

APPENDIX G

Cambridge : 01223 314794
Colchester : 01206 228800
London : 020 7448 9910
Norwich : 01603 230240

CONTRACT: Alington Estate

ELEMENT: FEH Data

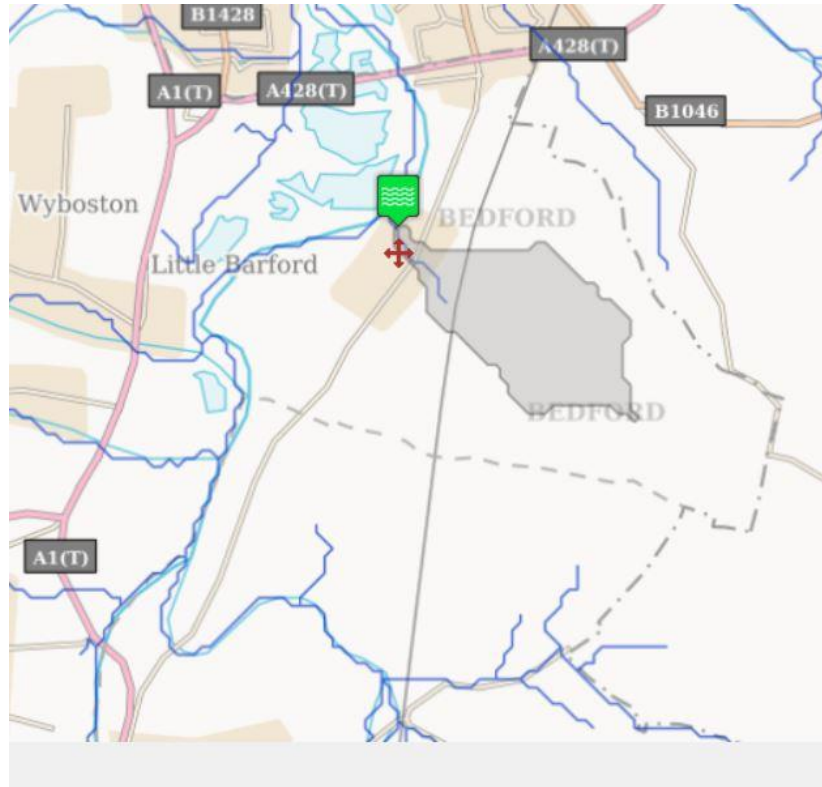
REF: 60830

SHEET: 1

DATE: 24.6.21

FEH Data

Screenshot of FEH data set taken from <https://fehweb.ceh.ac.uk/>



Cambridge : 01223 314794
 Colchester : 01206 228800
 London : 020 7448 9910
 Norwich : 01603 230240

CONTRACT: Alington Estate	REF: 60830
ELEMENT: FEH Data	SHEET: 2
	DATE: 24.6.21

FEH Data

VERSION	"FEH CD-ROM"	Version	2.0.1	exported at	15:05:29	Thu 24-Jun-21
CATCHMENT	GB	518000	257150	TL 18000	57150	
CENTROID	GB	518801	256584	TL 18801	56584	
AREA	0.945					
ALTBAR	34					
ASPBAR	288					
ASPVAR	0.79					
BFIHOST	0.342					
DPLBAR	1.18					
DPSBAR	29.5					
FARL	1					
FPEXT	0.0758					
FPDBAR	0.409					
FPLOC	0.501					
LDP	2.11					
PROPWET	0.24					
RMED-1H	10.9					
RMED-1D	27.7					
RMED-2D	35.4					
SAAR	553					
SAAR4170	540					
SPRHOST	50.6					
URBCONC1990	0.556					
URBEXT1990	0.0172					
URBLOC1990	0.313					
URBCONC2000	-999999					
URBEXT2000	0					
URBLOC2000	-999999					
C	-0.026					
D1	0.3113					
D2	0.23721					
D3	0.26141					
E	0.31632					
F	2.45804					
C(1 km)	-0.026					
D1(1 km)	0.309					
D2(1 km)	0.238					
D3(1 km)	0.261					
E(1 km)	0.316					
F(1 km)	2.459					

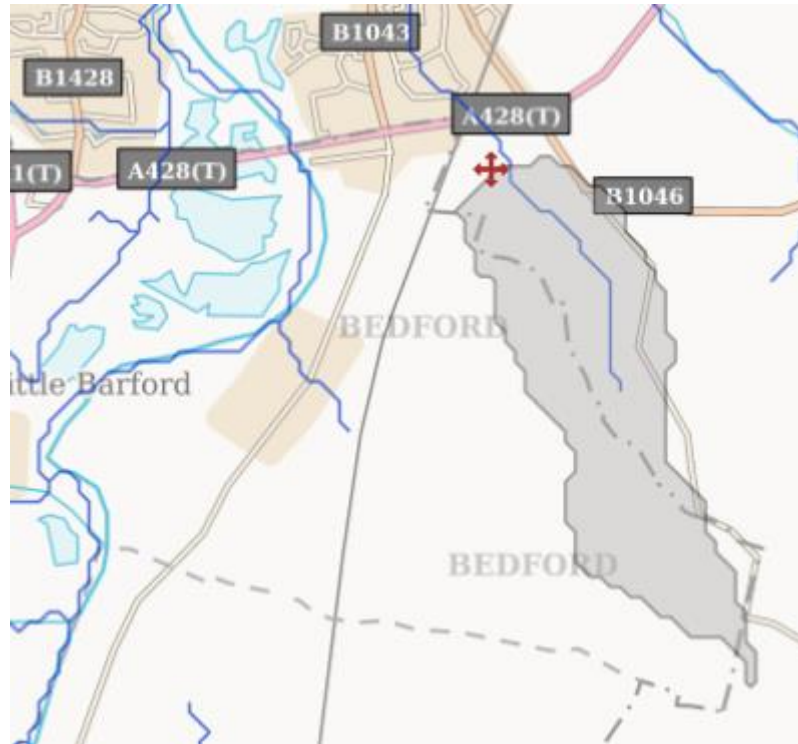
Cambridge : 01223 314794 ☐
Colchester : 01206 228800 ☐
London : 020 7448 9910 ☐
Norwich : 01603 230240 ☐

CONTRACT: Alington Estate
ELEMENT: FEH Data - North East of Site

REF: 60830
SHEET: 1
DATE: 30.7.21

FEH Data

Screenshot of FEH data set taken from <https://fehweb.ceh.ac.uk/>



Cambridge : 01223 314794 ☐
 Colchester : 01206 228800 ☐
 London : 020 7448 9910 ☐
 Norwich : 01603 230240 ☐

CONTRACT: Alington Estate	REF: 60830
ELEMENT: FEH Data - North East of Site	SHEET: 2
	DATE: 30.7.21

FEH Data

VERSION	"FEH CD-ROM"	Version	2.0.1	exported at	11:11:57	GMT	Fri30-Jul-21
CATCHMENT	GB	519100	258000	TL 19100 58000			
CENTROID	GB	519562	256919	TL 19562 56919			
AREA	1.6025						
ALTBAR	43						
ASPBAR	350						
ASPVAR	0.67						
BFIHOST	0.339						
DPLBAR	1.38						
DPSBAR	21.3						
FARL	1						
FPEXT	0.0515						
FPDBAR	0.324						
FPLOC	0.901						
LDP	3.08						
PROPWET	0.24						
RMED-1H	10.9						
RMED-1D	27.5						
RMED-2D	35.5						
SAAR	553						
SAAR4170	539						
SPRHOST	47.62						
URBCONC1990	-999999						
URBEXT1990	0						
URBLOC1990	-999999						
URBCONC2000	-999999						
URBEXT2000	0						
URBLOC2000	-999999						
C	-0.026						
D1	0.31112						
D2	0.24091						
D3	0.26351						
E	0.31775						
F	2.45191						
C(1 km)	-0.026						
D1(1 km)	0.31						
D2(1 km)	0.242						
D3(1 km)	0.257						
E(1 km)	0.318						
F(1 km)	2.451						

APPENDIX H

Calculated by:

Site name:

Site location:

Site Details

Latitude:

Longitude:

Reference:

Date:

This is an estimation of the greenfield runoff rates that are used to meet normal best practice criteria in line with Environment Agency guidance "Rainfall runoff management for developments", SC030219 (2013), the SuDS Manual C753 (Ciria, 2015) and the non-statutory standards for SuDS (Defra, 2015). This information on greenfield runoff rates may be the basis for setting consents for the drainage of surface water runoff from sites.

Runoff estimation approach

Site characteristics

Total site area (ha):

Methodology

Q_{MED} estimation method:

BFI and SPR method:

HOST class:

BFI / BFIHOST:

Q_{MED} (l/s):

Q_{BAR} / Q_{MED} factor:

Notes
(1) Is Q_{BAR} < 2.0 l/s/ha?

When Q_{BAR} is < 2.0 l/s/ha then limiting discharge rates are set at 2.0 l/s/ha.

(2) Are flow rates < 5.0 l/s?

Where flow rates are less than 5.0 l/s consent for discharge is usually set at 5.0 l/s if blockage from vegetation and other materials is possible. Lower consent flow rates may be set where the blockage risk is addressed by using appropriate drainage elements.

Hydrological characteristics

	Default	Edited
SAAR (mm):	547	547
Hydrological region:	5	5
Growth curve factor 1 year:	0.87	0.87
Growth curve factor 30 years:	2.45	2.45
Growth curve factor 100 years:	3.56	3.56
Growth curve factor 200 years:	4.21	4.21

(3) Is SPR/SPRHOST ≤ 0.3?

