Australian Government

Department of Defence

Defence Support Group

BEAP DATA MANAGEMENT TOOL (BEAP DATA TOOL)

USER GUIDE

BASE ENGINEERING ASSESSMENT PROGRAM

Date of Issue: 23 March 2015

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Defence Support Group

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D R A F T

Abbreviations

Abbreviation	Description
BEAP	Base Engineering Assessment Program
IBIS	Interim Business Information System
GEMS	Garrison Estate Management System
MCF Program	Major Capital Facilities Program
SAMM	Strategic Asset Management Model

1.0 Introduction

1. This document refers to a Microsoft Excel workbook that was developed to link issues identified during a Base Engineering Assessment Program (BEAP) review of a base with existing Defence asset data, in order to include the cost estimates for those issues in Defence's Major Capital Facilities (MCF) planning. The tool has the capability to create new assets which are generated from existing asset ID when an exact match is not possible.

2. To provide some context in terms of how the tool operates a process flowchart is shown in Appendix A. This document should be read in conjunction with the BEAP Data Tool Process Flowchart. The steps of the flowchart are referred to throughout the report to aid the user (i.e. Step 2).

3. Defence will provide a directory which will include the following files named accordingly to the base being assessed:

   a. Base Name* Issues Register Input.xlsx (e.g. Irwin Barracks Issues Register Input.xlsx);

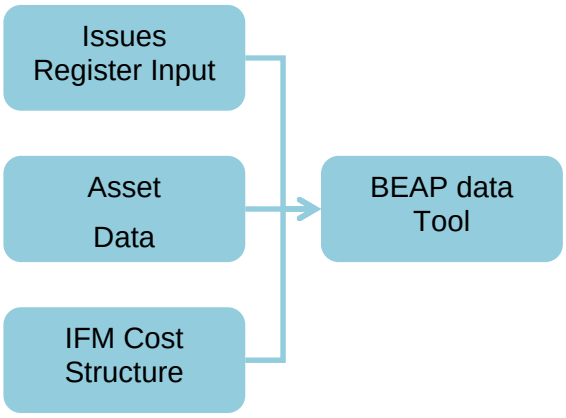
   b. Base Name* Asset Data.xlsx (e.g. Irwin Barracks Asset Data.xlsx);

   c. Base Name* BEAP Data.xlsm (e.g. Irwin Barracks BEAP Data.xlsm); and

   d. IFM Cost Structure.xlsx.

4. The interaction between the above files and the BEAP Data Tool is shown below in Figure 1.

Figure 1 BEAP Data Tool Inputs



5. The BEAP Data Tool:

   a. loads data contained in the Issues Register Input spreadsheet which is populated by the site investigation team (Step 3);

   b. allows the user to update/amend the Issues database (Step 6 and 7);

   c. enables each "Issue" to be matched with a Defence asset, or a new SAMM asset to be created if a good match is not available or if the BEAP review has defined segments of an existing asset and identified issues with specific segments (Step 8a/b);

   d. enables Work Request data and Risk Assessments to be added to the "Issue Record" (Step 7 and 10);

   e. allows spatial data to be assigned to an issue (Step 9)

   f. produces a Work Request List (Step 12);

   g. produces a set of standard tables for use in BEAP Reports (Step 12); and

h. includes a data summary file for the base in the format required for inclusion in the MCF planning process (Step 14).

2.0 Issues Register Input

6. Issue data is collected during the site investigations which are undertaken as part of Phases 1 and 2. Without the population of the Issues Register Input file spreadsheet, provided by Defence, no issues are able to be loaded into the BEAP Data Tool.

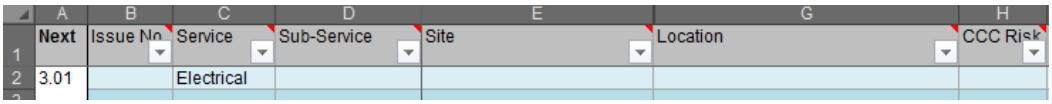
2.1 Issues Register Input Capture

7. The first step of the BEAP process is to undertake the site investigation on the nominated base. Following the site investigation, the Base Name* Issues Register Input.xlsx (e.g. Irwin Barracks Issues Register Input.xlsx) is required to be populated (Step 3). **No columns or rows can be deleted in the Issues Register Input file.**

8. To input an issue into the Issues Register Input spreadsheet the following process should be followed:

a. Select the nominated 'Service' from the drop-down list (column C). In this example 'Electrical' has been selected.

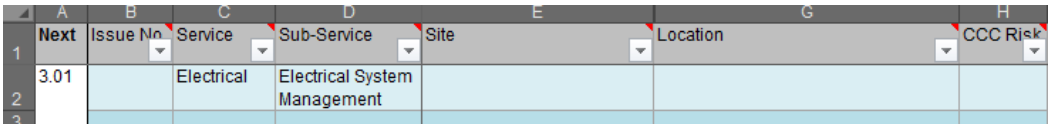
Figure 2 'Service' Selection



	A	B	C	D	E	G	H
1	Next	Issue No	Service	Sub-Service	Site	Location	CCC Risk
2	3.01		Electrical				

b. Select the required 'Sub-Service' from the drop-down list (column D). In this example 'Electrical System Management' has been selected.

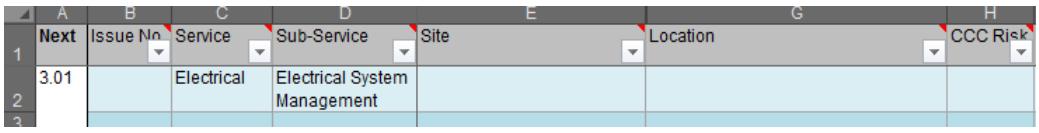
Figure 3 'Sub-Service' Selection



	A	B	C	D	E	G	H
1	Next	Issue No	Service	Sub-Service	Site	Location	CCC Risk
2	3.01		Electrical	Electrical System Management			

c. Once the 'Service' has been selected the next available issue number will be shown in column A. In this example the next available issue number is 3.01.

Figure 4 Next Available Issue Number



	A	B	C	D	E	G	H
1	Next	Issue No	Service	Sub-Service	Site	Location	CCC Risk
2	3.01		Electrical	Electrical System Management			

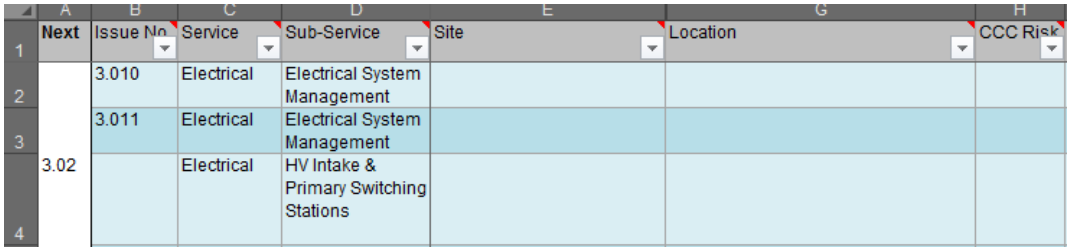
d. The next available issue number should be entered into column B as the Issue No. In this example 3.010 has been entered as the Issue No.

