 

**Sacramento Regional County Sanitation District**

**Sacramento Area Sewer District**

**Sanitation Districts Agency**

**SDA IT BCE Policy and Guidelines**

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| **Category** | Policy Procedure Guideline Process  Agreements Supplemental Materials |
| **Purpose** | This document outlines the policy and guidance for developing Information Technology (IT) business case evaluations (BCEs) for Regional San and the Sacramento Area Sewer District (SASD). |
| **Revision Cycle** | 24 Months |
| **Approval Date** | August 20, 2018 |
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| **Key Stakeholders** | SDA employees |
| **Author** | Director Internal Services Department |
| **Owner** | Director Internal Services Department |
| **Sponsor** | Director Internal Services Department |
| **Approving Authority** | District Engineer |
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APPROVED:

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SASD District Engineer

Regional San District Engineer

Sanitation Districts Agency Administrator

 

**Regional San and SASD**

**SDA IT BCE Policy and Guidelines**

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| **Policy and Guidelines** | |
| **Purpose** | This document outlines the policy and guidance for developing Information Technology (IT) business case evaluations (BCEs) for Regional San and the Sacramento Area Sewer District (SASD). The districts will analyze all significant IT investment decisions using BCE policy to reach decisions that balance costs, risks, and other important factors. The guidance will provide consistency in the IT BCE development. |
| **Subject** | SDA IT BCE Policy |
| **Scope** | This policy applies to investments in new software, applications development, software upgrades, pilot studies and process improvements, as well as procurement and installation of related hardware, with estimated initial investment costs exceeding $25,000. |
| **Definitions** | *Implementation cost.* Defined as all costs including material, contract services, ISO and non-ISD labor from the time the BCE is approved to completion of the work or project (go-live).  *Life-cycle cost.* The initial implementation cost plus the escalation cost over the useful life of the alternative. It may include costs associated with user labor, user training, labor savings, risks, upgrades, licensing, hardware, software, and support. |
| **Applicability** | All District IT investment decisions unless otherwise exempted. |
| **Background** | The Regional San and SASD IT sections were reorganized and restructured under the Agency's Internal Services Department (ISD) in 2011. The ISD IT section now provides hardware, software, and application support services to both districts in a cost effective manner and at an acceptable level of risk. |
| **Updates** | This document is owned by the Director of Internal Services who will be responsible for assigning the periodic reviews and updates to this policy. The District Engineer will exercise final approval of all updates. |
| **Roles & Responsibilities** | Due to the unique nature of each BCE, staff roles and responsibilities will vary. At the kick­ off of each BCE effort, the new team should identify who will lead on research, document preparation, and presentation of the BCE. |

