**BCE Template Instructions**

When completing a BCE, the consultant can get the latest version of the template from the Capital Project Resource Library. Do not re-use a template from a previous project. All BCEs are required to use this template.

Reminder: The BCE should answer the “How,” “Who,” “What,” “When,” “Where,” and “Why,” for drafting legislation.

For consistency between BCEs, all sections and sub-sections (e.g., 1.0, 1.1, 1.1.1, etc.) are required and should not be omitted unless the instructions state otherwise. If a particular section or sub-section does not apply to a particular project, state the reasoning in the particular section or sub-section that does not apply.

* “Check” Bulleted sections in the BCE template are section-specific instructions and should be omitted from the BCE.

Sections in [brackets] or [grayed brackets] indicate placeholders for text.

There are drop down boxes located in several sections throughout the template denoted by “Choose an item.” or “Click here to enter a date.” When you click on the denoted text a blue drop-down box with an arrow will appear. Clicking on the arrowed box will display a list of drop-down items to display or a calendar.

A BCE is in draft form until it is submitted to the Chief Engineer for approval.

Use the following revision nomenclature per the drop down on the title sheet:

|  |  |
| --- | --- |
| **Draft Rev. A– Briefing Review** | This is the draft submitted to staff that have been selected to be involved in the review of the draft BCE document. |
| **Final Rev. 0 –Chief Engineer Approval** | This is the final copy of the BCE approved by the Chief Engineer. |
| **Final Rev. 1 –Chief Engineer Approval** | This is the final copy of the BCE approved by the Chief Engineer. This is used if any changes were made during the signature process. |

Once a BCE has moved from draft form to final, remove the **DRAFT** text on the cover page and in the footer.

Prior to submitting the BCE for approval by the Chief Engineer, the BCE must be reviewed in accordance with the e-Builder and any other BCE requirements for Review, Approval and for signatory concurrence by the following MSD staff members:

* Wastewater Engineering Principal Engineer
* Operating Division Superintendent(s) responsible for proposed improvements

For projects approved by the Chief Engineer, MSD staff listed above concur with the project by signing Section 6 of the BCE (MSD Review Signature Sheet). These members may elect to involve other members of their staff to review the BCE prior to his or her concurrence; however, only the MSD staff listed above should sign the BCE for concurrence.

It is also important to note that the MSD staff listed above are only concurring with the BCE recommendations. Final approval is the decision of the Chief Engineer. If any of the MSD staff members listed above do not concur with recommendations presented in the BCE (and the issues cannot be reconciled), the MSD staff member should submit the reasons why he or she does not concur to the Project Manager in lieu of signing Section 6 of the BCE. The Project Manager should state the reasons in the BCE document. It is not anticipated that this will occur very often. If this occurs, the Project Manager should consult with MSD management.

To update table of contents and list of Tables and Figures:

* In the Table of contents, with your cursor anywhere within the TOC, click Update Table at the top of the TOC and choose option to update page numbers only or update entire table of contents.
* For Tables and Figures, with your cursor anywhere within in the list of tables, right-click and choose update field, the choose option to update page numbers only or entire table; repeat for list of Figures.

To add Headings and Subheadings, choose Heading 1, Heading 2, or Heading 3 from the Styles gallery (*see Styles under Home Tab of Ribbon*)

A close-up of a text

Description automatically generated

To add captions to figures and tables:

* Select References from the Ribbon
* Select Insert Caption
* Choose Figure or Table and Click OK
* Type the additional text you want to include within in the caption
* (NOTE: Table captions go above the table; Figure captions go below the figure)

NOTE: DELETE THESE TWO PAGES OF INSTRUCTIONS FROM YOUR DOCUMENT BEFORE SUBMITTING

* Activate Show/Hide Paragraph marks

A screenshot of a computer

Description automatically generated

* Delete text from pages i and ii through the Section Break

A black text on a white background

Description automatically generated

Text

Description automatically generated with low confidence

|  |  |
| --- | --- |
| **[Insert Project Title Here]** | |
| **Business Case Evaluation** |



Right click on image and select “Change Picture” to add your own photo – resize as required.

