving project benefits and ensuring this Benefit Achievement Plan (BAP) is regularly updated and completed when benefits are achieved. Business Owners are required to be at the deputy department director or higher.

Rob Gannon, ~~Interim~~ General Manager

Section 3. Who is involved in developing the BAP?

The development of the BAP should include significant involvement from the business operations or management staff related to this project and the services it will support. Consider involving staff who will be using the technology to help identify the benefits of the project. KCIT business analysts or technology project staff may assist in benefit identification and documentation. List the staff who contribute to the BAP below:

Name	Title / Agency	Project Role
Dan Overgaard	Manager, Transit Systems Development and Operations	Steering Committee Member
Jill Krecklow	Finance Manager, Transit	Finance Manager; Chair Transit Technology Oversight
Pamela Wrenn	IT Project Manager II, Transit Systems Development and Operations	Project Manager

Section 4. When should the BAP be started, updated and completed?

The BAP is intended to be an iterative, evolving document that will be updated as the project evolves, as information is refined or scope changes, and when benefits are finally achieved. Department and agencies (the business owners of project benefits) are required to update this document at the following times or actions:

1. To support initial project request during “gate two” phase of conceptual review.
2. For the annual Benefits report that PSB compiles.
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4. When a material scope change is identified and reported.
5. Up to one year after project completion and then annually until it is determined by the business owners that anticipated benefits have been achieved or no further benefits are expected.

Once the project is complete and benefits are achieved and reported, no additional reporting is required.

Please update the document online. Do not delete your previous text. Update the text as necessary and date those updates. Make sure that you upload the updated version to Innotas. The intent is for this single document to show the history of benefits over the course of the project. List any changes in the table in section 5. (If there are no changes, type none)

Section 5. How long will it take to complete the BAP?

Completion of the BAP depends on the project's complexity. In general, it should take a few hours to complete this BAP form once there is a shared understanding of the project and what value it will bring to the County. More complex and costly projects may require more extensive analysis. To improve this process in the future, please record the time spent on this in the table below at each stage of revision:

Revision History Table

Stage	Date	Revised By	Description	How long did it take?
<i>Please use conceptual review, budget process, funding release, annual report, project implementation, or project completion.</i>	<i>Date this document was updated</i>	<i>Who did the document updates?</i>	<i>A brief summary of what changed in the document. If this is an initial draft, please indicate new. If nothing has changed, indicate "review only".</i>	<i>How long did it take to complete or revise the form at this stage?</i>
Conceptual review	6/4/2014	Yan Zhang	New, initial draft	.5 hours
Conceptual review	7/1/2014	Kathleen McMurray	Update	.5 hours
Conceptual review	10/02/2014	Dan Overgaard	Updated in response to questions	2 hours
Annual Report	2/11/2015	Dan Overgaard	Minor update in Section 6	.25 hours
Funding Release	6/22/2015	Pamela Wrenn	Updated per planning phase. Added Project Manager. Changed from Categories 1 & 3 to Category 3 only.	.5 hours
Annual Report	2/9/2016	Pamela Wrenn	Updated project title and added project number.	.25 hours
Annual Report	4/1/2016	Kathleen McMurray	Updated Business Owner and Primary Project Benefit	.25 hours
2017-2018 Budget	5/20/2016	Pamela Wrenn	Review only	.25 hours
2017-2018 Budget	6/13/2016	Kathleen McMurray	Updated in response to questions	.25 hours
2017-2018 Budget	10/6/2016	Pamela Wrenn	Updated in response to Council staff questions	1 hour
2017-2018 Budget incorporate council staff feedback	10/13/2016	Jill Krecklow	Updated in response to council staff discussions	.5 hours
2016 Annual Report	2/17/2017	Pamela Wrenn	Updated dates related to project completion	.25 hours
2016 Annual Report	06/23/2017	Jill Krecklow	Updated in response to council staff direction to provide dates for benefit achievement.	.25 hours

Section 6. Description of Project Benefits

Identify the category(ies) of benefits your project will provide and include narrative descriptions of estimated benefits. The benefits of IT investments generally fit into the following four categories:

- 1) External service benefits: Improving the quality or quantity of services provided to the public
- 2) Internal service benefits: Improving internal operations, including the quality or quantity of internal services
- 3) Maintaining service levels by replacing or upgrading older technology or reducing risk of system failures
- 4) Reduced cost to produce services (internal or external)

Each category is described below. Most projects will have benefits in one or two categories. If the project does not have benefits in a category, there is no need to provide information for that category.

What is the primary benefit of your project? After reviewing the benefit categories below, please identify the primary type of benefit for the project. For most projects, the primary type benefit will be Category #2 improving internal operations or Category #3 replacing or upgrading older technology.

Primary project benefit? (Check only one)

- Category #1: External service benefits: Improving the quality or quantity of services provided to the public
- Category #2: Internal service benefits: Improving internal operations, including the quality or quantity of internal services
- Category #3: Maintaining service levels by replacing or upgrading older technology
- Category #4: Reduced cost or cost avoidance to produce services

Category #1: External service benefits: Improving the quality or quantity of services provided to the public. This category is intended for projects that directly benefit the public. This includes improved quality of service, such as faster response times and better access to services for the public.

Example: If this project to upgrade our licensing software is approved, licenses will be issued in two business days instead of the four days currently required. This is largely due to the ability of the new software to check national and state databases more efficiently. About one-quarter of our customers currently complain about the delay in obtaining a license and this time reduction is expected to eliminate almost all complaints and allow staff resources to be directed to other customer services.

Example: If this project to accept on-line reservations is approved, residents will be able to schedule athletic fields over the Internet and make payments by credit card. This will allow scheduling to occur at any time, rather than the current limited hours available for in-person or phone reservations. In-person and phone reservations will still be available.

The above examples are summaries. Please respond to each question listed below rather than provide a summary.

1. Describe why you expect the proposed IT investment to produce the benefit(s).
2. How will you measure the benefit(s)? (How will you know if the benefit has been achieved?)
3. What is the current baseline for this measure?
4. What is the target for this measure? (How much improvement will this project achieve?)
5. When is the benefit likely to be achieved?

Category #2: Internal service benefits: Improving internal operations, including the quality or quantity of internal services. Be sure to explain the value of such improvements to your operations.

Example: *If this project to acquire hand-held devices and develop custom software is approved, inspectors will be able to check an average of 10 sites per day compared with the average of 6 currently checked. This will allow the agency to handle the 20% increase in workload projected in the next three years without adding more staff.*

Example: *If this project to implement a systems management tool for the Service Center is implemented we will be able to reduce the duration of technology outages during major incidents by 30%. We also will reduce the wait time for customers on hold with the Service Center. These improvements will allow us to redirect an existing position to other priorities.*

Example: *The Active Directory Consolidation project is part of an overall effort to promote IT standardization. This project will make the current management of user accounts, applications, and devices easier for IT administrators at Public Health because the end user experience will also be improved by having a single sign-on to applications such as Lync, SharePoint, and Outlook. Our success will be measured by having a single set of procedures and security models rather than the multiple ones that now exist.*

The above examples are summaries. Please respond to each question listed below rather than provide a summary.

1. Describe why you expect the proposed IT investment to produce the benefit(s).

BENEFIT (secondary): This project is primarily a lifecycle replacement project. As a result of newer technology and opportunities, it is expected that the replacement infrastructure will provide the ability for other projects (e.g., ORCA Next Generation, Video Camera Management System and Transit Signal Priority System Replacement) to successfully be implemented.

The proposed investment will both change and add methods of transmitting transit data wirelessly:

- The WiFi capability will change from 4.9 GHz to 802.11ac. The new standard is commercially ubiquitous and very stable. Adherence to this standard will result in a larger selection of equipment with better performance, and may also result in price advantage.
- Commercial cell capability will be added. This will enable real-time wireless transactions without the deployment of Access Points. It will make wireless roaming available throughout the transit service area, enabling applications such as Next Generation ORCA and decreasing the per-intersection cost of applications such as transit signal priority as described below:
 - ✓ **ORCA Next Generation.** The ORCA strategic planning process has identified potential enhancements for the next generation, such as the use of open payments (e.g., account-based payments using various credit- and debit-card technologies). In order to implement an open payment system, the ORCA partners would need to implement a secure, always on connection to every bus, such as a cellular 4G/LTE connection. This is a candidate technology for the 4.9 replacement network, so if it is selected, it would enable the ORCA replacement project to deploy those new features and benefit customers by improving fare payment options, speed and access.
 - ✓ **Expansion of TSP and RTIS.** The current 4.9 GHz wireless network is constrained from expansion due to scheduled approaching system obsolescence. KCIT and Transit have limited spares which must be saved to maintain existing services. No more mobile access routers are available for purchase, which limits Metro's ability to deploy TSP on additional corridors. Although several jurisdictions are interested in deploying more TSP (Seattle, Bellevue, Redmond and others), those plans are on hold pending Metro's deployment of a replacement network that can support TSP. Assuming unlimited access to new equipment, the new network will allow continued expansion of TSP and RTIS on new

corridors, which will directly benefit the public through improved speed and reliability, and greater access to bus arrival information along those corridors.

2. **How will you measure the benefit(s)? (How will you know if the benefit has been achieved?)**

Measure 1: the footprint of wireless capability overlaid on the Metro service area.

3. **What is the current baseline for this measure?**

The current baseline for the wireless capability footprint will be determined during design.

4. **What is the target for this measure? (How much improvement will this project achieve?)**

Measure 1 – Target is 80% increase of geographical coverage.

5. **When is the benefit likely to be achieved?**

Measure 1 - The measure is likely to be achieved gradually over the life of the project, with full benefits occurring at the conclusion of component installation currently scheduled for ~~the end of 2019~~ mid-2021. [Update 6/23/2017: Project Implementation is assumed to be 2Q/2021. This is subject to change until the project planning/design phases are completed.]

Category #3: Projects that maintain service at current levels by either replacing or upgrading older technology, reducing the risk of system failures, or providing regulatory compliance. If the project will result in improvements to external or internal services or cost savings, please note those benefits in the appropriate categories.

Example: This project will upgrade PeopleSoft from 9.0 to 9.2. This upgrade is necessary because vendor support for 9.0 will be ending in 2015 and that creates a large risk for the County. Without vendor support the County will not receive tax and regulatory updates and will likely result in errors in complying with tax and regulatory issues.

Example: This project will implement an Advanced Authentication solution which will allow King County to comply with U. S. Department of Justice - Federal Bureau of Investigation, Criminal Justice Information Services (CJIS) Security Policy Version 5.0, Section 5.6.2.2. Effective September 30, 2013, advanced authentication (AA) must be in place in order to access sensitive CJIS information.

1. **Describe why you are proposing to upgrade or replace existing technology. Please include age of existing technology and the average life cycle replacement for this type of technology.**

Transit's 4.9 GHz wireless network was installed starting in 2009, as part of the installation of the On-Board System/Communication Center System (OBS/CCS). There is no industry standard life cycle for this type of equipment, but it generally falls in the IT commodity category, which generally means an expected life of five to seven years. However, equipment obsolescence can be affected by multiple factors, such as lack of market availability of processing chips and other hardware components; updates to operating system software or other software that runs on the hardware, making it obsolete; and other strategic business decisions. In this case, there are increasing failures of equipment for the 4.9 GHz wireless network equipment that Transit uses to upload and download data from the bus fleet at the bases and on RapidRide lines. This network also provides network connectivity for ORCA readers and Real-Time Information Signs (RTIS) on the RapidRide corridors, and enables Transit Signal Priority communications on RapidRide and other routes.

Not doing this project will increase the risk of service interruptions and the eventual failure of data communications for the systems that use the 4.9 network. Such failures will impair Metro's fare collection, operations management, service analysis, transit signal priority and customer information services. Transit and KCIT need to deploy a replacement system before the existing system is no longer working.

The system has already passed the “last buy” milestone for some types of spare parts. This project is a necessary life cycle replacement to maintain a state of good repair, and ensure business continuity. The lack of spare parts and the loss of software support mean that it is not cost-effective to try to isolate this specialized network with additional firewalls or other network modifications. There is no other option to keep these services running, than to replace this obsolete equipment. This project needs to replace the following devices, and ensure integration and provide continuous operation for the systems connected them:

- 1,450 mobile routers installed on the transit fleet, and 140 on RapidRide corridors;
- 44 access points installed at transit bases; and
- 241 access points and along RapidRide and other Intelligent Transportation System corridors.

To maintain business continuity during the transition, Transit and KCIT will need to build and implement the new system as a parallel network at the bases and along the corridors. They must then migrate the fleet by installing or modifying mobile routers in a coordinated, phased process.

WiFi capability will change from 4.9 GHz to 802.11ac. The new standard is commercially ubiquitous and very stable. Adherence to this standard will result in a larger selection of equipment with better performance, and may also result in price advantage.

Commercial cell capability will also be added. This will enable real-time wireless transactions without the deployment of Access Points. It will make wireless roaming available throughout the transit service area, enabling applications such as Next Generation ORCA and decreasing the per-intersection cost of applications such as transit signal priority.

Implementation is currently planned to be completed ~~Q4 2019~~ 2021.

2. ***If the primary reason for the project is risk reduction project, please estimate the probability of the risk or describe how likely it is to occur.***

If this wireless network is not replaced, the probability of incremental network failure, and increasing business impacts, is not just high but certain. There will be partial communication gaps failures when individual hardware units fail and no replacement parts are available.

At the seven operating bases, this network provides wireless communications to connect the revenue fleet with back office systems to upload and download daily on-time performance data, passenger counts, fare transactions, ORCA card reloads, fare tables, daily on-board bus schedules, stop announcements and other on-board configuration data. It is critical to Transit operations that these data transmissions continue to occur in a timely manner. Over 60% of Transit’s fare revenue is processed over this wireless network.

- The ORCA readers are updated daily with customer card reloads and card hotlists. ORCA transactions are offloaded at every pull-in. ORCA transaction data expires if it is not downloaded from the vehicle after seven days. Intermittent communication failures in the network may result in fares being lost due to expired data.
- On-board systems are generally loaded with about 30 days of operational data. If this data is not updated before expiration, on-board data will expire and present operational issues, such as limiting the operators’ ability to use the radio system (a critical life/safety requirement) and collect correct passenger fares (a critical financial requirement).

- The network provides connectivity to collect fares from ORCA readers at major stations, display bus arrivals on real-time information signs, and enables transit signal priority operation along the corridor, for improved speed and reliability.

King County is already experiencing maintenance and operations issues, due to the lack of spare parts. It is expected that these kinds of issues will increase as the system ages, and this will put transit operations at a significant risk of more frequent and longer lasting outages. Incremental failures may require prioritization of certain functions, and moving limited spares around the system to fill in gaps. Some less critical functions such as Real-Time Information Signs and off-board ORCA readers could be temporarily decommissioned in order to keep the core ORCA system functional.

The risks of not proceeding with the project are that 1) the existing network will not support upcoming applications such as Next Generation ORCA, and that 2) the costs to operate and maintain the network will continue to increase as equipment ages and becomes more unstable.

BENEFIT (primary): Not doing this project will increase the risk of service interruptions and the eventual failure of data communications for the systems that use the 4.9 network. Such failures will impair Metro's fare collection, operations management, service analysis, transit signal priority and customer information services. Transit and KCIT need to deploy a replacement system before the existing system is no longer working.

Success of the project will be measured in the following ways:

Measure 1 (same as in Category 2): Footprint of wireless capability overlaid on the Metro service area, with a target of 80% increase of geographical coverage. [Update 6/23/2017: This benefit is assumed to be realized upon project implementation, currently identified as 2Q/2021.]

Measure 2: Annual cost to operate and maintain the wireless network, inclusive of materials and labor, with a target of 0% increase when compared on a comparable basis to current system costs and impacts. The target will be achieved 2 years after the NGW network is fully operational. [Update 6/23/2017: Assuming project implementation of 2Q/2021, this benefit would be achieved 2Q/2023.]

Category #4: Reduced cost to produce service (external or internal) or cost avoidance

This category is for those projects that will reduce the costs to deliver a county service (external or internal). The information provided here should be consistent with the information in the cost-benefit analysis (CBA) form. Please describe how the cost savings will be used by your organization. This category also includes cost avoidance. Cost avoidance is those costs that the County would need to pay, has the capacity and intent to pay, but will be avoided due to the project.

Example: Reduced cost to produce service. *If this project to install accounts payable software is approved, we will automate three tasks that are currently done manually by agency and central purchasing employees. Based on experience of other users of the software, this will reduce processing time from the current average of ten days to less than one. This will allow us to take advantage of prompt payment discounts for over \$15,000,000 of annual purchases. These discounts average 2%, yielding annual savings of about \$300,000. This will result in savings in department expenditures for those items qualifying for prompt payment discounts.*

Example: Cost Avoidance. *Moving to this new vendor that uses a SaaS product, we will avoid the need to upgrade the system to the newest version which goes end-of-life at the end of next year. We were required to make this upgrade due to regulatory reasons, so this represents a cost avoidance of \$100,000.*

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Example: This project, to repair an emergency radio tower, was successfully completed in April 2014. The anticipated benefit was to maintain current service levels at 99.999% up time for an additional 5 years. This project is currently functioning at 99.999% up-time and will report annually for the next 5 years on up-time levels.

If one of these towers failed physically, the cost to the county would be enormous, generally in the neighborhood of \$500K - \$1 million per tower depending on the construction techniques and size. User agencies on the emergency radio system will benefit by having infrastructure systems in place that will be assured of not experiencing catastrophic failures due to lack of maintenance.

Example: This project to automate accounts payable software was implemented and did improve the processing time average. The average time was reduced from 10 to 2 days, not quite reaching the 1 day target. Additionally, only 20% of purchases received a prompt payment discount resulting in less cost swings than anticipated. We did not meet the target because there were fewer purchases that qualified for prompt payment than originally estimated.

Example:

Metric Description	Metrics	Baseline	Target	Actual
Reduce cost to deliver service. This project reduced processing time from the current average of ten days to less than one allowing us to take advantage of prompt payment discounts.	Processing time, annual savings, and % of purchases receiving prompt payment discounts	<ul style="list-style-type: none"> • 10 days processing time • 10% of purchases are receiving discount • Savings of \$100,000 	<ul style="list-style-type: none"> • 1 day processing time • 30% of purchases are receiving prompt payment discounts • \$400,000 savings 	<ul style="list-style-type: none"> • 2 day processing time • 20% of purchases are receiving prompt payment discounts • \$200,000 savings

See next page

Summary – NGW Replacement 4.9 Network IT Project

Benefit	Metrics	Baseline	Target	Actual
<p>Category 2: The project will make wireless roaming available throughout the transit service area, enabling successful implementation of projects such as ORCA Next Generation, Video Camera Management System and Transit Signal Priority System Replacement.</p> <p>Category 3: If the current wireless network is not replaced, the probability of incremental network failure, and increasing business impacts, is certain. The new system will prevent the risk of increased costs to operate and maintain the network (due to aging equipment becoming more unstable and lack of replacement parts).</p>	<p>The footprint of wireless capability overlaid on the Metro service area</p>	<p>To be determined</p>	<p>80% increase of geographical coverage</p>	<p>At the conclusion of component installation [Update 6/23/2017: (2Q/2021)] (late 2019)</p>
	<p>The annual cost to operate and maintain the wireless network, inclusive of materials and labor</p>	<p>To be determined</p>	<p>0% increase in cost to operate and maintain when all factors are considered</p>	<p>2 years after the NGW network is fully operational [Update 6/23/2017: assuming project implementation 2Q/2021, this benefit would be achieved by 2Q/2023]</p>

IT Project Benefits Achievement Plan (Version 2)

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King County Department/ Agency Name	DOT/Transit
Project Title	On-Board Camera Management System
Project Number	1129798 [Updated 2/17/17]

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Business Owner Name and Title: Rob Gannon, ~~Interim~~ General Manager [\[Updated 2/17/17\]](#)

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The development of the BAP should include significant involvement from the business operations or management staff related to this project and the services it will support. Consider involving staff who will be using the technology to help identify the benefits of the project. KCIT business analysts or technology project staff may assist in benefit identification and documentation. List the staff who contribute to the BAP below:

Name	Title / Agency	Project Role
Kathleen McMurray	Supervisor/Transit	Subject Matter Expert
David Hull	Special Projects Manager/Transit	Subject Matter Expert
Jill Krecklow	Finance Manager	Chair, Transit Technology Oversight

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Revision History Table

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<i>Please use conceptual review, budget process, funding release, annual report, project implementation, or project completion.</i>	<i>Date this document was updated</i>	<i>Who did the document updates?</i>	<i>A brief summary of what changed in the document. If this is an initial draft, please indicate new. If nothing has changed, indicate "review only".</i>	<i>How long did it take to complete or revise the form at this stage?</i>
Conceptual review	6/22/16	Kathleen McMurray	New, initial draft	3 hours
2017/2018 Budget	10/6/16	Kathleen McMurray	Updated in response to Council staff feedback	3 hours
2017/2018 Budget	10/10/16	Jill Krecklow	Revised BAP to align with council staff feedback and project purpose	1 hour
2017/2018 Budget	10/16/16	Jill Krecklow	Revised BAP to align with council staff feedback	1 hour
2016 Annual Update	2/17/17	Kathleen McMurray	Minor updates only. This project was just funded and has not yet started.	.25 hours
2016 Annual Update	6/23/16	Jill Krecklow	Revised BAP based on council staff feedback specifically to include dates in (QQ/YY format). As this project is still in planning, the implementation date is estimated for this purpose.	.25 hours

Section 6. Description of Project Benefits

Identify the category(ies) of benefits your project will provide and include narrative descriptions of estimated benefits. The benefits of IT investments generally fit into the following four categories:

- 1) External service benefits: Improving the quality or quantity of services provided to the public
- 2) Internal service benefits: Improving internal operations, including the quality or quantity of internal services
- 3) Maintaining service levels by replacing or upgrading older technology or reducing risk of system failures
- 4) Reduced cost to produce services (internal or external)

Each category is described below. Most projects will have benefits in one or two categories. If the project does not have benefits in a category, there is no need to provide information for that category.

What is the primary benefit of your project? After reviewing the benefit categories below, please identify the primary type of benefit for the project. For most projects, the primary type benefit will be Category #2 improving internal operations or Category #3 replacing or upgrading older technology.

Primary project benefit? (Check only one)

- Category #1: External service benefits: Improving the quality or quantity of services provided to the public
- Category #2: Internal service benefits: Improving internal operations, including the quality or quantity of internal services
- Category #3: Maintaining service levels by replacing or upgrading older technology
- Category #4: Reduced cost or cost avoidance to produce services

Category #1: External service benefits: Improving the quality or quantity of services provided to the public. This category is intended for projects that directly benefit the public. This includes improved quality of service, such as faster response times and better access to services for the public.

***Example:** If this project to upgrade our licensing software is approved, licenses will be issued in two business days instead of the four days currently required. This is largely due to the ability of the new software to check national and state databases more efficiently. About one-quarter of our customers currently complain about the delay in obtaining a license and this time reduction is expected to eliminate almost all complaints and allow staff resources to be directed to other customer services.*

***Example:** If this project to accept on-line reservations is approved, residents will be able to schedule athletic fields over the Internet and make payments by credit card. This will allow scheduling to occur at any time, rather than the current limited hours available for in-person or phone reservations. In-person and phone reservations will still be available.*

The above examples are summaries. Please respond to each question listed below rather than provide a summary.

1. Describe why you expect the proposed IT investment to produce the benefit(s).
2. How will you measure the benefit(s)? (How will you know if the benefit has been achieved?)
3. What is the current baseline for this measure?
4. What is the target for this measure? (How much improvement will this project achieve?)
5. When is the benefit likely to be achieved?

Category #2: Internal service benefits: Improving internal operations, including the quality or quantity of internal services. Be sure to explain the value of such improvements to your operations.

Example: If this project to acquire hand-held devices and develop custom software is approved, inspectors will be able to check an average of 10 sites per day compared with the average of 6 currently checked. This will allow the agency to handle the 20% increase in workload projected in the next three years without adding more staff.

Example: If this project to implement a systems management tool for the Service Center is implemented we will be able to reduce the duration of technology outages during major incidents by 30%. We also will reduce the wait time for customers on hold with the Service Center. These improvements will allow us to redirect an existing position to other priorities.

Example: The Active Directory Consolidation project is part of an overall effort to promote IT standardization. This project will make the current management of user accounts, applications, and devices easier for IT administrators at Public Health because the end user experience will also be improved by having a single sign-on to applications such as Lync, SharePoint, and Outlook. Our success will be measured by having a single set of procedures and security models rather than the multiple ones that now exist.

The above examples are summaries. Please respond to each question listed below rather than provide a summary.

- 1) Describe why you expect the proposed IT investment to produce the benefit(s).**
- 2) How will you measure the benefit(s)? (How will you know if the benefit has been achieved?)**
- 3) What is the current baseline for this measure?**
- 4) What is the target for this measure? (How much improvement will this project achieve?)**
- 5) When is the benefit likely to be achieved?**

Category #3: Projects that maintain service at current levels by either replacing or upgrading older technology, reducing the risk of system failures, or providing regulatory compliance. If the project will result in improvements to external or internal services or cost savings, please note those benefits in the appropriate categories.

Example: This project will upgrade PeopleSoft from 9.0 to 9.2. This upgrade is necessary because vendor support for 9.0 will be ending in 2015 and that creates a large risk for the County. Without vendor support the County will not receive tax and regulatory updates and will likely result in errors in complying with tax and regulatory issues.

Example: This project will implement an Advanced Authentication solution which will allow King County to comply with U. S. Department of Justice - Federal Bureau of Investigation, Criminal Justice Information Services (CJIS) Security Policy Version 5.0, Section 5.6.2.2. Effective September 30, 2013, advanced authentication (AA) must be in place in order to access sensitive CJIS information.

- 1. Describe why you are proposing to upgrade or replace existing technology. Please include age of existing technology and the average life cycle replacement for this type of technology.**
- 2. If the primary reason for the project is risk reduction project, please estimate the probability of the risk or describe how likely it is to occur.**

Category #4: Reduced cost to produce service (external or internal) or cost avoidance

This category is for those projects that will reduce the costs to deliver a county service (external or internal). The information provided here should be consistent with the information in the cost-benefit analysis (CBA) form. Please describe how the cost savings will be used by your organization. This category also includes cost avoidance. Cost avoidance is those costs that the County would need to pay, has the capacity and intent to pay, but will be avoided due to the project.

Example: *Reduced cost to produce service.* *If this project to install accounts payable software is approved, we will automate three tasks that are currently done manually by agency and central purchasing employees. Based on experience of other users of the software, this will reduce processing time from the current average of ten days to less than one. This will allow us to take advantage of prompt payment discounts for over \$15,000,000 of annual purchases. These discounts average 2%, yielding annual savings of about \$300,000. This will result in savings in department expenditures for those items qualifying for prompt payment discounts.*

Example: *Cost Avoidance.* *Moving to this new vendor that uses a SaaS product, we will avoid the need to upgrade the system to the newest version which goes end-of-life at the end of next year. We were required to make this upgrade due to regulatory reasons, so this represents a cost avoidance of \$100,000.*

The above examples are summaries. Please respond to each question listed below rather than provide a summary.