Where groundwater levels are low enough the use of soakaways to avoid discharge offsite would normally be preferred for disposal of surface water runoff.

Greenfield runoff rates

	Default	Edited
Q _{BAR} (l/s):	46.47	46.47
1 in 1 year (l/s):	40.43	40.43
1 in 30 years (l/s):	113.85	113.85
1 in 100 year (l/s):	165.43	165.43
1 in 200 years (l/s):	195.63	195.63

This report was produced using the greenfield runoff tool developed by HR Wallingford and available at www.uksuds.com. The use of this tool is subject to the UK SuDS terms and conditions and licence agreement, which can both be found at www.uksuds.com/terms-and-conditions.htm. The outputs from this tool are estimates of greenfield runoff rates. The use of these results is the responsibility of the users of this tool. No liability will be accepted by HR Wallingford, the Environment Agency, CEH, Hydrosolutions or any other organisation for the use of this data in the design or operational characteristics of any drainage scheme.

Calculated by:

Site name:

Site location:

Site Details

Latitude:

Longitude:

Reference:

Date:

This is an estimation of the greenfield runoff rates that are used to meet normal best practice criteria in line with Environment Agency guidance "Rainfall runoff management for developments", SC030219 (2013), the SuDS Manual C753 (Ciria, 2015) and the non-statutory standards for SuDS (Defra, 2015). This information on greenfield runoff rates may be the basis for setting consents for the drainage of surface water runoff from sites.

Runoff estimation approach

FEH Statistical

Site characteristics

Total site area (ha):

Methodology

Q_{MED} estimation method:

BFI and SPR method:

HOST class:

BFI / BFIHOST:

Q_{MED} (l/s):

Q_{BAR} / Q_{MED} factor:

Notes

(1) Is Q_{BAR} < 2.0 l/s/ha?

When Q_{BAR} is < 2.0 l/s/ha then limiting discharge rates are set at 2.0 l/s/ha.

(2) Are flow rates < 5.0 l/s?

Where flow rates are less than 5.0 l/s consent for discharge is usually set at 5.0 l/s if blockage from vegetation and other materials is possible. Lower consent flow rates may be set where the blockage risk is addressed by using appropriate drainage elements.

Hydrological characteristics

	Default	Edited
SAAR (mm):	549	549
Hydrological region:	5	5
Growth curve factor 1 year:	0.87	0.87
Growth curve factor 30 years:	2.45	2.45
Growth curve factor 100 years:	3.56	3.56
Growth curve factor 200 years:	4.21	4.21

(3) Is SPR/SPRHOST ≤ 0.3?

Where groundwater levels are low enough the use of soakaways to avoid discharge offsite would normally be preferred for disposal of surface water runoff.

Greenfield runoff rates

	Default	Edited
Q _{BAR} (l/s):	42.53	42.53
1 in 1 year (l/s):	37	37
1 in 30 years (l/s):	104.2	104.2
1 in 100 year (l/s):	151.4	151.4
1 in 200 years (l/s):	179.05	179.05

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Calculated by:

Site name:

Site location:

Site Details

Latitude:

Longitude:

Reference:

Date:

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Runoff estimation approach

Site characteristics

Total site area (ha):

Methodology

Q_{MED} estimation method:

BFI and SPR method:

HOST class:

BFI / BFIHOST:

Q_{MED} (l/s):

Q_{BAR} / Q_{MED} factor:

Notes
(1) Is Q_{BAR} < 2.0 l/s/ha?

When Q_{BAR} is < 2.0 l/s/ha then limiting discharge rates are set at 2.0 l/s/ha.

(2) Are flow rates < 5.0 l/s?

Where flow rates are less than 5.0 l/s consent for discharge is usually set at 5.0 l/s if blockage from vegetation and other materials is possible. Lower consent flow rates may be set where the blockage risk is addressed by using appropriate drainage elements.

Hydrological characteristics

	Default	Edited
SAAR (mm):	547	547
Hydrological region:	5	5
Growth curve factor 1 year:	0.87	0.87
Growth curve factor 30 years:	2.45	2.45
Growth curve factor 100 years:	3.56	3.56
Growth curve factor 200 years:	4.21	4.21

(3) Is SPR/SPRHOST ≤ 0.3?

Where groundwater levels are low enough the use of soakaways to avoid discharge offsite would normally be preferred for disposal of surface water runoff.

Greenfield runoff rates

	Default	Edited
Q _{BAR} (l/s):	25.55	25.55
1 in 1 year (l/s):	22.23	22.23
1 in 30 years (l/s):	62.6	62.6
1 in 100 year (l/s):	90.96	90.96
1 in 200 years (l/s):	107.56	107.56

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Calculated by:

Site name:

Site location:

Site Details

Latitude:

Longitude:

Reference:

Date:

This is an estimation of the greenfield runoff rates that are used to meet normal best practice criteria in line with Environment Agency guidance "Rainfall runoff management for developments", SC030219 (2013), the SuDS Manual C753 (Ciria, 2015) and the non-statutory standards for SuDS (Defra, 2015). This information on greenfield runoff rates may be the basis for setting consents for the drainage of surface water runoff from sites.

Runoff estimation approach

Site characteristics

Total site area (ha):

Methodology

Q_{MED} estimation method:

BFI and SPR method:

HOST class:

BFI / BFIHOST:

Q_{MED} (l/s):

Q_{BAR} / Q_{MED} factor:

Notes
(1) Is Q_{BAR} < 2.0 l/s/ha?

When Q_{BAR} is < 2.0 l/s/ha then limiting discharge rates are set at 2.0 l/s/ha.

(2) Are flow rates < 5.0 l/s?

Where flow rates are less than 5.0 l/s consent for discharge is usually set at 5.0 l/s if blockage from vegetation and other materials is possible. Lower consent flow rates may be set where the blockage risk is addressed by using appropriate drainage elements.

(3) Is SPR/SPRHOST ≤ 0.3?

Where groundwater levels are low enough the use of soakaways to avoid discharge offsite would normally be preferred for disposal of surface water runoff.

Hydrological characteristics

	Default	Edited
SAAR (mm):	547	547
Hydrological region:	5	5
Growth curve factor 1 year:	0.87	0.87
Growth curve factor 30 years:	2.45	2.45
Growth curve factor 100 years:	3.56	3.56
Growth curve factor 200 years:	4.21	4.21

Greenfield runoff rates

	Default	Edited
Q _{BAR} (l/s):	83.1	83.1
1 in 1 year (l/s):	72.3	72.3
1 in 30 years (l/s):	203.59	203.59
1 in 100 year (l/s):	295.83	295.83
1 in 200 years (l/s):	349.85	349.85

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Calculated by:

Site name:

Site location:

Site Details

Latitude:

Longitude:

Reference:

Date:

This is an estimation of the greenfield runoff rates that are used to meet normal best practice criteria in line with Environment Agency guidance "Rainfall runoff management for developments", SC030219 (2013), the SuDS Manual C753 (Ciria, 2015) and the non-statutory standards for SuDS (Defra, 2015). This information on greenfield runoff rates may be the basis for setting consents for the drainage of surface water runoff from sites.

Runoff estimation approach

Site characteristics

Total site area (ha):

Methodology

Q_{MED} estimation method:

BFI and SPR method:

HOST class:

BFI / BFIHOST:

Q_{MED} (l/s):

Q_{BAR} / Q_{MED} factor:

Notes
(1) Is Q_{BAR} < 2.0 l/s/ha?

When Q_{BAR} is < 2.0 l/s/ha then limiting discharge rates are set at 2.0 l/s/ha.

(2) Are flow rates < 5.0 l/s?

Where flow rates are less than 5.0 l/s consent for discharge is usually set at 5.0 l/s if blockage from vegetation and other materials is possible. Lower consent flow rates may be set where the blockage risk is addressed by using appropriate drainage elements.

(3) Is SPR/SPRHOST ≤ 0.3?

Where groundwater levels are low enough the use of soakaways to avoid discharge offsite would normally be preferred for disposal of surface water runoff.

Hydrological characteristics

	Default	Edited
SAAR (mm):	546	546
Hydrological region:	5	5
Growth curve factor 1 year:	0.87	0.87
Growth curve factor 30 years:	2.45	2.45
Growth curve factor 100 years:	3.56	3.56
Growth curve factor 200 years:	4.21	4.21

Greenfield runoff rates

	Default	Edited
Q _{BAR} (l/s):	16.99	16.99
1 in 1 year (l/s):	14.78	14.78
1 in 30 years (l/s):	41.63	41.63
1 in 100 year (l/s):	60.5	60.5
1 in 200 years (l/s):	71.54	71.54

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APPENDIX I

Cambridge : 01223 314794 ☐
 Colchester : 01206 228800 ☐
 London : 020 7448 9910 ☐
 Norwich : 01603 230240 ☐

CONTRACT: Alington Estate	REF: 60830
ELEMENT: Site 1,2,3,5,6A & 1E – Quick Storage Calcs	SHEET: 1
	DATE: 27.7.21

Site 1, 2, 3

Quick Storage Estimate

Micro Drainage

Variables

FEH Rainfall (dropdown) Cv (Summer) 0.750

Return Period (years) 100 Cv (Winter) 0.840

Site Location (text field) Impemeable Area (ha) 6.580

Maximum Allowable Discharge (l/s) 13.4

C (1km) -0.026 D3 (1km) 0.261

D1 (1km) 0.309 E (1km) 0.316 Infiltration Coefficient (m/hr) 0.00000

D2 (1km) 0.238 F (1km) 2.459 Safety Factor 5.0

Climate Change (%) 40

Analyse OK Cancel Help

Enter Site Location

Quick Storage Estimate

Micro Drainage

Results

Global Variables require approximate storage of between 5637 m³ and 6692 m³.