DRAFT

Prepared by

[Your Name Here]

[Project ID Here]

Draft - Briefing Review

Choose an item.Click here to enter a date.

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# Executive Summary

* This section is required and should generally not exceed one page in length.
* There is not any new information in this section. Get to the point ASAP.
* This section should stand on its own and be sufficient information for an outsider to understand what the project is.
* All Executive Summaries are required to include the following topics.

## Purpose and Justification

[The purpose and justification for the project – Summary of Section 2 – Include *why* we developed the BCE.]

## Recommended Alternative

[The Recommended Alternative and Brief Summary of Scope- Summary of Section 6 – Include what it is.]

## Project Location

[This project is in the CHOOSE AN ITEM. in CHOOSE AN ITEM., Hamilton County, Ohio, between CLICK HERE TO ENTER ADDRESS RANGE OR CROSS STREETS..

* Insert Map showing the project location.



Right click on image and select “Change Picture” to add your own photo – resize as required.

Figure [Project Location]

## How

[The Total Project Cost and Construction Cost of the Project and Funding Sources – Summary of Section 5.1.]

|  |  |
| --- | --- |
| Planning | $[X,XXX,X00] |
| Design | $[X,XXX,X00] |
| Miscellaneous Expense | $[X,XXX,X00] |
| Right of Way | $[X,XXX,X00] |
| Construction | $[X,XXX,X00] |
| Construction Services | $[X,XXX,X00] |
| Interest / Financing | $[X,XXX,X00] |
| **Total Project Cost in (**[Year] **dollars)** | **$[X,XXX,X00]** |

## When

[The Schedule of the Project (in years), from Design through Construction – Summary of Section 5.2 using a table.]

|  |  |
| --- | --- |
| Planning: | [Month or Qtr YYYY – Month or Qtr YYYY] |
| Design: | [Month or Qtr YYYY – Month or Qtr YYYY] |
| Right of Way Acquisition: | [Month or Qtr YYYY – Month or Qtr YYYY] |
| Construction Legislation: | [Month or Qtr YYYY – Month or Qtr YYYY] |
| Bidding: | [Month or Qtr YYYY – Month or Qtr YYYY] |
| Construction: | [Month or Qtr YYYY – Month or Qtr YYYY] |

# The Problem

## Problem Statement

* This section is required.

[Write a brief narrative of how the problem began and how you became aware of it, e.g., through the nomination process. Additionally, the ‘*problem*’ may result in a benefit or opportunity for the MSDGC to pursue as in such cases, but not limited to intergovernmental coordination, recommendations to modify existing policies, or opportunities to increase an existing level of service]

[In a few sentences provide a precise description of how the asset/process works or operates. You should provide a framework for the reader to understand how the failure mode fits in. Your goal is to create the image in the reader’s mind right away. The reader should be able to absorb the problem quickly.]

[You should indicate what has failed or what is perceived to be failed or what may result in a benefit or opportunity for the MSDGC. Describe the failure or benefit/opportunity from the perspective of the nominator not Wastewater Engineering. Describe the failure using failure modes (if applicable):

* Capacity – Volume of demand exceeds design capacity.
* Level of Service – MSD is either currently or will soon be failing a Level of Service if the asset/process remains in its current state.
* Pending catastrophic failure.
* Loss of Efficiency.
* Increased Risk – The asset/process in its current state exceeds MSD’s risk appetite.
* Non-compliance – MSD is either currently or will soon be in violation of regulatory rules and regulations if the asset/process remains in its current state.
* Public Health and Safety concern – The public is subjected or perceived to be subjected to unsafe conditions.
* Occupational Health and Safety concern - Workers are subjected to unsafe working conditions under the current state of the asset/process.]