1. Describe why you expect the proposed IT investment to reduce costs

This project is one that is intended to reduce costs as it provides an automated solution to what is otherwise a manual process of retrieving and managing video images and manually ensuring that the systems are operating. The benefits that come from increased customer and bus operator security are the result of each bus being equipped with a camera system. **The benefit of this project is the ability to cost effectively access and manage the camera images and maintain system reliability.**

This project supports Metro's business driver of *Keeping the System Safe and Making it Safer*. In response to operator and customer comments, the Executive has asked Metro to install on-board camera systems on 100% of the 1,500 bus fleet. Currently, about 50% of the fleet has on-board camera systems installed – these systems operate independently on each bus. In order to retrieve images, individual buses must be manually boarded and existing digital recorders removed and replaced with a new one. The digital recorder then must be taken to a separate location and the specific image identified, copied and provided to the individual making the request. Fully equipping the fleet with independent camera systems on each bus provides an increase in perceived security on the system while providing a video record of what occurs on the bus as well as reduced litigation and risk expense when claims can be resolved by reviewing camera images

2. How will you measure the cost reduction or cost avoidance? (How will you know if the benefit has been achieved)

The cost effectiveness of the system will be measured in terms of staffing resources required to retrieve and manage video images and to maintain system reliability.

3. What is the current baseline?

Decision package DS_034 Vehicle Camera Expansion requests 7 TLTs and \$1,274,278 in the biennium in order to support activities of retrieving and managing video images and ensuring reliability.

4. What is the target for this measure? (How much savings will this project achieve)

The target for this measure is that once the video management system is in place, there will be no additional resources required and the TLT positions requested in the 2017/2018 budget will be reduced without a degradation in response rates or system reliability.

5. When is the cost reduction likely to be achieved?

2019 or when the system is fully operational

[Update 6/23/2017: Benefits will not fully accrue until a significant portion of the fleet receives new equipment. Based on system selection in 2017 and implementation starting in 2018, full benefits are assumed to occur by 4Q/2019]

Section 7. Benefit Achievement Summary

To be completed when benefits have been achieved or no further benefits are expected. For each of the benefits you identified above, explain whether benefits were achieved at target levels. Please include both quantitative measures and qualitative descriptions of benefits, including any monetary benefits. Use the measures identified above. If not achieved, explain why.

Example: This project, to repair an emergency radio tower, was successfully completed in April 2014. The anticipated benefit was to maintain current service levels at 99.999% up time for an additional 5 years. This project is currently functioning at 99.999% up-time and will report annually for the next 5 years on up-time levels.

If one of these towers failed physically, the cost to the county would be enormous, generally in the neighborhood of \$500K - \$1 million per tower, depending on the construction techniques and size. User agencies on the emergency radio system will benefit by having infrastructure systems in place that will be assured of not experiencing catastrophic failures due to lack of maintenance.

Example: This project to automate accounts payable software was implemented and did improve the processing time average. The average time was reduced from 10 to 2 days, not quite reaching the 1 day target. Additionally, only 20% of purchases received a prompt payment discount resulting in less cost swings than anticipated. We did not meet the target because there were fewer purchases that qualified for prompt payment than originally estimated.

Example:

Metric Description	Metrics	Baseline	Target	Actual
Reduce cost to deliver service. This project reduced processing time from the current average of ten days to less than one allowing us to take advantage of prompt payment discounts.	Processing Time annual savings, and percentage of purchases receiving prompt payment discounts	<ul style="list-style-type: none"> 10-day processing time 10% of purchases are receiving discount \$100,000 savings 	<ul style="list-style-type: none"> 1-day processing time 30% of purchases are receiving prompt payment discounts \$400,000 savings 	<ul style="list-style-type: none"> 2-day processing time 20% of purchases are receiving prompt payment discounts \$200,000 savings

See next page

Summary – Onboard Camera Management System IT Project

Benefit	Metrics	Baseline	Target	Actual
<p>Category 4: Ability to cost effectively access and manage the camera images and maintain system reliability.</p>	<p>Staffing resources required to retrieve and manage video images and to maintain system reliability</p>	<p>Decision package DS_034 Vehicle Camera Expansion requests 7 TLTs and \$1,274,278 in the biennium in order to support activities of retrieving and managing video images and ensuring reliability.</p>	<p>No additional resources required and the TLT positions requested in the 2017/2018 budget will be reduced without a degradation in response rates or system reliability</p>	<p>By Q4.2019 or when the system is fully operational</p>

IT Project Benefits Achievement Plan (Version 2)

To complete this document fully, please read all of the colored sections and fill in the white cells.
For assistance in completing this form, please contact your PSB analyst.

Section 1. What are the purposes of the Benefit Achievement Plan (BAP)?

1. To achieve a clear understanding and focus on the benefits of a project prior to its beginning
2. To update projected benefits of the project as it moves through stages of project approval, implementation, and post-project closure
3. To establish accountability for identifying and achieving benefits
4. To ensure that benefits are achieved

King County Department/Agency Name	Department of Transportation (DOT)/Transit Division
Project Title	Regional Fare Coordination System (ORCA System) Enhancements
EBS Project Number	Various – Master Project with Sub-projects

Section 2. Business Owner Accountability

Business Owners are responsible for achieving project benefits and ensuring this Benefit Achievement Plan (BAP) is regularly updated and completed when benefits are achieved. Business Owners are required to be at the deputy department director or higher.

Business Owner Name and Title: ~~Kevin Desmond, Transit General Manager~~ Rob Gannon, ~~Acting~~ Transit General Manager

Section 3. Who is involved in developing the BAP?

The development of the BAP should include significant involvement from the business operations or management staff related to this project and the services it will support. Consider involving staff who will be using the technology to help identify the benefits of the project. KCIT business analysts or technology project staff may assist in benefit identification and documentation. List the staff who contribute to the BAP below:

Name	Title / Agency	Project Role
Tom Friedman	IT Project Manager II/DOT Transit Division	Project Manager
Phil Branham	Supervisor of Fare Media Sales/DOT Transit Division	Fare Media Sales Information
Chuck Sawyer	Supervisor/DOT Transit Division	Market Research Information
Tom Randall	Chief/DOT Transit Division	Customer Services Information
Dave Dunneback	Planner/DOT Transit Division	King County Employee ORCA Usage
Randy Boshart [Update 6/23/2017]	IT Project Manager II /DOT Transit Division	Project Manager

Section 4. When should the BAP be started, updated and completed?

The BAP is intended to be an iterative, evolving document that will be updated as the project evolves, as information is refined or scope changes, and when benefits are finally achieved. Department and agencies (the business owners of project benefits) are required to update this document at the following times or actions:

1. To support initial project request during “gate two” phase of conceptual review.
2. For the annual Benefits report that PSB compiles.
3. To support funding release requests. If there are no changes, indicate “review only” in the revision table.
4. When a material scope change is identified and reported.

5. Up to one year after project completion and then annually until it is determined by the business owners that anticipated benefits have been achieved or no further benefits are expected.

Once the project is complete and benefits are achieved and reported, no additional reporting is required.

Please update the document online. Do not delete your previous text. Update the text as necessary and date those updates. Make sure that you upload the updated version to Innotas. The intent is for this single document to show the history of benefits over the course of the project. List any changes in the table in section 5. (If there are no changes, type none)

Section 5. How long will it take to complete the BAP?

Completion of the BAP depends on the project's complexity. In general, it should take a few hours to complete this BAP form once there is a shared understanding of the project and what value it will bring to the County. More complex and costly projects may require more extensive analysis. To improve this process in the future, please record the time spent on this in the table below at each stage of revision:

Revision History Table

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2013 Annual Report	1/6/14	Tom Friedman	Converted plan from Benefit Realization Plan into BAP format	3 hours
2013 Annual Report	03/20/14	Kathleen McMurray	Revised per feedback	1 hour
2014 Annual Report	02/06/15	Kathleen McMurray	Review only	.25 hours
2015 Annual Report	2/11/16	Kathleen McMurray	Numerous updates throughout document	2 hours
2015 Annual Report	4/4/16	Kathleen McMurray	1. Updated Business Owner 2. Updated Section 3 to only include current Transit staff 3. Updated # of elements	.25 hours
2016 Annual Report	2/17/17	Randy Boshart	Updated Business Owner title and benefits achieved	1 hour
2016 Annual Report	6/27/2017	Jill Krecklow	Revised to reflect council staff feedback related to project benefits. Included dates for benefit achievement, added benefits specifically related to ORCA LIFT and added some description of nature of this project.	.5 hour

Section 6. Description of Project Benefits

Identify the category(ies) of benefits your project will provide and include narrative descriptions of estimated benefits. The benefits of IT investments generally fit into the following four categories:

- 1) External service benefits: Improving the quality or quantity of services provided to the public
- 2) Internal service benefits: Improving internal operations, including the quality or quantity of internal services
- 3) Maintaining service levels by replacing or upgrading older technology, reducing risk of system failures, or providing regulatory compliance
- 4) Reduced cost to produce services (internal or external)

Each category is described below. Most projects will have benefits in one or two categories. If the project does not have benefits in a category, there is no need to provide information for that category.

What is the primary benefit of your project? After reviewing the benefit categories below, please identify the primary type of benefit for the project. For most projects, the primary type benefit will be Category #2 improving internal operations or Category #3 replacing or upgrading older technology.

Primary project benefit? (Check only one)

- Category #1: External service benefits: Improving the quality or quantity of services provided to the public
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- Category #3: Maintaining service levels by replacing or upgrading older technology, reducing risk of system failures, or providing regulatory compliance
- Category #4: Reduced cost or cost avoidance to produce services

Category #1: External service benefits: Improving the quality or quantity of services provided to the public. This category is intended for projects that directly benefit the public. This includes improved quality of service, such as faster response times and better access to services for the public.

***Example:** If this project to upgrade our licensing software is approved, licenses will be issued in two business days instead of the four days currently required. This is largely due to the ability of the new software to check national and state databases more efficiently. About one-quarter of our customers currently complain about the delay in obtaining a license and this time reduction is expected to eliminate almost all complaints and allow staff resources to be directed to other customer services.*

***Example:** If this project to accept on-line reservations is approved, residents will be able to schedule athletic fields over the Internet and make payments by credit card. This will allow scheduling to occur at any time, rather than the current limited hours available for in-person or phone reservations. In-person and phone reservations will still be available.*

The above examples are summaries. Please respond to each question listed below rather than provide a summary.

[Update 6/27/2017: The RFCS Enhancement project is a master project with several sub-projects. The sub-projects are all designed to advance use of the ORCA system by more customers, either by revising functionality, offering more/different products or providing streamlined operations which make it easier to use.]

Background: There are ~~7~~ 6 Elements (or sub-projects) within the RFCS Enhancements Project. **Four** ~~Three~~ of the ~~seven~~ six elements are in this Benefit Category. The expected benefits for each of these will be described separately.

1. **Describe why you expect the proposed IT investment to produce the benefit(s).**
 - a. **Streetcar Element.** The goal of this element is to install ORCA readers on the two streetcar lines: South Lake Union and First Hill. It is an extension of the current regional ORCA system to the streetcar mode. This will allow the public to use ORCA cards for fare payment on streetcars thereby providing better access to services for the public.
 - b. ~~**Operations Enhancement Element.** The ORCA system went 'live' on April 20, 2009. This element is intended to address operational issues that have come to light since the implementation of the system. The primary benefits are expected to be customer and employee satisfaction related to the collection of fares on board buses.~~
 - c. **University of Washington Element.** The goal of this element was to convert the U Pass program to ORCA. This allows UW students, staff and faculty to use ORCA cards for fare payment thereby providing better access to services for the public.
 - d. **Regional Enhancements Element.** The specific enhancements included in this element are determined by the ORCA Regional Joint Board (made up of the General Managers of the 7 participating agencies). Overall, the goals are to improve customer satisfaction and increase operational efficiencies.

2. **How will you measure the benefit(s)? (How will you know if the benefit has been achieved?)**
 - a. **Streetcar Element.** The benefit of this element will be measured by the number of passengers using ORCA for fare payment. The ORCA system automatically keeps track of the number of ORCA "taps" or "boardings". ORCA Boardings reports can be generated easily for any time period.
 - b. ~~**Operations Enhancement Element.** The enhancements planned for this element are relatively small and the impact will be difficult to measure without an expensive survey effort. It is proposed that a surrogate metric is the number of customer complaints recorded by the Metro Comment System (MCS).~~
 - c. **University of Washington Element.** Conversion to ORCA was not expected to change transit use at UW but the number of times the cards are used is an indicator of the usability of the extension of the regional ORCA system.
 - d. **Regional Enhancements Element.** The usage of ORCA since Full System Acceptance is the most relevance metric, specifically regional average weekday ORCA boardings as a percent of total average weekday boards.

3. **What is the current baseline for this measure?**
 - a. **Streetcar Element.** ORCA use on streetcars will be measured by looking at ORCA Boardings on Streetcar service as a percentage of total Streetcar boardings: Baseline is 0%
 - b. ~~**Operations Enhancement Element.** Customer satisfaction will be measured by looking at ORCA complaints per calendar quarter as entered in MCS: Baseline is 73 (3rd Quarter 2012)~~
 - c. **University of Washington Element.** UW ORCA boarding will be measured by looking at Total ORCA Boardings by UW cardholders in October of each year: Baseline is 0
 - d. **Regional Enhancements Element.** ORCA Market Share will be measured by looking at Regional Average Weekday ORCA Boardings/Total Average Weekday Boardings: Baseline is 51% (End of 1st Quarter 2011)

4. **What is the target for this measure? (How much improvement will this project achieve?)**
 - a. **Streetcar Element.** ORCA use on streetcars will be measured by looking at ORCA Boardings on Streetcar service as a percentage of total Streetcar boardings: Target is 50%

- b. Operations Enhancement Element.** Customer satisfaction will be measured by looking at ORCA complaints per calendar quarter as entered in MCS: Target is decrease by 30%
- c. University of Washington Element.** UW ORCA boarding will be measured by looking at Total ORCA Boardings by UW cardholders in October of each year: Target is 1,422,677
- d. Regional Enhancements Element.** ORCA Market Share will be measured by looking at Regional Average Weekday ORCA Boardings/Total Average Weekday Boardings: Target is 65%

5. When is the benefit likely to be achieved?

- a. Streetcar Element.** 2/17/17: Benefit has been achieved. As of December 2016 usage of ORCA on Streetcars is 66%. Two years following implementation of ORCA fare payment on streetcars.
- b. Operations Enhancement Element.** ~~Two years following implementation of the Operations Enhancement.~~
- c. University of Washington Element.** Benefit has been achieved. All UW transit trips were converted to ORCA with implementation of the UW Element. Total ORCA Boardings by UW cardholders in October 2012 was 1,422,677.
- d. Regional Enhancements Element.** Two years following implementation.

[Update 6/27/2017: The regional enhancement elements of this project are all designed to increase ORCA market share. Incremental enhancements to the system coupled with outreach and promotional activities have increased ORCA boardings from an initial 51% of boardings (2011) to 67% in 2016. One particular enhancement that was done as part of this project is related to ORCA LIFT. ORCA LIFT would not have been possible without the funds available to develop a system for the service providers to use to enter and share information. The original estimate for ORCA LIFT 'customers' was 45k – 60k. As of May, 2017 ORCA LIFT has 47,019 customers.]

[New 1/22/16: Operations Enhancement Element was removed from the scope of the RFC Enhancements project.]

Category #2: Internal service benefits: Improving internal operations, including the quality or quantity of internal services. Be sure to explain the value of such improvements to your operations.

***Example:** If this project to acquire hand-held devices and develop custom software is approved, inspectors will be able to check an average of 10 sites per day compared with the average of 6 currently checked. This will allow the agency to handle the 20% increase in workload projected in the next 3 years without adding more staff.*

***Example:** If this project to implement a systems management tool for the Service Center is implemented we will be able to reduce the duration of technology outages during major incidents by 30%. We also will reduce the wait time for customers on hold with the Service Center. These improvements will allow us to redirect an existing position to other priorities.*

***Example:** The Active Directory Consolidation project is part of an overall effort to promote IT standardization. This project will make the current management of user accounts, applications, and devices easier for IT administrators at Public Health because the end user experience will also be improved by having a single sign-on to applications such as Lync, SharePoint, and Outlook. Our success will be measured by having a single set of procedures and security models rather than the multiple ones that now exist.*

The above examples are summaries. Please respond to each question listed below rather than provide a summary.

Background: There are 7 6 Elements (or sub-projects) within the RFCS Enhancements Project. Two of the seven six elements are in this Benefit Category. The expected benefits for each of these will be described separately.

1. **Describe why you expect the proposed IT investment to produce the benefit(s).**
 - a. **King County Employee Card Element.** This element implemented ORCA cards for King County employees. The cards provide building access and functionality in addition to ORCA functionality.
 - b. **Data Access Element.** The primary benefit of this element is to preserve the detailed ORCA transaction data that is currently stored as csv files on the ORCA Back Office Computer (BOC). This project element will make the transaction data available to a limited number of users but it will position Metro for future use of the data for operational analysis as part of a yet to be determined project. The ORCA vendor will be purging these data soon and it is important that they be saved elsewhere.
2. **How will you measure the benefit(s)? (How will you know if the benefit has been achieved?)**
 - a. **King County Employee Card Element.** The benefit of this element can be measured by monitoring the usage of ORCA boardings generated by King County cards.
 - b. **Data Access Element.** Success will be measured by having a repository of detailed ORCA transaction data rather than having the data unavailable for future study.
3. **What is the current baseline for this measure?**
 - a. **King County Employee Card Element.** King County employee ORCA usage will be measured by looking at Total ORCA Boardings by King County employees for June to October of each Year: Baseline is 0
 - b. **Data Access Element.** Baseline for this element is having no database for BOC transaction data.
4. **What is the target for this measure? (How much improvement will this project achieve?)**
 - a. **King County Employee Card Element.** King County employee ORCA usage will be measured by looking at Total ORCA Boardings by King County employees for June to October of each Year: Target is 691,673
 - b. **Data Access Element.** Target for this element is having a database for BOC transaction data.
5. **When is the benefit likely to be achieved?**
 - a. **King County Employee Card Element.** Benefit has been achieved. All King County employee transit trips were converted to ORCA with implementation of the King County Employee Card Element. Total ORCA Boardings by King County employees for June to October 2012 was 691,673.
 - b. **Data Access Element.** Benefit has been achieved. Work on this element is complete with the implementation of a repository of detailed ORCA transaction data.

Category #3: Projects that maintain service at current levels by either replacing or upgrading older technology, reducing the risk of system failures, or providing regulatory compliance. If the project will result in improvements to external or internal services or cost savings, please note those benefits in the appropriate categories.

Example: This project will upgrade PeopleSoft from 9.0 to 9.2. This upgrade is necessary because vendor support for 9.0 will be ending in 2015 and that creates a large risk for the County. Without vendor support the County will not receive tax and regulatory updates and will likely result in errors in complying with tax and regulatory issues.

Example: This project will implement an Advanced Authentication solution which will allow King County to comply with U. S. Department of Justice - Federal Bureau of Investigation, Criminal Justice Information Services (CJIS) Security Policy Version 5.0, Section 5.6.2.2. Effective September 30, 2013, advanced authentication (AA) must be in place in order to access sensitive CJIS information.

Background: There are 7 6 Elements (or sub-projects) within the RFCS Enhancements Project. One of the ~~seven~~ six elements are in this Benefit Category. The expected benefits for each of these will be described separately.

1. **Describe why you are proposing to upgrade or replace existing technology. Please include age of existing technology and the average life cycle replacement for this type of technology.**

Sales & Customer Services Element. [2/17/17: Benefit has been achieved. Legacy point of sale \(POS\) system has been retired.](#) The ORCA system was implemented as a regional system that did not address all of the needs of the individual agencies. This project element's purpose ~~is~~ was to extend the ORCA system in several ways with the goal of completing the replacement of Metro's legacy ~~point of sale (POS)~~ system. The legacy POS system ~~is~~ was currently only used for a small number of sales transactions at the agency. With the completion of the project element, all sales transactions ~~will be~~ are now performed using the ORCA system and the legacy POS system ~~will be~~ has been retired.

2. **If the primary reason for the project is risk reduction project, please estimate the probability of the risk or describe how likely it is to occur.**

N/A

Category #4: Reduced cost to produce service (external or internal) or cost avoidance

This category is for those projects that will reduce the costs to deliver a county service (external or internal). The information provided here should be consistent with the information in the cost-benefit analysis (CBA) form. Please describe how the cost savings will be used by your organization. This category also includes cost avoidance. Cost avoidance is those costs that the County would need to pay, has the capacity and intent to pay, but will be avoided due to the project.

Example: Reduced cost to produce service. *If this project to install accounts payable software is approved, we will automate three tasks that are currently done manually by agency and central purchasing employees. Based on experience of other users of the software, this will reduce processing time from the current average of ten days to less than one. This will allow us to take advantage of prompt payment discounts for over \$15,000,000 of annual purchases. These discounts average 2%, yielding annual savings of about \$300,000. This will result in savings in department expenditures for those items qualifying for prompt payment discounts.*

Example: Cost Avoidance. *Moving to this new vendor that uses a SaaS product, we will avoid the need to upgrade the system to the newest version which goes end-of-life at the end of next year. We were required to make this upgrade due to regulatory reasons, so this represents a cost avoidance of \$100,000.*

The above examples are summaries. Please respond to each question listed below rather than provide a summary.

[Update 6/27/2017: The RFCS Enhancement project is a master project with several sub-projects. The sub-projects are all designed to advance use of the ORCA system by more customers, either by revising functionality, offering more/different products or providing streamlined operations which make it easier to use.]

Background: There are 7 6 Elements (or sub-projects) within the RFCS Enhancements Project. Three of the ~~seven~~ six elements are in this Benefit Category. The expected benefits for each of these will be described separately.

1. **Describe why you expect the proposed IT investment to reduce costs?**

- a. **University of Washington Element.** Surveys that are currently done every 2 years to determine UW transit usage will no longer be needed.
 - b. ~~Operations Enhancement~~ **Sales & Customer Services Element.** Legacy POS system will no longer be needed.
 - c. **King County Employee Card Element.** Avoids support of multiple building access and ORCA cards for KC employees.
- 2. How will you measure the cost reduction or cost avoidance? (How will you know if the benefit has been achieved)**
- a. **University of Washington Element.** Surveys will no longer be needed. Cost savings.
 - b. ~~Operations Enhancement~~ **Sales & Customer Services Element.** Legacy POS system will no longer be needed. Cost savings.
 - c. **King County Employee Card Element.** Separate building access card will not be needed.
- 3. What is the current baseline?**
- a. **University of Washington Element.** \$42,000 every 2 years
 - b. ~~Operations Enhancement~~ **Sales & Customer Services Element.** \$18,000 per year
 - c. **King County Employee Card Element.** \$386,000 over 5 year life cycle.
- 4. What is the target for this measure? (How much savings will this project achieve)**
- a. **University of Washington Element.** \$42,000 every 2 years
 - b. ~~Operations Enhancement~~ **Sales & Customer Services Element.** \$18,000 per year
 - c. **King County Employee Card Element.** \$386,000 over 5 year period
- 5. When is the cost reduction likely to be achieved?**
- a. **University of Washington Element.** ~~June 2015.~~ [New 1/22/16: Benefit has been achieved. King County no longer pays for or manages a survey to determine UW transit usage.]
 - b. ~~Operations Enhancement~~ **Sales & Customer Services Element.** 2/17/17: Benefit has been achieved. Legacy POS system was retired in 2016. Estimated to be June 2016 (two years after implementation).
 - c. **King County Employee Card Element.** April 2017. 2/17/17: Benefit has been achieved. All King County staff have ORCA cards which also allow for building access.

[New 1/22/16: Corrected the name of the Sales & Customer Services Element (it was misnamed "Operations Enhancement Element").]

Section 7. Benefit Achievement Summary

To be completed when benefits have been achieved or no further benefits are expected. For each of the benefits you identified above, explain whether benefits were achieved at target levels. Please include both quantitative measures and qualitative descriptions of benefits, including any monetary benefits. Use the measures identified above. If not achieved, explain why.

Example: *This project, to repair an emergency radio tower, was successfully completed in April 2014. The anticipated benefit was to maintain current service levels at 99.999% up time for an additional 5 years. This project is currently functioning at 99.999% up-time and will report annually for the next 5 years on up-time levels.*

If one of these towers failed physically, the cost to the county would be enormous, generally in the neighborhood of \$500K - \$1 Million per tower depending on the construction techniques and size. User agencies on the

emergency radio system will benefit by having infrastructure systems in place that will be assured of not experiencing catastrophic failures due to lack of maintenance.

Example: This project to automate accounts payable software was implemented and did improve the processing time average. The average time was reduced from 10 to 2 days, not quite reaching the 1 day target. Additionally, only 20% of purchases received a prompt payment discount resulting in less cost swings than anticipated. We did not meet the target because there were fewer purchases that qualified for prompt payment than originally estimated.

Example:

Metric Description	Metrics	Baseline	Target	Actual
Reduce cost to deliver service. This project reduced processing time from the current average of 10 days to <1 day allowing us to take advantage of prompt payment discounts.	Processing time annual savings, and percentage of purchases receiving prompt payment discounts	<ul style="list-style-type: none"> 10 days processing time 10% of purchases are receiving discount Savings of \$100,000 	<ul style="list-style-type: none"> 1 day processing time 30% of purchases are receiving prompt payment discounts \$400,000 savings 	<ul style="list-style-type: none"> 2 day processing time 20% of purchases are receiving prompt payment discounts \$200,000 savings

There are 7 6 Elements (or sub-projects) within the RFCS Enhancements Project. Benefits for each of these Elements will be realized at different times. The below list identifies those benefits realized to date. Additional benefits will be added over time.