Figure 5 Nominate Issue Number

	A	B	C	D	E	G	H
1	Next	Issue No	Service	Sub-Service	Site	Location	CCC Risk
2		3.010	Electrical	Electrical System Management			

e. A more detailed numbering process can be used as shown in cells B2 and B3 of Figure 6. Each time the same 'Service' is selected (i.e. 'Electrical') the next number in the second decimal place will be shown (i.e. if 3.010, 3.011 and 3.012 has been used the next 'Electrical' issue number will be shown as 3.02). It is up to the issue to continue with a more detailed numbering system or revert to the suggested issue number.

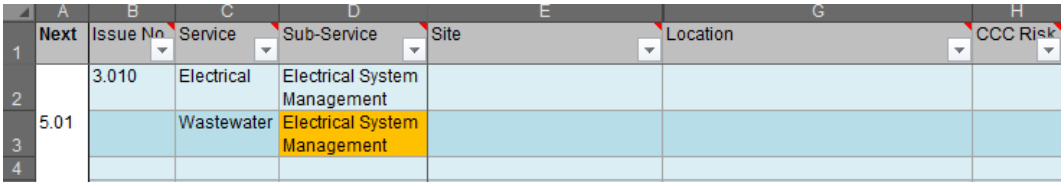
Figure 6 Alternative Issue Numbering



	A	B	C	D	E	G	H
1	Next	Issue No	Service	Sub-Service	Site	Location	CCC Risk
2		3.010	Electrical	Electrical System Management			
3		3.011	Electrical	Electrical System Management			
4	3.02		Electrical	HV Intake & Primary Switching Stations			

f. If the user selects a Sub-Service which is not related to the selected Service (Figure 7) the Sub-Service will be highlighted orange as a prompt for the user to correct the selection.

Figure 7 Incorrect 'Sub-Service' Selection



	A	B	C	D	E	G	H
1	Next	Issue No	Service	Sub-Service	Site	Location	CCC Risk
2		3.010	Electrical	Electrical System Management			
3	5.01		Wastewater	Electrical System Management			
4							

g. Columns E to M are required to be populated with data collected from the site investigations.

h. CCC Risk (column M) allows the user to assign a risk based on three drop-down options:

(1) Low;

(2) Medium; and

(3) High.

i. Priority (column L) allows the user to assign a Priority based on five drop-down options:

(1) P1:WHS (Immediate);

(2) P2: Next FY;

(3) P3: 1-5 Years;

(4) P4: 6-10 Years; and

(5) P5: > 10 Years.

j. Cost (column M) allows the user to estimate the cost of the recommended action. Costs must be entered as dollar values only (rates may not be used). Any text required to explain the cost estimate should be included in the Comments column.

k. Where Spatial Data is available this should be entered in columns N to S. There are two approaches available for the input of spatial data. The first option is to capture both the start and finish latitude and longitude values. The second option is to use GIS to create labels for assets, which can be referred to during the site investigation to identify the location of the inspection. Only one of the two options should be entered into the Issues Register Input spreadsheet.

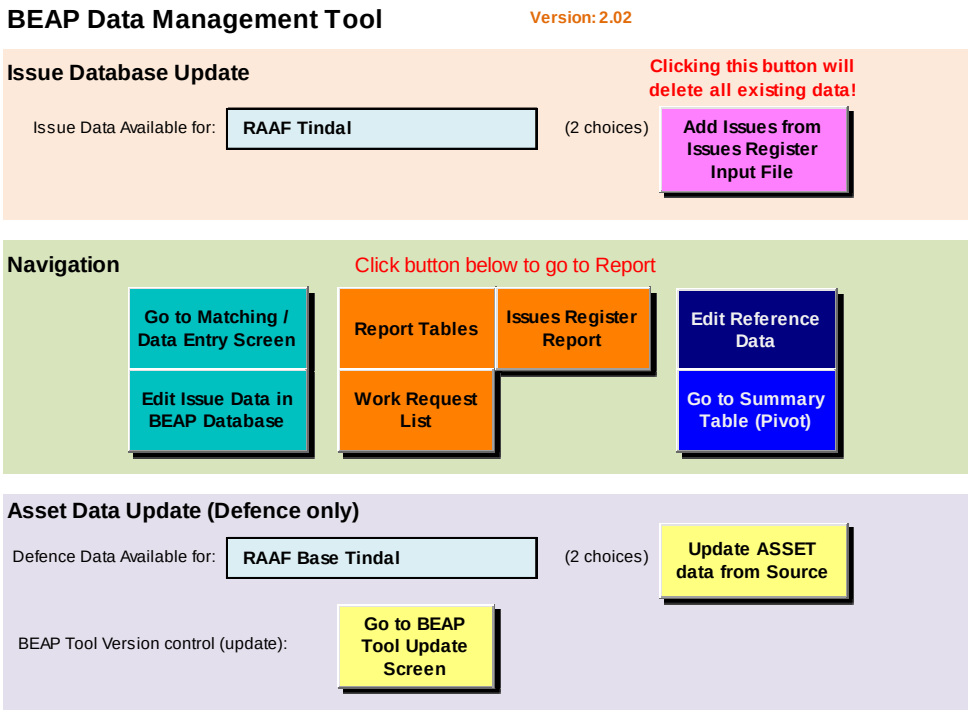
l. After completion of the Issues Register Input spreadsheet, the user should save the spreadsheet (using the Base Site Group name as provided by Defence) in preparation of input into the BEAP Data Collection, Input and Analysis Tool.

3.0 BEAP Data Tool

9. The purpose of the BEAP Data Tool is to match issues to Defence assets or create new assets where required, to add risk assessments for the Issues identified, and to enable editing of recommendations and work requests arising from the Issues.

10. The entry screen (Figure 8) for the BEAP Data Tool provides data linking and update functions, and navigation to other parts of the tool:

Figure 8 Start screen for the BEAP Data Tool



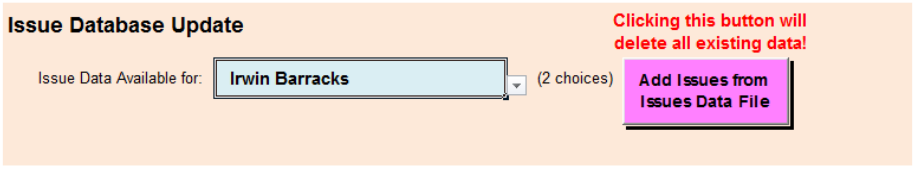
11. The coloured buttons execute macros which run the tool's functions.

12. The Asset Data Update (Defence only) section can be edited by authorised personnel only. When the user receives the BEAP Data Tool the Asset Data will have been pre-populated.

13. The blue box next to 'Issue Data Available for' has a drop down list of Base options, which are taken from the file named Base Name* Issues Register Input.xlsx (e.g. Irwin Barracks Issues Register Input.xlsx) in the Directory. There will only be one file using that naming convention present in the Directory provided by Defence.