[If you have a failure mode not covered under those above, please state it in this section.]

[If the problem is tied to the Wet Weather plan clearly state that as the problem or part of the problem.]

[If applicable, include addresses of existing sewer backups (SBU’s) related to sewer capacity (table format). Also include addresses of homes that have SBU pumps installed.]

* THIS IS A KEY POINT -- This section should NOT include proposed solutions.

[Problem Diagnosis:

* Describe what factor(s) caused the problem – as per the Assessment in Section 2.2. Please note, for less complex project nominations that will produce only one project alternative, utilize existing data and information to reduce the expense of the problem diagnosis.
* Manufacturer defect
* Installation]
* Operation
* Maintenance
* Augmentation / upgrading of equipment
* Deterioration of the condition of the process equipment / asset(s)
* Deterioration of performance of the process / asset-system
* Training
* Other
* Combination of one or more of the above
* It is important that you exercise caution in your approach. The diagnosis may become a touchy issue because it may address personalities and not just a particular asset or process. The intent is not to point the finger at someone and thus you must ensure that is not what you are doing.
* How you go about this will vary from project to project.
* It may be simply based on your interviews with MSD personnel.
* You may have to dig into operational and maintenance data
* If applicable for the project:
* Add a boilerplate selection for pipelines failing for unknown reasons
  + - Examples: Generally, pipeline failure can be attributed to the following factors: point loads in excess of the pipeline and/or bedding/backfill design, poor installation techniques, ground movement, or decomposition/corrosion of pipe material.]

## Assessment

* This section is required.
* This section is more data-driven, while Section 2.1 is more narrative-in-nature.

[You should answer the following questions in your development of this section:

* What symptoms alerted the operating division that there was a problem?
* What series of events triggered action on part of the operating division to respond?
* What condition are the assets in today?
* What are the performance deficiencies of the process today?
* Was this a sudden event or did it build up over time?
* What has the operating division been doing from a maintenance standpoint?
* What interim steps have been taken to address this situation prior to a CIP nomination?
* What past assessments have been done on the asset?]

[Performance or Condition Assessment is important in providing insight into:

* Nature of possible failure:
* Root cause.
* Pattern (shape of the deterioration curve).
* Timing of possible failure (residual functional life).]

[The operating division to provide a summary of the applicable data and information relating to the problem assessment and assisting in problem diagnosis (Section 2.3), including but not limited to a) condition assessment history, b) maintenance history, c) work order history, d) operational data related to the performance of the asset/process, and e) description of what conditions have not been assessed that may be relevant but have not been done.]

[If the problem is a result of condition of the existing assets:

* The operating division must have performed an initial screening to assess the condition of the assets. This documentation is required.
* Review and assess the existing condition data for the assets within the Boundary of Analysis. If the problem is not driven by condition assessment, state the reason(s) why.
* If applicable, state how long the maintenance and condition assessment processes have been used and if they were ever adjusted during the asset’s life.]

[State the tools/methods used by the nominator to determine the condition and/or performance that alerted you to the problem.]

# Project Objectives

* Project Objectives are required to include the following topics. Refer to sub-sections for less complex project nominations about whether the sub-section may be required.

## The Strategy

[How does the project relate to and is it in accordance with the following strategic planning documents (if applicable):

* WWIP Requirements?
* Approved WWIP Phase 2?
* Approved Watershed and Facility Plans?
* Approved WWTP NPDES Requirements?
* Approved Basin Study Master Plan?
* Risk Reduction as per the MSDGC Risk Management Framework and Risk Appetite?]
* For less complex project nominations that will produce only one project alternative, this may not be applicable. If this is the case please keep the section in place, and state how it is not applicable.

## Project Objectives

[State all objectives established prior to the start of the Planning effort. For example, WWIP requirements or objectives established in the project nomination.

## Boundary of the Analysis

* This section is required.