Metric Description	Metrics	Baseline	Target	Actual
Category 1: External Services				
ORCA usage on streetcar	ORCA usage on streetcar compared to all boarding	<u>0</u>	50% of riders using ORCA on streetcar for fare payment	As of December 2016 ORCA usage on streetcar is 66%
University of Washington (UW) ORCA Boardings	Total ORCA Boardings by UW Employees in October of each Year.	0	1,422,677	1,422,677 (all UW transit trips converted to ORCA with the University of Washington Card Element)
ORCA LIFT Customers [updated 6/27/2017]	Total # ORCA LIFT cards issued.		45k to 60k	Customers as of 5/31/2017 total 47,019. Outreach and expanding contracts with social service agencies continue to expand use of the product. The technology investment enables this work to be done in a cost effective manner, but does not in and of itself result in

				the program acceptance.
Category 2: Efficient Operations				
King County (KC) Employee ORCA Use	Total ORCA Boardings by KC Employees for June to October of each Year.	0	691,673	691,673 (all KC transit trips converted to ORCA with the King County Employee Card Element)
Installation of a repository of detailed ORCA transaction data rather than having the data unavailable for future study.	Installation of a repository of detailed ORCA transaction data.	No data repository exists.	Data repository is created and collecting data.	Data repository is created and collecting data
Category 3				
Category 4				
Survey data no longer used to determine UW transit usage.	Surveys will no longer be needed.	\$42,000 expended every 2 years	Cost savings of \$42,000 every 2 years	Cost savings of \$42,000 every 2 years (King County uses ORCA data to determine UW transit usage and no longer pays for or manages a survey this purpose)
Legacy Point of Sale (POS) System retired	Transactions on POS system	\$18,000 per year to support legacy POS system	Cost savings of \$18,000 per year	Point of Sale System has been retired.
King County Employee card usage for both building access and fare payment	KC employee card distribution	\$386,000 over 5 year period	Cost saving of \$386,000 over 5 year period	All King County staff have dual use ORCA cards which allow for building access. Saving realized.

[New 1/22/16: Updated Metrics table to include benefit “Survey data no longer used to determine UW transit usage”.]

[New 2/17/27: Updated Metrics table to include:](#)

[1. ORCA usage on streetcar](#)

[2. Legacy Point of Sale \(POS\) System retired](#)

[3. King County Employee card usage for both building access and fare payment](#)

IT Project Benefits Achievement Plan (Version 2)

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Section 1. What are the purposes of the Benefit Achievement Plan (BAP)?

1. To achieve a clear understanding and focus on the benefits of a project prior to its beginning
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3. To establish accountability for identifying and achieving benefits
4. To ensure that benefits are achieved

King County Department/Agency Name	Department of Transportation/ Transit Division
Project Title	Vanpool Information System Modernization
EBS Project Number	1123913

Section 2. Business Owner Accountability

Business Owners are responsible for achieving project benefits and ensuring this Benefit Achievement Plan (BAP) is regularly updated and completed when benefits are achieved. Business Owners are required to be at the deputy department director or higher.

Business Owner Name and Title: ~~Kevin Desmond, Transit General Manager~~ Rob Gannon, ~~Acting~~ Transit General Manager

Section 3. Who is involved in developing the BAP?

The development of the BAP should include significant involvement from the business operations or management staff related to this project and the services it will support. Consider involving staff who will be using the technology to help identify the benefits of the project. KCIT business analysts or technology project staff may assist in benefit identification and documentation. List the staff who contribute to the BAP below:

Name	Title / Agency	Project Role
Karen Martin	Transit Rideshare Operations Chief/DOT	Project Business Lead
Jill Krecklow	Finance Manager, Transit	Stakeholder

Section 4. When should the Benefit Achievement Plan be started, updated and completed?

The BAP is intended to be an iterative, evolving document that will be updated as the project evolves, as information is refined or scope changes, and when benefits are finally achieved. Department and agencies (the business owners of project benefits) are required to update this document at the following times or actions:

1. To support initial project request during “gate two” phase of conceptual review.
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5. Up to one year after project completion and then annually until it is determined by the business owners that anticipated benefits have been achieved or no further benefits are expected.

Once the project is complete and benefits are achieved and reported, no additional reporting is required.

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to show the history of benefits over the course of the project. List any changes in the table in section 5. (If there are no changes, type none)

Section 5. How long will it take to complete the BAP?

Completion of the BAP depends on the project's complexity. In general, it should take a few hours to complete this BAP form once there is a shared understanding of the project and what value it will bring to the County. More complex and costly projects may require more extensive analysis. To improve this process in the future, please record the time spent on this in the table below at each stage of revision:

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<i>Please use conceptual review, budget process, funding release, annual report, project implementation, or project completion.</i>	<i>Date this document was updated</i>	<i>Who did the document updates?</i>	<i>A brief summary of what changed in the document. If this is an initial draft, please indicate new. If nothing has changed, indicate "review only".</i>	<i>How long did it take to complete or revise the form at this stage?</i>
Initial PRB Funding Release	5/14/14	Catherine Boon	Draft for review	1 hour
Initial PRB Funding Release	5/21/14	Karen Martin	Review and edits for submittal	1 hour
Initial PRB Funding Release	6/23/14	Catherine Boon	Revisions following review	20 min
2014 Annual Report	2/18/2014	Catherine Boon	Review only	.25 hour
2015 Annual Report	1/31/2016	Randy Boshart	Review only – no changes	.25 hour
2015 Annual Report	4/4/2016	Kathleen McMurray	Updated Business Owner and Category 3 sections.	.25 hour
2016 Annual Report	2/17/2017	Randy Boshart	Review only – change to sponsor title only. This project has just been restarted (it was on hold).	.25 hour
2016 Annual Report	6/23/2017	Jill Krecklow	Update based on council staff direction to provide dates for benefit achievement and status.	.50 hour

Section 6. Description of Project Benefits

Identify the category(ies) of benefits your project will provide and include narrative descriptions of estimated benefits. The benefits of IT investments generally fit into the following four categories:

- 1) External service benefits: Improving the quality or quantity of services provided to the public
- 2) Internal service benefits: Improving internal operations, including the quality or quantity of internal services
- 3) Maintaining service levels by replacing or upgrading older technology, reducing risk of system failures, or providing regulatory compliance
- 4) Reduced cost to produce services (internal or external)

Each category is described below. Most projects will have benefits in one or two categories. If the project does not have benefits in a category, there is no need to provide information for that category.

What is the primary benefit of your project? After reviewing the benefit categories below, please identify the primary type of benefit for the project. For most projects, the primary type benefit will be Category #2 improving internal operations or Category #3 replacing or upgrading older technology.

Primary project benefit? (Check only one)

- Category #1: External service benefits: Improving the quality or quantity of services provided to the public
- Category #2: Internal service benefits: Improving internal operations, including the quality or quantity of internal services
- Category #3: Maintaining service levels by replacing or upgrading older technology, reducing risk of system failures, or providing regulatory compliance
- Category #4: Reduced cost or cost avoidance to produce services

Category #1: External service benefits: Improving the quality or quantity of services provided to the public. This category is intended for projects that directly benefit the public. This includes improved quality of service, such as faster response times and better access to services for the public.

Example: If this project to upgrade our licensing software is approved, licenses will be issued in two business days instead of the four days currently required. This is largely due to the ability of the new software to check national and state databases more efficiently. About one-quarter of our customers currently complain about the delay in obtaining a license and this time reduction is expected to eliminate almost all complaints and allow staff resources to be directed to other customer services.

Example: If this project to accept on-line reservations is approved, residents will be able to schedule athletic fields over the Internet and make payments by credit card. This will allow scheduling to occur at any time, rather than the current limited hours available for in-person or phone reservations. In-person and phone reservations will still be available.

The above examples are summaries. Please respond to each question listed below rather than provide a summary.

1. Describe why you expect the proposed IT investment to produce the benefit(s).
2. How will you measure the benefit(s)? (How will you know if the benefit has been achieved?)
3. What is the current baseline for this measure?
4. What is the target for this measure? (How much improvement will this project achieve?)
5. When is the benefit likely to be achieved?

Category #2: Internal service benefits: Improving internal operations, including the quality or quantity of internal services. Be sure to explain the value of such improvements to your operations.

Example: If this project to acquire hand-held devices and develop custom software is approved, inspectors will be able to check an average of 10 sites per day compared with the average of 6 currently checked. This will allow the agency to handle the 20% increase in workload projected in the next 3 years without adding more staff.

Example: If this project to implement a systems management tool for the Service Center is implemented we will be able to reduce the duration of technology outages during major incidents by 30%. We also will reduce the wait time for customers on hold with the Service Center. These improvements will allow us to redirect an existing position to other priorities.

Example: The Active Directory Consolidation project is part of an overall effort to promote IT standardization. This project will make the current management of user accounts, applications, and devices easier for IT administrators at Public Health because the end user experience will also be improved by having a single sign-on to applications such as Lync, SharePoint, and Outlook. Our success will be measured by having a single set of procedures and security models rather than the multiple ones that now exist.

The above examples are summaries. Please respond to each question listed below rather than provide a summary.

1. Describe why you expect the proposed IT investment to produce the benefit(s).
2. How will you measure the benefit(s)? (How will you know if the benefit has been achieved?)
3. What is the current baseline for this measure?
4. What is the target for this measure? (How much improvement will this project achieve?)
5. When is the benefit likely to be achieved?

Category #3: Projects that maintain service at current levels by either replacing or upgrading older technology, reducing the risk of system failures, or providing regulatory compliance. If the project will result in improvements to external or internal services or cost savings, please note those benefits in the appropriate categories.

Example: This project will upgrade PeopleSoft from 9.0 to 9.2. This upgrade is necessary because vendor support for 9.0 will be ending in 2015 and that creates a large risk for the County. Without vendor support the County will not receive tax and regulatory updates and will likely result in errors in complying with tax and regulatory issues.

Example: This project will implement an Advanced Authentication solution which will allow King County to comply with U. S. Department of Justice - Federal Bureau of Investigation, Criminal Justice Information Services (CJIS) Security Policy Version 5.0, Section 5.6.2.2. Effective September 30, 2013, advanced authentication (AA) must be in place in order to access sensitive CJIS information.

1. **Describe why you are proposing to upgrade or replace existing technology. Please include age of existing technology and the average life cycle replacement for this type of technology.**

Metro Transit's Vanpool Program is the oldest and largest publicly operated program in the United States with nearly 1800 vehicles supporting over 1300 vanpool groups and over 10,000 participants. Staff in Transit's Rideshare Operations group use a suite of information system tools to manage all aspects of the Vanpool Program including setting up and managing vanpool groups, tracking vehicle mileage and scheduling maintenance, and collecting monthly payment from each vanpool group. Based on recent experience, Rideshare Operations projects that the Vanpool Program will grow by 15% by the end of 2016. ~~Pending cuts of regular transit service can be expected to generate even more customer demand for transportation alternatives like vanpools.~~

This project will move two primary tools used by Rideshare Operations staff from an obsolete client-server architecture to a modern browser-based architecture. The legacy systems are the original Vanpool Information System (VIS), a contractor-developed desktop application custom built for

Metro in 1995 using Visual Basic 6 (VB6) and an in-house developed desktop application known as Vanshare, implemented in 2004 using Visual Basic for Applications (VBA). Microsoft stopped supporting VB6 in 2008.

The VIS application is well past its useful life, risky to modify, difficult to maintain and 3rd party software is no longer supported. The Vanshare application was introduced 10 years ago to augment VIS and work around some of its technical constraints. It is highly integrated with VIS and combining the two will result in reduced duplicate entry of data.

The project is included in the Transit Information Systems Preservation budget which funds replacements and upgrades of systems that face failure due to their age and changes in business requirements.

This project is aligned with Goal 6 of King County Metro's Strategic Plan, Financial Stewardship, specifically the strategy to "provide and maintain capital assets to support efficient and effective service delivery." In addition, this project supports King County's Strategic Technology Plan objective of Technology Modernization of Applications to "enable business solutions that are flexible, timely and dependable by pro-actively evolving modern application technologies and processes."

2. *If the primary reason for the project is risk reduction project, please estimate the probability of the risk or describe how likely it is to occur.*

The legacy systems have been fairly stable and the risk of them failing is estimated to be between 25 and 40%. If either application fails, it could take weeks to fix the problem during which time there would be a significant customer and financial impact. The real risk is that as time goes on these applications will not be able to support the business in a practical way. For example, the applications will not be able to be moved into a Windows 8 environment and the SQL Server database will not be able to be kept current because the applications won't support the new version.

[Update 6/23/2017: While this project was on hold as of 12/31/2016, KCIT resources became available in early 2017, and the project is currently underway. KCIT resources are going to be higher than originally provided and a funding release from PRB is being requested in July 2017. The project will receive emergent contingency funds from the Transit capital program to pay the additional cost of KCIT resources. Information on the use of emergent contingency funds will be provided to the council per standard process. Assuming appropriation and funding release are approved without delay, project implementation is projected at 4Q/2017.]

Category #4: Reduced cost to produce service (external or internal) or cost avoidance

This category is for those projects that will reduce the costs to deliver a county service (external or internal). The information provided here should be consistent with the information in the cost-benefit analysis (CBA) form. Please describe how the cost savings will be used by your organization. This category also includes cost avoidance. Cost avoidance is those costs that the County would need to pay, has the capacity and intent to pay, but will be avoided due to the project.

Example: *Reduced cost to produce service.* *If this project to install accounts payable software is approved, we will automate three tasks that are currently done manually by agency and central purchasing employees. Based on experience of other users of the software, this will reduce processing time from the current average of ten days to less than one. This will allow us to take advantage of prompt payment discounts for over \$15,000,000 of annual purchases. These discounts average 2%, yielding annual savings of about \$300,000. This will result in savings in department expenditures for those items qualifying for prompt payment discounts.*

Example: Cost Avoidance. Moving to this new vendor that uses a SaaS product, we will avoid the need to upgrade the system to the newest version which goes end-of-life at the end of next year. We were required to make this upgrade due to regulatory reasons, so this represents a cost avoidance of \$100,000.

The above examples are summaries. Please respond to each question listed below rather than provide a summary.

1. Describe why you expect the proposed IT investment to reduce costs?
2. How will you measure the cost reduction or cost avoidance? (How will you know if the benefit has been achieved)
3. What is the current baseline?
4. What is the target for this measure? (How much savings will this project achieve)
5. When is the cost reduction likely to be achieved?

Section 7. Benefit Achievement Summary

To be completed when benefits have been achieved or no further benefits are expected. For each of the benefits you identified above, explain whether benefits were achieved at target levels. Please include both quantitative measures and qualitative descriptions of benefits, including any monetary benefits. Use the measures identified above. If not achieved, explain why.

Example: This project, to repair an emergency radio tower, was successfully completed in April 2014. The anticipated benefit was to maintain current service levels at 99.999% up time for an additional 5 years. This project is currently functioning at 99.999% up-time and will report annually for the next 5 years on up-time levels.

If one of these towers failed physically, the cost to the county would be enormous, generally in the neighborhood of \$500K - \$1 Million per tower depending on the construction techniques and size. User agencies on the emergency radio system will benefit by having infrastructure systems in place that will be assured of not experiencing catastrophic failures due to lack of maintenance.

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Example:

Metric Description	Metrics	Baseline	Target	Actual
Reduce cost to deliver service. This project reduced processing time from the current average of 10 days to <1 day allowing us to take advantage of prompt payment discounts.	Processing Time annual savings, and percentage of purchases receiving prompt payment discounts	<ul style="list-style-type: none"> • 10 days processing time • 10% of purchases are receiving discount • Savings of \$100,000 	<ul style="list-style-type: none"> • 1 day processing time • 30% of purchases are receiving prompt payment discounts • \$400,000 savings 	<ul style="list-style-type: none"> • 2 day processing time • 20% of purchases are receiving prompt payment discounts • \$200,000 savings



IT Project Benefits Achievement Plan (Version 2)

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King County Department/Agency Name	Department of Transportation, Transit
Project Title	M5 Yard Manager – Dispatch Replacement
Project Number	<u>1125054</u>

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~~Kevin Desmond~~ Rob Gannon, General Manager

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Name	Title / Agency	Project Role
<u>Randy Winders</u> <u>Chris Parrott</u>	Vehicle Maintenance Manager, Transit Vehicle Maintenance	Project Sponsor
Jill Krecklow	Finance Manager, Transit	Finance Manager

Section 4. When should the BAP be started, updated and completed?

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Conceptual review	06/04/14	Yan Zhang	New, initial draft	.5 hours
Conceptual review	07/01/14	Kathleen McMurray	Update	.5 hours
Conceptual Review	10/02/14	J. Krecklow	Update	2 hours
2014 Annual Report	02/18/15	Catherine Boon	Update	.5 hour
2015 Annual Report	01/29/16	Diane Sutherland	Review only	.25 hour
2016 Annual Report	02/17/17	Alex Rampley	Update Business Owner, Sponsor, Section 3-1. This project is currently On Hold due to resource constraints. It will restart February 2017.	.5 hour
2016 Annual Report	06/23/17	Jill Krecklow	Revise per council staff direction to include timeline for benefit achievement (QQ/YY) format.	.25 hour

Section 6. Description of Project Benefits

Identify the category(ies) of benefits your project will provide and include narrative descriptions of estimated benefits. The benefits of IT investments generally fit into the following four categories:

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5. When is the benefit likely to be achieved?

Category #2: Internal service benefits: Improving internal operations, including the quality or quantity of internal services. Be sure to explain the value of such improvements to your operations.

Example: If this project to acquire hand-held devices and develop custom software is approved, inspectors will be able to check an average of 10 sites per day compared with the average of 6 currently checked. This will allow the agency to handle the 20% increase in workload projected in the next 3 years without adding more staff.

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The above examples are summaries. Please respond to each question listed below rather than provide a summary.

1. Describe why you expect the proposed IT investment to produce the benefit(s).

~~The potential for automated yard mapping of coaches would produce operational benefits as coach location would be known without any need for manual tracking. Currently vehicle location is identified and entered into a dispatch system that provides location information to Operators looking to leave the base in their assigned coach and vehicle maintenance staff bringing coaches in for scheduled maintenance. The benefit would be time savings likely in the form of reduced overtime.~~

2. How will you measure the benefit(s)? (How will you know if the benefit has been achieved?)

~~Many factors influence overtime paid to Transit Operators and VM staff. Quick location of vehicles eliminates the need to source parking lanes for the right bus and lane position. Capturing savings from operators would be difficult to achieve. Within VM before and after time studies could be done to identify the amount of time savings from the use of automated vehicle location.~~

3. What is the current baseline for this measure?

~~The current baseline has not yet been established but will be captured as part of the project planning. Cost benefit of the time savings against future operating costs of the identified system will be evaluated.~~

4. What is the target for this measure? (How much improvement will this project achieve?)

~~A cost benefit analysis will be conducted with the preferred solution prior to completing a contract. A positive NPV will be required demonstrating that the benefits exceed the costs.~~

5. When is the benefit likely to be achieved?

~~When the complete project is implemented.~~

Category #3: Projects that maintain service at current levels by either replacing or upgrading older technology, reducing the risk of system failures, or providing regulatory compliance. If the project will result in improvements to external or internal services or cost savings, please note those benefits in the appropriate categories.

Example: This project will upgrade PeopleSoft from 9.0 to 9.2. This upgrade is necessary because vendor support for 9.0 will be ending in 2015 and that creates a large risk for the County. Without vendor support the County will not receive tax and regulatory updates and will likely result in errors in complying with tax and regulatory issues.

Example: This project will implement an Advanced Authentication solution which will allow King County to comply with U. S. Department of Justice - Federal Bureau of Investigation, Criminal Justice Information Services (CJIS) Security Policy Version 5.0, Section 5.6.2.2. Effective September 30, 2013, advanced authentication (AA) must be in place in order to access sensitive CJIS information.

1. **Describe why you are proposing to upgrade or replace existing technology. Please include age of existing technology and the average life cycle replacement for this type of technology.**

Vehicle dispatch software is used by Transit Vehicle Maintenance to locate coaches for pull-out, maintenance, fueling and servicing. The dispatch software currently in use is over 18 years old, outdated and no longer supported by the vendor. The current dispatch software, built on PowerBuilder, is at the end of its life cycle. 2/17/17: PowerBuilder was discontinued by its original vendor in 2011. Subsequently (~2015) PowerBuilder was sold to a new vendor and resurrected. The effort required now to purchase the software and train KCIT staff to allow updates to the legacy system would not be cost effective, and would still leave a program that is outdated and lacks vendor support. Power Builder was discontinued in 2011 and support ended in 2012. Therefore, no software updates are available and the application is not able to operate with newer operating systems such as Windows 7 requiring workarounds.

2. **If the primary reason for the project is risk reduction project, please estimate the probability of the risk or describe how likely it is to occur.**

The risk is currently occurring. While KCIT has been able to keep the system operating on current operating environments, there is risk that this may not be possible with future operating systems. If the system fails, we would be required to revert to manual yard mapping requiring staff that would continually identify coach location and provide information to Operations so that operators can be informed of location of their assigned coach. Failure to adequately identify locations, can result in buses being blocked in lanes and unable to leave the base at the intended time resulting in late trips.

[Update 6/23/2017]: Solutions to replace this aging software are underway. Estimated completion date assuming replacement is still an option is 4Q/2018.

Category #4: Reduced cost to produce service (external or internal) or cost avoidance

This category is for those projects that will reduce the costs to deliver a county service (external or internal). The information provided here should be consistent with the information in the cost-benefit analysis (CBA) form. Please describe how the cost savings will be used by your organization. This category also includes cost avoidance. Cost avoidance is those costs that the County would need to pay, has the capacity and intent to pay, but will be avoided due to the project.

Example: Reduced cost to produce service. *If this project to install accounts payable software is approved, we will automate three tasks that are currently done manually by agency and central purchasing employees. Based on experience of other users of the software, this will reduce processing time from the current average of 10 days to less than one. This will allow us to take advantage of prompt payment discounts for over \$15,000,000 of annual purchases. These discounts average 2%, yielding annual savings of about \$300,000. This will result in savings in department expenditures for those items qualifying for prompt payment discounts.*

Example: Cost Avoidance. *Moving to this new vendor that uses a SaaS product, we will avoid the need to upgrade the system to the newest version which goes end-of-life at the end of next year. We were required to make this upgrade due to regulatory reasons, so this represents a cost avoidance of \$100,000.*

The above examples are summaries. Please respond to each question listed below rather than provide a summary.

1. Describe why you expect the proposed IT investment to reduce costs?
2. How will you measure the cost reduction or cost avoidance? (How will you know if the benefit has been achieved)

3. *What is the current baseline?*
4. *What is the target for this measure? (How much savings will this project achieve)*
5. *When is the cost reduction likely to be achieved?*

Section 7. Benefit Achievement Summary

To be completed when benefits have been achieved or no further benefits are expected. For each of the benefits you identified above, explain whether benefits were achieved at target levels. Please include both quantitative measures and qualitative descriptions of benefits, including any monetary benefits. Use the measures identified above. If not achieved, explain why.

Example: *This project, to repair an emergency radio tower, was successfully completed in April 2014. The anticipated benefit was to maintain current service levels at 99.999% up time for an additional 5 years. This project is currently functioning at 99.999% up-time and will report annually for the next 5 years on up-time levels.*

If one of these towers failed physically, the cost to the county would be enormous, generally in the neighborhood of \$500K - \$1 Million per tower depending on the construction techniques and size. User agencies on the emergency radio system will benefit by having infrastructure systems in place that will be assured of not experiencing catastrophic failures due to lack of maintenance.

Example: *This project to automate accounts payable software was implemented and did improve the processing time average. The average time was reduced from 10 to 2 days, not quite reaching the 1 day target. Additionally, only 20% of purchases received a prompt payment discount resulting in less cost swings than anticipated. We did not meet the target because there were fewer purchases that qualified for prompt payment than originally estimated.*

Example:

Metric Description	Metrics	Baseline	Target	Actual
<i>Reduce cost to deliver service. This project reduced processing time from the current average of ten days to less than one allowing us to take advantage of prompt payment discounts.</i>	<i>Processing time annual savings, and percentage of purchases receiving prompt payment discounts</i>	<ul style="list-style-type: none"> • 10 days processing time • 10% of purchases are receiving discount • Savings of \$100,000 	<ul style="list-style-type: none"> • 1 day processing time • 30% of purchases are receiving prompt payment discounts • \$400,000 savings 	<ul style="list-style-type: none"> • 2 day processing time • 20% of purchases are receiving prompt payment discounts • \$200,000 savings

IT Project Benefits Achievement Plan

To complete this document fully, please read all of the colored sections and fill in the white cells.
For assistance in completing this form, please contact your PSB analyst.

Section 1. What are the purposes of the Benefit Achievement Plan (BAP)?

1. To achieve a clear understanding and focus on the benefits of a project prior to its beginning
2. To update projected benefits of the project as it moves through stages of project approval, implementation, and post-project closure
3. To establish accountability for identifying and achieving benefits
4. To ensure that benefits are achieved

King County Department/Agency Name	District Court
Project Title	District Court Unified Case Management System
Project Number	1124157

Section 2. Business Owner Accountability

Business Owners are responsible for achieving project benefits and ensuring this Benefit Achievement Plan (BAP) is regularly updated and completed when benefits are achieved. Business Owners are required to be at the deputy department director or higher.

Othniel Palomino – Chief Administrative Officer, King County District Court (KCDC)

Section 3. Who is involved in developing the BAP?