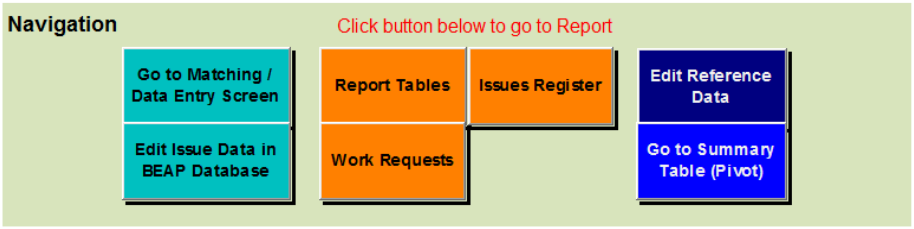
14. With the correct Base selected, the 'Add Issues from Issues Register Input File' button should be pressed (Step 5). **This will clear the BEAP Data Tool of any existing data, and automatically update it with current Issues Data.**

Figure 9 Add Issues Register Input Data



15. There are seven screens available in the Navigation pane of the BEAP Data Tool, their labels indicate their purpose.

Figure 10 Navigation Pane



16. Until all the Issues have been matched and the Work Request details added as necessary, only the first button will be used, the 'Go to Matching / Data Entry Screen' button.

17. The remaining buttons have the following functions:

a. Orange buttons enable reports to be produced, discussed in Section 3.0 Reports;

b. The 'Edit Reference Data' button refers to the 'Reference' worksheet which is a hidden tab in the BEAP Data Tool. The 'Reference' worksheet is a standardised list of assumptions and matching conventions as nominated by Defence, these assumptions are able to be modified by the user if required be Defence;

c. The 'Go to Summary Table (Pivot)' button provides access to a summary pivot table of the contents of the BEAP Data Tool, used for final quality checking purposes.

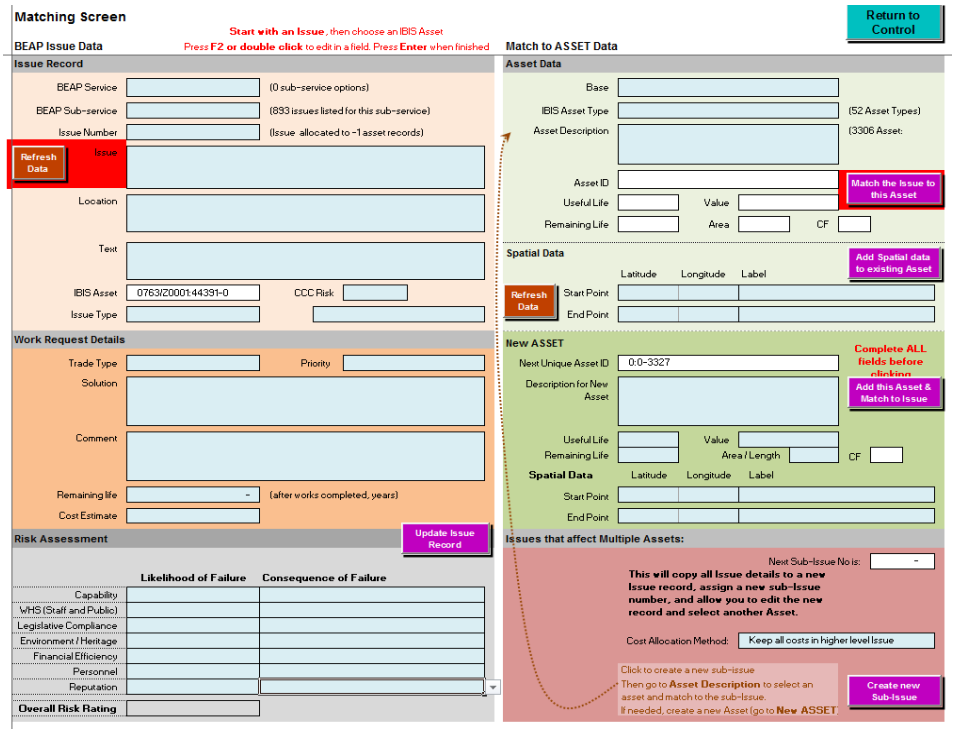
d. The 'Go to Matching / Data Entry Screen' takes the user to the matching screen Figure 11.

e. The 'Edit Issue Data in BEAP Database' button allows the user to edit the Issues Register Input Data in the BEAP Data Tool. This button is particularly useful when wanting to make bulk edits to existing issues or to copy the profile of one issue to another e.g. if you had multiple substations with an identical issue, you could easily apply the 'risk assessment' values to all the issues as opposed to having to do them individually in the 'Go to Matching / Data Entry' screen.

3.1 Data Entry / Edit

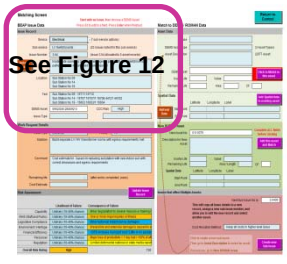
18. When the green 'Go to Matching / Data Entry Screen' navigation button is pressed, the user will be presented with the Matching Screen:

Figure 11 BEAP Matching Screen



19. In this screen, the user will:

a. Select an Issue from the blue boxes in the top left of the screen (Step 6). (If the Issues Register Input spreadsheet has not been populated no issues will be available).



(1) Use the drop down menus available, working down the three fields provided to get to a specific Issue number (Figure 12).

(2) Click on the brown 'Refresh Data' button when the correct Issue has been selected, to repopulate the blue fields at the bottom of this part of the screen. If this Issue has already been matched to an IBIS Asset, the Asset identifier will appear in the white box.

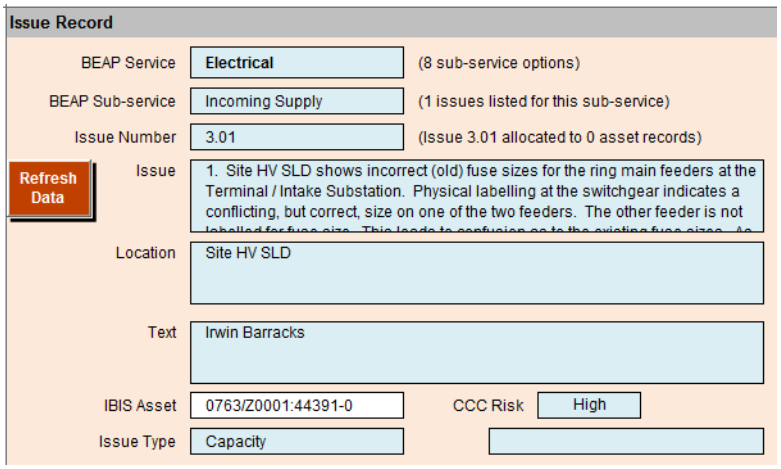
(3) Data will appear in the blue boxes (taken from the Issue data entered originally in the Issues Register Input spreadsheet.

(4) Press F2 or double-click to edit in a field, press enter when finished.

(5) The blue Issue Type fields are used to provide a Category (and a second if one is not sufficient) for the selected Issue. Both boxes have the same drop down list. The second field is optional, and is available for use if the Issue addresses more than one purpose or outcome.

(6) An example of a selected issue record is shown in Figure 12.

Figure 12 Issue selection



b. Provide Work request details for this Issue (Step 7):

(1) Use the blue boxes in that section of this screen (Figure 13).

(2) The first two boxes have drop down menus that provide a choice. The remaining boxes are able to be edited directly.

(3) When all boxes are completed as required, the purple "Update Issue Record' button should be clicked. This will add the new or edited data to the Issue database.

(4) The priority rating of the issue is populated by the user at the time of entering the issue into the Issues Register Input spreadsheet and reflected in the BEAP Data tool.