These values are estimates only and should not be used for design purposes.

Analyse OK Cancel Help

Enter Site Location

Cambridge : 01223 314794 ☐
 Colchester : 01206 228800 ☐
 London : 020 7448 9910 ☐
 Norwich : 01603 230240 ☐

CONTRACT: Alington Estate	REF: 60830
ELEMENT: Site 1,2,3,5,6A & 1E – Quick Storage Calcs	SHEET: 2
	DATE: 27.7.21

Site 5

Quick Storage Estimate

Micro Drainage

Variables

FEH Rainfall (dropdown) Cv (Summer) 0.750
 Return Period (years) 100 Cv (Winter) 0.840
 Site Location (input) ... Impemeable Area (ha) 0.800
 Maximum Allowable Discharge (l/s) 1.7

C (1km) -0.026 D3 (1km) 0.261
 D1 (1km) 0.309 E (1km) 0.316 Infiltration Coefficient (m/hr) 0.00000
 D2 (1km) 0.238 F (1km) 2.459 Safety Factor 5.0
 Climate Change (%) 40

Analyse OK Cancel Help

Enter Site Location

Quick Storage Estimate

Micro Drainage

Results

Global Variables require approximate storage of between 681 m³ and 808 m³.
 These values are estimates only and should not be used for design purposes.

Analyse OK Cancel Help

Enter Site Location

Cambridge : 01223 314794 ☐
 Colchester : 01206 228800 ☐
 London : 020 7448 9910 ☐
 Norwich : 01603 230240 ☐

CONTRACT: Alington Estate	REF: 60830
ELEMENT: Site 1,2,3,5,6A & 1E – Quick Storage Calcs	SHEET: 3
	DATE: 27.7.21

Site 6

Quick Storage Estimate

Micro Drainage

Variables

FEH Rainfall

Return Period (years) 100

Site Location

Cv (Summer) 0.750

Cv (Winter) 0.840

Impemeable Area (ha) 2.450

Maximum Allowable Discharge (l/s) 5.0

C (1km) -0.026 D3 (1km) 0.261

D1 (1km) 0.309 E (1km) 0.316

D2 (1km) 0.238 F (1km) 2.459

Infiltration Coefficient (m/hr) 0.00000

Safety Factor 5.0

Climate Change (%) 40

Analyse OK Cancel Help

Enter Site Location

Quick Storage Estimate

Micro Drainage

Results

Global Variables require approximate storage of between 2098 m³ and 2491 m³.

These values are estimates only and should not be used for design purposes.

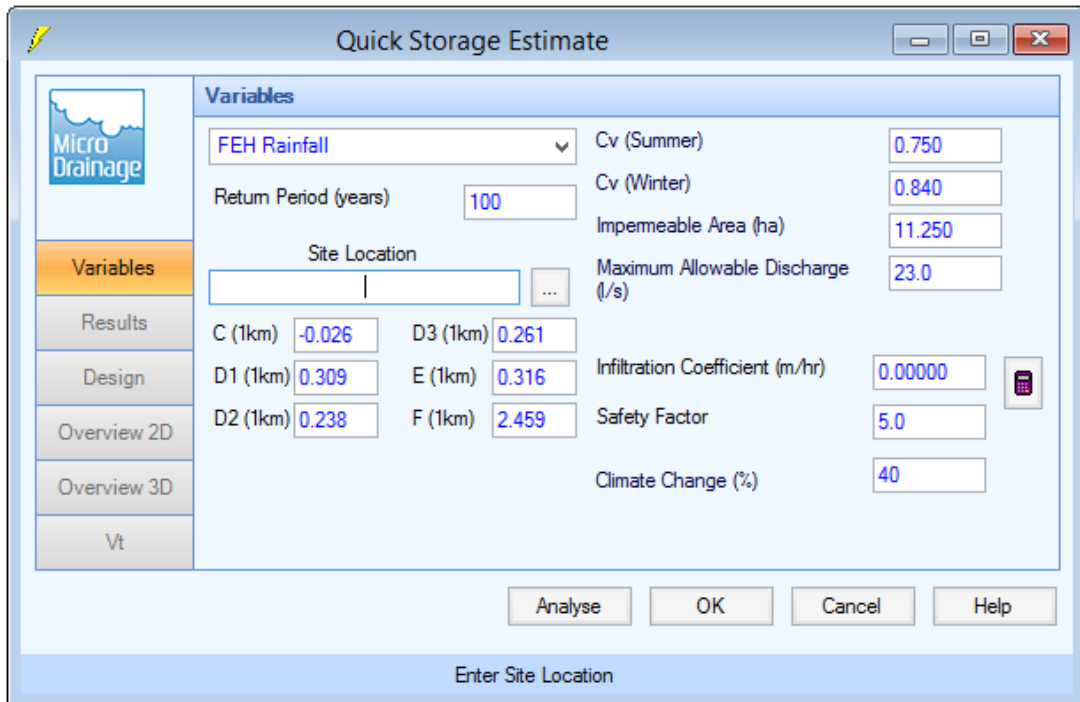
Analyse OK Cancel Help

Enter Site Location

Cambridge : 01223 314794
 Colchester : 01206 228800
 London : 020 7448 9910
 Norwich : 01603 230240

CONTRACT: Alington Estate	REF: 60830
ELEMENT: Site 1,2,3,5,6A & 1E – Quick Storage Calcs	SHEET: 4
	DATE: 27.7.21

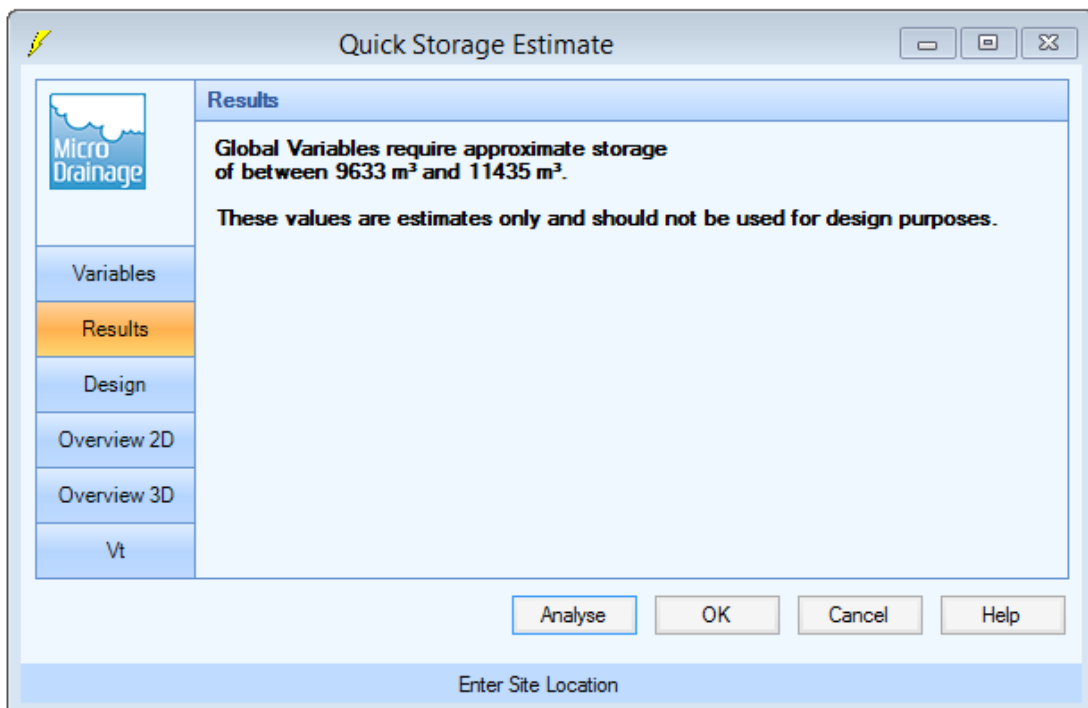
Site 1E



The screenshot shows the 'Quick Storage Estimate' window with the 'Variables' tab selected. The interface includes a sidebar with options: Variables, Results, Design, Overview 2D, Overview 3D, and Vt. The main area contains the following input fields and values:

- FEH Rainfall: dropdown menu
- Return Period (years): 100
- Site Location: empty text box with a dropdown arrow
- Cv (Summer): 0.750
- Cv (Winter): 0.840
- Impemeable Area (ha): 11.250
- Maximum Allowable Discharge (l/s): 23.0
- C (1km): -0.026
- D3 (1km): 0.261
- D1 (1km): 0.309
- E (1km): 0.316
- D2 (1km): 0.238
- F (1km): 2.459
- Infiltration Coefficient (m/hr): 0.00000
- Safety Factor: 5.0
- Climate Change (%): 40

Buttons at the bottom include 'Analyse', 'OK', 'Cancel', and 'Help'. A status bar at the bottom reads 'Enter Site Location'.