The development of the BAP should include significant involvement from the business operations or management staff related to this project and the services it will support. Consider involving staff who will be using the technology to help identify the benefits of the project. KCIT business analysts or technology project staff may assist in benefit identification and documentation. List the staff who contribute to the BAP below:

Name	Title / Agency	Project Role
Othniel Palomino	Chief Administrative Officer – KCDC	Business Owner, Steering Committee Member/Leader
Judge Corinna Harn	Chief Presiding Judge – KCDC	Steering Committee Member, Project Leader
Enrique Kuttemplon	IT Director – KCDC	Steering Committee Member, IT Liaison/Lead
Jill Dorsey	Deputy Chief Administrative Officer – KCDC	Steering Committee Member
Bob Dowd	East Division Director – KCDC	Steering Committee Member
Patti Kohler	South Division Director - KCDC	Steering Committee Member
James Kim	West Division Director - KCDC	Steering Committee Member
Keri She	Business Analyst - KCDC	Responsible for analysis from IT perspective in capturing system requirements, coordinating/assisting system design, implementation, testing, and deployment.
Patrick Wells	Training Coordinator - KCDC	Steering Committee Member, Responsible for analysis from operations perspective in capturing system requirements, coordinating/assisting system design, implementation, testing, and deployment, Facilitator for Process Experts and Process Mapping.
Ann Dahlgren	Training Coordinator - KCDC	Steering Committee Member, Responsible for analysis from operations perspective in capturing

		system requirements, coordinating/assisting system design, implementation, testing, and deployment. Facilitator for Process Experts and Process Mapping.
Dee Hay	Training Coordinator - KCDC	Steering Committee Member, Responsible for analysis from operations perspective in capturing system requirements, coordinating/assisting system design, implementation, testing, and deployment, Facilitator for Process Experts and Process Mapping.
Heather Dean	Budget Director - KCDC	Steering Committee Member, Responsible for Overseeing Financial Requirements and Funding Information
Judge Anne Harper	West Division Presiding Judge – KCDC	Process Experts and Requirement Identifiers
Judge Charles DeLaurenti	South Division Presiding Judge – KCDC	Process Experts and Requirement Identifiers
Judge Peter Nault	East Division Presiding Judge - KCDC	Process Experts and Requirement Identifiers
Judge Johanna Bender	Mental Health Court Judge - KCDC	Process Experts and Requirement Identifiers
Judge Arthur Chapman	West Division Judge – KCDC	Steering Committee Member and Case Cleanup
Judge Mark Eide	South Division Judge – KCDC	Steering Committee Member and Case Cleanup
Judge Donna Tucker	Assistant Chief Presiding Judge – KCDC	Steering Committee Member and Case Cleanup
Nina Davis	Court Clerk - KCDC	Process Experts and Requirement Identifiers
Paul McDavid	Court Clerk - KCDC	Process Experts and Requirement Identifiers
Kenneth Li	Court Clerk - KCDC	Process Experts and Requirement Identifiers
Maggie Bradley	Court Clerk - KCDC	Process Experts and Requirement Identifiers
Lisa Kissler	Court Clerk - KCDC	Process Experts and Requirement Identifiers
Amy Turley	Court Clerk - KCDC	Process Experts and Requirement Identifiers
Elizabeth Alexander	Court Clerk - KCDC	Process Experts and Requirement Identifiers
Sommer Peck	Court Clerk - KCDC	Process Experts and Requirement Identifiers
Lisa Bitz	Court Clerk - KCDC	Process Experts and Requirement Identifiers
Sorin Say	Court Clerk - KCDC	Process Experts and Requirement Identifiers
Betsy Bosch	Regional Mental Health Court Manager - KCDC	Process Experts and Requirement Identifiers
Judy Garcia	Probation Director - KCDC	Process Experts and Requirement Identifiers
Catherine Thompson	Probation Manager - KCDC	Process Experts and Requirement Identifiers
Kathy Orozco	Redmond Court Manager – KCDC	Process Experts and Requirement Identifiers

Josie Jimenez	Bellevue Court Manager – KCDC	Process Experts and Requirement Identifiers
Brandon Billak	MRJC Court Coordinator – KCDC	Process Experts and Requirement Identifiers
Tracey Smith	Auburn Court Manager – KCDC	Process Experts and Requirement Identifiers
Josh Sattler	Seattle Court Manager - KCDC	Process Experts and Requirement Identifiers
Denise Michels	Court Clerk - KCDC	Process Experts and Requirement Identifiers
LeeAnna Young	MRJC Court Manager – KCDC	Process Experts and Requirement Identifiers
Damita Beleford	Burien Court Manager - KCDC	Process Experts and Requirement Identifiers
Lillian Hawkins	Court Clerk - KCDC	Process Experts and Requirement Identifiers
Sadora Anderson	Court Clerk - KCDC	Process Experts and Requirement Identifiers
Kate Olson	Court Clerk - KCDC	Process Experts and Requirement Identifiers
Katy Nelson	Shoreline Court Manager - KCDC	Process Experts and Requirement Identifiers
Rambaldo Cardoza	Court Clerk - KCDC	Process Experts and Requirement Identifiers
Jennifer Miller	Court Clerk - KCDC	Process Experts and Requirement Identifiers
Christina Melby	Bellevue Coordinator – KCDC	Process Experts and Requirement Identifiers
LeeAnn Rissler	Court Clerk - KCDC	Process Experts and Requirement Identifiers
Somphien Manivanh	Court Clerk - KCDC	Process Experts and Requirement Identifiers
Sarah Jaynes	Court Clerk - KCDC	Process Experts and Requirement Identifiers
Theresa Reddekopp	Court Clerk - KCDC	Process Experts and Requirement Identifiers
Elizabeth Biehn	Court Clerk - KCDC	Process Experts and Requirement Identifiers
Nicholas D'Angelo	Probation Officer - KCDC	Process Experts and Requirement Identifiers
David Sterner	Probation Officer - KCDC	Process Experts and Requirement Identifiers
Andrea Shao	Probation Clerk - KCDC	Process Experts and Requirement Identifiers
David Alber	Mental Health Specialist Probation Officer – KCDC	Process Experts and Requirement Identifiers
Christopher Allen	Probation Officer – KCDC	Process Experts and Requirement Identifiers
Nadine Wallace	Probation Officer	Process Experts and Requirement Identifiers
Enid McAdoo	Probation Officer	Process Experts and Requirement Identifiers
Jim Phoenix	Mental Health Specialist Probation Officer – KCDC	Process Experts and Requirement Identifiers
Elizabeth Owens	Probation Officer	Process Experts and Requirement Identifiers
Jerry Pettitz	Probation Officer	Process Experts and Requirement Identifiers
Susan Butler	Mental Health Specialist Probation Officer – KCDC	Process Experts and Requirement Identifiers
Jay Gorham	Probation Officer	Process Experts and Requirement Identifiers
Steven Wede	Mental Health Specialist Probation Officer – KCDC	Process Experts and Requirement Identifiers
Sue Bainton	Probation Clerk – KCDC	Process Experts and Requirement Identifiers
Jessica Brown	Training Coordinator	Process Experts and Requirement Identifiers

Annette Pooley	Probation Officer	Process Experts and Requirement Identifiers
Kari Goode	Probation Officer	Process Experts and Requirement Identifiers
Rachel Brooks-Bailey	Probation Officer	Process Experts and Requirement Identifiers
Annalisa Mai	Court Clerk — KCDC	Process Experts and Requirement Identifiers
Isabelle Isidro	Court Clerk — KCDC	Process Experts and Requirement Identifiers
Regina White	Court Clerk — KCDC	Process Experts and Requirement Identifiers
<u>Kanani Johnson</u>	<u>Program Manager</u>	<u>Project Management</u>

Section 4. When should the BAP be started, updated and completed?

The BAP is intended to be an iterative, evolving document that will be updated as the project evolves, as information is refined or scope changes, and when benefits are finally achieved. Department and agencies (the business owners of project benefits) are required to update this document at the following times or actions:

1. To support initial project request during “gate two” phase of conceptual review.
2. For the annual Benefits report that PSB compiles.
3. To support funding release requests. If there are no changes, indicate “review only” in the revision table.
4. When a material scope change is identified and reported.
5. Up to one year after project completion and then annually until it is determined by the business owners that anticipated benefits have been achieved or no further benefits are expected.

Once the project is complete and benefits are achieved and reported, no additional reporting is required.

Please update the document online. Do not delete your previous text. Update the text as necessary and date those updates. Make sure that you upload the updated version to Innotas. The intent is for this single document to show the history of benefits over the course of the project. List any changes in the table in section 5. (If there are no changes, type none)

Section 5. How long will it take to complete the BAP?

Completion of the BAP depends on the project’s complexity. In general, it should take a few hours to complete this BAP form once there is a shared understanding of the project and what value it will bring to the County. More complex and costly projects may require more extensive analysis. To improve this process in the future, please record the time spent on this in the table below at each stage of revision:

Revision History Table

Stage	Date	Revised By	Description	How long did it take?
<i>Please use conceptual review, budget process, funding release, annual report, project implementation, or project completion.</i>	<i>Date this document was updated</i>	<i>Who did the document updates?</i>	<i>A brief summary of what changed in the document. If this is an initial draft, please indicate new. If nothing has changed, indicate “review only”.</i>	<i>How long did it take to complete or revise the form at this stage?</i>
Conceptual Review	2/10/14- 2/21/14	Steering Committee	New Initial Draft	240 hours
Conceptual Review	2/24/14- 3/21/14	Steering Committee	Daily Revisions	360 hours

Benefits Achievement Plan	2/28/14-4/21/14	Steering Committee	New Initial Draft	444 hours
Benefits Achievement Plan	4/22/14-7/3/14	Steering Committee	Daily Revisions	1040 hours
Costs Benefits Analysis Workbook	5/26/14-6/13/14	Heather Dean and Enrique Kuttemplon	Draft and Revisions	78 hours
Process Mapping	2/18/14-4/15/14 (and intermittent days to present)	Subject Matter Experts, Functional Analysts, Business Analysts	Process Mapped all KCDC processes to identify the scope of the requirements and assess the Financial Needs of a new System	1568 hours
2014 BAP Annual Report	3/1/15	Steering Committee	Review Only of BAP for PSB Report Out	2 hours
2014 BAP Annual Report	7/27/15 – 8/12/15	Steering Committee	Review and Revision of BAP and Conceptual Review for PSB Report Out	3 hours
Costs Benefits Analysis Workbook	6/4/15 – 9/2/15	Heather Dean, Patricia Kohler, and Kathy Moon	Draft and Revisions	120 hours
2015 BAP Annual Report	3/1/16	Steering Committee	Review Only of BAP for PSB Report Out	1 hour
2016 BAP Annual Report (Ongoing Project)	1/1/17-2/3/17	Steering Committee	Annual Review and Updates	3 hours

Section 6. Description of Project Benefits

Identify the category(ies) of benefits your project will provide and include narrative descriptions of estimated benefits. The benefits of IT investments generally fit into the following four categories:

- 1) External service benefits: Improving the quality or quantity of services provided to the public
- 2) Internal service benefits: Improving internal operations, including the quality or quantity of internal services
- 3) Maintaining service levels by replacing or upgrading older technology or reducing risk of system failures
- 4) Reduced cost to produce services (internal or external)

Each category is described below. Most projects will have benefits in one or two categories. If the project does not have benefits in a category, there is no need to provide information for that category.

What is the primary benefit of your project? After reviewing the benefit categories below, please identify the primary type of benefit for the project. For most projects, the primary type benefit will be Category #2 improving internal operations or Category #3 replacing or upgrading older technology.

Primary project benefit? (Check only one)

****Choosing only one category as the Primary Project Benefit was extremely difficult as all four choices are primary benefits of this project and limiting it to one benefit grossly underestimates the full benefits that will be realized from a new case management system.****

- Category #1: External service benefits: Improving the quality or quantity of services provided to the public
- Category #2: Internal service benefits: Improving internal operations, including the quality or quantity of internal services
- Category #3: Maintaining service levels by replacing or upgrading older technology
- Category #4: Reduced cost or cost avoidance to produce services

Category #1: External service benefits: Improving the quality or quantity of services provided to the public. This category is intended for projects that directly benefit the public. This includes improved quality of service, such as faster response times and better access to services for the public.

Example: If this project to upgrade our licensing software is approved, licenses will be issued in two business days instead of the four days currently required. This is largely due to the ability of the new software to check national and state databases more efficiently. About one-quarter of our customers currently complain about the delay in obtaining a license and this time reduction is expected to eliminate almost all complaints and allow staff resources to be directed to other customer services.

Example: If this project to accept on-line reservations is approved, residents will be able to schedule athletic fields over the Internet and make payments by credit card. This will allow scheduling to occur at any time, rather than the current limited hours available for in-person or phone reservations. In-person and phone reservations will still be available.

The above examples are summaries. Please respond to each question listed below rather than provide a summary.

External Service Benefits Executive Summary:

King County District Court (KCDC) is using the outdated statewide JIS system with limited integration to internal standalone court systems and virtually no integration with systems of other law and justice agencies statewide (including our partner contract cities). While not selected as the primary benefit of a new case management system for the purpose of this proposal, the implementation of a new case management system will vastly improve both the quality and the quantity of services that King County District Court is able to offer the public and our criminal justice partners. Through new enhanced electronic access to court records, the court will be able to offer the following new or expanded benefits to the public:

- A. With the implementation of the new case management system, people will be able to file their court documents any day, any time and from anywhere.
- B. Parties will be able to opt in to receive text or email based hearing notices in addition to the paper notices required by statute.
- C. Fewer people will be sent to collections.
- D. Information from Courtroom will be accessible to the public same day.

1) Describe why you expect the proposed IT investment to produce the benefit(s).

- A. With the implementation of the new case management system, people will be able to file their court documents any day, any time and from anywhere.**

eFiling will be a central requirement for a new Case Management System. eFiling will allow for access to District Court outside of regular business hours. With the implementation of eFiling, documents can be filed twenty-four hours a day, seven days a week from any computer with internet access. This transforms the current filing system from limiting the public and our

criminal justice partners to eight filing locations, to a system where essentially any computer terminal becomes a portal to King County District Court.

B. Parties will be able to opt in to receive text or email based hearing notices in addition to the paper notices required by statute.

A new case management system will not only allow parties to access services electronically from anywhere but it will also allow the court to reach defendants through modern means. Currently, notices for upcoming court hearings are delivered standard postal mail. While this meets the legal requirements it is an inadequate means of notification in the current technological environment. Given an atmosphere of frequently outdated addresses, defendants with unstable housing situations, and a culture highly reliant on smartphone technology, mailing paper notices is not dependable and often ineffective. The new case management system will have the technology for hearing notices to be delivered via text and/or email for those who opt-in. Individuals will get notices of future court hearings immediately, and the system can be programmed to send out multiple reminders to keep defendants up to date on the status of their hearing. While text and email will not replace standard mail as a means for notification at this time, they will help the Court reach individuals for whom postal mail was previously an unreliable noticing method thereby providing a supplemental service to the public.

C. Fewer people will be sent to collections.

Currently King County District Court contracts with NCO Financial in order to collect on unpaid court fines and traffic infractions. The new case management system would allow King County District Court to take over the payment plan portion of the NCO contract, maintaining their services only for collections. With King County District Court in control of payment plans, the court could allow for time payments or different pay dates tailored to the defendant's economic situation; smaller monthly payments in response to the defendant's financial standing; or hold the debt if special circumstances arise if the defendant misses a payment. Reminder notifications can be generated by the system with minimal clerical labor to prevent lapses in payment. These notices can be configured to go out by mail and/or as text/email alerts if the defendant desires. If a debt obligation goes unpaid for a certain period of time, the Court may still contract with a third party to handle collection procedures which often require extensive staffing. Having a system in place to foster cooperation with the defendant will enable the court to offer the public payment plan arrangements to match their financial situations.¹

D. Information from Courtroom will be accessible to the public same day.

Documents created in open court will be created within the system by the judge and clerk, signed by the parties electronically in open court, and uploaded in the system without the need for any clerical re-entry of data. The only paper copies will be those that are printed from the system as reference documents for the defendant. This will be a huge improvement from the current system where all documents are created as paper copies that need to be transcribed into the system and the originals then scanned and indexed, often resulting in a delay of four to five business days or more until the information is viewable in the system by the public will be

¹ "Maximizing Recovery Rates in Consumer Debt." Timetric (2012): n. pag. Timetric, Apr. 2012. Web. 23 May 2014.

eliminated. (Please see *King County District Court BAP Supplemental Details* Section VII for more detailed information).

2) How will you measure the benefit(s)? (How will you know if the benefit has been achieved?)

- A. **With the implementation of the new case management system, people will be able to file their court documents any day, any time and from anywhere.** - We will measure the system's availability for after-hours access by parties remotely (with the exception of planned system downtime for planned maintenance).
- B. **Parties will be able to opt in to receive text or email based hearing notices in addition to the paper notices required by statute.** - We will measure the number of texts /email notices sent out and will know the benefit has been achieved through the number of parties opting in to electronic messaging.
- C. **Fewer people will be sent to collections.** - To determine if fewer people have been sent to collections we will measure: The number of people being assigned to full collect.
- D. **Same Day Access to Court Information** – We will measure the amount of time from court hearing until documents and records are available for public viewing.

3) What is the current baseline for this measure

- A. **With the implementation of the new case management system, people will be able to file their court documents any day, anytime, and from anywhere.** - We currently do not have this functionality and thus the baseline is zero.
- B. **Parties will be able to opt in to receive text or email based hearing notices in addition to the paper notices required by statute** - The current baseline for this is zero as we do not have this functionality on our current system.
- C. **Fewer people will be sent to collections.** The current baseline for this measure is approximately 166,484, which is the number of cases assigned to collections in 2013.
- D. **Same Day Access to Court Information** – The baseline is the current average of 4 to 5 days from hearing in open court to the time when the documents are available for public viewing.

4) What is the target for this measure? (How much improvement will this project achieve?)

- A. **With the implementation of the new case management system, people will be able to file their court documents any day, any-time, and from anywhere.** - The target is 99% uptime of the system with the exception of planned maintenance.
- B. **Parties will be able to opt in to receive text or email based hearing notices in addition to the paper notices required by statute.** – There is no explicit target as we currently do not have this functionality or metrics to measure it. By the end of the first year we will develop a set of metrics and targets for further years to assess the improvement from this functionality.
- C. **Fewer people will be sent to collections.** The target for collections is a 15% reduction in cases assigned to collections.
- D. **Same Day Access to Court Information** - The target for this measure is that orders, documents, and all case and hearing information would be accessible to the public within 24 hours of a hearing.

5) When is the benefit likely to be achieved?

- A. **With the implementation of the new case management system, people will be able to file their court documents any day, anytime, and from anywhere.** While the benefit itself will be achieved upon implementation, awareness of the benefit is likely to be achieved over the course

of three years after implementation [\[Update of June 2017\] from 2019 to 2021](#), with expectations of incremental growths beyond.

- B. **Parties will be able to opt in to receive text or email based hearing notices in addition to the paper notices required by statute.** - As we currently do not have this functionality or metrics to measure it. By the end of the first year we will develop a set of metrics and targets for further years.
- C. **Fewer people will be sent to collections** - We expect the benefit to be achieved by end of [\[Update of June 2017\] the first year 2019](#) in which it is implemented.
- D. **Same Day Access to Court Information** - We expect this benefit to be fully realized by the end of [\[Update of June 2017\] 2019](#), the first year in which it is implemented. Much of the information will be available immediately upon implementation but we recognize there may be a delay in full realization due to learning curve of new technology by staff.

Category #2: Internal service benefits: Improving internal operations, including the quality or quantity of internal services. Be sure to explain the value of such improvements to your operations.

Example: If this project to acquire hand-held devices and develop custom software is approved, inspectors will be able to check an average of 10 sites per day compared with the average of 6 currently checked. This will allow the agency to handle the 20% increase in workload projected in the next 3 years without adding more staff.

Example: If this project to implement a systems management tool for the Service Center is implemented we will be able to reduce the duration of technology outages during major incidents by 30%. We also will reduce the wait time for customers on hold with the Service Center. These improvements will allow us to redirect an existing position to other priorities.

Example: The Active Directory Consolidation project is part of an overall effort to promote IT standardization. This project will make the current management of user accounts, applications, and devices easier for IT administrators at Public Health because the end user experience will also be improved by having a single sign-on to applications such as Lync, SharePoint, and Outlook. Our success will be measured by having a single set of procedures and security models rather than the multiple ones that now exist.

The above examples are summaries. Please respond to each question listed below rather than provide a summary.

Executive Summary:

As discussed in our previously submitted Conceptual Review, due to our current system's major insufficiencies, King County District Court faces daily challenges operating on multiple stand-alone systems requiring repetitive and duplicate data entry points. The following issues and challenges in King County District Court's current case management system create disjointed and challenging internal operations that require clerks to rework the same tasks. The result is increased errors and processing time which in turn increases the cost of the work and drastically reduces its reliability.

A new case management system will allow us to completely redesign our current work processes that are hampered by the old technology and limited ability to integrate with other County or City criminal justice agencies. We will be able to move to a streamlined and fully integrated workflow process that ensures:

- A. Better Utilization of Court Staff
- B. Complete Law and Justice Information Immediately Available to Judge and Clerk
- C. Accurately Determine Value of Court Programs
- D. Maximize System Uptime

Outlined below is an analysis of how a new case management system will address each of these needs:

1. ***Describe why you expect the proposed IT investment to produce the benefit(s).***

A. Better Utilization of Court Staff – A new case management system will allow King County District Court to better utilize court clerk FTE time in several ways:

- **Reduce Volume of Documents Clerks Manually Scan into System** – As mentioned in category one, eFiling will be a central requirement for a new case management system. Attorneys will be mandated to eFile as they currently are in King County Superior Court. They will submit their documents electronically, eliminating the manual document upload process entirely, leaving the clerk to simply confirm that the attorney's inputs (such as case number and document type) are correct. Though pro se filers and defendants will have the option to file electronically or through traditional paper, the vast majority of the average 3,024,000 pages a year that are scanned into the system will be eliminated and the court's staff will be able to confirm that the documents were filed correctly thereby improving the overall accuracy of the filings. This will allow for both a reduction of some FTE's through attrition, repurposing of some FTE's for supporting the new system, as well as a reallocation of some resources to increase quality control and customer service that KCDC does not currently have the resources for.
- **Reduction of Court Clerk Training Time** – Movement to a new case management system with only one program to train on and the elimination of hundreds of commands that must be learned to navigate JIS will drastically reduce onboarding time as well as reduce errors that necessitate continuous training of existing staff. This will allow new employees to become productive contributors more quickly, reducing the amount of time a court-location is down any employees. In turn this will allow the Training Coordinators more time to complete other trainings, develop and implement more training materials and continue to document KCDC's procedures as the system and statutes change. Much of in-court clerk training is focused on taking forms and orders generated in the courtroom and entering them into JIS via freehand docketing and command codes. Full integration of forms and orders that populate the data into the system will eliminate all of this training, allowing clerks to be trained on quality control of the data instead.
- **Timely Completion of Work** – Much of the time clerks spend processing case work is due to lack of automation and the redundant data entry in numerous standalone systems. Virtually all relevant case documents must be filed in paper form or converted to paper form and then manually scanned and indexed into District Court's outdated document management system. Due to the lack of an eFiling and case management system, King County District Court has required staff to manually input and manually manage cases. Each stand-alone subsystem exists independently and requires separate clerical data entry. The simple entry of a new case can require a clerk to enter the same data into as many as seven systems. With the implementation of a single integrated case management system with eFiling functionality, the time it takes to process a case will be reduced resulting in case work being completed in a consistently accurate and timely manner. This again, allows for both a reduction of some FTE's through attrition, repurposing of some FTE's for supporting the new system, as well as a reallocation of

some resources to increase quality control and customer service that KCDC does not currently have the resources for.

- **Fewer Clerical Errors** – As mentioned above, clerks are required to manually manage cases. Data entry errors are caused by manually entering data (and often re-entering the same data multiple times). There are few safeguards to ensure data is accurate or necessary steps in the management of the case have been completed. Integration of all system components, eliminating redundant data entry requirements, as well as enhanced monitoring capabilities of the new case management system will be instrumental in helping reduce dismissals due to jurisdiction and speedy trial violations. Warning and milestone markers built into the system that are triggered throughout the life of a case are essential for case monitoring and alerting clerks and judges when action is needed.

- B. More Complete Law and Justice Information Immediately Available to Judge and Clerk** - One of the major limitations within the current system is the lack of integration with the agencies with which District Court shares data, such as the Department of Licensing and King County law enforcement (including the Washington State Patrol, King County Sheriff, Municipal law enforcement and the jails within and outside King County who house defendants with cases in King County District Court). As a central part of this development process, King County District Court is working with the other criminal justice agencies within King County to create a data sharing model. When the new case management system is implemented, it will conform to a data model that will allow for data transfer between all King County Criminal Justice Agencies such as Superior Court, Department of Public Defense, Sheriff's Office, Prosecutor's Office and DAJD. When a judge or a clerk is in the courtroom, the information from agencies across the county (such as King County Correctional Facility data to include other court holds, prior booking information, Court Information Services Interview data, and Personal Reference Information) will be immediately available through these data interfaces ensuring that the judge can make judicial rulings with a more complete picture of all factors, ensuring fairness and public safety.

UPDATE 8/2015: As part of an agreement between King County District Court and the Administrative Office of the Courts, with support from the King County Council and the Washington State Legislature, the Court is working with AOC as the pilot court for the development and implementation of the Information Network Hub and Electronic Data Repository (INH/EDR) as described in Phase 2 Interfaces in the RFP. The INH/EDR interface allows courts to efficiently and bi-directionally exchange statewide criminal justice data.

UPDATE 1/2017: The Expedited Data Exchange Steering Committee has decided to reanalyze and review the plan for the Information Network Hub and Electronic Data Repository Project which we believe will lead to its delay. The Court, however, is planning to proceed ahead without the interface. The Court is still working closely with the AOC and will be ready to implement the interface with the EDR when it becomes available.

- C. Accurately Determine Value of Court Programs** – One of the most valuable additions that the new case management system will bring to King County District Court is much improved metrics and reporting system for data tracking. King County District Court can use the data to make incremental decisions regarding those programs to better serve the public. Currently, JIS is limited in the reports that it can produce due to both the age of the database query system, non-

standardized data entry and the fact that it simply was not designed for a court of our magnitude. To compound that fact, the data is queried from fields in JIS that often do not require standard entries. This means that for those reports we are able to run, the data it returns cannot be fully relied upon and thus cannot be used to accurately determine the value of court programs.

- D. **Maximize System Uptime** – King County District Court faces intermittent outages of the systems causing interruptions in service and interfering with the Court’s ability to carry out daily operations. Notification for system failures is often delayed, especially on systems that are not maintained by District Court such as JIS, and while repairs are being made the judicial process is halted. Additionally, the failings in our current outdated electronic document program often are only detected after the problem has occurred and requires substantial staff time to repair. A new case management system will be maintained in house, with onsite IT staff.

2. ***How will you measure the benefit(s)? (How will you know if the benefit has been achieved?)***

- A. **Better Utilization of Court Staff** – Better utilization of court staff through reduction of clerical time spent scanning documents, reduction of clerical training time, integration that will reduce time spent entering data or scanning in documents as well as increased accuracy and thus reduction of time fixing errors will allow King County District Court to return a total of 16 FTE positions to the County by means of attrition (see this information in Category 4 as well).

- B. **More Complete Law and Justice Information Immediately Available to Judge and Clerk** – This benefit will be achieved upon implementation of a standard data model. Benefit realization will be achieved when judicial officers have access to information from other King County criminal justice agencies.

UPDATE 8/2015 – This benefit will also be achieved upon implementation of the INH/EDR.

- C. **Accurately Determine Value of Court Programs** – This benefit will have been achieved when we have the ability to input data elements, run reports, and gather statistical data about the use and performance of the programs. For example, the ability to query and measure who comes into a program, the time span from entry to completion or recidivism, and the completion rate of participants.

- D. **Maximize System Uptime** – Currently we have no mechanism to track system downtime other than anecdotally. With JIS, the state-run court database, we often find out about system errors and interface outages months later. Our new case management system will have system monitoring software that will allow for rapid notification of any error. This will allow us to measure whether our target has been achieved.

3. ***What is the current baseline for this measure?***

- A. **Better Utilization of Court Staff** – The current baseline is 162 number of staff.

- B. **More Complete Law and Justice Information Immediately Available to Judge and Clerk** – At this time we have limited to no integration with any of the King County Law and Justice Agencies and while a committee has been formed to develop a data model, at this time there is no shared data model across the agencies. Our current baseline is that the judge has access data and information from JIS only. Any other information has to be manually researched by clerical staff

such as through telephone calls, faxes, or access to other agencies systems in an often untimely process.

C. Accurately Determine Value of Court Programs – There is no current baseline for this measure. We lack metrics or reports to measure and evaluate program performance due to current system inflexibly and the limited and unreliable data.

D. Maximize System Uptime – We have no ability to measure a baseline for this measure as we currently cannot measure or monitor this for our systems and often find out about outages months after they have occurred and affected thousands of cases. The ability to monitor for these outages may be the most necessary benefits of a new case management system.