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| **Guidance for Developing BCEs** | **BCE Initiation and Development**  BCEs can be initiated and led by anyone in the Sanitation Districts Agency (SDA), in coordination with IT.  **BCE Approval Levels and Triggers**  BCE approval depends on the funding level anticipated. The BCE funding level is calculated as the difference between the status quo and the possible alternatives. The following table is a summary of required approval levels and the review forums.   |  |  |  |  | | --- | --- | --- | --- | | **Approval**  **Level** | **BCE Funding Level** | **Review Forum** | **Forum Frequency** | | District Engineer | >$1 million initial investment or $2 million operation change over 5 years | PAC | Monthly (as needed) | | Director | <$1 million initial investment or <$2 million operational change over 5 years | Director's discretion | Director's discretion | | Section  Managers | <$35,000 initial investment or  <$100,000 operational change over 5 years | Section Manager's discretion | Section Manager's discretion |   Triggers for subsequent review after the BCE is approved include: identification of opportunities for significant cost savings, highly controversial or precedent setting items, new and significant risks not evaluated in the original BCE, or when implementation cost or life-cycle cost changes by more than 20 percent of the original BCE estimate.  The BCE approving authority will set expectations and determine the extent of the analysis. To ensure consistency and adherence to policy and guidelines, IT BCEs should be reviewed by the IT Manager and the ISD Director. |
| **Guidance for Developing BCEs**  **(continued)** | **BCE Level of Effort**  The level of effort needed to prepare a BCE is dependent on the urgency and total value of the activity. Urgent or lower value activities will generally require a lower level of effort. Generally, the BCE level of effort should be no more than 10 percent of the proposed alternative. If expected to exceed 10 percent, the project manager should seek higher approval of the BCE preparation. BCE's in progress that approach the 10 percent cost threshold should be questioned regarding the investment and approval to continue should be requested from the approving authority.  **BCE Financial Factors**  The BCE analysis requires various financial factors be used to determine lifecycle costs. The following table provides the financial factors to be used in IT BCE's.   |  |  | | --- | --- | | **Factor** | **Considerations** | | Investment  Analysis Period | The analysis period will be determined based on the product or service being evaluated and must be consistent across all alternatives. Typical lifecycles are 5 years, but can be longer if applicable. (Note: IT solutions generally have a shorter useful life than other operations solutions. Therefore, the 5-year lifecycle analysis is usually appropriate.) | |  |  | | Labor Rates | Weighted average of fully loaded labor rate for the staff identified in the BCE solution. Latest fully loaded labor rate table maintained by ISD Administration. | | Escalation | Cost of certain elements in the life cycle analysis may change at a different rate from inflation. These shall be separately accounted for when appropriate. |   Unless previously approved by the District Engineer, any deviations from the above, except investment analysis period, must be approved by the ISD Director and the AMC prior to developing BCEs. Variations or waivers of the investment analysis period must be sufficiently explained in the analysis. BCEs shall also include risk analysis on all alternatives, and risks shall be quantified in dollars when possible. |
| **Guidance for Developing BCEs**  **(continued)** | **BCE Alternatives and Cost Analysis**  Labor Savings  Labor savings should be included when appropriate. Savings for permanent staff shall occur no sooner than 1 year following implementation (go live date) to account for reassignment of work and/or attrition. Labor savings may take longer to be realized and should be accounted for appropriately in the life cycle analysis. Reductions in temporary and contract staff can be realized immediately.  Longer term user efficiencies may be realized after implementation. In cases where efficiencies after 5 years will change the alternative chosen, the evaluation period may be extended up to a 20 year window.  Costs  The cost analysis will evaluate life-cycle costs (LCC) for the investment period selected. The cost analysis should include initial implementation costs, ongoing costs, and future one-time costs. Major upgrades (for software) or replacements (for hardware) may be included in the LCC analysis when appropriate. The analysis should include a sensitivity and risk analysis, when appropriate.  Initial Implementation Costs  Initial implementation costs are the costs to bring a functional solution to the hands of the end-users. These costs may include the development and configuration; purchase of the solution (hardware, software, accessories, components, etc.); vendor installation; integration; and issue resolution; testing; staff and end-user training; and other expenditures. This is sometimes known as the Base Price of the solution.  The software and hardware exploration process to search for BCE solution alternatives, including vendor product introduction and demonstrations, is sometimes a substantial effort and cost. A separate decision will be needed for the exploration process if it is needed to develop the alternatives considered in the BCE. However, the exploration costs are part of the cost of performing a BCE and should not be used in the cost comparison of the alternatives evaluation. |
| **Guidance for Developing BCEs**  **(continued)** | Future One-Time Costs  It is a good practice to include at least one upgrade cycle update in the evaluation window when applicable. If the upgrade is approved as a part of the BCE, then no additional BCE is required to implement the upgrade, provided factors have not changed. This does not keep the Districts from performing another BCE during the evaluation window if new opportunities for efficiencies or cost savings are discovered.  Sensitivity Analysis  When there is uncertainty in the cost analysis, such as variances in implementation cost estimates, risk costs, discount rates, or other related parameters, a sensitivity analysis will be performed. The sensitivity analysis will include a range of costs representing the variability in cost estimation.  **Risks**  Risk events should be identified and quantified when possible using probability and consequence calculations. Risk costs should be specific and incorporated in the BCE analysis. For higher cost BCE solutions, more emphasis should be placed on quantifying risks as opposed to lower cost solutions.  For quantifiable risks, risk cost is calculated by multiplying the probability of an occurrence by the cost consequence. Probabilities can be known through product reliability data or estimated by past practice or experience. Consequences can be estimated based on similar historical events or impacts of the possible events.  Unquantifiable risks should be described with an attempt to consider probability and consequence for consideration as an intangible factor in alternatives selection.  On occasion, projects evaluated through the IT BCE process suggest significant business practice changes. If, upon initiating a BCE, it is discovered that business practices may be changed substantially (or are sensitive to changes proposed), it may be appropriate to separate the business practice change decision from the IT BCE process and defer to the business unit affected. The business process analysis may need to follow the IT BCE alternative analysis. |
| **Guidance for Developing BCEs**  **(continued)** | **BCE Revision Requirements**  BCEs shall be revised if the implementation cost or life-cycle cost changes by more than 20%. The BCE is typically revised by a memo to the approval authority and does not necessarily require a complete rewrite of the BCE. However, an abbreviated cost analysis should be performed to verify the chosen solution is still the lowest life cycle cost alternative.  **BCE Tracking and Closeout**  BCEs should be maintained in a database and posted on a shared site. Costs will be tracked throughout the implementation of the BCE solution. Cost tracking shall be used to determine if approved expenditures are exceeded and to report on final implementation costs. |
| **Discussion** | N/A |
| **Reference Documents** | None |
| **Additional Information/ Supplemental Materials** | **Exclusions**  The following are excluded from this policy:   * Emergency work and purchases that must be implemented within two weeks to avoid regulatory or safety incidents/violations, as determined by the Director of ISD and the Directors and Officers affected by the change. * Normal purchases, replacements, and upgrades such as * Those replacements established by other policy or standards (e.g. equipment refresh) * Standard software, hardware, and accessories for new employees * Anything related to ADA or reasonable accommodations * Routine software upgrades required to maintain a cost effective, reliable and secure system. * Easily reversible process changes * Examples include the ability to cancel a long-term consultant contract or stop funding a program and return to the previous practice. * Existing preventive and predictive maintenance activities and operational strategies, which have been reviewed and approved. * Others exclusions approved by the District Engineer.   **Training**  Each business unit identified as a stakeholder is responsible for training its staff as needed to implement this policy. |