The screenshot shows the 'Quick Storage Estimate' window with the 'Results' tab selected. The sidebar now highlights 'Results'. The main area displays the following text:

Global Variables require approximate storage of between 9633 m³ and 11435 m³.

These values are estimates only and should not be used for design purposes.

Buttons at the bottom include 'Analyse', 'OK', 'Cancel', and 'Help'. A status bar at the bottom reads 'Enter Site Location'.

Cambridge : 01223 314794 ☐
 Colchester : 01206 228800 ☐
 London : 020 7448 9910 ☐
 Norwich : 01603 230240 ☐

CONTRACT: Alington Estate	REF: 60830
ELEMENT: Site 6B, 7,8 & 9 – Quick Storage Calcs	SHEET: 1
	DATE: 28.7.21

Site 6B

Cambridge : 01223 314794
 Colchester : 01206 228800
 London : 020 7448 9910
 Norwich : 01603 230240

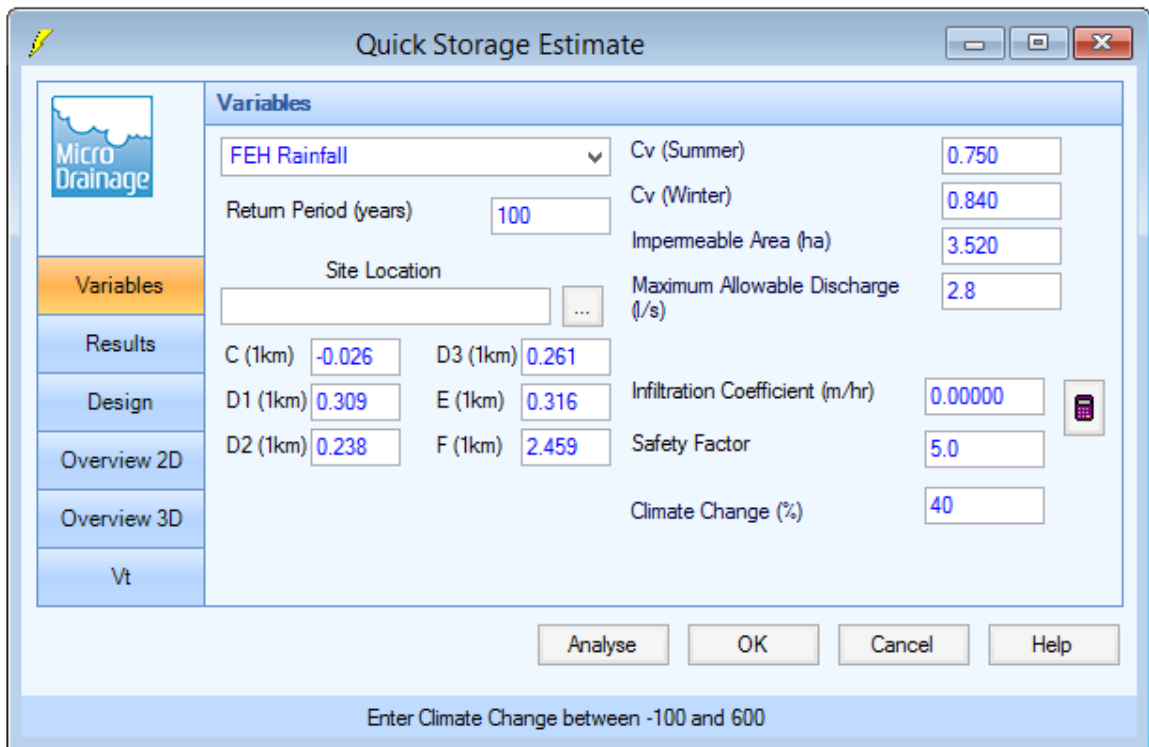
CONTRACT: Alington Estate	REF: 60830
ELEMENT: Site 6B, 7,8 & 9 – Quick Storage Calcs	SHEET: 2
	DATE: 28.7.21

Site 7

Cambridge : 01223 314794 ☐
 Colchester : 01206 228800 ☐
 London : 020 7448 9910 ☐
 Norwich : 01603 230240 ☐

CONTRACT: Alington Estate	REF: 60830
ELEMENT: Site 6B, 7,8 & 9 – Quick Storage Calcs	SHEET: 3
	DATE: 28.7.21

Site 8A



Quick Storage Estimate

Variables

FEH Rainfall (dropdown) Cv (Summer) 0.750

Return Period (years) 100 Cv (Winter) 0.840

Site Location (dropdown) Impemeable Area (ha) 3.520

Maximum Allowable Discharge (l/s) 2.8

C (1km) -0.026 D3 (1km) 0.261

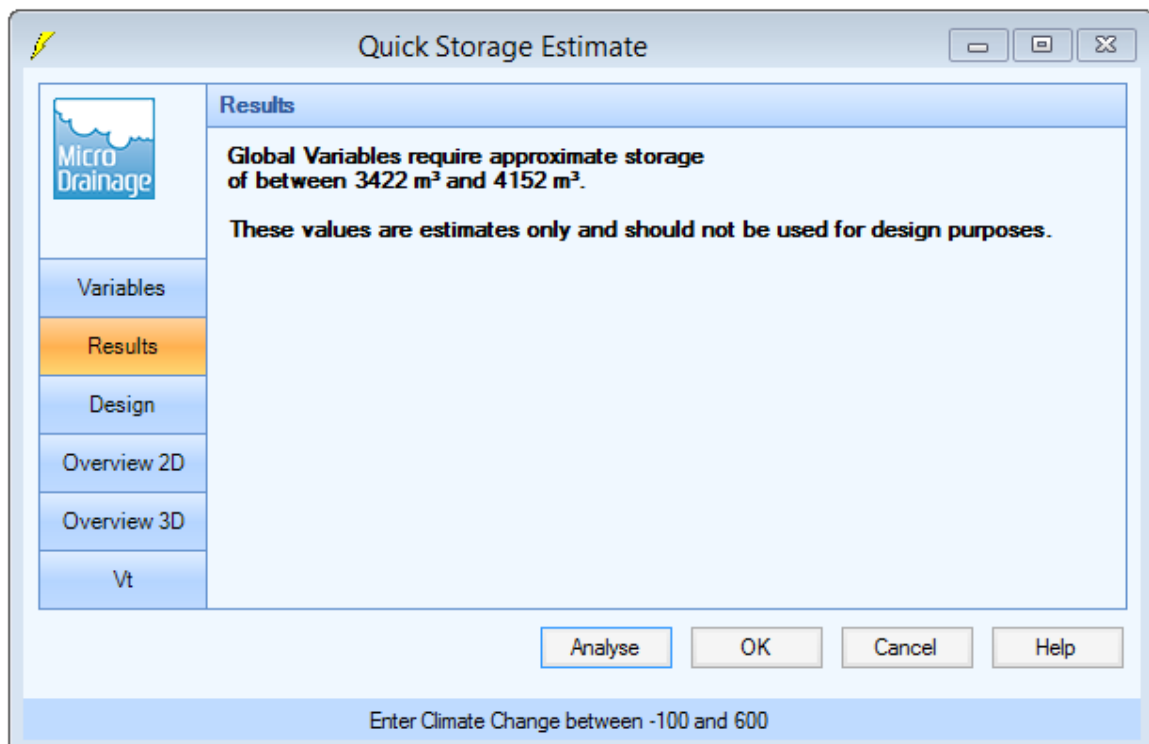
D1 (1km) 0.309 E (1km) 0.316 Infiltration Coefficient (m/hr) 0.00000

D2 (1km) 0.238 F (1km) 2.459 Safety Factor 5.0

Climate Change (%) 40

Buttons: Analyse, OK, Cancel, Help

Enter Climate Change between -100 and 600



Quick Storage Estimate

Results

Global Variables require approximate storage of between 3422 m³ and 4152 m³.

These values are estimates only and should not be used for design purposes.

Buttons: Analyse, OK, Cancel, Help

Enter Climate Change between -100 and 600

Cambridge : 01223 314794 ☐
 Colchester : 01206 228800 ☐
 London : 020 7448 9910 ☐
 Norwich : 01603 230240 ☐

CONTRACT: Alington Estate	REF: 60830
ELEMENT: Site 6B, 7,8 & 9 – Quick Storage Calcs	SHEET: 4
	DATE: 28.7.21

Site 8B

Quick Storage Estimate

Micro Drainage

Variables

FEH Rainfall Cv (Summer) 0.750

Return Period (years) 100 Cv (Winter) 0.840

Site Location Impemeable Area (ha) 5.330

Maximum Allowable Discharge (l/s) 4.3

C (1km) -0.026 D3 (1km) 0.261

D1 (1km) 0.309 E (1km) 0.316 Infiltration Coefficient (m/hr) 0.00000

D2 (1km) 0.238 F (1km) 2.459 Safety Factor 5.0

Climate Change (%) 40

Analyse OK Cancel Help

Enter Site Location

Quick Storage Estimate

Micro Drainage

Results

Global Variables require approximate storage of between 5171 m³ and 6276 m³.

These values are estimates only and should not be used for design purposes.