4. What is the target for this measure? (How much improvement will this project achieve?)

A. Better Utilization of Court Staff – The target for this measure is a 10% reduction in staffing (a total of 16 positions) through attrition over a three year period of time. (See table below for details).

B. More Complete Law and Justice Information Immediately Available to Judge and Clerk – The target for this measure is development and adherence to a county-wide data model for all King County Law and Justice Agencies and the ability upon implementation of that data model to interface with those agencies that have that capability at that time. This will provide judicial access to more complete information.

UPDATE 8/2015 – The target also includes the ability to send and receive statewide criminal justice information via the INH/EDR.

C. Accurately Determine Value of Court Programs – The target for this measure is implementation of metrics and reports to evaluate the success of various court programs

D. Maximize System Uptime – The target for this measure is 99% uptime.

5. When is the benefit likely to be achieved?

A. Better Utilization of Court Staff – The breakdown of the timeline of the benefit is detailed in the table below:

“Better Utilization of Court Staff” Measures	Year 1 2019	Year 2 2020	Year 3 2021	3 Year TOTAL
Total # of FTE's eliminated by attrition through ALL efficiencies	8	5	5	18
Total # of FTE's Returned to County through attrition	6	5	5	16
Total Salary and Benefit Savings Returned to the County	\$467,184	\$856,504	\$1,245,824	\$2,569,512
KCIT workstation savings Returned to the County	\$9,600	\$15,600	\$21,600	\$46,800
Overhead Savings Returned to the County	\$3,764	\$6,899	\$10,034	\$20,697
Total Staffing Savings Returned to the County	\$480,548	\$879,003	\$1,277,458	\$2,637,009

*Totals are year on year cumulative

B. More Complete Law and Justice Information Immediately Available to Judge and Clerk – Target for this measure is not known at this time as a King County Criminal Justice Committee

spanning numerous county criminal justice agencies is currently driving this process. King County District Court is committed to adhering to the timeline developed and decided upon by this committee.

UPDATE 1/2017: This committee is on hold at present. We are, however, currently working with the Prosecutor's Office, Superior Court and DJA, as well as King County Data to develop data sharing outside of this committee as part of our implementation.

B.C. Accurately Determine Value of Court Programs – Upon implementation of this system we will have the reporting capabilities. As soon as the new system launches, reliable data will start to be collected for measurement. A year after launch of the new case management system [\[Update of June 2017\] in 2020](#), analysis will be done with trusted information accumulated over the previous year. With the data, measurements can be made and goals for subsequent years drafted along with evaluation of success and effectiveness of court programs.

C.D. Maximize System Uptime – This benefit is likely to be achieved within 1 year of implementation [\[Update of June 2017\] in 2019](#) as the unstable systems will be replaced in full and new integration with built in validation of data transfers and system monitoring software will be elements of the new system.

Category #3: Projects that maintain service at current levels by either replacing or upgrading older technology, reducing the risk of system failures, or providing regulatory compliance. If the project will result in improvements to external or internal services or cost savings, please note those benefits in the appropriate categories.

Example: This project will upgrade PeopleSoft from 9.0 to 9.2. This upgrade is necessary because vendor support for 9.0 will be ending in 2015 and that creates a large risk for the County. Without vendor support the County will not receive tax and regulatory updates and will likely result in errors in complying with tax and regulatory issues.

Example: This project will implement an Advanced Authentication solution which will allow King County to comply with U. S. Department of Justice - Federal Bureau of Investigation, Criminal Justice Information Services (CJIS) Security Policy Version 5.0, Section 5.6.2.2. Effective September 30, 2013, advanced authentication (AA) must be in place in order to access sensitive CJIS information.

Please see section XIII (Upgrade of Technology to Maintain and Increase Service to the Public) of King County District Court BAP Supplemental Details for information on this Category

JIS fails to help King County District Court meet the mission of providing a forum that is fair, efficient and accessible. Instead the current case management system produces errors, inefficiencies, and service outages that stalls the judicial process. The new case management system will replace the Court's reliance on JIS and upgrade the secondary programs to be better integrated with the system as a whole and will provide both improved reporting and monitoring capabilities. An improved reporting and data collection system will enable King County District Court to provide quality control and meet its fiduciary responsibility to the public. The new case management system will have the capability to calculate speedy-trial and reconfigure the timeline whenever waivers are filed or warrants are issued. These automated calculations will provide an essential safeguard to ensure a timely resolution of all cases.

1. ***Describe why you are proposing to upgrade or replace existing technology. Please include age of existing technology and the average life cycle replacement for this type of technology.***
2. ***If the primary reason for the project is risk reduction project, please estimate the probability of the risk or describe how likely it is to occur.***

Category #4: Reduced cost to produce service (external or internal) or cost avoidance

This category is for those projects that will reduce the costs to deliver a county service (external or internal). The information provided here should be consistent with the information in the cost-benefit analysis (CBA) form. Please describe how the cost savings will be used by your organization. This category also includes cost avoidance. Cost avoidance is those costs that the County would need to pay, has the capacity and intent to pay, but will be avoided due to the project.

***Example: Reduced cost to produce service.** If this project to install accounts payable software is approved, we will automate three tasks that are currently done manually by agency and central purchasing employees. Based on experience of other users of the software, this will reduce processing time from the current average of ten days to less than one. This will allow us to take advantage of prompt payment discounts for over \$15,000,000 of annual purchases. These discounts average 2%, yielding annual savings of about \$300,000. This will result in savings in department expenditures for those items qualifying for prompt payment discounts.*

***Example: Cost Avoidance.** Moving to this new vendor that uses a SaaS product, we will avoid the need to upgrade the system to the newest version which goes end-of-life at the end of next year. We were required to make this upgrade due to regulatory reasons, so this represents a cost avoidance of \$100,000.*

The above examples are summaries. Please respond to each question listed below rather than provide a summary.

Executive Summary:

District Court expects that eFiling and system-generated forms will reduce paper documents filed to, and produced by, the Court by 35% of the baseline total. From this reduction the Court will realize a savings of 4 FTE positions through attrition. The Court will reassign one staff position into a professional position. The professional position will be used to analyze and maintain data integrity and return 3 of those positions to the county (keeping the salary of and benefits necessary to fund the professional position).

District Court expects that the reduction in paper documents filed to, and produced by, the Court to be 50% from the baseline total, two years after launch. From this reduction, the Court will realize a time savings of an additional 2 FTE positions through attrition.

In the third year after launch, the expectation is that paper documents filed to, and produced by, the Court will be reduced 75% from the baseline total. From this additional reduction, the Court will realize a time savings of 3 more FTE positions through attrition.

The current system also requires a substantial amount of clerical time to be expended towards the manual processing of paper documents filed with the Court. Time must be spent preparing the documents for the scanning program as well as converting the documents into a readable electronic format. The launch of eFiling and system generated forms will vastly reduce clerical time spent uploading documents into the electronic court record.

The lack of integration between the District Court system (JIS) and the probation system (PCMS) has led to a substantial amount of clerical time being spent transferring data between the two systems. The new case management system will have a probation module included which will have full integration with the District Court component. This will greatly reduce the amount of clerical time spent manually entering redundant data. The Court expects that the efficiency savings will allow for the investment of a management position and return to King County 3 FTE positions through attrition. Within the first three

years of implementation, King County District Court will return a total of 10% of its FTE clerical positions to the county through attrition. (See table in Question 5 for full breakdown of positions).

It is clear that a new case management system will allow us to completely redesign the way we do business and allow us to significantly reduce costs through a streamlined and fully integrated workflow process that will result in the following:

- A. 7.5 Year Payback of Project Costs
- B. 10% Efficiency in Staffing through Attrition
- C. Savings through Elimination of High Volume Scanners

1. Describe why you expect the proposed IT investment to reduce costs?

- A. **7.5 Year Payback of Project Costs** - The benefits realized after the first seven years (2025) of implementation will almost fully recover the project costs. By the end of the eighth year (2026), benefits will have fully recovered the project costs.
- B. **10% Efficiency in Staffing through Attrition** - King County District Court estimates that the efficiencies provided by launching a new case management system will allow the Court to return a total of 16 FTE positions to the County by means of attrition. Currently we experience a net attrition rate of approximately 15 FTE's on an annual basis and will return FTEs to the county per the chart below. Furthermore, the Court is committed to investing in one additional professional staff position to meet the complex challenges such as data analysis to ensure quality control and data integrity, and one additional management staff to facilitate the process. The Court will not seek additional funding for these positions, instead funding them through additional clerical savings done through attrition.
- C. **Savings through Elimination of High Volume Scanners** - The court will also realize a cost saving transitioning from expensive high volume scanners to smaller desktop models with an expected decrease of \$44,000 annually in licensing fees alone. After taking into account maintenance contracts and other costs, the total savings of these high volume scanners will total \$110,000 annually.

2. How will you measure the cost reduction or cost avoidance? (How will you know if the benefit has been achieved)

- A. **7.5 Year Payback of Project Costs** – We will know that this benefit has been achieved through the reduction in payroll through efficiencies, the reduction of certain costs due to the higher productivities of the system, cost avoidance, and realization of new revenue sources. (Please see Cost Benefit Analysis Workbook for detailed figures)
- B. **10% of Efficiency through Attrition** - This will be measured through the decreasing staffing number through attrition over time (see question 5, section B for schedule of reduction).
- C. **Savings through Elimination of High Volume Scanners** – This benefit will have been achieved when we are able to eliminate the high volume scanners and terminate any associated maintenance contracts resulting in full eradication of costs.

3. What is the current baseline?

- A. **7.5 Year Payback of Project Costs** – The baseline is repayment of \$0 costs. By end of year eight (2026), full repayment of costs will have occurred.
- B. **10% of Efficiency through Attrition** - The current baseline is 162 number of staff.

C. **Savings through Elimination of High Volume Scanners** – The current baseline is the approximately \$110,000 in annual expenditures on the high volume scanners.

4. **What is the target for this measure? (How much savings will this project achieve)**

- A. **7.5 Year Payback of Project Costs** – Target for this measure is full payback of project cost. District Court is expecting to [\[Update of June 2017\] begin](#) go live with the new Case Management System in 2017. [In February 2025](#), 7.5 years after [full](#) go live, District Court will have paid back the project cost.
- B. **10% of Efficiency through Attrition** - The target for this measure is a 10% reduction in staffing (a total of 16 positions) through attrition over a three year period of time. (See table below for details).
- C. **Savings through Elimination of High Volume Scanners** – The target for this measure is elimination of all high volume scanners resulting in a \$0 annual expenditure.

5. **When is the cost reduction likely to be achieved?**

- A. **7.5 Year Payback of Project Costs** – The payback of costs will occur 7.5 years from [\[Update of June 2017\] full](#) implementation, [approximately February 2025](#). Please see the Cost Benefit Analysis for detailed repayment information.
- B. **10% of Efficiency through Attrition** - The breakdown of the timeline of the benefit is detailed in the table below:

"Efficiency Through Attrition" Measures	Year-1 2019	Year-2 2020	Year-3 2021	3 Year TOTAL
Total # of FTE's eliminated by attrition through ALL efficiencies	8	5	5	18
Total # of FTE's Returned to County through attrition	6	5	5	16
Total Salary and Benefit Savings Returned to the County	\$467,184	\$856,504	\$1,245,824	\$ 2,569,512
KCIT workstation savings Returned to the County	\$9,600	\$15,600	\$21,600	\$46,800
Overhead Savings Returned to the County	\$3,764	\$6,899	\$10,034	\$20,697
Total Staffing Savings Returned to the County	\$480,548	\$879,003	\$1,277,458	\$2,637,009

*Totals are year on year cumulative

- c. **Savings through Elimination of High Volume Scanners** – Cost reduction should be achieved by the end of ~~year one~~2019. High Volume scanners will be eliminated upon implementation of the new case management system and all associated agreements and costs associated with the existing systems will be terminated.

Section 7. Benefit Achievement Summary

To be completed when benefits have been achieved or no further benefits are expected. For each of the benefits you identified above, explain whether benefits were achieved at target levels. Please include both quantitative measures and qualitative descriptions of benefits, including any monetary benefits. Use the measures identified above. If not achieved, explain why.

Example: This project, to repair an emergency radio tower, was successfully completed in April 2014. The anticipated benefit was to maintain current service levels at 99.999% up time for an additional 5 years. This project is currently functioning at 99.999% up-time and will report annually for the next 5 years on up-time levels.

If one of these towers failed physically, the cost to the county would be enormous, generally in the neighborhood of \$500K - \$1 Million per tower depending on the construction techniques and size. User agencies on the emergency radio system will benefit by having infrastructure systems in place that will be assured of not experiencing catastrophic failures due to lack of maintenance.

Example: This project to automate accounts payable software was implemented and did improve the processing time average. The average time was reduced from 10 to 2 days, not quite reaching the 1 day target. Additionally, only 20% of purchases received a prompt payment discount resulting in less cost swings than anticipated. We did not meet the target because there were fewer purchases that qualified for prompt payment than originally estimated.

Example:

Metric Description	Metrics	Baseline	Target	Actual
Reduce cost to deliver service. This project reduced processing time from the current average of ten days to less than one allowing us to take advantage of prompt payment discounts.	Processing Time annual savings, and percentage of purchases receiving prompt payment discounts	<ul style="list-style-type: none"> • 10 days processing time • 10 percent of purchases are receiving discount • Savings of \$100,000 	<ul style="list-style-type: none"> • 1 day processing time • 30 percent of purchases are receiving prompt payment discounts • \$400,000 savings 	<ul style="list-style-type: none"> • 2 day processing time • 20 percent of purchases are receiving prompt payment discounts • \$200,000 savings

IT Project Benefits Achievement Plan (Version 2)

To complete this document fully, please read all of the colored sections and fill in the white cells.

For assistance in completing this form, please contact your PSB analyst.

Section 1. What are the purposes of the Benefit Achievement Plan (BAP)?

1. To achieve a clear understanding and focus on the benefits of a project prior to its beginning
2. To update projected benefits of the project as it moves through stages of project approval, implementation, and post-project closure
3. To establish accountability for identifying and achieving benefits
4. To ensure that benefits are achieved

King County Department/Agency Name	Executive/Performance Strategy and Budget (PSB)
Project Title	Hyperion Upgrade
Project Number	1129910

Section 2. Business Owner Accountability

Business Owners are responsible for achieving project benefits and ensuring this Benefit Achievement Plan (BAP) is regularly updated and completed when benefits are achieved. Business Owners are required to be at the deputy department director or higher.

Jonathan Swift, Deputy Director, PSB

Section 3. Who is involved in developing the BAP?

The development of the BAP should include significant involvement from the business operations or management staff related to this project and the services it will support. Consider involving staff who will be using the technology to help identify the benefits of the project. KCIT business analysts or technology project staff may assist in benefit identification and documentation. List the staff who contribute to the BAP below:

Name	Title / Agency	Project Role
James Walsh	Technology Manager/PSB	Project Manager
Kate Davis	Business Analyst	Business Analyst
Kerri Char	System Administrator	Technical Analyst
Jim Record	System Administrator	Technical Analyst
Andy Bauck	Budget Analyst	Functional Analyst

Section 4. When should the BAP be started, updated and completed?

The BAP is intended to be an iterative, evolving document that will be updated as the project evolves, as information is refined or scope changes, and when benefits are finally achieved. Department and agencies (the business owners of project benefits) are required to update this document at the following times or actions:

1. To support initial project request during "gate two" phase of conceptual review.
2. For the annual Benefits report that PSB compiles.
3. To support funding release requests. If there are no changes, indicate "review only" in the revision table.
4. When a material scope change is identified and reported.
5. Up to one year after project completion and then annually until it is determined by the business owners that anticipated benefits have been achieved or no further benefits are expected.

Once the project is complete and benefits are achieved and reported, no additional reporting is required.

Please update the document online. Do not delete your previous text. Update the text as necessary and date those updates. Make sure that you upload the updated version to Innotas. The intent is for this single document to show the history of benefits over the course of the project. List any changes in the table in section 5. (If there are no changes, type none)

Section 5. How long will it take to complete the BAP?

Completion of the BAP depends on the project's complexity. In general, it should take a few hours to complete this BAP form once there is a shared understanding of the project and what value it will bring to the County. More complex and costly projects may require more extensive analysis. To improve this process in the future, please record the time spent on this in the table below at each stage of revision:

Revision History Table

Stage	Date	Revised By	Description	How long did it take?
<i>Please use conceptual review, budget process, funding release, annual report, project implementation, or project completion.</i>	<i>Date this document was updated</i>	<i>Who did the document updates?</i>	<i>A brief summary of what changed in the document. If this is an initial draft, please indicate new. If nothing has changed, indicate "review only".</i>	<i>How long did it take to complete or revise the form at this stage?</i>
Conceptual review	7/1/16	James Walsh	New, initial draft	1 hour
Budget process	8/22/16	Kate Davis	Revisions	2 hours
Budget process	9/2/16	Kate Davis	Revisions	1.5 hour
Budget process	9/14/16	Kate Davis	Revisions	1 hour
Budget process	10/16	PSB/Council	Revisions	1 hour
2016 Annual Report – Project implementation	3/17	Kate Davis	No changes; BAP for a new project that starts in 2017	1 hour
2016 Annual Report – Project implementation	7/10/17	Kate Davis	Revisions	1 hour

Section 6. Description of Project Benefits

Identify the category(ies) of benefits your project will provide and include narrative descriptions of estimated benefits. The benefits of IT investments generally fit into the following four categories:

- 1) **External service benefits:** Improving the quality or quantity of services provided to the public
- 2) **Internal service benefits:** Improving internal operations, including the quality or quantity of internal services
- 3) **Maintaining service levels** by replacing or upgrading older technology or reducing risk of system failures
- 4) **Reduced cost** to produce services (internal or external)

Each category is described below. Most projects will have benefits in one or two categories. If the project does not have benefits in a category, there is no need to provide information for that category.

What is the primary benefit of your project? After reviewing the benefit categories below, please identify the primary type of benefit for the project. For most projects, the primary type benefit will be Category #2 improving internal operations or Category #3 replacing or upgrading older technology.

Primary project benefit? (Check only one)

- Category #1: External service benefits: Improving the quality or quantity of services provided to the public
- Category #2: Internal service benefits: Improving internal operations, including the quality or quantity of internal services
- Category #3: Maintaining service levels by replacing or upgrading older technology
- Category #4: Reduced cost or cost avoidance to produce services

Category #1: External service benefits: Improving the quality or quantity of services provided to the public. This category is intended for projects that directly benefit the public. This includes improved quality of service, such as faster response times and better access to services for the public.

Example: If this project to upgrade our licensing software is approved, licenses will be issued in two business days instead of the four days currently required. This is largely due to the ability of the new software to check national

and state databases more efficiently. About one-quarter of our customers currently complain about the delay in obtaining a license and this time reduction is expected to eliminate almost all complaints and allow staff resources to be directed to other customer services.

Example: If this project to accept on-line reservations is approved, residents will be able to schedule athletic fields over the Internet and make payments by credit card. This will allow scheduling to occur at any time, rather than the current limited hours available for in-person or phone reservations. In-person and phone reservations will still be available.

The above examples are summaries. Please respond to each question listed below rather than provide a summary.

1. Describe why you expect the proposed IT investment to produce the benefit(s).
2. How will you measure the benefit(s)? (How will you know if the benefit has been achieved?)
3. What is the current baseline for this measure?
4. What is the target for this measure? (How much improvement will this project achieve?)
5. When is the benefit likely to be achieved?

Category #2: Internal service benefits: Improving internal operations, including the quality or quantity of internal services. Be sure to explain the value of such improvements to your operations.

Example: If this project to acquire hand-held devices and develop custom software is approved, inspectors will be able to check an average of 10 sites per day compared with the average of 6 currently checked. This will allow the agency to handle the 20% increase in workload projected in the next three years without adding more staff.

Example: If this project to implement a systems management tool for the Service Center is implemented we will be able to reduce the duration of technology outages during major incidents by 30 percent. We also will reduce the wait time for customers on hold with the Service Center. These improvements will allow us to redirect an existing position to other priorities.

Example: The Active Directory Consolidation project is part of an overall effort to promote IT standardization. This project will make the current management of user accounts, applications, and devices easier for IT administrators at Public Health because the end user experience will also be improved by having a single sign-on to applications such as Lync, SharePoint, and Outlook. Our success will be measured by having a single set of procedures and security models rather than the multiple ones that now exist.

The above examples are summaries. Please respond to each question listed below rather than provide a summary.

1. Describe why you expect the proposed IT investment to produce the benefit(s).

Hyperion 11.2.1.4 offers new features including: better performance of large data forms, increased ability to audit data changes, simplified user interface, improved tablet accessibility and improved system administrator tools. As part of the project, these features will be assessed and users will be engaged to determine how to best take advantage of the new tools. More benefits will be identified during the project and the BAP will be updated. The first benefit identified below provides a description of how the project would take advantage of increased performance of data forms. The second benefit describes how the project could build a foundation for increased analysis.

Benefit #1 Reduction in Time to Enter Data: Users enter changes to the budget using web based data

entry forms. Our current data entry forms limits the user's view of the data to only the incremental change that they are making to the budget. Users must estimate their calculations and validate their entry using separate screens and reports. The current process is cumbersome and error prone.

CURRENT STATE DATA FORM

	Decision Package #1
Supplies	7,000
Total	7,000

With Hyperion 11.2.1.4 and the addition of actuals into the system, we will be able to develop more comprehensive data forms. These forms will provide users with more contextual information to support data entry. With enhanced form performance, we would be able to design forms that could show the baseline budget, historical actuals and all incremental changes in the data form. Users would be able to enter, calculate, and validate their data entry in a single screen which reduces the amount of time and potential data entry errors.

FUTURE STATE DATA FORM*

	Baseline Budget	Actual	Decision Package #1	Decision Package #2	Total
Labor	150,000	150,000			150,000
Supplies	20,000	25,000	7,000		27,000
Capital	100,000	100,000			100,000
Central Rates	10,000	10,000		2,000	12,000
Total	280,000	285,000	7,000	2,000	289,000

*Form design would be dependent on system performance and user review / specification.

Benefit #2: Increased Monitoring of County Funds: Having actuals in the budget system creates an input that could be used to automate the creation of Financial Plans for Operating Budgets. The creation of Financial Plans is a manual process that requires compiling data from multiple sources: actuals from EBS, budget from Hyperion, and year end forecasts from side systems. Each financial plan takes about 2 hours to compile and analyze.

Financial Plans are the primary tool used in PSB's Financial Monitoring process. Each quarter, PSB analysts evaluate the fiscal health of County funds. Financial Monitoring has tremendous business value to the County. Analysts are able to identify risks and opportunities throughout the biennium and work with agencies to develop mitigating actions. Financial Monitoring is time consuming and currently PSB only monitors funds that are identified as high risk. As more automation is introduced, analysts will have the capacity to evaluate a larger number of funds per quarter. Early identification of issues reduces the risk that funds will develop negative fund balances or excessive fund balances.

2. *How will you measure the benefit(s)? (How will you know if the benefit has been achieved?)*

Benefit #1 Reduction in Time to Enter Data

- Number of steps to revise and validate a budget change

- User satisfaction rating with data entry

Benefit #2: Increased Monitoring of County Funds

- Percentage of funds monitored each year

3. **What is the current baseline for this measure?**

See below

4. **What is the target for this measure? (How much improvement will this project achieve?)**

Measure	Baseline	Target
1a. Number of steps	Not measured at this time	25% reduction
1b. User satisfaction with data entry	70% of users satisfied with OPEX data entry	90% users satisfied with OPEX data entry
2a. Percentage of operating funds monitored per year	33% of operating funds monitored each year	60% of operating funds monitored each year

5. **When is the benefit likely to be achieved?**

Benefits for Data Entry would be achieved within six months of the start of the budget process. Measurement, however, would occur in August / September 2018.

Benefits for Financial Monitoring would be achieved within a year of the project Go Live – approximately **Q1 2019**. Benefits are dependent on several business process factors including developing a robust process for capturing year end forecasts in Hyperion and evaluating medium to lower risk funds.

Category #3: Projects that maintain service at current levels by either replacing or upgrading older technology, reducing the risk of system failures, or providing regulatory compliance. If the project will result in improvements to external or internal services or cost savings, please note those benefits in the appropriate categories.

Example: This project will upgrade PeopleSoft from 9.0 to 9.2. This upgrade is necessary because vendor support for 9.0 will be ending in 2015 and that creates a large risk for the County. Without vendor support the County will not receive tax and regulatory updates and will likely result in errors in complying with tax and regulatory issues.

Example: This project will implement an Advanced Authentication solution which will allow King County to comply with U. S. Department of Justice - Federal Bureau of Investigation, Criminal Justice Information Services (CJIS) Security Policy Version 5.0, Section 5.6.2.2. Effective September 30, 2013, advanced authentication (AA) must be in place in order to access sensitive CJIS information.

1. **Describe why you are proposing to upgrade or replace existing technology. Please include age of existing technology and the average life cycle replacement for this type of technology.**

The primary benefit of this project is to reduce the risk of disruptions to the budget development process. Disruptions can occur when there are compatibility issues between Hyperion and other software used by our 100+ Hyperion users. Hyperion is dependent upon the operating system (OS), Office and Internet Explorer (IE) versions for the desktop computer client. As these 3 technologies are updated at King County the current version of Hyperion is exposed to more risk that it will not perform properly on a given desktop computer with the more advanced OS, Office and IE versions. Upgrading Hyperion reduces the risk of these disruptions as Oracle tests and certifies new Hyperion releases against the latest versions of Microsoft products.

Disruptions can also occur when there are failures in hardware or middleware. In 2013, Hyperion experienced critical hardware failures in two out of three environments that resulted in three months of system downtime. Currently the County insures against these disruptions by employing a combination of County IT support and consultant report to monitor and troubleshoot issues. However, County resources provide a “best efforts” level of service which means that issue resolution may be delayed by competing projects or deficits in skill sets to address the issue.

This project will migrate the Hyperion budget system from version 11.1.2.1 to the Hyperion Planning and Budgeting Cloud Service (PBCS). The current version went live during the ABT project in 2012 and dates from 2011 when the software and hardware were purchased. For the current version 11.1.2.1, the Oracle Premier Support level will expire in April of 2018 – right in the middle of the development of the 2019-2020 budget. After that date Extended Support is available for a fee until April 2021.

When products are covered by Premier Support, Oracle Support proactively develops patches and bug fixes to keep Hyperion compatible with the most recent versions of Internet Explorer, Microsoft Excel, and Java. The County can install these patches prior to the start of the budget season to ensure that the process is not interrupted by new issues that arise from ancillary software upgrades. In Extended Support, Oracle Support is more reactive in nature. Any issues that arise would need to be resolved on the fly potentially in the middle of budget development.

Even with Premier Support, Oracle has stopped creating patches for Hyperion 11.1.2.1. The most recent patch which the County has installed is certified for IE 9. Currently, most of the County’s Hyperion users are using IE 10 and IE 11.