[For WWT projects provide the boundary of the analysis using a P&ID. While for WWC projects, provide the boundary of the analysis using a map.]

[State the boundary(ies) of analysis for the project. If a decision was made to not include a specific aspect relating to the project, state the reason(s) why.]

## Project Coordination

### MSD Project Dependencies and Coordination Requirements

[Identify if the project is a necessary predecessor to other MSDGC projects, or if any other projects are a necessary predecessor to the project. Identify if the project requires coordination with other active MSDGC projects. Discuss the timing requirements between related projects.]

[For project nominations with no project dependencies or coordination requirements, this aspect is not applicable.]

[If this is the case please keep the section in place, and state how it is not applicable.]

### Intergovernmental Coordination Requirements

[Identify any intergovernmental coordination requirements.]

[For project nominations with no intergovernmental coordination requirements – this is not applicable.]

[If this is the case please keep the section in place, and state how it is not applicable.]

### Unique Project Constraints, Influences, or Issues Affecting the Project

[Include any “hot button” issues that affect or drove the need for the project.]

[The key word here is unique. For most projects, there shouldn't be any. Simply state "None identified at this time." This section applies to special circumstances that the BCE approver should be aware of that can impact the project.]

[For less complex project nominations that will produce a simple replacement of equipment like-for-like, this may not be applicable. If this is the case please keep the section in place, and state how it is not applicable.]

# Alternatives

## Strategy Development and Analysis

* For less complex project nominations that will produce one project alternative - this section may not be required. If this is the case please keep the section in place, and state how it is not required.

[Briefly summarize all strategies developed and whether or not the strategy was screened out prior to detailed analysis. Strategies or groups of strategies for complex project nominations must be divided into subsections as shown above. A “Do Nothing Alternative” – “Strategy 0” – must always be considered (although it may be screened out initially as unacceptable and the purpose for nomination).]

[This is a high level (“gut check”) analysis or a “first cut”. The goal is to not to present hard numbers. This section stays in the “strategic” realm and not the size of a valve (for example).]

[We are trying to nail down strategies and we do not want to roll options forward if they are obviously a no-go.

[All alternatives considered should identify the asset management and overflow reduction benefits to be achieved.]

[Constraints of each alternative should be identified.]

[Description for a strategy should not exceed 2-3 sentences each.]

## Alternatives

### Alternative Analysis Methodology

* For less complex project nominations that will produce one project alternative - this section may not be required. If this is the case please keep the section in place, and state how it is not required.

[Summarize the method(s) of analysis used to select your recommended alternative. If multiple analyses or iterations of analyses were completed for the project to identify the recommended alternative, describe each analysis methodology in separate subsections.]

* You should cover at least all of the following areas in your analysis if applicable:
* Regulatory requirements/restrictions. Ensure that this alternative will not violate applicable laws and that information gathered can be used in a PTI application form.
* Adherence to WWIP schedule.
* Key Stakeholders (i.e., Project Nominator, Project Nominator’s Superintendent, Township Public Works Director, Parks Engineer, etc.)
* TBL analysis - Assessing the project based on a triple bottom line approach involves consideration of financial, social, and environmental costs and benefits. NPV analysis will be the economic portion of this analysis. Identify who scored the social and economic portions of the TBL analysis (MSD staff, stakeholders, etc.). For larger projects, stakeholder scoring of the social and environmental aspects of this analysis is required and must be coordinated through the Office of the Director. Discuss with MSD senior management whether stakeholders must be involved in the TBL scoring of your project. Projects can also be assessed using the FLAMROC Benefits Score Method.
* Impact on other work in the watershed / sewershed.
* Capacity analysis of a) system’s ability to convey and treat the sewage (collection system – SWM results; treatment plants – critical path, bottlenecks), b) power, c) etc.
* Staffing/skill set issues – Will MSD need to hire more staff to operate and maintain this asset/process? Does MSD currently have the skill set to operate and maintain this asset? Should MSD consider contracting the operation and maintenance out until the skill set is developed and/or hired?
* Value Measurement – Benefit to cost unit which will vary according to the type of project.
  + - New grit building/process would be cubic yards of grit per $. It is much cheaper to remove at this stage than at primary. The more grit also increases your maintenance costs.
    - WWIP collections job - $/gallon controlled.
    - Assessment sewers – households added to the system/$.
    - Undersized line not meeting LOS -- $ spent to achieve LOS and better manage risk of backups and/or overflows.]