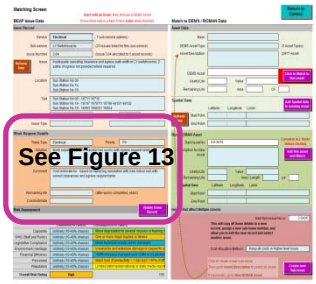
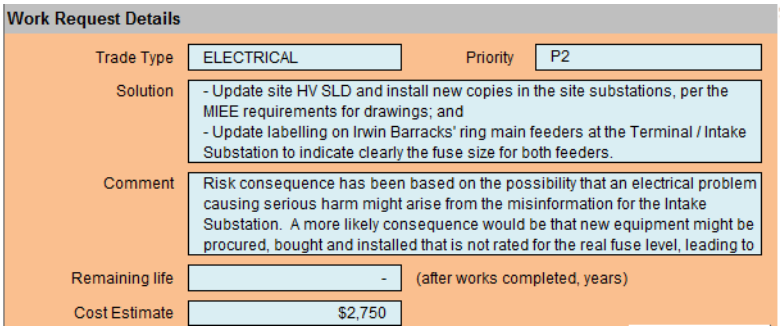
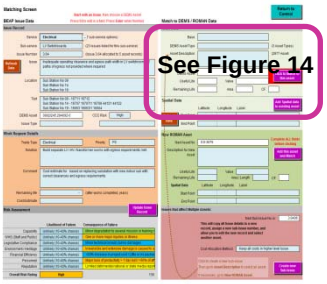


Figure 13 Work Request details



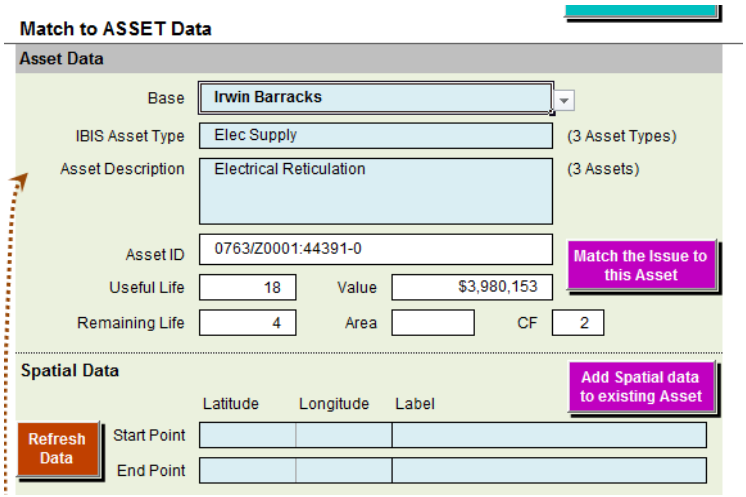
c. Match the selected Issue to a Defence asset (Step 8a):



(1) Use the dropdowns in the Match to Asset Data section of the screen to select the Asset that best matches the selected Issue**.** The drop drown lists are pre-selected based on the Service that the current Issue relates to. Note that there may not be a good match because the Asset list can be incomplete, so the closest possible match should be made.

(2) The white boxes are populated with data from IBIS or SAMM that is associated with the selected asset.

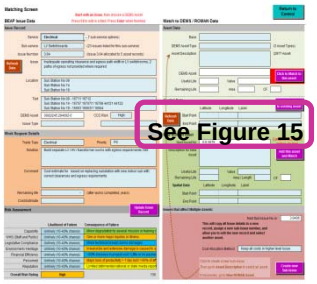
Figure 14 Matching the Issue to a Defence asset



(3) The matching process is undertaken using judgement from the user with verification from the investigation team to ensure the issue has been matched to the correct IBIS/SAMM asset. **The purple 'Click to Match' button is clicked to match the current issue with the asset**. Note that, if necessary, a new asset can be created (refer 19e) if an exact match is unable to be found.

(4) The new or revised IBIS asset identifier will also appear in the white box near the bottom of the BEAP Issue Data section of the screen.

d. Update spatial data for the asset (Step 9):



(1) Spatial data should be captured wherever possible for all assets with an identified issue.

(2) Spatial data is either entered into the Issues Register Input spreadsheet which is loaded into the BEAP Data Tool or entered via the tool at the time of matching the asset.

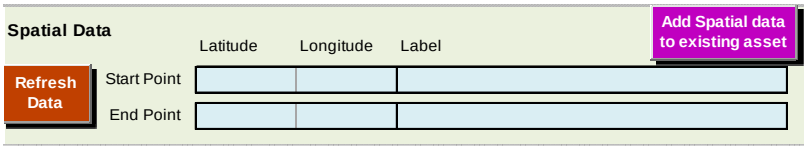
(3) **To check if spatial data has been pre-populated in the Issues Data tool, the brown 'Refresh Data' button in the spatial data section should be clicked.**

(4) If data already exists, the boxes will show it, and be recoloured white.

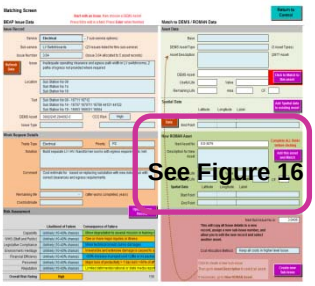
(5) If there is no existing data, new spatial data (or corrections) can be added to this section. The can enter the start and finish latitude and longitude values or assign a label.

(6) When finished, the purple 'Add Spatial data' button should be clicked to update both the Defence and the Issues databases.

Figure 15 Input Spatial Data



e. Add a new asset to the Defence database for matching to an Issue (Step 8b):



(1) If the existing Defence assets are too high a level to match to the Issue, or if it is desired to add a series of segments to the Defence asset database, the BEAP Data Tool provides functionality to do so (Figure 16).

(2) A new asset would be created when an issue has been identified for a non-existent asset and hence a gap is identified in the existing asset data e.g. issue identified for substation 11 which doesn't exist in the asset data.

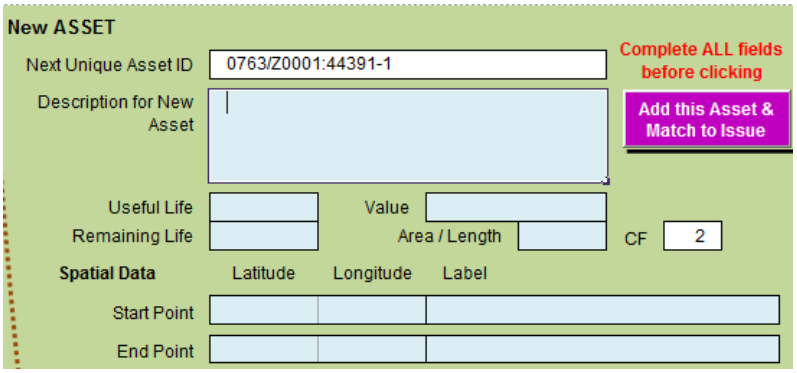
(3) New asset ID characteristics i.e. useful life, value, CF (Figure 16), should be based on information from a number of sources including values in similar asset categories, available GPS information, site photos, and engineering judgement

(4) It is not possible to add an IBIS number or a SAMM number individually, the only option available is to use an existing IBIS/SAMM combination and add sub-numbers. New IBIS/SAMM numbers are required to be created by Defence.

(5) The screen is pre-populated with the next number available. Data may be added to the blue boxes.