With the PBCS solution, the County’s Hyperion solution will be updated monthly with incremental patches. The system will always be up to date and will be less likely to experience conflicts with new versions of Microsoft Office and Internet Explorer. Additionally, the responsibility for managing hardware and middleware will shift to the Cloud which should provide more stability and less risk of failure.

2. *If the primary reason for the project is risk reduction project, please estimate the probability of the risk or describe how likely it is to occur.*

The probability of significant system issues and the chronic user issues is high. Browser updates are rolled out by KCIT every year – often for security purposes – and minor compatibility issues with Hyperion arise with each update. It is difficult to predict the exact likelihood of a significant issue occurring.

In the worst case scenario, agency and PSB users could lose access to Hyperion Planning and Smart View as IE and Excel upgrades are rolled out by KCIT. County staff would need to work with Oracle Support to resolve the issue. This could delay the creation of the budget.

Other smaller issues could arise that interfere with the user’s ability to view and pull data. For example, in our current version, changing the zoom level on the Internet browser interferes with the users’ ability to navigate the menus on the screen and open reports. Our current workaround is to request that users do not use the zoom feature on the browser. This creates an accessibility issue for users with impaired eyesight.

The risk of compatibility issues will be mitigated upon the project completion in December 2017.

Category #4: Reduced cost to produce service (external or internal) or cost avoidance

This category is for those projects that will reduce the costs to deliver a county service (external or internal). The information provided here should be consistent with the information in the cost-benefit analysis (CBA) form. Please describe how the cost savings will be used by your organization. This category also includes cost avoidance. Cost avoidance is those costs that the County would need to pay, has the capacity and intent to pay, but will be avoided due to the project.

***Example: Reduced cost to produce service.** If this project to install accounts payable software is approved, we will automate three tasks that are currently done manually by agency and central purchasing employees. Based on experience of other users of the software, this will reduce processing time from the current average of ten days to less than one. This will allow us to take advantage of prompt payment discounts for over \$15,000,000 of annual purchases. These discounts average 2%, yielding annual savings of about \$300,000. This will result in savings in department expenditures for those items qualifying for prompt payment discounts.*

***Example: Cost Avoidance.** Moving to this new vendor that uses a SaaS product, we will avoid the need to upgrade the system to the newest version which goes end-of-life at the end of next year. We were required to make this upgrade due to regulatory reasons, so this represents a cost avoidance of \$100,000.*

The above examples are summaries. Please respond to each question listed below rather than provide a summary.

1. Describe why you expect the proposed IT investment to reduce costs?

The County anticipates that the PBCS project avoids the cost of approximately \$750,000 in future upgrade costs. With our current on-premise solution, we must perform an upgrade or cloud migration every 5 years. These upgrades are large scale changes that require assistance from outside vendors and hardware purchases. With the PBCS solution, large upgrades and hardware purchases are not necessary as the product is updated through monthly patches that can be tested by PSB technical staff.

Additionally, PSB has analyzed the ongoing costs and assumes:

- a. no significant change in maintenance costs paid to outside vendors for maintaining the licenses and monitoring system performance
- b. a reduction in KCIT rates currently paid by BRC for maintaining servers; and
- c. a reduction in BRC DBA hours spent on maintaining the system

None of these maintenance factors result in budget reductions in the KCIT or BRC budgets. However, it is expected that resources can be deployed more efficiently in KCIT and BRC with the movement of this system to the Cloud.

2. How will you measure the cost reduction or cost avoidance? (How will you know if the benefit has been achieved)

PSB will monitor all future upgrade costs. PSB will also reassess the ongoing costs at the end of the project.

3. What is the current baseline?

The current estimate for an on-premise upgrade is \$750,000. By moving to PBCS rather than an on-premise upgrade, the County will avoid the costs of software upgrades in the future.

4. What is the target for this measure? (How much savings will this project achieve)

The target is for future upgrade / migration costs is \$0 by Q4 2022.

5. When is the cost reduction likely to be achieved?

In Q4 2022.

Section 7. Benefit Achievement Summary

For each of the benefits you identified above, explain whether benefits were achieved at target levels. Please include both quantitative measures and qualitative descriptions of benefits, including any monetary benefits. Use the measures identified above. If not achieved, explain why.

Example: This project, to repair an emergency radio tower, was successfully completed in April 2014. The anticipated benefit was to maintain current service levels at 99.999% up time for an additional 5 years. This project is currently functioning at 99.999% up-time and will report annually for the next 5 years on up-time levels.

If one of these towers failed physically, the cost to the county would be enormous, generally in the neighborhood of \$500K - \$1 Million per tower depending on the construction techniques and size. User agencies on the emergency radio system will benefit by having infrastructure systems in place that will be assured of not experiencing catastrophic failures due to lack of maintenance.

Example: This project to automate accounts payable software was implemented and did improve the processing time average. The average time was reduced from 10 days to 2 days, not quite reaching the 1 day target. Additionally, only 20 percent of purchases received a prompt payment discount resulting in less cost swings than anticipated. We did not meet the target because there were fewer purchases that qualified for prompt payment than originally estimated.

Example:

Metric Description	Metrics	Baseline	Target	Actual
Reduce cost to deliver service. This project reduced processing time from the current average of 10 days to <1 day allowing us to take advantage of prompt payment discounts.	Processing time, annual savings, and % of purchases receiving prompt payment discounts	<ul style="list-style-type: none"> 10 days processing time 10% of purchases are receiving discount \$100,000 savings 	<ul style="list-style-type: none"> 1 day processing time 30% of purchases are receiving prompt payment discounts \$400,000 savings 	<ul style="list-style-type: none"> 2 day processing time 20% of purchases are receiving prompt payment discounts \$200,000 savings

IT Project Benefits Achievement Plan (Version 2)

Section 1. What are the purposes of the Benefit Achievement Plan (BAP)?

1. To achieve a clear understanding and focus on the benefits of a project prior to its beginning
2. To update projected benefits of the project as it moves through stages of project approval, implementation, and post-project closure
3. To establish accountability for identifying and achieving benefits
4. To ensure that benefits are achieved

To complete this document fully, please read all of the colored sections and fill in the white cells. For assistance in completing this form, please contact your PSB analyst.

King County Department/Agency Name	King County Sheriff's Office
Project Title	The Scheduling Project (ATLAS)
EBS Project Number	

Section 2. Business Owner Accountability

Business Owners are responsible for achieving project benefits and ensuring this Benefit Achievement Plan (BAP) is regularly updated and completed when benefits are achieved. Business Owners are required to be at the deputy department director or higher.

Business Owner Name and Title: **Chief Patti Cole-Tindall**

Section 3. Who is involved in developing the Benefit Achievement Plan?

The development of the BAP should include significant involvement from the business operations or management staff related to this project and the services it will support. Consider involving staff who will be using the technology to help identify the benefits of the project. KCIT business analysts or technology project staff may assist in benefit identification and documentation. List the staff who contribute to the benefit achievement plan below:

Name	Title / Agency	Project Role
Janielee Amina Osborne	IT Project Manager	Project Manager

Section 4. When should the Benefit Achievement Plan be started, updated and completed?

The BAP is intended to be an iterative, evolving document that will be updated as the project evolves, as information is refined or scope changes, and when benefits are finally achieved. Department and agencies (the business owners of project benefits) are required to update this document at the following times or actions:

1. To support initial project request during “gate two” phase of conceptual review.
2. For the annual Benefits report that PSB compiles.
3. To support funding release requests. If there are no changes, simply indicate “review only” in the revision table.
4. When a material scope change is identified and reported.
5. Up to one year after project completion and then annually until it is determined by the business owners that anticipated benefits have been achieved or no further benefits are expected.

Once the project is complete and benefits are achieved and reported, no additional reporting is required.

Please update the document online. Do not delete your previous text. Update the text as necessary and date those updates. Make sure that you upload the updated version to Innotas. The intent is for this single document to show the history of benefits over the course of the project. List any changes in the table in section 5. (If there are no changes, type none)

Section 5. How long will it take to complete the benefit achievement plan?

Completion of the BAP depends on the project’s complexity. In general, it should take a few hours to complete this BAP form once there is a shared understanding of the project and what value it will bring to the County. More complex and costly projects may require more extensive analysis. To improve this process in the future, please record the time spent on this in the table below at each stage of revision:

Revision History Table

Stage	Date	Revised By	Description	How long did it take?
<i>Please use conceptual review, budget process, funding release, annual report, project implementation, or project completion.</i>	<i>Date this document was updated</i>	<i>Who did the document updates?</i>	<i>A brief summary of what changed in the document. If this is an initial draft, please indicate new. If nothing has changed, indicate “review only”.</i>	<i>How long did it take to complete or revise the form at this stage?</i>
Initial – conversion of existing documentation into new format.	Feb 11, 2014.	Janielee Amina Osborne	Collecting and coalescing pre-existing documentation for the project into the new BAP format.	1 hour
Edited – based on ‘notes/comments’ in document on SharePoint.	Mar 24, 2014	Janielee Amina Osborne	Re-formatted to conform to requested standards.	1 hour
Reviewed	Feb 5, 2015	Janielee Amina Osborne	Reviewed to ensure continued accuracy.	½ hour
Reviewed	May 26, 2016	Janielee Amina Osborne	Reviewed and edited to ensure continued accuracy.	½ hour
Added Metric Matrix	Jun 14, 2016	Janielee Amina Osborne	Added metric matrix to demonstrate results.	1 ½ hours
Revised, edited as requested based on discussion with	Sep 19, 2017	Janielee Amina Osborne	Simplified, more applicable items listed in the metric	¾ hour

Chief P Cole-Tindall, L
Kamrath, and J Giambattista
on Sep 15, 2017.

table. Accepted changes
from prior version.

Section 6. Description of Project Benefits

Identify the category(ies) of benefits your project will provide and include narrative descriptions of estimated benefits. The benefits of IT investments generally fit into the following four categories:

- 1) External service benefits: Improving the quality or quantity of services provided to the public
- 2) Internal service benefits: Improving internal operations, including the quality or quantity of internal services
- 3) Maintaining service levels by replacing or upgrading older technology, reducing risk of system failures, or providing regulatory compliance
- 4) Reduced cost to produce services (internal or external)

Each category is described below. Most projects will have benefits in one or two categories. If the project does not have benefits in a category, there is no need to provide information for that category.

What is the primary benefit of your project? After reviewing the benefit categories below, please identify the primary type of benefit for the project. For most projects, the primary type benefit will be Category #2 improving internal operations or Category #3 replacing or upgrading older technology.

Primary project benefit? (Check only one)

- Category #1: External service benefits: Improving the quality or quantity of services provided to the public
- Category #2: Internal service benefits: Improving internal operations, including the quality or quantity of internal services**
- Category #3: Maintaining service levels by replacing or upgrading older technology, reducing risk of system failures, or providing regulatory compliance
- Category #4: Reduced cost or cost avoidance to produce services

Category #1: External service benefits: Improving the quality or quantity of services provided to the public. This category is intended for projects that directly benefit the public. This includes improved quality of service, such as faster response times and better access to services for the public.

Example: If this project to upgrade our licensing software is approved, licenses will be issued in two business days instead of the four days currently required. This is largely due to the ability of the new software to check national and state databases more efficiently. About one-quarter of our customers currently complain about the delay in obtaining a license and this time reduction is expected to eliminate almost all complaints and allow staff resources to be directed to other customer services.

Example: If this project to accept on-line reservations is approved, residents will be able to schedule athletic fields over the Internet and make payments by credit card. This will allow scheduling to occur at

any time, rather than the current limited hours available for in-person or phone reservations. In-person and phone reservations will still be available.

The above examples are summaries. Please respond to each question listed below rather than provide a summary.

1. *Describe why you expect the proposed IT investment to produce the benefit(s).*
2. *How will you measure the benefit(s)? (How will you know if the benefit has been achieved?)*
3. *What is the current baseline for this measure?*
4. *What is the target for this measure? (How much improvement will this project achieve?)*
5. *When is the benefit likely to be achieved?*

Category #2: Internal service benefits: Improving internal operations, including the quality or quantity of internal services. Be sure to explain the value of such improvements to your operations.

***Example:** If this project to acquire hand-held devices and develop custom software is approved, inspectors will be able to check an average of 10 sites per day compared with the average of 6 currently checked. This will allow the agency to handle the 20% increase in workload projected in the next three years without adding more staff.*

***Example:** If this project to implement a systems management tool for the Service Center is implemented we will be able to reduce the duration of technology outages during major incidents by 30 percent. We also will reduce the wait time for customers on hold with the Service Center. These improvements will allow us to redirect an existing position to other priorities.*

***Example:** The Active Directory Consolidation project is part of an overall effort to promote IT standardization. This project will make the current management of user accounts, applications, and devices easier for IT administrators at Public Health because the end user experience will also be improved by having a single sign-on to applications such as Lync, SharePoint, and Outlook. Our success will be measured by having a single set of procedures and security models rather than the multiple ones that now exist.*

The above examples are summaries. Please respond to each question listed below rather than provide a summary.

[Per the original Grant write up by Joe Lewis for ORI: WAKCS00:](#)

- *Describe why you expect the proposed IT investment to produce the benefit(s).*
The goal of this request is that first level supervisors spend the majority of their time in the field providing direct oversight to line level employees. Additionally, the Sheriff desires to have available the tools necessary to effectively manage the scheduling of personnel from all Sections. To this end the Sheriff's Office has identified a software product that is believed to have the capability of automating most of the scheduling and reporting tasks and processes currently done manually. It is believed that implementing this software program will free up significant first level supervisor and manager time that can be spent directing and overseeing the work of the

Sheriff's Office; consequently, enhancing community policing efforts and reducing risk to King County and its' employees. In addition to the above, Superior and District courts, prosecutors and public defenders will be able to make inquiries as to an employee's availability in scheduling activities such as interviews and trials. This program also provides rapid identification and automated contact to specialty groups and available team members, such as hostage negotiators or bomb technicians, for emergency events.

- *How will you measure the benefit(s)? (How will you know if the benefit has been achieved?)*
Implementation will accomplish two major measurable goals. It will allow for the accurate collection and reporting of employee work and leave information that will allow the Sheriff to make thoughtful policy, supported by data. Additionally, it will free first-level supervisors and managers from the tedious time consuming tasks of scheduling and result in better oversight of employees in the field.
- *What is the current baseline for this measure?*
First level supervisors and managers spend an inordinate amount of time filling absences to provide minimum shift coverage. Patrol sergeants can spend 30% to 40% of an eight-hour shift covering short-notice vacancies for the current day and trying to fill planned shortages on future days.
- *What is the target for this measure? (How much improvement will this project achieve?)*
Each user group (Comm Center, SeaTac, Metro, Patrol units, etc.) will have their own specific measurements and benefits based on their realized time savings.
- *When is the benefit likely to be achieved?* **Beginning in 2015 with larger benefits realized in 2016.**

Category #3: Projects that maintain service at current levels by either replacing or upgrading older technology, reducing the risk of system failures, or providing regulatory compliance. If the project will result in improvements to external or internal services or cost savings, please note those benefits in the appropriate categories.

Example: This project will upgrade PeopleSoft from 9.0 to 9.2. This upgrade is necessary because vendor support for 9.0 will be ending in 2015 and that creates a large risk for the County. Without vendor support the County will not receive tax and regulatory updates and will likely result in errors in complying with tax and regulatory issues.

Example: This project will implement an Advanced Authentication solution which will allow King County to comply with U. S. Department of Justice - Federal Bureau of Investigation, Criminal Justice Information Services (CJIS) Security Policy Version 5.0, Section 5.6.2.2. Effective September 30, 2013, advanced authentication (AA) must be in place in order to access sensitive CJIS information.

1. *Describe why you are proposing to upgrade or replace existing technology. Please include age of existing technology and the average life cycle replacement for this type of technology.*
2. *If the primary reason for the project is risk reduction project, please estimate the probability of the risk or describe how likely it is to occur.*

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Example: Reduced cost to produce service. *If this project to install accounts payable software is approved, we will automate three tasks that are currently done manually by agency and central purchasing employees. Based on experience of other users of the software, this will reduce processing time from the current average of ten days to less than one. This will allow us to take advantage of prompt payment discounts for over \$15,000,000 of annual purchases. These discounts average 2%, yielding annual savings of about \$300,000. This will result in savings in department expenditures for those items qualifying for prompt payment discounts.*

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1. *Describe why you expect the proposed IT investment to reduce costs?*
2. *How will you measure the cost reduction or cost avoidance? (How will you know if the benefit has been achieved)*
3. *What is the current baseline?*
4. *What is the target for this measure? (How much savings will this project achieve)*
5. *When is the cost reduction likely to be achieved?*

Section 7. Benefit Achievement Summary

Benefit Achievement Summary

To be completed when benefits have been achieved or no further benefits are expected. For each of the benefits you identified above, explain whether benefits were achieved at target levels. Please include both quantitative measures and qualitative descriptions of benefits, including any monetary benefits. Use the measures identified above. If not achieved, explain why.

Example: This project, to repair an emergency radio tower, was successfully completed in April 2014. The anticipated benefit was to maintain current service levels at 99.999% up time for an additional five years. This project is currently functioning at 99.999% up-time and will report annually for the next five years on up-time levels.

If one of these towers failed physically, the cost to the county would be enormous, generally in the neighborhood of \$500K - \$1 Million per tower depending on the construction techniques and size. User agencies on the emergency radio system will benefit by having infrastructure systems in place that will be assured of not experiencing catastrophic failures due to lack of maintenance.

Example: This project to automate accounts payable software was implemented and did improve the processing time average. The average time was reduced from 10 days to 2 days, not quite reaching the 1 day target. Additionally, only 20 percent of purchases received a prompt payment discount resulting in less cost swings than anticipated. We did not meet the target because there were fewer purchases that qualified for prompt payment than originally estimated.

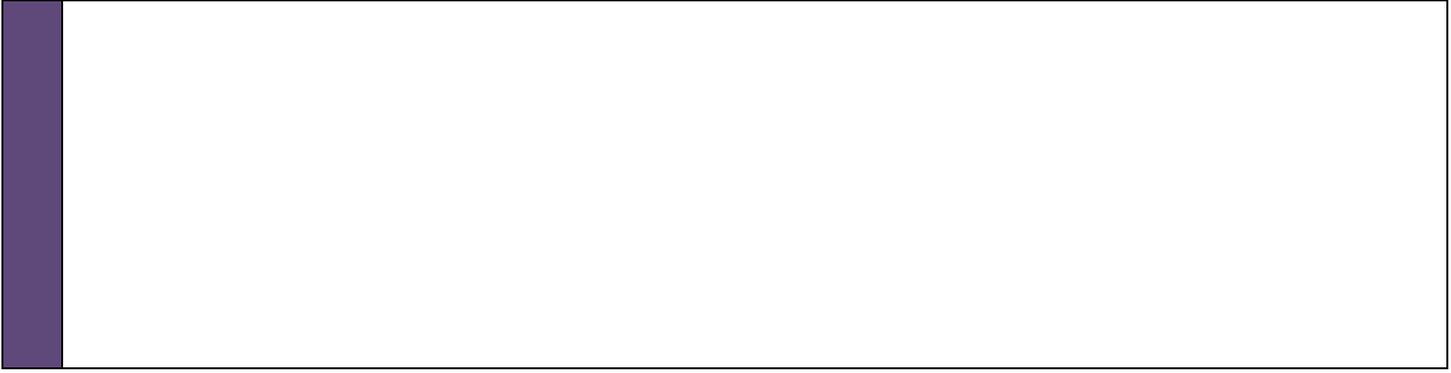
Example:

Metric Description	Metrics	Baseline	Target	Actual
Reduce cost to deliver service. This project reduced processing time from the current average of ten days to less than one allowing us to take advantage of prompt payment discounts.	Processing Time annual savings, and percentage of purchases receiving prompt payment discounts	<ul style="list-style-type: none"> 10 days processing time 10 percent of purchases are receiving discount Savings of \$100,000 	<ul style="list-style-type: none"> 1 day processing time 30 percent of purchases are receiving prompt payment discounts \$400,000 savings 	2 day processing time 20 percent of purchases are receiving prompt payment discounts \$200,000 savings

The Scheduling Project -
Benefit Achievement Summary
Metrics

Metric Description	Baseline	Target	Actual – to date
Eliminate a paper absence slip (triplicate leave request form) for every employee on every absence request, Eliminate summary attendance	No baseline was established. 1,116 employees with variable amounts of leave and overtime.	Electronic submission of overtime and leave requests, no summaries required as electronic reports can be created.	89% of KCSO Live in ATLAS discontinuing paper leave and overtime forms.

spreadsheets by units/shifts, and Eliminate printed paper versions of IRIS Overtime submissions.			
Eliminate various scheduling tools in multiple units (Excel Spreadsheets, Big Board, etc.)	No baseline was established.	Eliminate Big Board as a scheduling tool for all of the Unincorporated Precincts (166+ officers), Eliminate Excel Spreadsheet schedules in 20 units.	32 units migrating to ATLAS for primary scheduling tool, a few units still using specialized or detailed scheduling tools (Comm Center, Court Security).
Allows for the accurate collection and reporting of employee work and leave information that will allow the Sheriff to make thoughtful policy, supported by data. New Management reports and tools for budget monitoring and overtime monitoring.	Did not exist or were manually created via spreadsheets and data extracts from IRIS.	Usable and meaningful reports built for Leave, Overtime, and Management (plus reports for HR & Payroll). This data is used by key decision makers and oversight bodies. Data and patterns can be used for making policies, bargaining and audits.	Completed:HR Reports, Payroll Reports, Management Reports: <ul style="list-style-type: none"> • Leave Report • Comp Time Summary Report • Scheduled Leave Hours by Employee, • OT Audit by Project/Task, • Overtime by Cost Center (Project) • Overtime by Employee, • Overtime by Location, • Overtime Detail, • Overtime % by Employee.
ATALS Auto Feed data to PeopleSoft (manually typed in prior to ATLAS)	84 hours per pay period, 168 hours per month,	Less than 10 hours per pay period re-typing or manually entering time from ATLAS to PeopleSoft.	Oct 2016 KCSO Payroll data auto feed to PeopleSoft completed. Timing of payroll cadence still requires a considerable manual entry period. Once KCSO Payroll migrates to biweekly, this manual effort will be minimized.
Free up first-level supervisors and managers from tedious time consuming tasks of scheduling and result in better oversight of employees in the field. Reduced emails and phone calls for Sergeants to fill overtime shifts (post implementation using Targeted Overtime tool).	No baseline was established.	For every overtime shift available, Captains and/or Sergeants send emails to all eligible Sergeants/Deputies generating hundreds – if not thousands – of emails. Goal is to reduce email use to just emergency overtime, not to be used for planned overtime.	The Targeted Overtime module of ATLAS is in the final test stages and has been in use since Jun 2017. Actual results to be determined once fully adopted. KCSO will report out in 2018 with additional result information.



IT Project Benefits Achievement Plan (Version 2)

To complete this document fully, please read all of the colored sections and fill in the white cells.
For assistance in completing this form, please contact your PSB analyst.

Section 1. What are the purposes of the Benefit Achievement Plan (BAP)?

1. To achieve a clear understanding and focus on the benefits of a project prior to its beginning
2. To update projected benefits of the project as it moves through stages of project approval, implementation, and post-project closure
3. To establish accountability for identifying and achieving benefits
4. To ensure that benefits are achieved

King County Department/Agency Name	King County Sheriff’s Office
Project Title	RMS Replacement
Project Number	377214

Section 2. Business Owner Accountability

Business Owners are responsible for achieving project benefits and ensuring this Benefit Achievement Plan (BAP) is regularly updated and completed when benefits are achieved. Business Owners are required to be at the deputy department director or higher.

Patti Cole-Tindall, Chief of Technical Services Division

Section 3. Who is involved in developing the BAP?

The development of the BAP should include significant involvement from the business operations or management staff related to this project and the services it will support. Consider involving staff who will be using the technology to help identify the benefits of the project. KCIT business analysts or technology project staff may assist in benefit identification and documentation. List the staff who contribute to the BAP below:

Name	Title / Agency	Project Role
Judy McDermott	Business Implementation Manager / KCSO	Team member
Lynda Kamrath	IT Manager / KCSO	Team member
Glen Connolly	911 Communications Center Supervisor	Business Operations Staff

Section 4. When should the BAP be started, updated and completed?

The BAP is intended to be an iterative, evolving document that will be updated as the project evolves, as information is refined or scope changes, and when benefits are finally achieved. Department and agencies (the business owners of project benefits) are required to update this document at the following times or actions:

1. To support initial project request during “gate two” phase of conceptual review.
2. For the annual Benefits report that PSB compiles.
3. To support funding release requests. If there are no changes, indicate “review only” in the revision table.
4. When a material scope change is identified and reported.
5. Up to one year after project completion and then annually until it is determined by the business owners that anticipated benefits have been achieved or no further benefits are expected.

Once the project is complete and benefits are achieved and reported, no additional reporting is required.

Please update the document online. Do not delete your previous text. Update the text as necessary and date

those updates. Make sure that you upload the updated version to Innotas. The intent is for this single document to show the history of benefits over the course of the project. List any changes in the table in section 5. (If there are no changes, type none)

Section 5. How long will it take to complete the BAP?

Completion of the BAP depends on the project's complexity. In general, it should take a few hours to complete this BAP form once there is a shared understanding of the project and what value it will bring to the County. More complex and costly projects may require more extensive analysis. To improve this process in the future, please record the time spent on this in the table below at each stage of revision:

Revision History Table

Stage	Date	Revised By	Description	How long did it take?
<i>Please use conceptual review, budget process, funding release, annual report, project implementation, or project completion.</i>	<i>Date this document was updated</i>	<i>Who did the document updates?</i>	<i>A brief summary of what changed in the document. If this is an initial draft, please indicate new. If nothing has changed, indicate "review only".</i>	<i>How long did it take to complete or revise the form at this stage?</i>
Conceptual review	2/11/14	Judy McDermott	Review existing project documents and compile into BAP	3 hours
Annual Report	2/10/15	Judy McDermott	Review Only	10 min
Annual Report	5/23/16	Judy McDermott	Review Only	10 min
Annual Report	6/8/16	Judy McDermott	Update Benefit Summary	2 hours
Annual Report	1/12/17	Judy McDermott	Update BAP with new project information	3 hours
Update for Council Proviso questions	9/13/17	Patti Cole-Tindall	Update BAP	30 minutes
Update based on meeting with Council Staff	11/8/17	Lynda Kamrath	Update BAP	15 minutes

Section 6. Description of Project Benefits

Identify the category(ies) of benefits your project will provide and include narrative descriptions of estimated benefits. The benefits of IT investments generally fit into the following four categories:

- 1) **External service benefits:** Improving the quality or quantity of services provided to the public
- 2) **Internal service benefits:** Improving internal operations, including the quality or quantity of internal services
- 3) **Maintaining service levels** by replacing or upgrading older technology or reducing risk of system failures
- 4) **Reduced cost** to produce services (internal or external)

Each category is described below. Most projects will have benefits in one or two categories. If the project does not have benefits in a category, there is no need to provide information for that category.