### Summary of Alternatives Considered

* This section is required.
* For less complex project nominations that will produce one project alternative - this section should only have (1) the one project alternative, and (2) the “Do Nothing Alternative / Status Quo”.
* A few notes for this section:
  + Alternatives are not “strawmen”. They must have meat to them and be backed up by data, detail, and a logical approach.
  + Each alternative should be able to solve the problem or group of problems and deliver the objectives of the project.
  + An alternative may be one strategy or a combination of strategies.

[You should have a narrative description that explains how the alternative will solve the problem.]

[You must have a “Base Case” Alternative. The Base Case Alternative is not always a do nothing alternative. The Base Case is subjective and describes what a traditional solution would be. For example, open cut trenching and sewer installation in a park, wooded area, or between homes as opposed to trenchless methods or avoiding woods and yards. Consider using GSAM structural recommendation for the base case.]

[Do not overwhelm this section with data and charts. Extensive data and charts will be in the appendices and/or on the project’s eBuilder site. You should state the location that provides the details of the analysis and the assumptions that were required.]

[Make an effort to be succinct. You should present an overall view of each alternative. If possible, do not exceed two pages for each alternative (not including tables or figures).]

[Describe each alternative in separate subsections as shown below.]

[The following sections must be included for each alternative as shown below. If a particular section does not apply, state the reason(s) why. Additional sections can be added if necessary.

* Regulatory requirements/restrictions
* Impact to WWIP schedule/Impact on other work in the watershed / sewershed
* Key Stakeholders
* TBL analysis
* Risk
* Sewer Backup (SBU) Impacts and how to address

### Alternative “1”

[Narrative Description]

***Regulatory requirements/restrictions***

[Text Here]

***Impact to WWIP schedule/Impact on other work in the sewershed***

[Text Here]

***Key Stakeholders***

[Text Here]

***TBL analysis***

[Text Here]

***Risk***

[Potential risk of constructing this alternative improvement]

***Sewer Backup (SBU) Impacts***

[Text Here]

## Summary Comparison of Alternatives

Table Summary Comparison of Alternatives

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Alternate** | **Value** | **Triple Bottom Line** | | | | | **Risk** | **Comments** |
| **NPV** | **Construction**  **Cost** | **O&M (unit/yr)** | **Env.**  **Score** | **Social Score** |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |

* This section is required.
* For less complex project nominations that will produce one project alternative - this section should only have costs for (1) the one project alternative, and (2) the “Do Nothing Alternative / Status Quo”.
* The Value column describes the “Value Measurement” described in Section 4.2 of this template. This section does not apply to asset management projects that do not address hydraulic constraints.
* Modify the table to show the FLAMROC Scores if the FLAMROC Scoring Method is used.

Level of Cost Estimate

The foundation of the evaluation is the Association for the Advancement of Cost Engineering (AACE) International Class IV estimate. The details of this estimate are presented in the 2020 AACE International document: “Cost Estimate Classification System – As Applied in Engineering, Procurement, and Construction for the Process Industries (TCM Framework 7.3 – Cost Estimating and Budgeting)”

## Recommendation

* This section is required.

[In this section you will present your recommendation. This should generally not exceed one page. It is a summary. Again, supporting detailed information is located in the Conceptual Design Package or documented in the Major References sections.]

[State the preferred alternative and briefly state why the decision was made.