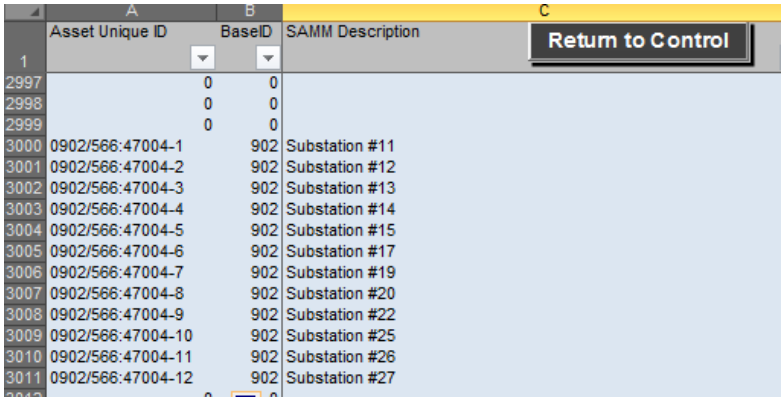
(6) When finished, the purple 'Add this Asset and Match To Issue' button should be clicked to update both databases, match the new asset to the Issue and update spatial data (if necessary).

Figure 16 Add new sub-asset to the Defence database



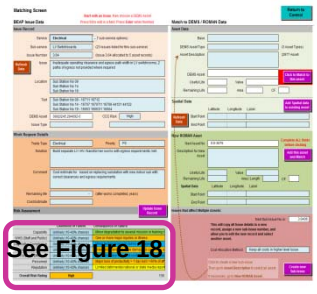
(7) New assets created from existing assets appear from row number 3000 onwards in the 'In Use Asset Data' worksheet which is a hidden worksheet of the BEAP Data Tool. To easily identify new sub numbers a hyphen is placed after the existing asset number. An example of a new asset is shown in Figure 17.

Figure 17 New asset numbering example



(8) Since it is only possible to add new sub-numbers, the initial choice of the asset (refer 19c) will have to be the closest match that does actually have a SAMM number. If there is not one available, the BEAP Data Tool will indicate that a sub-number cannot be created, and the user will have to try another selection.

f. Add or update the Risk assessment for the asset (Step 10):



(1) The user completes the risk assessment once the issue has been selected or when reviewing an issue. This is done in the last section of this screen (Figure 18).

(2) Each choice is made via a drop menu attached to each box.

(3) For efficiency if the user has completed a risk assessment of an issue and wishes to replicate that assessment to another issue they can bulk edit using the 'Edit Issues Data' button (refer 16.e.) i.e. a risk assessment of one issue can be copied to another.

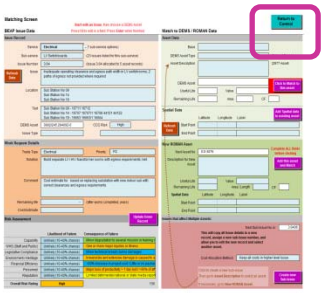
(4) When finished, click the purple 'Update Issue data' button.

Figure 18 Asset Risk assessment

Risk Assessment — Update Issue Record

	Likelihood of Failure	Consequence of Failure
Capability	Rare (< 10% chance)	Unable to conduct missions or training activities
WHS (Staff and Public)	Rare (< 10% chance)	One or more lives lost or threatened
Legislative Compliance	Rare (< 10% chance)	Minor technical breach but no damages
Environment / Heritage	Rare (< 10% chance)	Irreversible and extensive damage caused to liste
Financial Efficiency	Rare (< 10% chance)	Expected life of capability shortened >75% / Flow
Personnel	Rare (< 10% chance)	Some loss of productivity < 1 day lost / <50% of st
Reputation	Rare (< 10% chance)	Limited detrimental national or state media repor
Overall Risk Rating	**High**	110

g. Next Action. There are three choices for the next action:



(1) Go back to the Issue Record section and select another Issue (refer 17a);

(2) Edit the data showing for the selected Issue (and Update Issue Record when finished; or

(3) Leave this screen to return to the Control screen, by clicking the green 'Return to Control' button at the top right of the screen.

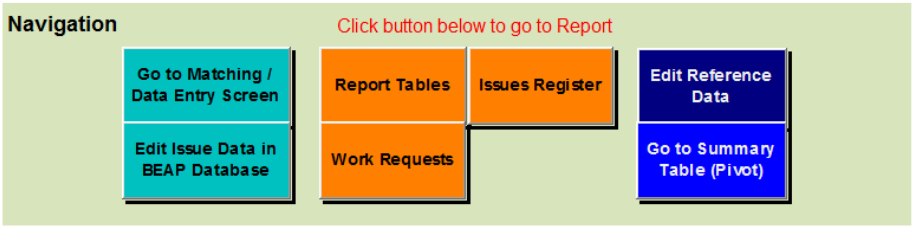
20. The BEAP Data tool should be saved using the Base Site Group name (the default, as provided by Defence).

4.0 Reports

21. Several reports are able to be produced from the BEAP Data Tool. The reports are accessed by clicking on one of the three orange buttons in the navigation pane (Figure 19).

22. The 'Go to Summary Table (Pivot)' button is provided to the user for review purposes, as discussed in Section 4.4.

Figure 19 Navigation Pane



4.1 Summary Tables

23. This screen is navigated to from the Control Screen (Figure 8).

24. It provides standard summary tables by Service and the table used in the Executive Summary of the BEAP Phase 3 reports (Figure 20).

25. The nominated service is selected from the drop-down list. The Executive Summary table can then be copied and pasted into the Phase 3 report.

26. In addition to the Executive Summary the table highlighted by the red box in Figure 20 should be copied to the Part 1 – Overview Report with the Capacity, Condition and Compliance assessments to be manual entered based on the outcome of the Phase 3 investigations.

27. When finished, the orange 'Return to Control' button can be clicked to return to the Control screen.

Figure 20 Standard BEAP summary tables for use in the BEAP Report

Service: Electrical

Return to Control

Sub-service	Assessment			Spare Capacity Indicator	Resultant No. of Issues	Total Cost Estimate
	Capacity	Condition	Compliance			
CEPS	Manual entry	Manual entry	Manual entry	Manual entry	14	$5,846,200
HV Rings & Interconnector Cables	Manual entry	Manual entry	Manual entry	Manual entry	6	$7,385,000
Incoming Supply	Manual entry	Manual entry	Manual entry	Manual entry	4	$7,565,000
Intake & Primary Switching Stations	Manual entry	Manual entry	Manual entry	Manual entry	9	$3,590,800
LEGS	Manual entry	Manual entry	Manual entry	Manual entry		
LV Switchboards	Manual entry	Manual entry	Manual entry	Manual entry	18	$2,751,999
Subs, Ring Main Units & Transformers	Manual entry	Manual entry	Manual entry	Manual entry	31	$7,057,650
Total	Manual entry	Manual entry	Manual entry		82	$34,196,649

Executive Summary

Risk Level	CEPS	HV Rings & Interconnector Cables	Incoming Supply	Intake & Primary Switching Stations	LEGS	LV Switchboards	Subs, Ring Main Units & Transformers		Total
Very High									
No.	2			1		1	4		8
Est Cost	$3,650,000			$1,000		$1,640,000	$1,021,500		$6,312,500
High									
No.	5	3	2	4		13	11		38
Est Cost	$1,557,000	$7,385,000	$7,500,000	$3,508,500		$462,000	$2,740,000		$23,152,500
Medium									
No.	7	2	1	4		3	11		28
Est Cost	$639,200		$60,000	$81,300		$639,999	$2,878,500		$4,298,999
Low									
No.		1	1			1	5		8
Est Cost			$5,000			$10,000	$417,650		$432,650
Total No.	14	6	4	9		18	31		82
Total Est Cost	$5,846,200	$7,385,000	$7,565,000	$3,590,800		$2,751,999	$7,057,650		$34,196,649