What is the primary benefit of your project? After reviewing the benefit categories below, please identify the primary type of benefit for the project. For most projects, the primary type benefit will be Category #2 improving internal operations or Category #3 replacing or upgrading older technology.

Primary project benefit? (Check only one)

Category #1: External service benefits: Improving the quality or quantity of services provided to the public

Category #2: Internal service benefits: Improving internal operations, including the quality or

quantity of internal services

Category #3: Maintaining service levels by replacing or upgrading older technology

Category #4: Reduced cost or cost avoidance to produce services

Category #1: External service benefits: Improving the quality or quantity of services provided to the public. This category is intended for projects that directly benefit the public. This includes improved quality of service, such as faster response times and better access to services for the public.

***Example:** If this project to upgrade our licensing software is approved, licenses will be issued in two business days instead of the four days currently required. This is largely due to the ability of the new software to check national and state databases more efficiently. About one-quarter of our customers currently complain about the delay in obtaining a license and this time reduction is expected to eliminate almost all complaints and allow staff resources to be directed to other customer services.*

***Example:** If this project to accept on-line reservations is approved, residents will be able to schedule athletic fields over the Internet and make payments by credit card. This will allow scheduling to occur at any time, rather than the current limited hours available for in-person or phone reservations. In-person and phone reservations will still be available.*

The above examples are summaries. Please respond to each question listed below rather than provide a summary.

1. Describe why you expect the proposed IT investment to produce the benefit(s).
2. How will you measure the benefit(s)? (How will you know if the benefit has been achieved?)
3. What is the current baseline for this measure?
4. What is the target for this measure? (How much improvement will this project achieve?)
5. When is the benefit likely to be achieved?

Category #2: Internal service benefits: Improving internal operations, including the quality or quantity of internal services. Be sure to explain the value of such improvements to your operations.

***Example:** If this project to acquire hand-held devices and develop custom software is approved, inspectors will be able to check an average of 10 sites/day compared with the average of 6 currently checked. This will allow the agency to handle the 20% increase in workload projected in the next 3 years without adding more staff.*

***Example:** If this project to implement a systems management tool for the Service Center is implemented we will be able to reduce the duration of technology outages during major incidents by 30%. We also will reduce the wait time for customers on hold with the Service Center. These improvements will allow us to redirect an existing position to other priorities.*

***Example:** The Active Directory Consolidation project is part of an overall effort to promote IT standardization. This project will make the current management of user accounts, applications, and devices easier for IT administrators at Public Health because the end user experience will also be improved by having a single sign-on to applications such as Lync, SharePoint, and Outlook. Our success will be measured by having a single set of procedures and security models rather than the multiple ones that now exist.*

The above examples are summaries. Please respond to each question listed below rather than provide a summary.

1. Describe why you expect the proposed IT investment to produce the benefit(s).

KCSO is on 2 RMS systems. The current >20 yr old in-house built legacy system, IRIS, has unsupported technology that is failing and is past the end of its life cycle. The Total Enforcement (TE) system is built on newer technology and is currently managing all of KCSO’s property (evidence) that was migrated from TESS (older decommissioned property management system). KCSO is looking to replace the two RMS systems with Mark 43’s government cloud based software Cobalt in 2017. However, it is necessary to continue to maintain both IRIS and TE until the new RMS is fully deployed and the pilot is proven successful. Mark 43’s Cobalt will address Officer Safety concerns and potential liability issues KCSO has with the current RMS’s and will provide KCSO with new features (i.e. interfaces to regional and King County systems, , provides address validation, manages evidence, etc.) that will assist the Officer in solving crimes and improve service to the public. KCSO will also be compliant with Federal Government National Incident Based Reporting System (NIBRS) reporting.

- Benefit 1.** ~~Improved officer safety (when officers receive a call, with the new system they are able to perform pre-incident investigation on all calls and get the entire history).~~ All the RMS data will be available through one system via Mark43 and easily accessible by KCSO staff
- Benefit 2.** ~~Improved ability to research and identify problem causes through full audit date/time stamp logs for activity in the RMS, including “before” and “after” values when fields have been updated.~~
- Benefit 3.** Ability to report NIBRS (hence, compliance with Federal Government requirement)
- Benefit 4.** Reduced amount of officers’ time spent on writing reports
- Benefit 5.** Reduced amount of time it takes the Comm. Center call takers to write a 911 call report

2. **How will you measure the benefit(s)? (How will you know if the benefit has been achieved?)**

See summary table below

3. **What is the current baseline for this measure?**

See summary table below

4. **What is the target for this measure? (How much improvement will this project achieve?)**

Benefit	Measure	Baseline	Target
1. Improved officer safety due to ability to perform pre-incident investigation on all calls and get the entire history	Number of years of historical data available to officers when doing pre-incident investigations for calls	1 year of data currently available	from 2008 and on
2. All the RMS data will be available through one system via Mark43 and easily accessible by KCSO staff	Survey officers and/or 911 Comm Ctr that they are actually finding the data easily accessible and are using it After data is migrated from IRIS/TE, survey KCSO staff that they are actually finding the data easily	What is the % now (can we check with the Comm Center? Send a survey to all officers?) Survey Officers	Yr 1 40% of officers are searching for the data and finding it rather than calling the COMM center Yr 2 95% we will not reach 100% because of internet

			<p>service in remote locations</p> <p>June 2018 – 35% of all staff using Mark43's RMS to access directly</p> <p>Sept 2018 - 75% of all staff using Mark43's RMS to access directly</p> <p>Dec 2018 – 95% of all staff using Mark43's RMS to access directly</p>
3.			
4. Ability to report NIBRS (hence, compliance with Federal Government requirement)	Error rate (%) when reporting NIBRS	Currently, not able to report NIBRS	4% error rate
5. Reduced amount of officers' time spent on writing reports	Amount of time spent by officers (on average) on writing reports (information will be tracked by the new system)	Average 30 min/report 81,939 reports written in 2016, 70% or 57,358 by officers	<20 min/report
6. Reduced amount of time for the 911 Comm. Center call takers to write a 911 call report	Amount of time it takes the Comm. Center call takers to write a 911 call report	Average 30 min/report 81,939 reports written in 2016, 30% or 24,581 by 911 Comm. Center	<20 min /report
7. Can query multiple systems (such as NCIC and other regional/local)			

from one place within the RMS to allow for data to pull directly in without retyping			
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5. **When is the benefit likely to be achieved?**

One year after full implementation of Mark 43's Cobalt is complete (i.e., Q1 2019)

Category #3: Projects that maintain service at current levels by either replacing or upgrading older technology, reducing the risk of system failures, or providing regulatory compliance. If the project will result in improvements to external or internal services or cost savings, please note those benefits in the appropriate categories.

Example: This project will upgrade PeopleSoft from 9.0 to 9.2. This upgrade is necessary because vendor support for 9.0 will be ending in 2015 and that creates a large risk for the County. Without vendor support the County will not receive tax and regulatory updates and will likely result in errors in complying with tax and regulatory issues.

Example: This project will implement an Advanced Authentication solution which will allow King County to comply with U. S. Department of Justice - Federal Bureau of Investigation, Criminal Justice Information Services (CJIS) Security Policy Version 5.0, Section 5.6.2.2. Effective September 30, 2013, advanced authentication (AA) must be in place in order to access sensitive CJIS information.

1. **Describe why you are proposing to upgrade or replace existing technology. Please include age of existing technology and the average life cycle replacement for this type of technology.**

This project is meant to consolidate and replace three systems.

- TESS (Property / Evidence Management System) – decommissioned in 2014
- IRIS (Incident Reporting and Investigation System) – For criminal activity
- TE (Total Enforcement) – For criminal activity and evidence management

Past State

The legacy Records Management System (RMS), IRIS, was built in 1997 and TESS, evidence tracking system, were not designed for the demands and capabilities of current and evolving environment or for high performance, security and scalability in a heavy multi-user environment. Audit logs are not available in these legacy systems and deputies spend too much time writing case reports vs. patrol community policing. This situation causes a significant patrol productivity impact and limits participation in county and regional integration projects, such as ACCESS, DOL, Seaking, LinX, BARS. IRIS/TESS are past their end of life, very fragile, and the system platform is no longer supported. Therefore, King County Sheriff's Office (KCSO) will be implementing a Commercial Off the Shelf (COTS) system to replace the fragile IRIS/TESS systems.

Recent State

KCSO has been working to implement a new RMS (TE) for the past several years. Property Management Unit (PMU) went live with TE July 2014 and TESS was decommissioned. 250 (30% of KCSO) professional staff went live in October 2015. CID went live March 2016 and Kenmore/Shoreline were trained in April. As soon as TE was piloted to patrol and detectives, it became clear that police work was being compromised due to the length of time it took to writing case reports and TE was not a viable solution for patrol (70% of KCSO). On May 31st, 2016 Sheriff Urquhart made the decision to suspend TE for officers.

Incident/case reports and property are being entered in the legacy IRIS RMS by officers. The data in IRIS is populating TE via daily periodic migration, allowing PMU to manage property/evidence. At this

time TE is the repository for all KCSO RMS/Property data. However, TE is not a viable RMS option for officers to use for their incident/case reports due to the length of time spent writing reports vs being on patrol for community policing. The addition of the federal NIBRS process to TE caused the officers writing of reports to be four times greater than normal and the system required several clicks to “Apply / Save” or data would be lost. In addition, the screens did not have a logical flow and officers were having to click around to enter the report data, causing confusion and frustration.

Future State

Since TE is not a viable replacement solution for patrol, KCSO’s selected option is a Sole-source 1 year Subscription Pilot with Mark 43 that resides in the AWS Gov-Cloud.

Historical incident/report data from TE will either be migrated to Cobalt or housed in a Data Warehouse. Once KCSO is fully deployed on Cobalt, IRIS will be decommissioned.

2. ***If the primary reason for the project is risk reduction project, please estimate the probability of the risk or describe how likely it is to occur.***

Category #4: Reduced cost to produce service (external or internal) or cost avoidance

This category is for those projects that will reduce the costs to deliver a county service (external or internal). The information provided here should be consistent with the information in the cost-benefit analysis (CBA) form. Please describe how the cost savings will be used by your organization. This category also includes cost avoidance. Cost avoidance is those costs that the County would need to pay, has the capacity and intent to pay, but will be avoided due to the project.

Example: Reduced cost to produce service. *If this project to install accounts payable software is approved, we will automate three tasks that are currently done manually by agency and central purchasing employees. Based on experience of other users of the software, this will reduce processing time from the current average of ten days to less than one. This will allow us to take advantage of prompt payment discounts for over \$15 million of annual purchases. These discounts average 2%, yielding annual savings of about \$300,000. This will result in savings in department expenditures for those items qualifying for prompt payment discounts.*

Example: Cost Avoidance. *Moving to this new vendor that uses a SaaS product, we will avoid the need to upgrade the system to the newest version which goes end-of-life at the end of next year. We were required to make this upgrade due to regulatory reasons, so this represents a cost avoidance of \$100,000.*

The above examples are summaries. Please respond to each question listed below rather than provide a summary.

1. *Describe why you expect the proposed IT investment to reduce costs?*
2. *How will you measure the cost reduction or cost avoidance? (How will you know if the benefit has been achieved)*
3. *What is the current baseline?*
4. *What is the target for this measure? (How much savings will this project achieve)*
5. *When is the cost reduction likely to be achieved?*

Section 7. Benefit Achievement Summary

To be completed when benefits have been achieved or no further benefits are expected. For each of the benefits you identified above, explain whether benefits were achieved at target levels. Please include both quantitative measures and qualitative descriptions of benefits, including any monetary benefits. Use the measures identified above. If not achieved, explain why.

***Example:** This project, to repair an emergency radio tower, was successfully completed in April 2014. The anticipated benefit was to maintain current service levels at 99.999% up time for an additional 5 years. This project is currently functioning at 99.999% up-time and will report annually for the next 5 years on up-time levels.*

If one of these towers failed physically, the cost to the county would be enormous, generally in the neighborhood of \$500K - \$1 million per tower depending on the construction techniques and size. User agencies on the emergency radio system will benefit by having infrastructure systems in place that will be assured of not experiencing catastrophic failures due to lack of maintenance.

***Example:** This project to automate accounts payable software was implemented and did improve the processing time average. The average time was reduced from 10 to 2 days, not quite reaching the 1 day target. Additionally, only 20% of purchases received a prompt payment discount resulting in less cost swings than anticipated. We did not meet the target because there were fewer purchases that qualified for prompt payment than originally estimated.*

Example:

Metric Description	Metrics	Baseline	Target	Actual
Reduce cost to deliver service. This project reduced processing time from the current average of ten days to less than one allowing us to take advantage of prompt payment discounts.	Processing time, annual savings, and percentage of purchases receiving prompt payment discounts	<ul style="list-style-type: none"> • 10 days processing time • 10% of purchases are receiving discount • Savings of \$100,000 	<ul style="list-style-type: none"> • 1 day processing time • 30% of purchases are receiving prompt payment discounts • \$400,000 savings 	<ul style="list-style-type: none"> • 2 day processing time • 20% of purchases are receiving prompt payment discounts • \$200,000 savings

IT Project Benefits Achievement Plan (Version 2)

To complete this document fully, please read all of the colored sections and fill in the white cells.
For assistance in completing this form, please contact your PSB analyst.

Section 1. What are the purposes of the Benefit Achievement Plan (BAP)?

1. To achieve a clear understanding and focus on the benefits of a project prior to its beginning
2. To update projected benefits of the project as it moves through stages of project approval, implementation, and post-project closure
3. To establish accountability for identifying and achieving benefits
4. To ensure that benefits are achieved

King County Department/Agency Name	King County Sheriff's Office
Project Title	Wireless CAD Project
Project Number	377196 (original) 1116728 (new)

Section 2. Business Owner Accountability

Business Owners are responsible for achieving project benefits and ensuring this Benefit Achievement Plan (BAP) is regularly updated and completed when benefits are achieved. Business Owners are required to be at the deputy department director or higher.

Chief Patti Cole-Tindall

Section 3. Who is involved in developing the Benefit Achievement Plan?

The development of the BAP should include significant involvement from the business operations or management staff related to this project and the services it will support. Consider involving staff who will be using the technology to help identify the benefits of the project. KCIT business analysts or technology project staff may assist in benefit identification and documentation. List the staff who contribute to the BAP below:

Name	Title / Agency	Project Role
Jessica Sullivan	Captain / KCSO	Project Manager
Ken Rhodes	Tech Serv Manager / KCSO	Technical input
Sue Gordon	CAD Administrator / KCSO	Technical expert
Mike Dunne	Sr. LAN Admin / KCSO	User interface, testing
Lynda Kamrath	CRU Manager / KCSO	Resource Coordinator
Gary Tripp	KCIT	

Section 4. When should the Benefit Achievement Plan be started, updated and completed?

The BAP is intended to be an iterative, evolving document that will be updated as the project evolves, as information is refined or scope changes, and when benefits are finally achieved. Department and agencies (the business owners of project benefits) are required to update this document at the following times or actions:

1. To support initial project request during "gate two" phase of conceptual review.
2. For the annual Benefits report that PSB compiles.
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4. When a material scope change is identified and reported.
5. Up to one year after project completion and then annually until it is determined by the business owners that anticipated benefits have been achieved or no further benefits are expected.

Once the project is complete and benefits are achieved and reported, no additional reporting is required.

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Section 5. How long will it take to complete the BAP?

Completion of the BAP depends on the project's complexity. In general, it should take a few hours to complete this BAP form once there is a shared understanding of the project and what value it will bring to the County. More complex and costly projects may require more extensive analysis. To improve this process in the future, please record the time spent on this in the table below at each stage of revision:

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Annual Report	2/9/15	Pat Butschli	Project Update	1 hours
Annual Report	5/18/16	Pat Butschli	Project Update	30 min
Annual Report	2/17/17	Jessica Sullivan	The project is currently on hold pending additional functional testing. There are currently interface issues between the GPS devices and CAD. We are working with the vendor, TriTech, as well as KCSO CRU to diagnose issues and identify next steps.	2 hours
Annual Report	9/26/2017	Jessica Sullivan	Revised, edited as requested based on discussion with Chief P Cole-Tindall, L Kamrath, and J Giambattista on Sep 15, 2017. Currently pursuing an integrated solution with the county AVL for NRV project.	1 hour
<u>Add metrics</u>	<u>10/18/2017</u>	<u>Janielee Amina Osborne</u>	<u>Incorporated metrics based on call times in Sammamish.</u>	<u>15 min</u>

Section 6. Description of Project Benefits

Identify the category(ies) of benefits your project will provide and include narrative descriptions of estimated benefits. The benefits of IT investments generally fit into the following four categories:

- 1) **External service benefits:** Improving the quality or quantity of services provided to the public
- 2) **Internal service benefits:** Improving internal operations, including the quality or quantity of internal services
- 3) **Maintaining service** levels by replacing or upgrading older technology or reducing risk of system failures
- 4) **Reduced cost** to produce services (internal or external)

Each category is described below. Most projects will have benefits in one or two categories. If the project does not have benefits in a category, there is no need to provide information for that category.

What is the primary benefit of your project? After reviewing the benefit categories below, please identify the primary type of benefit for the project. For most projects, the primary type benefit will be Category #2 improving internal operations or Category #3 replacing or upgrading older technology.

Primary project benefit? (Check only one)

- Category #1: External service benefits: Improving the quality or quantity of services provided to the public
- Category #2: Internal service benefits: Improving internal operations, including the quality or quantity of internal services
- Category #3: Maintaining service levels by replacing or upgrading older technology
- Category #4: Reduced cost or cost avoidance to produce services

Category #1: External service benefits: Improving the quality or quantity of services provided to the public. This category is intended for projects that directly benefit the public. This includes improved quality of service, such as faster response times and better access to services for the public.

1. *Describe why you expect the proposed IT investment to produce the benefit(s).*
2. *How will you measure the benefit(s)? (How will you know if the benefit has been achieved?)*
3. *What is the current baseline for this measure?*
4. *What is the target for this measure? (How much improvement will this project achieve?)*
5. *When is the benefit likely to be achieved?*

The Mobile CAD project has provided important Criminal Justice Information to Deputies on demand in the Field. This allows individual Deputies to make inquiries quickly to help investigations. This is an improvement over the previous method of conducting these checks over a radio or driving to a location that had these services available. Investigations are more accurate, completed in less time and allow detained individuals to be processed much faster.

The final stage of this project is adding a GPS component that will allow the agency to track patrol vehicles in the field. This will improve call coordination and response and allow us to send the closest deputy to the call. This was previously done by sending a deputy assigned to a district. This should improve response times to calls for service. ~~The last phase of the project is the GPS installation and it is approximately 50% complete. We estimate this will be done by the end of 2016.~~ A new AVL solution is being identified through the RFP process and a vendor will be selected by Nov 2017. Tentative implementation mid 2018.

Category #2: Internal service benefits: Improving internal operations, including the quality or quantity of internal services. Be sure to explain the value of such improvements to your operations.

Example: If this project to acquire hand-held devices and develop custom software is approved, inspectors will be able to check an average of 10 sites per day compared with the average of 6 currently checked. This will allow the agency to handle the 20% increase in workload projected in the next three years without adding more staff.

Example: If this project to implement a systems management tool for the Service Center is implemented we will be able to reduce the duration of technology outages during major incidents by 30 percent. We also will reduce the wait time for customers on hold with the Service Center. These improvements will allow us to redirect an existing position to other priorities.

Example: The Active Directory Consolidation project is part of an overall effort to promote IT standardization. This project will make the current management of user accounts, applications, and devices easier for IT administrators at Public Health because the end user experience will also be improved by having a single sign-on to applications such as Lync, SharePoint, and Outlook. Our success will be measured by having a single set of procedures and security models rather than the multiple ones that now exist.

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1. **Describe why you expect the proposed IT investment to produce the benefit(s).**
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3. **What is the current baseline for this measure?**
4. **What is the target for this measure? (How much improvement will this project achieve?)**
5. **When is the benefit likely to be achieved?**

(Previous completed phases of this project) Due to the success of earlier phases of this project deputies have the ability to run license plates and names remotely through a laptop computer in their police car. In addition, deputies have access to the CAD system reducing the need for communication to occur over busy radio frequencies. This portion of the project has been successfully implemented and has improved the capabilities and safety of deputies working in the field. This allows deputies to work faster and increases productivity and safety.

(The current and final phase of this project) The final phase of the Mobile CAD project is adding the capability to GPS locate deputies working in our communities. This will allow a dispatcher to instantly know what unit is the closest to any request for service. This should modestly improve response times and safety for both the community and our deputies. We can compare unit response time both before and after the implementation of the GPS component of this project to measure the impact of the GPS implementation. Response times are currently measured in minutes and seconds based on call priority. Since these response times are already very quick we anticipate a modest lowering of these response times, perhaps 10% faster. This benefit should be achieved following rollout and implementation of the GPS system.

In addition to anticipated improvements in efficiency GPS will allow us to know where patrol deputies are located while on duty. This will allow us to send help to a deputy who is unable to communicate over the radio. At present we have no way of locating a deputy if they cannot advise us of their location over the air.

The project is currently awaiting the outcome of contract negotiations with the King County Police Officer Guild. This contract is currently in the final stages and awaiting King County Council approval. Initial testing on equipment to accomplish the GPS location has begun.

Category #3: Projects that maintain service at current levels by either replacing or upgrading older technology, reducing the risk of system failures, or providing regulatory compliance. If the project will result in improvements to external or internal services or cost savings, please note those benefits in the appropriate categories.

***Example:** This project will upgrade PeopleSoft from 9.0 to 9.2. This upgrade is necessary because vendor support for 9.0 will be ending in 2015 and that creates a large risk for the County. Without vendor support the County will not receive tax and regulatory updates and will likely result in errors in complying with tax and regulatory issues.*

***Example:** This project will implement an Advanced Authentication solution which will allow King County to comply with U. S. Department of Justice - Federal Bureau of Investigation, Criminal Justice Information Services (CJIS) Security Policy Version 5.0, Section 5.6.2.2. Effective September 30, 2013, advanced authentication (AA) must be in place in order to access sensitive CJIS information.*

1. Describe why you are proposing to upgrade or replace existing technology. Please include age of existing technology and the average life cycle replacement for this type of technology.

Officer Safety – in the event of an officer incident (like injury, ambush, or collision etc.) where the deputy is unable to communicate, the vehicle can be located to send help.

Location based dispatching allows KCSO to see where the closest car is to an incident for better dispatching decisions, increasing efficiency and reducing response time.

2. If the primary reason for the project is risk reduction project, please estimate the probability of the risk or describe how likely it is to occur.

Category #4: Reduced cost to produce service (external or internal) or cost avoidance

This category is for those projects that will reduce the costs to deliver a county service (external or internal). The information provided here should be consistent with the information in the cost-benefit analysis (CBA) form. Please describe how the cost savings will be used by your organization. This category also includes cost avoidance. Cost avoidance is those costs that the County would need to pay, has the capacity and intent to pay, but will be avoided due to the project.

***Example:** Reduced cost to produce service. If this project to install accounts payable software is approved, we will automate three tasks that are currently done manually by agency and central purchasing employees. Based on experience of other users of the software, this will reduce processing time from the current average of ten days to less than one. This will allow us to take advantage of prompt payment discounts for over \$15,000,000 of annual purchases. These discounts average 2%, yielding annual savings of about \$300,000. This will result in savings in department expenditures for those items qualifying for prompt payment discounts.*

***Example:** Cost Avoidance. Moving to this new vendor that uses a SaaS product, we will avoid the need to upgrade the system to the newest version which goes end-of-life at the end of next year. We were required to make this upgrade due to regulatory reasons, so this represents a cost avoidance of \$100,000.*

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2. How will you measure the cost reduction or cost avoidance? (How will you know if the benefit has been achieved)
3. What is the current baseline?
4. What is the target for this measure? (How much savings will this project achieve)
5. When is the cost reduction likely to be achieved?

Section 7. Benefit Achievement Summary

To be completed when benefits have been achieved or no further benefits are expected. For each of the benefits you identified above, explain whether benefits were achieved at target levels. Please include both quantitative measures and qualitative descriptions of benefits, including any monetary benefits. Use the measures identified above. If not achieved, explain why.

Example: This project, to repair an emergency radio tower, was successfully completed in April 2014. The anticipated benefit was to maintain current service levels at 99.999% up time for an additional 5 years. This project is currently functioning at 99.999% up-time and will report annually for the next 5 years on up-time levels.

If one of these towers failed physically, the cost to the county would be enormous, generally in the neighborhood of \$500K - \$1 million per tower depending on the construction techniques and size. User agencies on the emergency radio system will benefit by having infrastructure systems in place that will be assured of not experiencing catastrophic failures due to lack of maintenance.

Example: This project to automate accounts payable software was implemented and did improve the processing time average. The average time was reduced from 10 to 2 days, not quite reaching the 1 day target. Additionally, only 20% of purchases received a prompt payment discount resulting in less cost swings than anticipated. We did not meet the target because there were fewer purchases that qualified for prompt payment than originally estimated.

Example:

Metric Description	Metrics	Baseline	Target	Actual
Reduce cost to deliver service. This project reduced processing time from the current average of ten days to less than one allowing us to take advantage of prompt payment discounts.	Processing Time annual savings, and percentage of purchases receiving prompt payment discounts	<ul style="list-style-type: none"> • 10 days processing time • 10 percent of purchases are receiving discount • Savings of \$100,000 	<ul style="list-style-type: none"> • 1 day processing time • 30 percent of purchases are receiving prompt payment discounts • \$400,000 savings 	<ul style="list-style-type: none"> • 2 day processing time • 20 percent of purchases are receiving prompt payment discounts • \$200,000 savings

Metric Description	Metrics	Baseline	Target	Actual																																								
<p>Reduce call response times.</p> <p>Note: Location based dispatching allows KCSO to see where the closest car is to an incident for better dispatching decisions, increasing efficiency and reducing response time.</p>	<p>Dispatch to arrival time averages via Jim Hilmar's group.</p> <p>Contract City:</p> <p>Unincorporated:</p>	<p>In-progress</p> <ul style="list-style-type: none"> BASELINE: Average Response Time by Sector based on Sector: 0 (Sammamish) for For: 06/01/2017-08/31/2017 All times in minutes, by Priority <table border="1"> <thead> <tr> <th></th> <th># of DCFS</th> <th>Avg Queue</th> <th>Avg Travel</th> <th>Avg Response</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>98</td> <td>3.13</td> <td>11.14</td> <td>14.27</td> </tr> <tr> <td>1</td> <td>155</td> <td>1.12</td> <td>6.81</td> <td>7.92</td> </tr> <tr> <td>2</td> <td>271</td> <td>2.51</td> <td>8.26</td> <td>10.77</td> </tr> <tr> <td>3</td> <td>1,089</td> <td>9.22</td> <td>12.77</td> <td>21.99</td> </tr> <tr> <td>4</td> <td>4</td> <td>98.1</td> <td>0.26</td> <td>98.36</td> </tr> <tr> <td>6</td> <td>1</td> <td>4.45</td> <td>0</td> <td>4.45</td> </tr> <tr> <td>X</td> <td>5</td> <td>1.13</td> <td>3.17</td> <td>4.3</td> </tr> </tbody> </table>		# of DCFS	Avg Queue	Avg Travel	Avg Response	0	98	3.13	11.14	14.27	1	155	1.12	6.81	7.92	2	271	2.51	8.26	10.77	3	1,089	9.22	12.77	21.99	4	4	98.1	0.26	98.36	6	1	4.45	0	4.45	X	5	1.13	3.17	4.3		<ul style="list-style-type: none">
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<p>The number of vehicles that are equipped with the new AVL solution.</p>		<ul style="list-style-type: none"> 0 – no vehicles currently have AVL 	<ul style="list-style-type: none"> Patrol minus non-King County Fleet vehicles, estimate at 550. 	<ul style="list-style-type: none"> 																																								
<p>Wireless CAD implementation on all County owned laptops assigned to Commissioned personnel allowing the ability to run license plates and names remotely through a laptop computer in their police car.</p>	<p>Percent of County owned laptops assigned to Commissioned personnel with application installed and training provided.</p>	<ul style="list-style-type: none"> 0% of 723 	<ul style="list-style-type: none"> 100% of 723 	<ul style="list-style-type: none"> 100% of 723 																																								

~~We are beginning to see the benefits of the GPS in the locations where the installation has taken place. Knowing where vehicles are located allows for a greater ability to coordinate incident response. We have some work to do to begin fully using this new capability but the process has started. We are in the middle of deploying GPS units to patrol vehicles. This is the final step of this project. The work is about 50% complete and we anticipate the final units will be installed by the end of the year. Based on previous solution, changes in metric for new solution above.~~

IT Project Benefits Achievement Plan (Version 2)

To complete this document fully, please read all of the colored sections and fill in the white cells.