* The alternative with the highest social and environmental scores for the least cost is the alternative that is generally preferred. Some stakeholders will place heavy emphasis on the economic analysis results and believe the alternative should be selected based solely upon those numbers. If the recommended alternative does not have the least cost NPV, you must clearly state why you are recommending it (i.e., believe it provides the best value when non-quantified benefits are considered in the triple bottom line.).]

[State why you believe the recommended alternative satisfies the objectives of the project.]

[Ensure that if you are recommending the “Base Case” or the alternative that does not have the least cost NPV that you are clear as to your reason(s).]

[Clearly state if your recommendation will:

* meet the requirements in the WWIP (if applicable)
* potentially violate MSD minimum standards (i.e., minimum allowable slope and manhole spacing)
* require a PTI
* require new easements, expansion of existing easements, or property acquisition
* Impact SBU’s]

[State if a value engineering (VE) study is required for the project. A value engineering study is required for all projects with construction costs of over $10 million, unless waived by WWE Deputy Director. For projects with construction costs between $5-$10 million, state if you believe that a value engineering study may be beneficial during the design phase. Progressive Design Build projects typically do not include a separate VE effort.]

# Execution Plan

## Probable Opinion of Project Costs

### Cost Estimate

* This section is required.

[A cost estimate for the recommended alternative must be completed by the Estimating section. Indicate the class of estimate performed for the recommended alternative (typically planning level estimates are class IV estimates).]

[Costs should be rounded to the nearest 100’s for legislation purposes.]

[ROW costs for the recommended alternative must be completed by the ROW section.]

[Cost should be escalated in accordance with the most current version of the Project Costing Manual to the midpoint of construction as currently scheduled.]

Cost Estimates should be prepared using the cost estimate templates provided in the Project Costing Manual. Summary level presentation of planning level (Class IV) estimate for the recommended alternative shall note the following:

Table Planning Level (Class IV) Estimate

|  |  |
| --- | --- |
| Planning | $[X,XXX,X00] |
| Design | $[X,XXX,X00] |
| Miscellaneous Expense | $[X,XXX,X00] |
| Right of Way | $[X,XXX,X00] |
| Construction | $[X,XXX,X00] |
| Construction Services | $[X,XXX,X00] |
| Interest / Financing | $[X,XXX,X00] |
| **Total Project Cost in (**[Year] **dollars)** | **$[X,XXX,X00]** |

### Legislative History

* For less complex project nominations this sub-section may not be required. If this is the case please keep the section in place, and state how it is not required.

[Summarize the legislative history of the project including prior CIP numbers and/or Project IDs, and legislated funding. State if there is no prior legislation associated with the project. This information can be provided by the Project Controls Group.]

### Proposed Legislation & Funding Sources

* For less complex project nominations this sub-section may not be required. If this is the case please keep the section in place, and state how it is not required.

[In this section you will present recommendations pertaining to:

* Funding source (wet weather funds, asset management funds, operating budget, etc.)
* If the funding will be a staged approach (design one year, construction the next year) state what years each phase will be in the CIP Book.
* State whether proposed design funding is proposed to be legislated as an Add to the existing CIP Book.
* Indicate if the project is a candidate for a grant (WPCLF, etc.). If the project is a grant candidate ensure that you speak with the appropriate agency during the planning stage to determine its potential candidacy, what forms are required, etc.]

## Schedule

* This section is required.

[Present a proposed schedule for the project that shows the major phases, planning, design, right of way acquisition, construction legislation, bidding, and construction. These phases will be presented in a quarter/year or month/year format.]

Table Project Schedule

|  |  |
| --- | --- |
| Planning: | [Month or Qtr YYYY – Month or Qtr YYYY] |
| Design: | [Month or Qtr YYYY – Month or Qtr YYYY] |
| Right of Way Acquisition: | [Month or Qtr YYYY – Month or Qtr YYYY] |
| Construction Legislation: | [Month or Qtr YYYY – Month or Qtr YYYY] |
| Bidding: | [Month or Qtr YYYY – Month or Qtr YYYY] |
| Construction: | [Month or Qtr YYYY – Month or Qtr YYYY] |

[All project schedules should be directly coordinated with MSD Program Controls.]