Priority No. and Cost	Sub-Service								Grand Total
	CEPS	HV Rings & Interconnector Cables	Incoming Supply	Intake & Primary Switching Stations	LEGS	LV Switchboards	Subs, Ring Main Units & Transformers		
P1									
No.									
Est Cost									
P2									
No.	12	1	2	7		13	19		54
Est Cost	$4,771,200	$10,000	$60,000	$15,800		$2,109,000	$1,558,250		$8,524,250
P3									
No.	2	5	2	2		5	10		26
Est Cost	$1,075,000	$7,375,000	$7,505,000	$3,575,000		$642,999	$5,088,400		$25,261,399
P4									
No.							2		2
Est Cost							$411,000		$411,000
P5									
No.									
Est Cost									
Total No.	14	6	4	9		18	31		82
Total Est Cost	$5,846,200	$7,385,000	$7,565,000	$3,590,800		$2,751,999	$7,057,650		$34,196,649

Risk Level	Electrical	Fuel and Gas	ICT	Spatial Data	Stormwater	Wastewater	Water	Total
Very High								
No.	8						4	12
Est Cost	$6,312,500						$1,780,000	$8,092,500
High								
No.	38	13	5		9	1	7	73
Est Cost	$23,152,500	$20,534,175	$1,152,500		$16,353,040	$17,835	$10,855,000	$72,065,050
Medium								
No.	28	13	14		10	10	6	81
Est Cost	$4,298,999	$1,396,500	$2,990,100		$12,994,000	$1,431,076	$13,841,490	$36,952,165
Low								
No.	8	1	7			1	2	19
Est Cost	$432,650	$15,000	$737,000			$3,000	$12,930	$1,200,580
Total No.	82	27	26		19	12	19	185
Total Est Cost	$34,196,649	$21,945,675	$4,879,600		$29,347,040	$1,451,911	$26,489,420	$118,310,295

Priority No. and Cost	Sub-Service							Grand Total
	Electrical	Fuel and Gas	ICT	Spatial Data	Stormwater	Wastewater	Water	
P1								
No.								
Est Cost								
P2								
No.	54	18	9		6	9	14	110
Est Cost	$8,524,250	$3,011,925	$1,016,000		$6,161,040	$1,293,260	$2,239,420	$22,245,895
P3								
No.	26	6	8		12	3	3	58
Est Cost	$25,261,399	$18,306,250	$1,361,600		$19,205,000	$158,651	$4,250,000	$68,542,900
P4								
No.	2	3	9		1		2	17
Est Cost	$411,000	$627,500	$2,502,000		$3,981,000		$20,000,000	$27,521,500
P5								
No.								
Est Cost								
Total No.	82	27	26		19	12	19	185
Total Est Cost	$34,196,649	$21,945,675	$4,879,600		$29,347,040	$1,451,911	$26,489,420	$118,310,295

4.2 Work Request List

28. This screen is navigated to from the Control screen (Figure 8). It provides access to the standard Work Request list produced by the BEAP program (Figure 21).

29. The list may be printed as is, or interrogated using the filters provided in the header row of the table.

30. The Work Request List is also used to feed into IBIS.

Figure 21 Work Request list

Work Request List Return to Control

Structure ID	Structure	Risk Rating	Priority	Trade Type	Description	Intended Year	Planned Cost	Status
0902/037	Base Pump Station / Fire Booster Pump	Very High	P2		The Fire Chief suspects the cause of the burst pipes is water hammer as a result of pump start-up. Engage water hammer consultants/specialists to determine the underlying cause of these pipe bursts.	2015	$100,000	Future
0902/095	Substation #8	Very High	P2		Remove bee hive in substation brick cavity - seal under window.	2015	$2,000	Future
0902/620	Raaf Ric Hv - "New Ceps Switchroom"	Very High	P2		Replace 11kV Generators - Archaic, unreliable and unserviceable - generators require manual intervention to synchronise and operate	2015	$3,600,000	Future
0902/620	Raaf Ric Hv - "New Ceps Switchroom"	Very High	P2		Detailed Cost benefit analysis to Install Castell keying system on existing generators or replace generators / control system to upgrade to fully automated system	2015	$50,000	Future
0902/U01	Electrical Reticulation Services	Very High	P2		Install HV rescue kits.	2015	$1,000	Future
0902/U01	Electrical Reticulation Services	Very High	P2		Install addiitonal LV load shedding.	2015	$1,640,000	Future
0902/U01	Electrical Reticulation Services	Very High	P2		Build separate LV / HV / transformer rooms with egress requirements met.	2015	$1,000,000	Future
0902/U01	Electrical Reticulation Services	Very High	P2		Install insulation to exposed electrical connections.	2015	$6,000	Future
0902/U01	Electrical Reticulation Services	Very High	P2		Install HV rescue kits.	2015	$13,500	Future
0902/U03	Water Reservoir	Very High	P2		To provide better security and improved system redundancy in supply, it is recommended the feasibility of one (or more) direct connections from the water supply tank feed lines direct to the water reticulation network be investigated and implemented if feasible.	2015	$60,000	Future
0902/U03	Water Reservoir	Very High	P2		To provide better security and improved system redundancy in supply, it is recommended the feasibility of installing a duplicate or standby DN375 main from the tanks to the reticulation network be investigated and implemented if feasible.	2015	$170,000	Future
0902/037	Base Pump Station / Fire Booster Pump	Very High	P3		Multiple non-conforming hydrants were also encountered. Develop and execute a prioritized program of hydrant renewals, including developing an infrastructure database to record age, maintenance frequency and any other related issues.	2015	$1,450,000	Future
0902/037	Base Pump Station / Fire Booster Pump	High	P2		Re-establishing a hydrant flushing program to flush sediments, clear pipe biofilms, and bring fresh water into low-use parts of the system. It will also give the on-site plumbers the opportunity to continuously assess the condition of specific hydrants.	2015	$40,000	Future

31. When finished, the orange ‘Return to Control’ button can be clicked to return to the Control screen.

32.