For assistance in completing this form, please contact your PSB analyst.

Section 1. What are the purposes of the Benefit Achievement Plan (BAP)?

1. To achieve a clear understanding and focus on the benefits of a project prior to its beginning
2. To update projected benefits of the project as it moves through stages of project approval, implementation, and post-project closure
3. To establish accountability for identifying and achieving benefits
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King County Department/Agency Name	Department of Public Health – Seattle & King County (PHSKC), Jail Health Services (JHS) Division
Project Title	DPH KCIT JHS Digital X-Ray
Project Number	1111943

Section 2. Business Owner Accountability

Business Owners are responsible for achieving project benefits and ensuring this Benefit Achievement Plan (BAP) is regularly updated and completed when benefits are achieved. Business Owners are required to be at the deputy department director or higher.

Michael Gedeon, Chief Administrative Officer, Public Health

Section 3. Who is involved in developing the BAP?

The development of the BAP should include significant involvement from the business operations or management staff related to this project and the services it will support. Consider involving staff who will be using the technology to help identify the benefits of the project. KCIT business analysts or technology project staff may assist in benefit identification and documentation. List the staff who contribute to the BAP below:

Name	Title / Agency	Project Role
Thomas Thompson	Business Operations Manager, Jail Health Services Division	Project Manager
Casey Cassidy	IT Manager, King County Information Technology Department (KCIT-PH)-Public Health	IT Project Manager
Tracie Jacinto	IT Business Analyst, KCIT-PH	IT Business Analyst

Section 4. When should the BAP be started, updated and completed?

The BAP is intended to be an iterative, evolving document that will be updated as the project evolves, as information is refined or scope changes, and when benefits are finally achieved. Department and agencies (the business owners of project benefits) are required to update this document at the following times or actions:

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Once the project is complete and benefits are achieved and reported, no additional reporting is required.

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Section 5. How long will it take to complete the BAP?

Completion of the BAP depends on the project's complexity. In general, it should take a few hours to complete this BAP form once there is a shared understanding of the project and what value it will bring to the County. More complex and costly projects may require more extensive analysis. To improve this process in the future, please record the time spent on this in the table below at each stage of revision:

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Example: Conceptual review	7/1/13	Jack Smith	New, initial draft	2 hours
Example: Funding release	11/1/13	Jack Smith	Changed the metrics we will measure	2 hours
Project implementation	1/7/2014	Tracie Jacinto	New, initial draft	1 hour
2015 Annual update	2/16/16	Brandi DeFazio	Status update	10 minutes
2016 annual report - BAP update for an ongoing project	2/2/17	Brandi DeFazio	Status update	10 minutes
<u>2016 Annual Report revised update for Council</u>	<u>8/1/17</u>	<u>Michael Gedeon</u>	<u>Revised update for Council 2016 Annual Report review</u>	<u>5 minutes</u>

Section 6. Description of Project Benefits

Identify the category(ies) of benefits your project will provide and include narrative descriptions of estimated benefits. The benefits of IT investments generally fit into the following four categories:

- 1) External service benefits: Improving the quality or quantity of services provided to the public
- 2) Internal service benefits: Improving internal operations, including the quality or quantity of internal services
- 3) Maintaining service levels by replacing or upgrading older technology or reducing risk of system failures
- 4) Reduced cost to produce services (internal or external)

Each category is described below. Most projects will have benefits in one or two categories. If the project does not have benefits in a category, there is no need to provide information for that category.

What is the primary benefit of your project? After reviewing the benefit categories below, please identify the primary type of benefit for the project. For most projects, the primary type benefit will be Category #2 improving internal operations or Category #3 replacing or upgrading older technology.

Primary project benefit? (Check only one)

- Category #1: External service benefits: Improving the quality or quantity of services provided to the public
- Category #2: Internal service benefits: Improving internal operations, including the quality or

quantity of internal services

Category #3: Maintaining service levels by replacing or upgrading older technology

Category #4: Reduced cost or cost avoidance to produce services

Category #1: External service benefits: Improving the quality or quantity of services provided to the public. This category is intended for projects that directly benefit the public. This includes improved quality of service, such as faster response times and better access to services for the public.

Example: If this project to upgrade our licensing software is approved, licenses will be issued in two business days instead of the four days currently required. This is largely due to the ability of the new software to check national and state databases more efficiently. About one-quarter of our customers currently complain about the delay in obtaining a license and this time reduction is expected to eliminate almost all complaints and allow staff resources to be directed to other customer services.

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The above examples are summaries. Please respond to each question listed below rather than provide a summary.

1. Describe why you expect the proposed IT investment to produce the benefit(s).
2. How will you measure the benefit(s)? (How will you know if the benefit has been achieved?)
3. What is the current baseline for this measure?
4. What is the target for this measure? (How much improvement will this project achieve?)
5. When is the benefit likely to be achieved?

Category #2: Internal service benefits: Improving internal operations, including the quality or quantity of internal services. Be sure to explain the value of such improvements to your operations.

Example: If this project to acquire hand-held devices and develop custom software is approved, inspectors will be able to check an average of 10 sites per day compared with the average of 6 currently checked. This will allow the agency to handle the 20% increase in workload projected in the next 3 years without adding more staff.

Example: If this project to implement a systems management tool for the Service Center is implemented we will be able to reduce the duration of technology outages during major incidents by 30%. We also will reduce the wait time for customers on hold with the Service Center. These improvements will allow us to redirect an existing position to other priorities.

Example: The Active Directory Consolidation project is part of an overall effort to promote IT standardization. This project will make the current management of user accounts, applications, and devices easier for IT administrators at Public Health because the end user experience will also be improved by having a single sign-on to applications such as Lync, SharePoint, and Outlook. Our success will be measured by having a single set of procedures and security models rather than the multiple ones that now exist.

The above examples are summaries. Please respond to each question listed below rather than provide a summary.

1. Describe why you expect the proposed IT investment to produce the benefit(s).
2. How will you measure the benefit(s)? (How will you know if the benefit has been achieved?)
3. What is the current baseline for this measure?
4. What is the target for this measure? (How much improvement will this project achieve?)
5. When is the benefit likely to be achieved?

Category #3: Projects that maintain service at current levels by either replacing or upgrading older technology, reducing the risk of system failures, or providing regulatory compliance. If the project will result in improvements to external or internal services or cost savings, please note those benefits in the appropriate categories.

Example: This project will upgrade PeopleSoft from 9.0 to 9.2. This upgrade is necessary because vendor support for 9.0 will be ending in 2015 and that creates a large risk for the County. Without vendor support the County will not receive tax and regulatory updates and will likely result in errors in complying with tax and regulatory issues.

Example: This project will implement an Advanced Authentication solution which will allow King County to comply with U. S. Department of Justice - Federal Bureau of Investigation, Criminal Justice Information Services (CJIS) Security Policy Version 5.0, Section 5.6.2.2. Effective September 30, 2013, advanced authentication (AA) must be in place in order to access sensitive CJIS information.

1. **Describe why you are proposing to upgrade or replace existing technology. Please include age of existing technology and the average life cycle replacement for this type of technology.**

This project will replace outdated, 25-year old computed radiology (CR) x-ray equipment at both the King County Correctional Facility (KCCF) and Maleng Regional Justice Center (MRJC) with digital x-ray equipment. The 25+ years of productive use for this x-ray equipment, far exceeded the expected life of this type of technology. JHS will implement a modern digital x-ray system that will result in cost savings for JHS and will not rely on environmentally hazardous chemical-based film processing that can be operated by King County JHS nursing staff versus contracted radiology staff. The average life cycle replacement for digital x-ray technology is approximately 20 to 25 years.

Digital x-ray equipment will allow JHS to perform follow-up orthopedic X-rays in-house at King County's correctional facilities where the patient is currently being housed. Thus, this project reduces the inherent security risks and costs associated with securely transporting inmates in-and-out of the facility to a non-secured environment. This improves JHS clinical systems infrastructure and transforms a common business practice, patient X-rays, to a more streamlined and efficient process and allows for images to be stored with the patient's other clinical information in the Electronic Health Record.

2. **If the primary reason for the project is risk reduction project, please estimate the probability of the risk or describe how likely it is to occur.**

This project will allow King County to meet regulatory compliance to provide healthcare to inmates. This project will also reduce the risk of inmate escape incidents and the risk of injury to DAJD corrections officers during the transport process from the County's correctional facilities to the hospital. Per the Department of Juvenile and Adult Detention:

Transporting inmates is among the most dangerous, but necessary assignment for a corrections officer. While a majority of prisoner transports are accomplished without incident, prisoners have escaped killing or injuring an officer, injured themselves or been killed, harmed, or killed innocent citizens. On average there were 309 escapes reported annually in the United States.

- 84% of the incidents, the prisoner escaped from the back seat of the caged vehicle.
- 12% of the prisoners were injured and 3% were killed.
- 12% of the officers were injured and less than 1% of the officers were killed as a result of the incident.

The transport process represents some inmate's last and best chance for escape.

Additionally, a prisoner injured during a transport may claim a Fourth Amendment right violation for the misuse of restraints, excessive use of force, and a failure to provide medical care. Additional examples include: an estate of a deceased prisoner may file a lawsuit against the department for the wrongful death of a prisoner during transport; or a lawsuit may be filed by a citizen who was harmed or killed due to a prisoner escape during transport. Some federal courts have held that the transporting department is liable for a prisoner's behavior during an escape from a transport or an injury incurred during the transport process.

Category #4: Reduced cost to produce service (external or internal) or cost avoidance

This category is for those projects that will reduce the costs to deliver a county service (external or internal). The information provided here should be consistent with the information in the cost-benefit analysis (CBA) form. Please describe how the cost savings will be used by your organization. This category also includes cost avoidance. Cost avoidance is those costs that the County would need to pay, has the capacity and intent to pay, but will be avoided due to the project.

***Example: Reduced cost to produce service.** If this project to install accounts payable software is approved, we will automate three tasks that are currently done manually by agency and central purchasing employees. Based on experience of other users of the software, this will reduce processing time from the current average of ten days to less than one. This will allow us to take advantage of prompt payment discounts for over \$15 million of annual purchases. These discounts average 2%, yielding annual savings of about \$300,000. This will result in savings in department expenditures for those items qualifying for prompt payment discounts.*

***Example: Cost Avoidance.** Moving to this new vendor that uses a SaaS product, we will avoid the need to upgrade the system to the newest version which goes end-of-life at the end of next year. We were required to make this upgrade due to regulatory reasons, so this represents a cost avoidance of \$100,000.*

The above examples are summaries. Please respond to each question listed below rather than provide a summary.

1. Describe why you expect the proposed IT investment to reduce costs?

Acquiring digital x-ray equipment at both sites will improve internal operations by enhancing business processes which will reduce or eliminate the following costs:

- Cost to purchase chemicals and x-ray film: ~\$5,000 per year
- Cost to transport inmates from correctional facilities to hospitals for follow-up x-rays: ~\$20,500 to transport approximately 155 inmates; which includes up to three hours of Court Detail transport time, transport preparation, transport, and return

2. How will you measure the cost reduction or cost avoidance? (How will you know if the benefit has been achieved)

JHS will monitor the supplies and professional services expenses associated with providing x-rays to

patients. A benefit will be achieved if JHS incurs little to no costs associated with the two items listed above

3. **What is the current baseline?**

- Cost to purchase chemicals and x-ray film: ~\$5,000 per year
- Transport inmates from correctional facilities to hospitals for follow-up x-rays: ~\$20,500 per year to transport approximately 155 inmates; which includes up to three hours of Court Detail transport time, transport preparation, transport, and return

4. **What is the target for this measure? (How much savings will this project achieve)**

JHS targets that it will avoid incurring the following costs

- Cost to purchase chemicals and x-ray film: ~\$5,000 per year
- Transport inmates from correctional facilities to hospitals for follow-up x-rays: ~\$20,500 per year

5. **When is the cost reduction likely to be achieved?**

JHS anticipates that these benefits will be achieved by Q4 2014, immediately after the project is completed and the digital x-ray equipment is being fully utilized at both correctional facilities.

Update 2/16/16: This project has been put on hold pending implementation of the Epic electronic health record, currently scheduled for May of 2016. Implementation planning for Digital X-Ray will begin again as resources become available starting in Q3 of 2016.

[Update 2/2/17: Implementation planning is underway, including discussions with Harborview Medical Center for an image storage solution.](#)

[Update 8/1/17: Roughly, the implementation timing should be 2018 but could be the end of 2017.](#)

Section 7. Benefit Achievement Summary

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IT Project Benefits Achievement Plan (Version 2)

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King County Department/Agency Name	Public Health (PH) / Jail Health Services (JHS)
Project Title	JHS Electronic Medication Administration (eMAR) Project
Project Number	<u>1116742</u>

Section 2. Business Owner Accountability

Business Owners are responsible for achieving project benefits and ensuring this Benefit Achievement Plan (BAP) is regularly updated and completed when benefits are achieved. Business Owners are required to be at the deputy department director or higher.

Judy MacCully, Public Health Regional Administrator, Jail Health Services
Michael Gedeon, Chief Administrative Officer, Public Health

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Name	Title / Agency	Project Role
Harjinder Sandhu	Pharmacist / JHS	Process Owner
Payshan Lee	Pharmacist / JHS	Process Owner
Sean Dumas;	Nursing Supervisor/JHS	Process Owner
Kerry Maccini	Nursing Supervisor/JHS	Process Owner
Shawna Harris	FA - II	Project Manager



**Kaizen Event Team: Pharmacy, Nursing, Medical and Psych
JHS Staff and Lean facilitators**

Back row: Mike Zdravecky; Harjinder Sandhu; Aisha Whittaker; Sandy Macdonald; Jennifer Jones-Vanderleest; Cynthia Ta (behind Melissa) Dean Webb; Sean Dumas; Patrick Kuritz; Greg Burnworth; Jeremy Valenta

Front row: Mike Schroeder; Ghia Coloma; Glenn Lirman; Sharon Rederford; Payshan Lee; Becky Berry; Kathy Woodruff; Danotra McBride

Section 4. When should the BAP be started, updated and completed?

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Funding Release	12/09/2013	Judy MacCully	Migrated data from approved project materials to the New Benefits Achievement Plan Version 2	2 hours
Project Implementation	12/13/2013	Judy MacCully	5-day Medication Management Kaizen Event that occurred November 4th – November 8th, 2013.	1 hour
Project put on hold	6/1/2015	Casey Cassidy	Vendor failed to meet contractual terms, contract cancelled. JHS has been focused on successfully implementing HIT OCHIN/EPIC.	15 minutes
2015 Annual update	3/15/16	Tom Thompson	Status update	10 minutes
2016 annual report – BAP update for an ongoing project	2/2/17	Brandi DeFazio	Status update	15 minutes
2016 Annual Report revised update for Council	8/1/17	Michael Gedeon	Revised update for Council 2016 Annual Report review	5 minutes

Section 6. Description of Project Benefits

Identify the category(ies) of benefits your project will provide and include narrative descriptions of estimated benefits. The benefits of IT investments generally fit into the following four categories:

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What is the primary benefit of your project? After reviewing the benefit categories below, please identify the primary type of benefit for the project. For most projects, the primary type benefit will be Category #2 improving internal operations or Category #3 replacing or upgrading older technology.

Primary project benefit? (Check only one)

- Category #1: External service benefits: Improving the quality or quantity of services provided to the public
- Category #2: Internal service benefits: Improving internal operations, including the quality or quantity of internal services
- Category #3: Maintaining service levels by replacing or upgrading older technology
- Category #4: Reduced cost or cost avoidance to produce services

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4. What is the target for this measure? (How much improvement will this project achieve?)
5. When is the benefit likely to be achieved?

Category #2: Internal service benefits: Improving internal operations, including the quality or quantity of internal services. Be sure to explain the value of such improvements to your operations.

Example: If this project to acquire hand-held devices and develop custom software is approved, inspectors will be able to check an average of 10 sites per day compared with the average of 6 currently checked. This will allow the agency to handle the 20% increase in workload projected in the next three years without adding more staff.

Example: If this project to implement a systems management tool for the Service Center is implemented we will be able to reduce the duration of technology outages during major incidents by 30 percent. We also will reduce the wait time for customers on hold with the Service Center. These improvements will allow us to redirect an existing position to other priorities.

Example: The Active Directory Consolidation project is part of an overall effort to promote IT standardization. This project will make the current management of user accounts, applications, and devices easier for IT administrators at Public Health because the end user experience will also be improved by having a single sign-on to applications such as Lync, SharePoint, and Outlook. Our success will be measured by having a single set of procedures and security models rather than the multiple ones that now exist.

The above examples are summaries. Please respond to each question listed below rather than provide a summary.

1. Describe why you expect the proposed IT investment to produce the benefit(s).

Once the eMAR system is implemented, the JHS medication administration process will include technology enabled, streamlined steps for the preparation, administration, and documentation of medications. Removing the non-valued added steps will then allow a reallocation of the staff time to activities that add value to our patients. Clinicians and administrative staff will have more timely and improved access to the medication records along with improved accuracy and readability of medication administration data. In November 2013 JHS held a 5-day medication ~~Kaizen~~ Kaizen Event which served as a way of creating a foundation for an improved future state for medication management and the integration of the ~~eMar~~ eMAR technology to meet customer (our patient) needs. The expectation going into the event was **“To improve the overall process efficiency with higher first pass quality, with a more consistent, reliable, and connected production system that results in a 50% reduction in administrative non-value added activities.”**

2. How will you measure the benefit(s)? (How will you know if the benefit has been achieved?)

There are four areas where JHS expects to see measurable and demonstrated improvement. They include: a reduction in Pharmacy Technician staff time to print and organize paper Medication Administration Records; a reduction in Administrative Specialist II staff time to scan and perform quality assurance on scanned paper MAR; a reduction in nursing hours preparing for medication pass including time spent by nurses to review paper MARs for errors and patient refusals, comparing paper MARs with patient lists, and flagging MARs for narcotics; and, a reduction in the time it takes medical and psychiatric providers to retrieve paper MARs and adjust scanned images in order to review scanned MARs.

A draft measurement plan was a deliverable from the Kaizen Event. The collection of the data and reporting on the measurement plan is the responsibility of the process owners: the site Pharmacy Supervisors and site Nursing Supervisors. The process owners are finalizing the measurement plan and this BAP will be updated as the information is available during the project implementation phases.

3. ***What is the current baseline for this measure?***

The following are the baseline measures collected at the development of the business case:

- Pharmacy Technician staff spend approximately 521 hours/year to print and organize paper MARs;
- Administrative Specialist II staff spend 935 hours/year to scan and perform quality assurance on scanned paper MARs;
- Nurses dedicate approximately 2,600 hours/year to review paper MARs in preparation for the med pass;
- Medical and Psychiatric Providers spend about 380 hours per year retrieving and adjusting images of MARs for their clinical review.
- The process walks taken as a part of the Kaizen Event recorded an overall process time from Provider Order to Med Administration of 323 min with a total of 42 steps. Of those 11 steps or 26% were value added.

4. ***What is the target for this measure? (How much improvement will this project achieve?)***

The target for the printing and organizing of the paper MAR (Pharm Tech) and the scanning of the paper MAR into the EHR (Administrative Staff) is zero.

The Nurse time should be reduced by 80% as they move to a more efficient method for med pass preparation. Provider (both Medical and Psychiatric) time initially will be reduced by 50% since they will have to access the Medication Administration application to look up and review the record. Eventually the time will be further reduced when the history of medication administration is moved into the EHR and becomes part of the patient's medical record.

The expectation from the Kaizen event was that there would be a 50% reduction in non-value added and administrative tasks in the medication management process.

5. ***When is the benefit likely to be achieved?***

Within 30 days of implementation JHS will realize the above benefits. Currently JHS plans to Go-Live in April 2014

Update 3/15/16: This project has been put on hold pending implementation of the Epic electronic health record, currently scheduled for May of 2016. Implementation planning for Electronic Medication Administration Project will begin again as resources become available starting in Q1 of 2017.

Update 2/2/17: Discussions are underway with OCHIN, Public Health's electronic health record (EHR) vendor, to determine whether they can assist JHS with procurement of an eMAR solution that will be integrated with the EHR. A major upgrade to the EHR is scheduled for May, 2017. Therefore, planning for this project will not be able to start until that is completed.

Update 8/1/17 (update for Council): Jail Health successfully implemented Epic EMR with final system acceptance and warranty effective 4/20/17. The goal is to find a solution that best integrates with the EMR (Epic) configuration for Jail Health. We are in the early stages of discussion working with OCHIN, (EMR vendor) to find an integrated, cost-effective solution for the OCHIN collaborative.

- [2017 goals- Review and finalize business requirements; work with OCHIN to design the solution to best meet business requirements.](#)
- [2018 goals- develop an implementation plan for eMAR including implementation date.](#)

Category #3: Projects that maintain service at current levels by either replacing or upgrading older technology, reducing the risk of system failures, or providing regulatory compliance. If the project will result in improvements to external or internal services or cost savings, please note those benefits in the appropriate categories.

***Example:** This project will upgrade PeopleSoft from 9.0 to 9.2. This upgrade is necessary because vendor support for 9.0 will be ending in 2015 and that creates a large risk for the County. Without vendor support the County will not receive tax and regulatory updates and will likely result in errors in complying with tax and regulatory issues.*

***Example:** This project will implement an Advanced Authentication solution which will allow King County to comply with U. S. Department of Justice - Federal Bureau of Investigation, Criminal Justice Information Services (CJIS) Security Policy Version 5.0, Section 5.6.2.2. Effective September 30, 2013, advanced authentication (AA) must be in place in order to access sensitive CJIS information.*

1. Describe why you are proposing to upgrade or replace existing technology. Please include age of existing technology and the average life cycle replacement for this type of technology.
2. If the primary reason for the project is risk reduction project, please estimate the probability of the risk or describe how likely it is to occur.

Category #4: Reduced cost to produce service (external or internal) or cost avoidance

This category is for those projects that will reduce the costs to deliver a county service (external or internal). The information provided here should be consistent with the information in the cost-benefit analysis (CBA) form. Please describe how the cost savings will be used by your organization. This category also includes cost avoidance. Cost avoidance is those costs that the County would need to pay, has the capacity and intent to pay, but will be avoided due to the project.

***Example:** Reduced cost to produce service. If this project to install accounts payable software is approved, we will automate three tasks that are currently done manually by agency and central purchasing employees. Based on experience of other users of the software, this will reduce processing time from the current average of ten days to less than one. This will allow us to take advantage of prompt payment discounts for over \$15,000,000 of annual purchases. These discounts average 2%, yielding annual savings of about \$300,000. This will result in savings in department expenditures for those items qualifying for prompt payment discounts.*

***Example:** Cost Avoidance. Moving to this new vendor that uses a SaaS product, we will avoid the need to upgrade the system to the newest version which goes end-of-life at the end of next year. We were required to make this upgrade due to regulatory reasons, so this represents a cost avoidance of \$100,000.*

The above examples are summaries. Please respond to each question listed below rather than provide a summary.

1. Describe why you expect the proposed IT investment to reduce costs?
2. How will you measure the cost reduction or cost avoidance? (How will you know if the benefit has been achieved)
3. What is the current baseline?

4. *What is the target for this measure? (How much savings will this project achieve)*
5. *When is the cost reduction likely to be achieved?*

Section 7. Benefit Achievement Summary

To be completed when benefits have been achieved or no further benefits are expected. For each of the benefits you identified above, explain whether benefits were achieved at target levels. Please include both quantitative measures and qualitative descriptions of benefits, including any monetary benefits. Use the measures identified above. If not achieved, explain why.

Example: *This project, to repair an emergency radio tower, was successfully completed in April 2014. The anticipated benefit was to maintain current service levels at 99.999% up time for an additional 5 years. This project is currently functioning at 99.999% up-time and will report annually for the next 5 years on up-time levels.*

If one of these towers failed physically, the cost to the county would be enormous, generally in the neighborhood of \$500K - \$1 Million per tower depending on the construction techniques and size. User agencies on the emergency radio system will benefit by having infrastructure systems in place that will be assured of not experiencing catastrophic failures due to lack of maintenance.

Example: *This project to automate accounts payable software was implemented and did improve the processing time average. The average time was reduced from 10 days to 2 days, not quite reaching the 1 day target. Additionally, only 20 percent of purchases received a prompt payment discount resulting in less cost swings than anticipated. We did not meet the target because there were fewer purchases that qualified for prompt payment than originally estimated.*

Example:

Metric Description	Metrics	Baseline	Target	Actual
<i>Reduce cost to deliver service. This project reduced processing time from the current average of ten days to less than one allowing us to take advantage of prompt payment discounts.</i>	<i>Processing Time annual savings, and percentage of purchases receiving prompt payment discounts</i>	<ul style="list-style-type: none"> • 10 days processing time • 10 percent of purchases are receiving discount • Savings of \$100,000 	<ul style="list-style-type: none"> • 1 day processing time • 30 percent of purchases are receiving prompt payment discounts • \$400,000 savings 	<ul style="list-style-type: none"> • 2 day processing time • 20 percent of purchases are receiving prompt payment discounts • \$200,000 savings