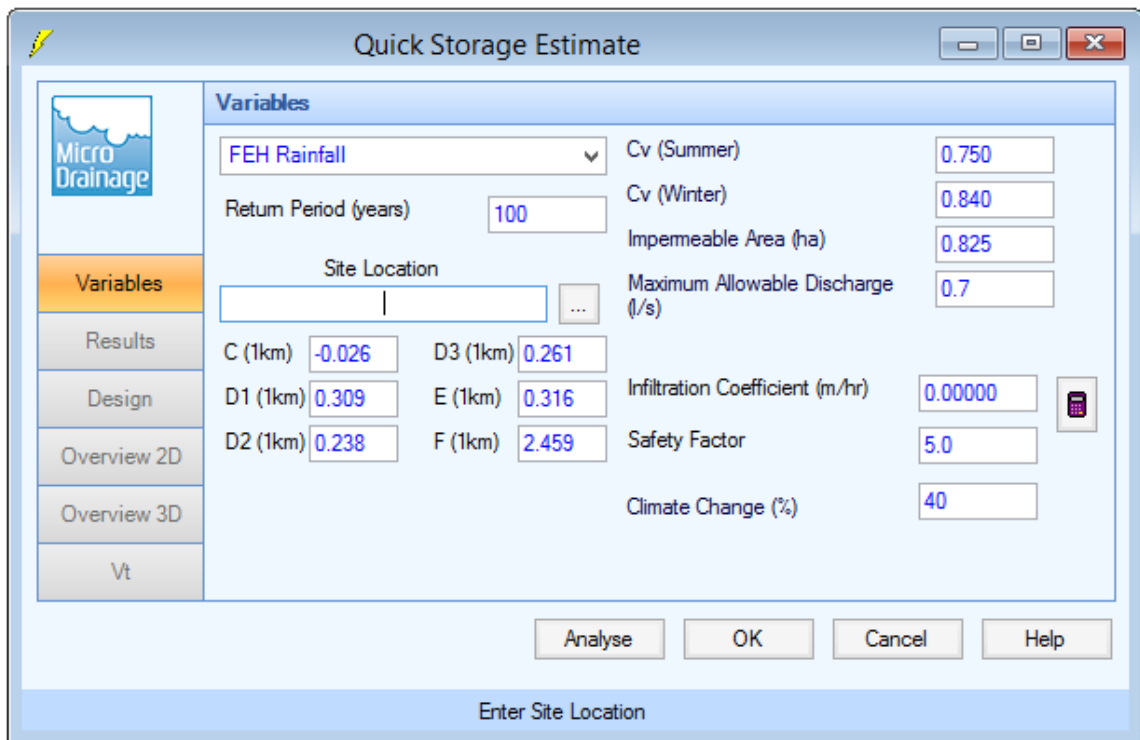
Analyse OK Cancel Help

Enter Site Location

Cambridge : 01223 314794
 Colchester : 01206 228800
 London : 020 7448 9910
 Norwich : 01603 230240

CONTRACT: Alington Estate	REF: 60830
ELEMENT: Site 6B, 7,8 & 9 – Quick Storage Calcs	SHEET: 5
	DATE: 28.7.21

Site 9A



Quick Storage Estimate

Micro Drainage

Variables

FEH Rainfall Cv (Summer)

Return Period (years) Cv (Winter)

Site Location ... Impermable Area (ha)

C (1km) D3 (1km) Maximum Allowable Discharge (l/s)

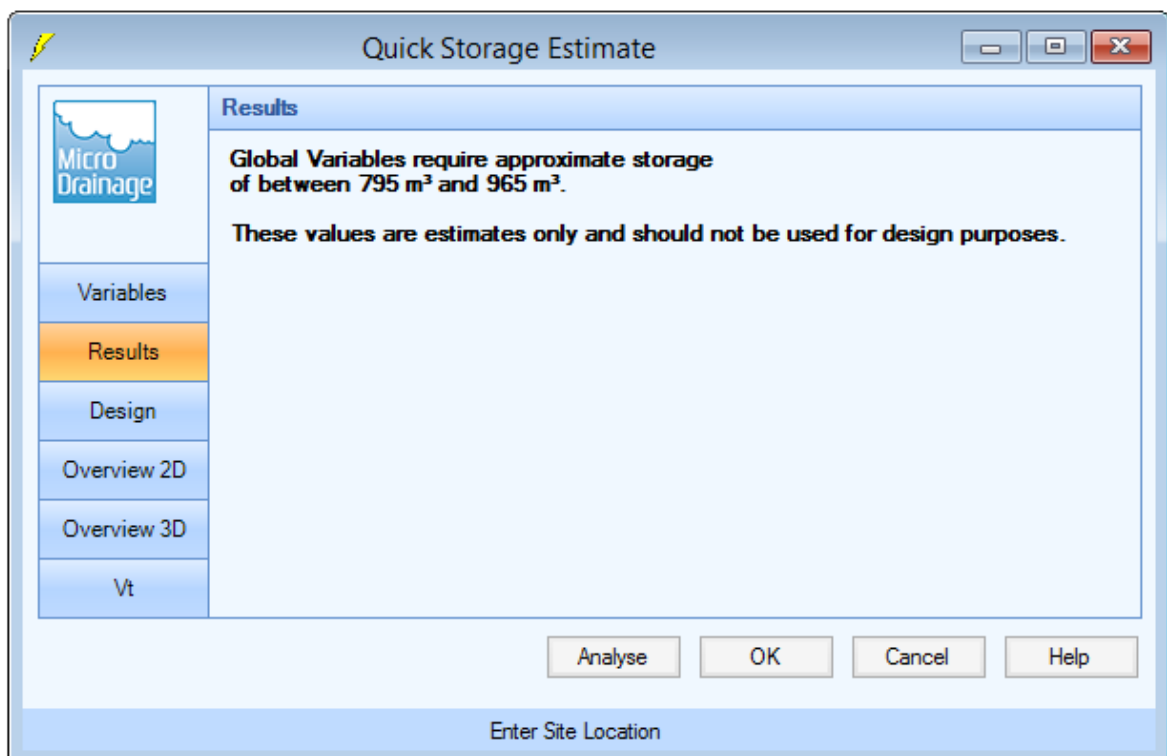
D1 (1km) E (1km) Infiltration Coefficient (m/hr)

D2 (1km) F (1km) Safety Factor

Climate Change (%)

Analyse OK Cancel Help

Enter Site Location



Quick Storage Estimate

Micro Drainage

Results

Global Variables require approximate storage of between 795 m³ and 965 m³.

These values are estimates only and should not be used for design purposes.

Variables

Results

Design

Overview 2D

Overview 3D

Vt

Analyse OK Cancel Help

Enter Site Location

Cambridge : 01223 314794 ☐
 Colchester : 01206 228800 ☐
 London : 020 7448 9910 ☐
 Norwich : 01603 230240 ☐

CONTRACT: Alington Estate	REF: 60830
ELEMENT: Site 6B, 7,8 & 9 – Quick Storage Calcs	SHEET: 6
	DATE: 28.7.21

Site 9B

Quick Storage Estimate

Micro Drainage

Variables

FEH Rainfall Cv (Summer) 0.750

Return Period (years) 100 Cv (Winter) 0.840

Site Location Impemeable Area (ha) 1.345

Maximum Allowable Discharge (l/s) 1.1

C (1km) -0.026 D3 (1km) 0.261

D1 (1km) 0.309 E (1km) 0.316 Infiltration Coefficient (m/hr) 0.00000

D2 (1km) 0.238 F (1km) 2.459 Safety Factor 5.0

Climate Change (%) 40

Analyse OK Cancel Help

Enter Maximum Allowable Discharge between 0.0 and 999999.0

Quick Storage Estimate

Micro Drainage

Results

Global Variables require approximate storage of between 1302 m³ and 1581 m³.

These values are estimates only and should not be used for design purposes.

Analyse OK Cancel Help

Enter Maximum Allowable Discharge between 0.0 and 999999.0

Cambridge : 01223 314794 ☐
 Colchester : 01206 228800 ☐
 London : 020 7448 9910 ☐
 Norwich : 01603 230240 ☐

CONTRACT: Alington Estate	REF: 60830
ELEMENT: Site 6B, 7,8 & 9 – Quick Storage Calcs	SHEET: 7
	DATE: 28.7.21

Site 9C

Quick Storage Estimate

Micro Drainage

Variables

FEH Rainfall

Return Period (years) 100

Site Location

Cv (Summer) 0.750

Cv (Winter) 0.840

Impemeable Area (ha) 0.315

Maximum Allowable Discharge (l/s) 0.3

C (1km) -0.026 D3 (1km) 0.261

D1 (1km) 0.309 E (1km) 0.316

D2 (1km) 0.238 F (1km) 2.459

Infiltration Coefficient (m/hr) 0.00000

Safety Factor 5.0

Climate Change (%) 40

Analyse OK Cancel Help

Enter Site Location

Quick Storage Estimate

Micro Drainage

Results

Global Variables require approximate storage of between 299 m³ and 363 m³.

These values are estimates only and should not be used for design purposes.