4.3 Issues Register Report

33. The issues register can be viewed by clicking on the orange issues register report button (Figure 8).

34. Data can be manually edited via the 'Edit Issues Data in Database' button in Figure 8.

Figure 22 Issues Register Tab

RAAF Richmond Issues Register

Return to Control

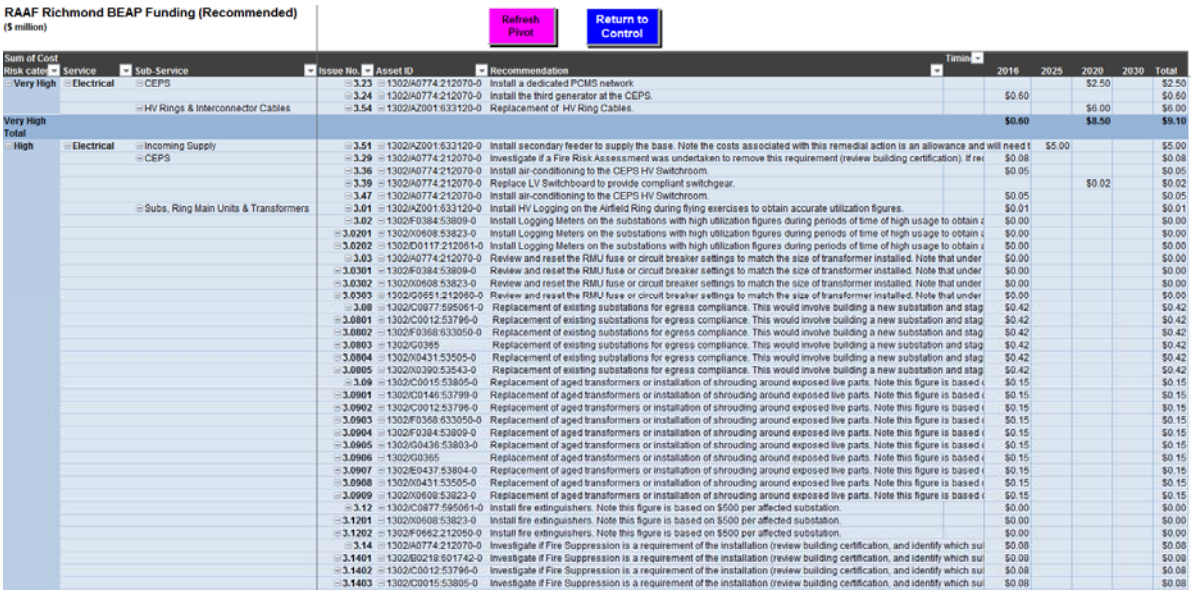
Issue No.	Service	Sub-Service	DEMS ID	Site	Location	Issue	CCC Risk	ERAT Risk Assessment																									
								1. Capability			2. WHS			3. Environment and Heritage			4. Legal			5. Financial Efficiency			6. Personnel			7. Reputation			Resultant R	
								L	C	Risk	L	C	Risk	L	C	Risk	L	C	Risk	L	C	Risk	L	C	Risk	L	C	Risk	Total	Ris
2.01	ICT	Pit & Pipe Infrastructure	0	Robertson Barracks	1 inspected pit	Unknown pit 35 inspected and assessed as unserviceable and should be replaced	High	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.01	Electrical	Subs, Ring Main Units & Transformers	0	Robertson Barracks	Various	Access - PCMS Cubicle too close. Does not meet MIEE characters Applicable to Sub 69, 13, 11, 47, 59, 68, 41, 31	Low	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4.01	Water	Potable Water	0	Robertson Barracks	600 and 700 Series Accomodation Areas	A number of pipe failures have occurred in the last few years and subsequently repaired. The pipes should be monitored and replaced if the failure rate is deemed excessive	Low	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5.01	Wastewater	Sewer	0	Robertson Barracks	Gravity Main	Main from C7 to OPS is overloaded	High	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6.01	Stormwater	Stormwater Drains	0	Robertson Barracks	Various	Siltation of open drain system	Medium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.01	Fuel and Gas	Gas - Northern Officers Mess & Tavern	0	Robertson Barracks	Gas Tank	Placarding and signage attached to LP Gas tank was badly faded and unreadable	High	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8.01	Spatial Sata	GFIS (*.dwg)	0	Robertson Barracks	Various	Inaccuracies and deficiencies in engineering systems data contained in GFIS files	Low	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4.4 Summary Table (Pivot)

35. A summary table has been provided for review purposes. This is a pivot table, so a variety of selections and filters can be applied using the drop down lists available.

36. The blue ‘Refresh Pivot’ button should be clicked before using the table. After that, any combination of the filters available can be selected for review.

Figure 23 Summary table



RAAF Richmond BEAP Funding (Recommended)
($ million)