[State if there are any additional scheduling requirements associated with the project.]

[State any potential consequences associated with delaying this project.]

## Scope

### Summary of Project Scope

* This section is required.

[Briefly summarize the scope of this project.]

### Functional Requirements and Design Basis

* This section is required.
* *Subsections under 5.3.2 can be modified as needed to include additional topics or to exclude topics that do not apply.*

***Design Criteria***

[Text Here (Includes design storm, design flows, etc.)]

***Alignment and Depth of Sewer***

[Text Here]

***Easement Requirements/Property Acquisition***

[Text Here]

***Permits Anticipated***

[Text Here]

***Temporary By-Pass Plan***

[Text Here]

### Work Performed in Planning/Anticipated Work in Design

* This section is required.
* *Subsections under 5.3.2 can be modified as needed to include additional topics or to exclude topics that do not apply.*

***Utility Information***

[Text Here]

***Survey and Fieldwork***

[Text Here]

***Geotechnical***

[Text Here]

***Monitoring and Modeling***

[Text Here]

Include one of the following two modeling statements:

[If Modeling occurred on or after September 2012, the select one of the following]:

* “Modeling was not necessary for this project. Per the Modeling Section, this decision is in accordance with MSDGC’s Modeling Guidelines and Standards.”

OR

* “The modeling associated with this project was done in accordance with MSDGC’s Modeling Guidelines and Standards and used the most updated model. As indicated in the Model Report, the model was last updated on \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (insert date) and last calibrated \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (insert date).”

***Environmental Site Assessment***

[Text Here]

Phase 1 ESA is automatically necessary if the project involves easement acquisition. Phase 2 ESA should be suggested here if there is a history of industrial or commercial use of the property.

***Misc. Reports, Studies, Analysis, Etc.***

[Text Here]

## Roles and Responsibilities

* This section is required.

[State the individuals who comprised the Technical Review Committee for the Planning efforts of the project.]

[In this section you need to clearly lay out the roles and responsibilities pertaining to this asset/process.]

[You should clearly state who will be responsible for operating and maintaining the asset/process.]

[If the operating divisions have a shared responsibility pertaining to the asset/process ensure that you are exceptionally clear about that. Define where one operating division’s responsibility ends, and another’s begins.]

[Clearly state that the operating division(s) have agreed to its (their) future role and responsibility pertaining to this asset/process. If they have not, state that as well and clearly recommend that this issue must be resolved ASAP.]

## Project Risks

A Risk Register is required for all projects, in accordance with the Project Delivery System (PDS).

# MSD Review Signature Sheet

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Wastewater Engineering Division | | | | |
| Submitted for Approval: |  |  |  |
|  | Name, Project Manager |  | Date |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Wastewater Engineering Division | | | | |
| Concurrence: |  |  |  |
|  | Name, Principal Engineer |  | Date |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Operating Division | | | | |
| Concurrence: |  |  |  |
|  | Name, Superintendent |  | Date |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Wastewater Engineering Division | | | | |
| Approval: |  |  |  |
|  | Name, Deputy Director/Chief Engineer |  | Date |

# List of Appendices

[List all documents (include title, date, author, revision, etc.) referenced in the Business Case Evaluation. Attach all the referenced documents as appendices. At a minimum, this section must reference the following documents (if the document does not apply, note not applicable as its status).]

## Appendix A – Project nomination information in eBuilder (Nomination information and SG1 presentation)

## Appendix B – Cost Estimate

## Appendix C – Plan and Profile

## Appendix D – Modeling Report

## Appendix E – Risk Register

## Appendix F - BCE Checklist

## Appendix G – Additional Referenced Items