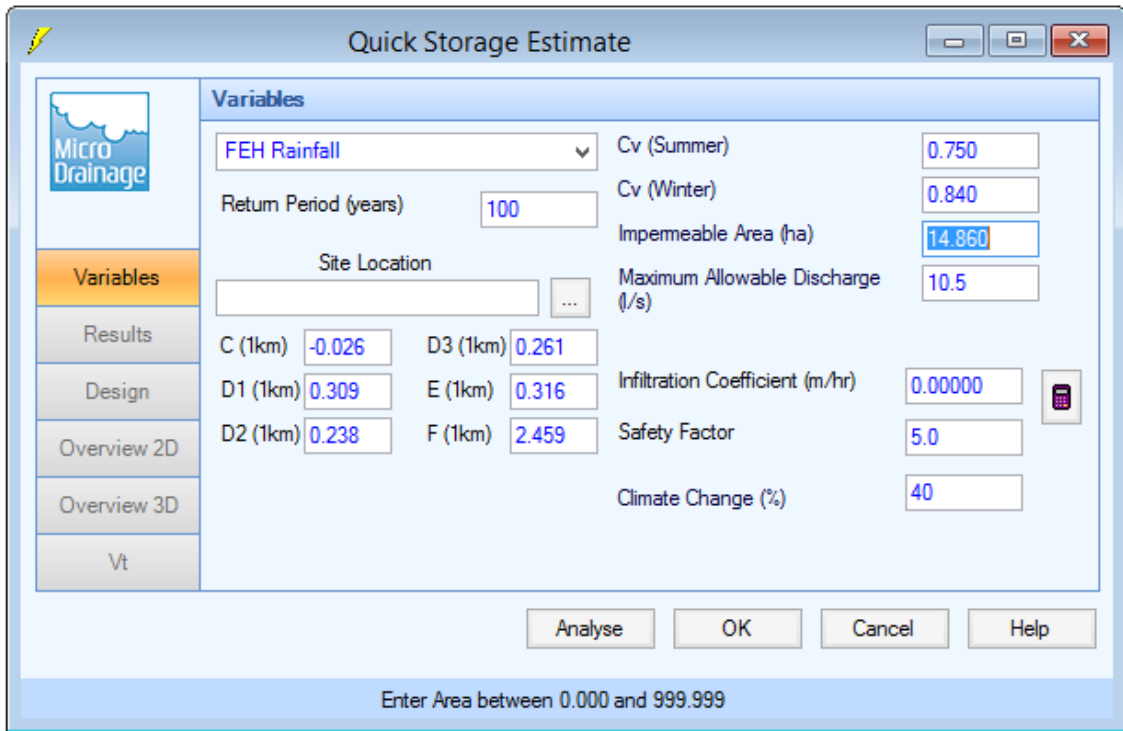
Analyse OK Cancel Help

Enter Site Location

Cambridge : 01223 314794
 Colchester : 01206 228800
 London : 020 7448 9910
 Norwich : 01603 230240

CONTRACT: Alington Estate	REF: 60830
ELEMENT: Site 10 to 18 – Quick Storage Calcs	SHEET: 1
	DATE: 28.7.21

Site 10A



Quick Storage Estimate

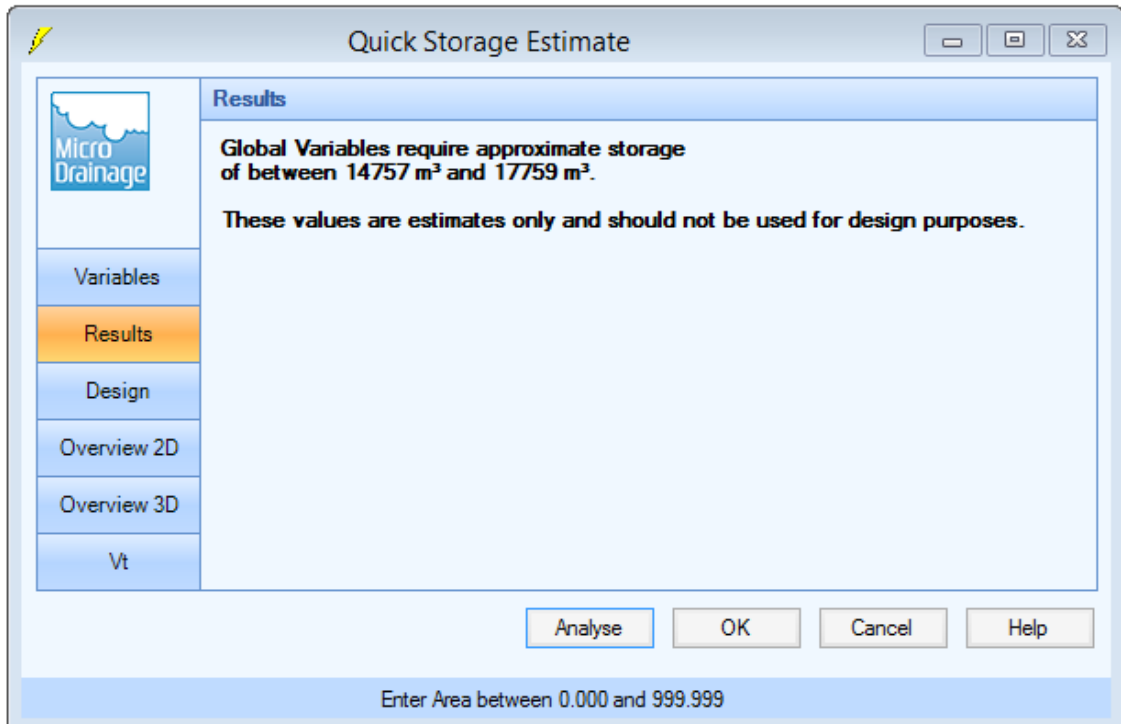
Micro Drainage

Variables

FEH Rainfall Cv (Summer)
 Return Period (years) Cv (Winter)
 Site Location ... Impemeable Area (ha)
 C (1km) D3 (1km) Maximum Allowable Discharge (l/s)
 D1 (1km) E (1km) Infiltration Coefficient (m/hr)
 D2 (1km) F (1km) Safety Factor
 Climate Change (%)

Analyse OK Cancel Help

Enter Area between 0.000 and 999.999



Quick Storage Estimate

Micro Drainage

Results

Global Variables require approximate storage of between 14757 m³ and 17759 m³.

These values are estimates only and should not be used for design purposes.

Analyse OK Cancel Help

Enter Area between 0.000 and 999.999

Cambridge : 01223 314794 ☐
 Colchester : 01206 228800 ☐
 London : 020 7448 9910 ☐
 Norwich : 01603 230240 ☐

CONTRACT: Alington Estate	REF: 60830
ELEMENT: Site 10 to 18 – Quick Storage Calcs	SHEET: 2
	DATE: 28.7.21

Site 10B

Quick Storage Estimate

Micro Drainage

Variables

FEH Rainfall (dropdown) Cv (Summer) 0.750

Return Period (years) 100 Cv (Winter) 0.840

Site Location (input) Impermable Area (ha) 7.340

Maximum Allowable Discharge (l/s) 5.9

C (1km) -0.026 D3 (1km) 0.257

D1 (1km) 0.310 E (1km) 0.318 Infiltration Coefficient (m/hr) 0.00000

D2 (1km) 0.242 F (1km) 2.451 Safety Factor 5.0

Climate Change (%) 40

Analyse OK Cancel Help

Enter Site Location

Quick Storage Estimate

Micro Drainage

Results

Global Variables require approximate storage of between 7200 m³ and 8688 m³.

These values are estimates only and should not be used for design purposes.

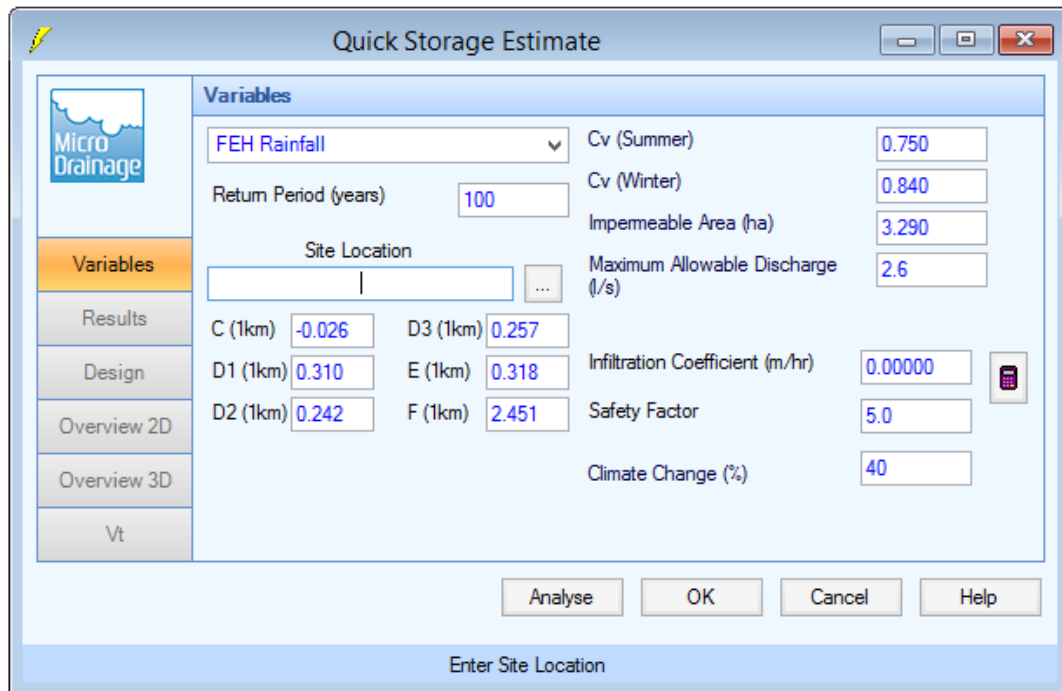
Analyse OK Cancel Help

Enter Site Location

Cambridge : 01223 314794 ☐
 Colchester : 01206 228800 ☐
 London : 020 7448 9910 ☐
 Norwich : 01603 230240 ☐