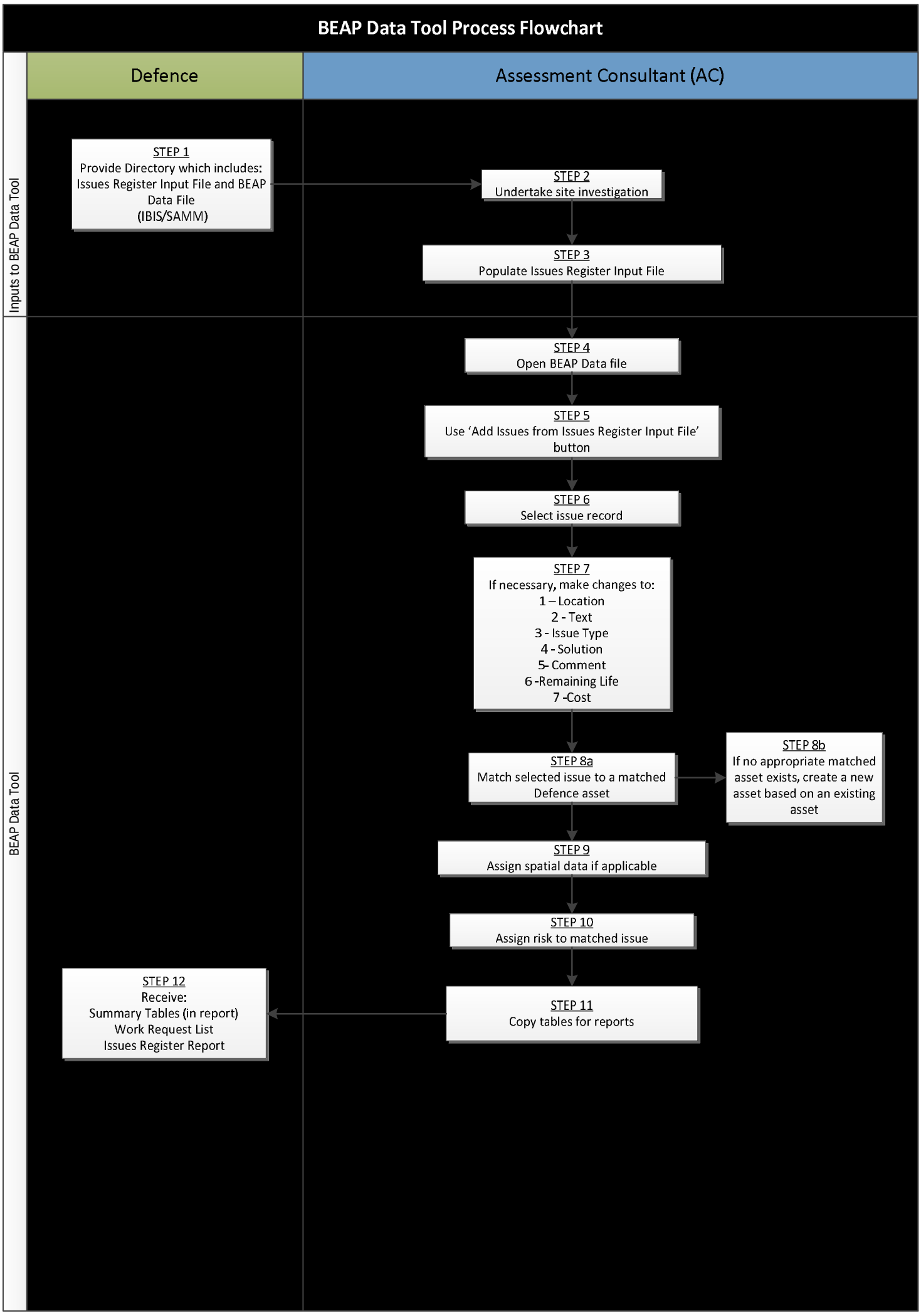
Refresh Pivot | Return to Control

Sum of Cost Risk cate	Service	Sub-Service	Issue No.	Asset ID	Recommendation	Timin 2016	2025	2020	2030	Total
Very High	Electrical	CEPS	3.23	1302/A0774:212070-0	Install a dedicated PCMS network			$2.50		$2.50
			3.24	1302/A0774:212070-0	Install the third generator at the CEPS.	$0.60				$0.60
		HV Rings & Interconnector Cables	3.54	1302/AZ001:633120-0	Replacement of HV Ring Cables.			$6.00		$6.00
Very High Total						$0.60		$8.50		$9.10
High	Electrical	Incoming Supply	3.51	1302/AZ001:633120-0	Install secondary feeder to supply the base. Note the costs associated with this remedial action is an allowance and will need t	$5.00				$5.00
		CEPS	3.29	1302/A0774:212070-0	Investigate if a Fire Risk Assessment was undertaken to remove this requirement (review building certification). If re	$0.08				$0.08
			3.36	1302/A0774:212070-0	Install air-conditioning to the CEPS HV Switchroom.	$0.05				$0.05
			3.39	1302/A0774:212070-0	Replace LV Switchboard to provide compliant switchgear.			$0.02		$0.02
			3.47	1302/A0774:212070-0	Install air-conditioning to the CEPS HV Switchroom.	$0.05				$0.05
		Subs, Ring Main Units & Transformers	3.01	1302/AZ001:633120-0	Install HV Logging on the Airfield Ring during flying exercises to obtain accurate utilization figures.	$0.01				$0.01
			3.02	1302/F0384:53809-0	Install Logging Meters on the substations with high utilization figures during periods of time of high usage to obtain a	$0.00				$0.00
			3.0201	1302/X0608:53823-0	Install Logging Meters on the substations with high utilization figures during periods of time of high usage to obtain a	$0.00				$0.00
			3.0202	1302/D0117:212061-0	Install Logging Meters on the substations with high utilization figures during periods of time of high usage to obtain a	$0.00				$0.00
			3.03	1302/A0774:212070-0	Review and reset the RMU fuse or circuit breaker settings to match the size of transformer installed. Note that under	$0.00				$0.00
			3.0301	1302/F0384:53809-0	Review and reset the RMU fuse or circuit breaker settings to match the size of transformer installed. Note that under	$0.00				$0.00
			3.0302	1302/X0608:53823-0	Review and reset the RMU fuse or circuit breaker settings to match the size of transformer installed. Note that under	$0.00				$0.00
			3.0303	1302/Z0951:212069-0	Review and reset the RMU fuse or circuit breaker settings to match the size of transformer installed. Note that under	$0.00				$0.00
			3.08	1302/C0977:595061-0	Replacement of existing substations for egress compliance. This would involve building a new substation and stag	$0.42				$0.42
			3.0801	1302/C0012:53796-0	Replacement of existing substations for egress compliance. This would involve building a new substation and stag	$0.42				$0.42
			3.0802	1302/F0368:633050-0	Replacement of existing substations for egress compliance. This would involve building a new substation and stag	$0.42				$0.42
			3.0803	1302/G0365	Replacement of existing substations for egress compliance. This would involve building a new substation and stag	$0.42				$0.42
			3.0804	1302/X0431:53505-0	Replacement of existing substations for egress compliance. This would involve building a new substation and stag	$0.42				$0.42
			3.0805	1302/X0390:53543-0	Replacement of existing substations for egress compliance. This would involve building a new substation and stag	$0.42				$0.42
			3.09	1302/C0015:53805-0	Replacement of aged transformers or installation of shrouding around exposed live parts. Note this figure is based	$0.15				$0.15
			3.0901	1302/C0146:53799-0	Replacement of aged transformers or installation of shrouding around exposed live parts. Note this figure is based	$0.15				$0.15
			3.0902	1302/C0012:53796-0	Replacement of aged transformers or installation of shrouding around exposed live parts. Note this figure is based	$0.15				$0.15
			3.0903	1302/F0368:633050-0	Replacement of aged transformers or installation of shrouding around exposed live parts. Note this figure is based	$0.15				$0.15
			3.0904	1302/F0384:53809-0	Replacement of aged transformers or installation of shrouding around exposed live parts. Note this figure is based	$0.15				$0.15
			3.0905	1302/G0436:53803-0	Replacement of aged transformers or installation of shrouding around exposed live parts. Note this figure is based	$0.15				$0.15
			3.0906	1302/G0365	Replacement of aged transformers or installation of shrouding around exposed live parts. Note this figure is based	$0.15				$0.15
			3.0907	1302/E0437:53804-0	Replacement of aged transformers or installation of shrouding around exposed live parts. Note this figure is based	$0.15				$0.15
			3.0908	1302/X0431:53505-0	Replacement of aged transformers or installation of shrouding around exposed live parts. Note this figure is based	$0.15				$0.15
			3.0909	1302/X0608:53823-0	Replacement of aged transformers or installation of shrouding around exposed live parts. Note this figure is based	$0.15				$0.15
			3.12	1302/C0877:595061-0	Install fire extinguishers. Note this figure is based on $500 per affected substation.	$0.00				$0.00
			3.1201	1302/X0608:53823-0	Install fire extinguishers. Note this figure is based on $500 per affected substation.	$0.00				$0.00
			3.1202	1302/F0662:212050-0	Install fire extinguishers. Note this figure is based on $500 per affected substation.	$0.00				$0.00
			3.14	1302/A0774:212070-0	Investigate if Fire Suppression is a requirement of the installation (review building certification, and identify which sui	$0.08				$0.08
			3.1401	1302/B0218:601742-0	Investigate if Fire Suppression is a requirement of the installation (review building certification, and identify which sui	$0.08				$0.08
			3.1402	1302/C0012:53796-0	Investigate if Fire Suppression is a requirement of the installation (review building certification, and identify which sui	$0.08				$0.08
			3.1403	1302/C0015:53805-0	Investigate if Fire Suppression is a requirement of the installation (review building certification, and identify which sui	$0.08				$0.08

37. When finished, the purple ‘Return to Control’ button can be clicked to return to the Control screen.

Appendix A

BEAP Data Tool Process Flowchart


BEAP Data Tool Process Flowchart
Defence
Assessment Consultant (AC)
Inputs to BEAP Data Tool
BEAP Data Tool
STEP 1
Provide Directory which includes:
Issues Register Input File and BEAP Data File
(IBIS/SAMM)
STEP 2
Undertake site investigation
STEP 3
Populate Issues Register Input File
STEP 4
Open BEAP Data file
STEP 5
Use 'Add Issues from Issues Register Input File' button
STEP 6
Select issue record
STEP 7
If necessary, make changes to:
1 – Location
2 - Text
3 - Issue Type
4 - Solution
5- Comment
6 -Remaining Life
7 -Cost
STEP 8a
Match selected issue to a matched Defence asset
STEP 8b
If no appropriate matched asset exists, create a new asset based on an existing asset
STEP 9
Assign spatial data if applicable
STEP 10
Assign risk to matched issue
STEP 11
Copy tables for reports
STEP 12
Receive:
Summary Tables (in report)
Work Request List
Issues Register Report