CONTRACT: Alington Estate	REF: 60830
ELEMENT: Site 10 to 18 – Quick Storage Calcs	SHEET: 3
	DATE: 28.7.21

Site 11



Quick Storage Estimate

Micro Drainage

Variables

FEH Rainfall (dropdown) Cv (Summer) 0.750

Return Period (years) 100 Cv (Winter) 0.840

Site Location (input) Impemeable Area (ha) 3.290

Maximum Allowable Discharge (l/s) 2.6

C (1km) -0.026 D3 (1km) 0.257

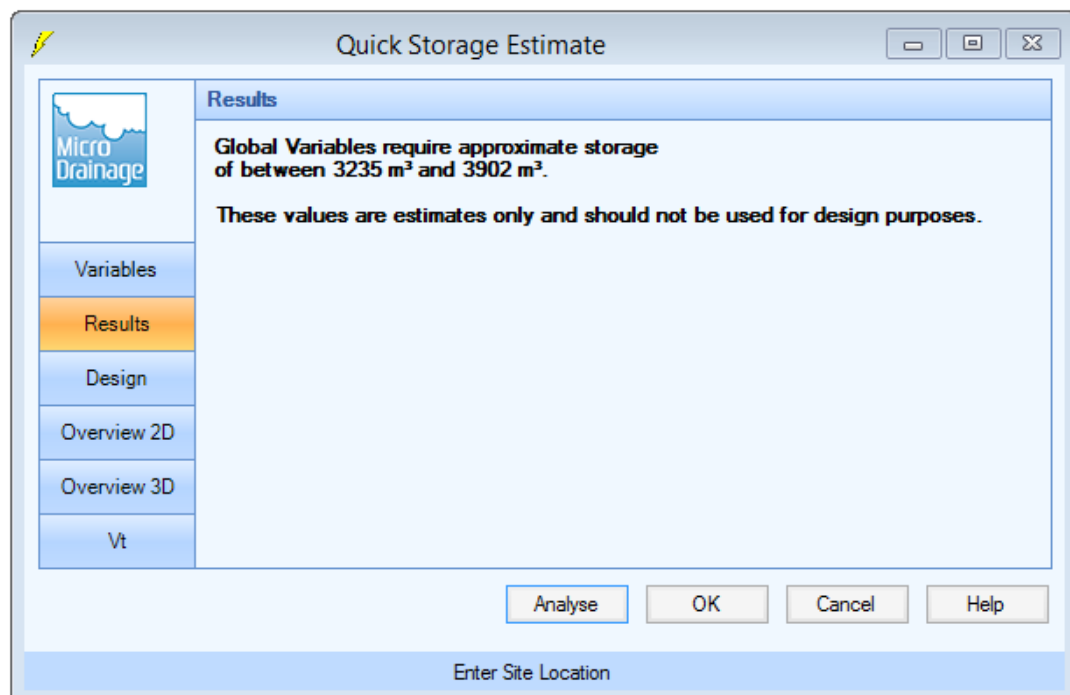
D1 (1km) 0.310 E (1km) 0.318 Infiltration Coefficient (m/hr) 0.00000

D2 (1km) 0.242 F (1km) 2.451 Safety Factor 5.0

Climate Change (%) 40

Analyse OK Cancel Help

Enter Site Location



Quick Storage Estimate

Micro Drainage

Results

Global Variables require approximate storage of between 3235 m³ and 3902 m³.

These values are estimates only and should not be used for design purposes.

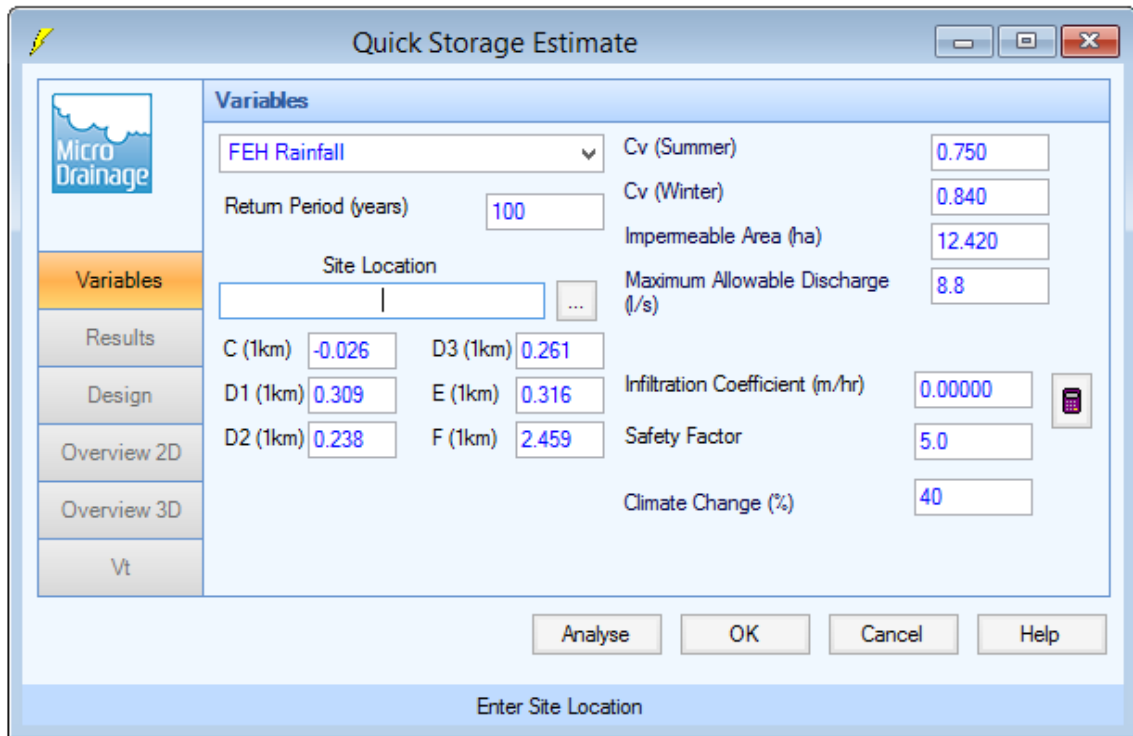
Analyse OK Cancel Help

Enter Site Location

Cambridge : 01223 314794
 Colchester : 01206 228800
 London : 020 7448 9910
 Norwich : 01603 230240

CONTRACT: Alington Estate	REF: 60830
ELEMENT: Site 10 to 18 – Quick Storage Calcs	SHEET: 4
	DATE: 28.7.21

Site 12



Quick Storage Estimate

Micro Drainage

Variables

FEH Rainfall Cv (Summer)

Return Period (years) Cv (Winter)

Site Location ... Impermable Area (ha)

C (1km) D3 (1km) Maximum Allowable Discharge (l/s)

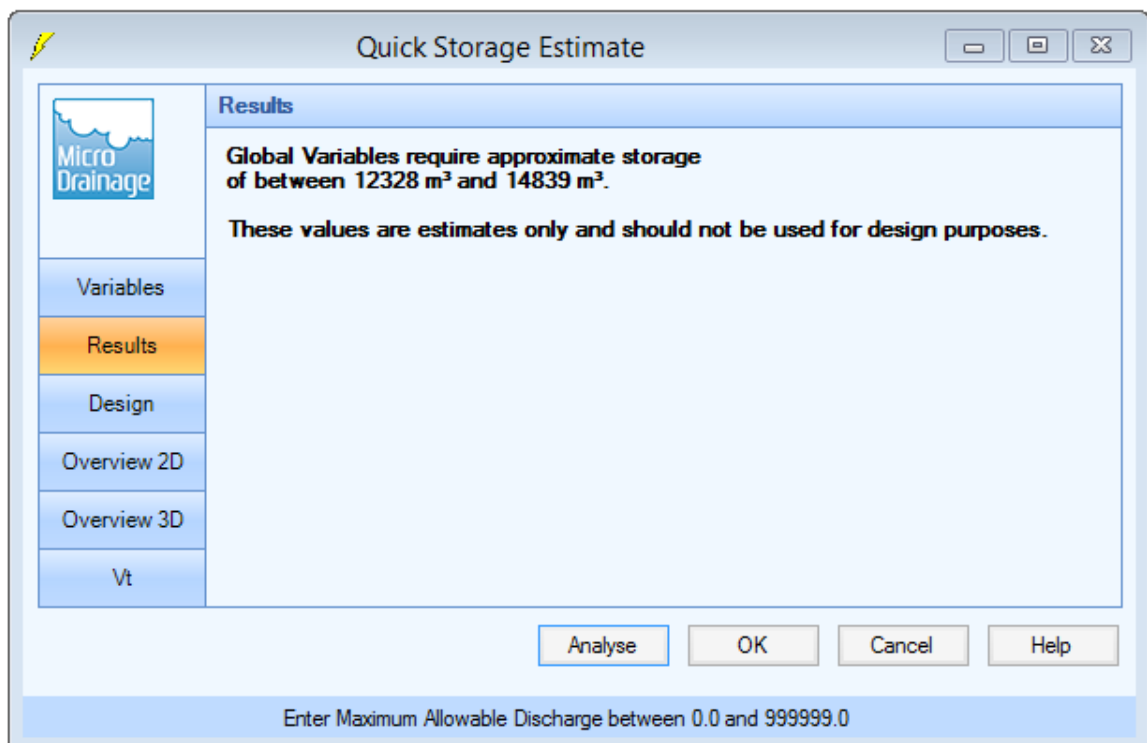
D1 (1km) E (1km) Infiltration Coefficient (m/hr)

D2 (1km) F (1km) Safety Factor

Climate Change (%)

Analyse OK Cancel Help

Enter Site Location



Quick Storage Estimate

Micro Drainage

Results

Global Variables require approximate storage of between 12328 m³ and 14839 m³.

These values are estimates only and should not be used for design purposes.

Analyse OK Cancel Help

Enter Maximum Allowable Discharge between 0.0 and 999999.0

Cambridge : 01223 314794 ☐
 Colchester : 01206 228800 ☐
 London : 020 7448 9910 ☐
 Norwich : 01603 230240 ☐

CONTRACT: Alington Estate	REF: 60830
ELEMENT: Site 10 to 18 – Quick Storage Calcs	SHEET: 5
	DATE: 28.7.21

Site 13

Quick Storage Estimate

Variables

FEH Rainfall (dropdown) Cv (Summer) 0.750

Return Period (years) 100 Cv (Winter) 0.840

Site Location (text) Impermeable Area (ha) 3.640

Maximum Allowable Discharge (l/s) 2.6

C (1km) -0.026 D3 (1km) 0.261

D1 (1km) 0.309 E (1km) 0.316 Infiltration Coefficient (m/hr) 0.00000

D2 (1km) 0.238 F (1km) 2.459 Safety Factor 5.0

Climate Change (%) 40

Buttons: Analyse, OK, Cancel, Help

Enter Site Location

Quick Storage Estimate

Results

Global Variables require approximate storage of between 3608 m³ and 4345 m³.

These values are estimates only and should not be used for design purposes.

Buttons: Analyse, OK, Cancel, Help

Enter Site Location

Cambridge : 01223 314794 ☐
 Colchester : 01206 228800 ☐
 London : 020 7448 9910 ☐
 Norwich : 01603 230240 ☐

CONTRACT: Alington Estate	REF: 60830
ELEMENT: Site 10 to 18 – Quick Storage Calcs	SHEET: 6
	DATE: 28.7.21

Site 14

Cambridge : 01223 314794 ☐
 Colchester : 01206 228800 ☐
 London : 020 7448 9910 ☐
 Norwich : 01603 230240 ☐

CONTRACT: Alington Estate	REF: 60830
ELEMENT: Site 10 to 18 – Quick Storage Calcs	SHEET: 7
	DATE: 28.7.21

Site 15A

Quick Storage Estimate

Micro Drainage

Variables

FEH Rainfall (dropdown) Cv (Summer) 0.750

Return Period (years) 100 Cv (Winter) 0.840

Site Location (dropdown) Impermeable Area (ha) 5.420

Maximum Allowable Discharge (l/s) 3.84

C (1km) -0.026 D3 (1km) 0.261

D1 (1km) 0.309 E (1km) 0.316 Infiltration Coefficient (m/hr) 0.00000

D2 (1km) 0.238 F (1km) 2.459 Safety Factor 5.0

Climate Change (%) 40

Analyse OK Cancel Help

Enter Maximum Allowable Discharge between 0.0 and 999999.0

Quick Storage Estimate

Micro Drainage

Results

Global Variables require approximate storage of between 5390 m³ and 6483 m³.

These values are estimates only and should not be used for design purposes.

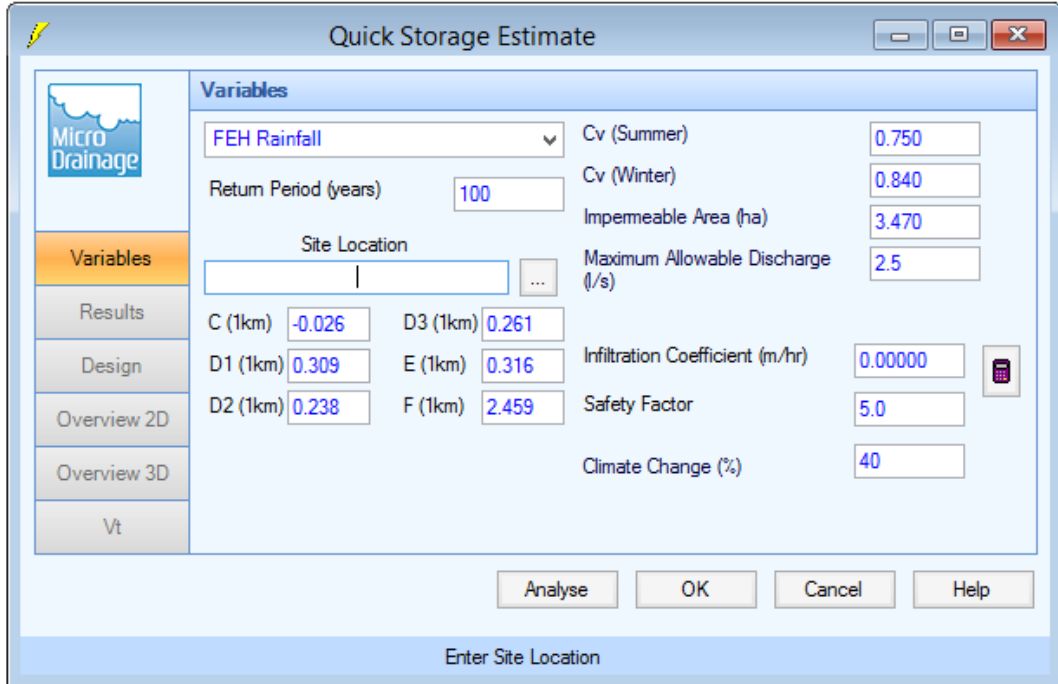
Analyse OK Cancel Help

Enter Maximum Allowable Discharge between 0.0 and 999999.0

Cambridge : 01223 314794
 Colchester : 01206 228800
 London : 020 7448 9910
 Norwich : 01603 230240

CONTRACT: Alington Estate	REF: 60830
ELEMENT: Site 10 to 18 – Quick Storage Calcs	SHEET: 8
	DATE: 28.7.21

Site 15B



Quick Storage Estimate

Micro Drainage

Variables

FEH Rainfall Cv (Summer)

Return Period (years) Cv (Winter)

Site Location ... Impeable Area (ha)

C (1km) D3 (1km) Maximum Allowable Discharge (l/s)

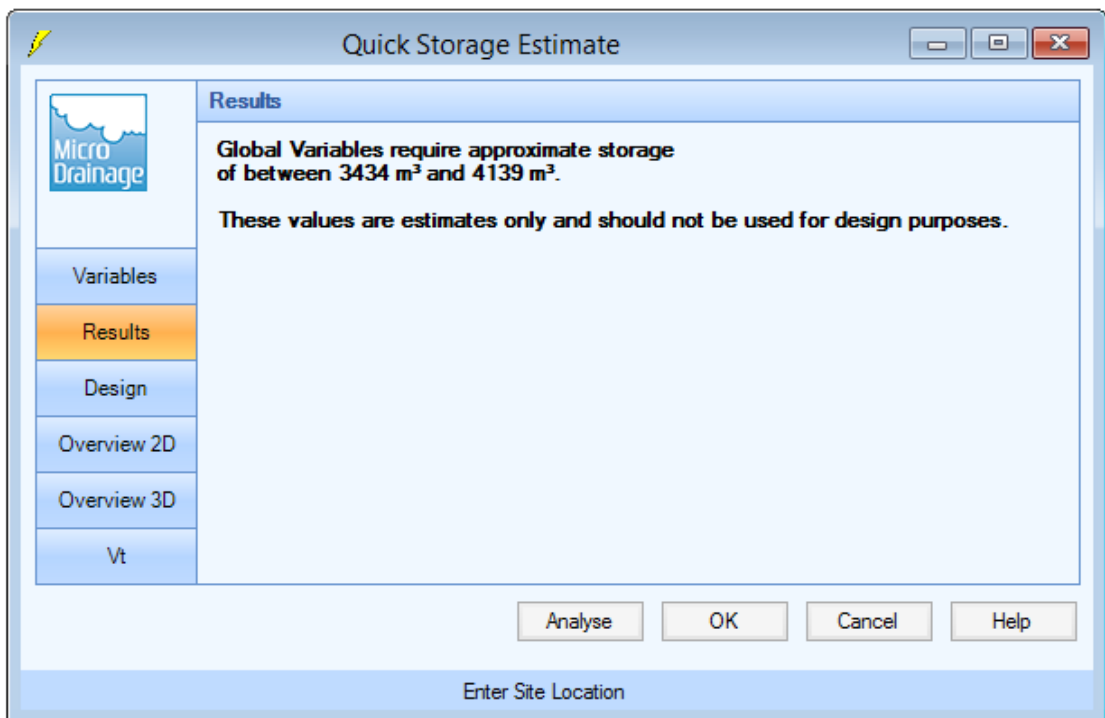
D1 (1km) E (1km) Infiltration Coefficient (m/hr)

D2 (1km) F (1km) Safety Factor

Climate Change (%)

Analyse OK Cancel Help

Enter Site Location



Quick Storage Estimate

Micro Drainage

Results

Global Variables require approximate storage of between 3434 m³ and 4139 m³.

These values are estimates only and should not be used for design purposes.

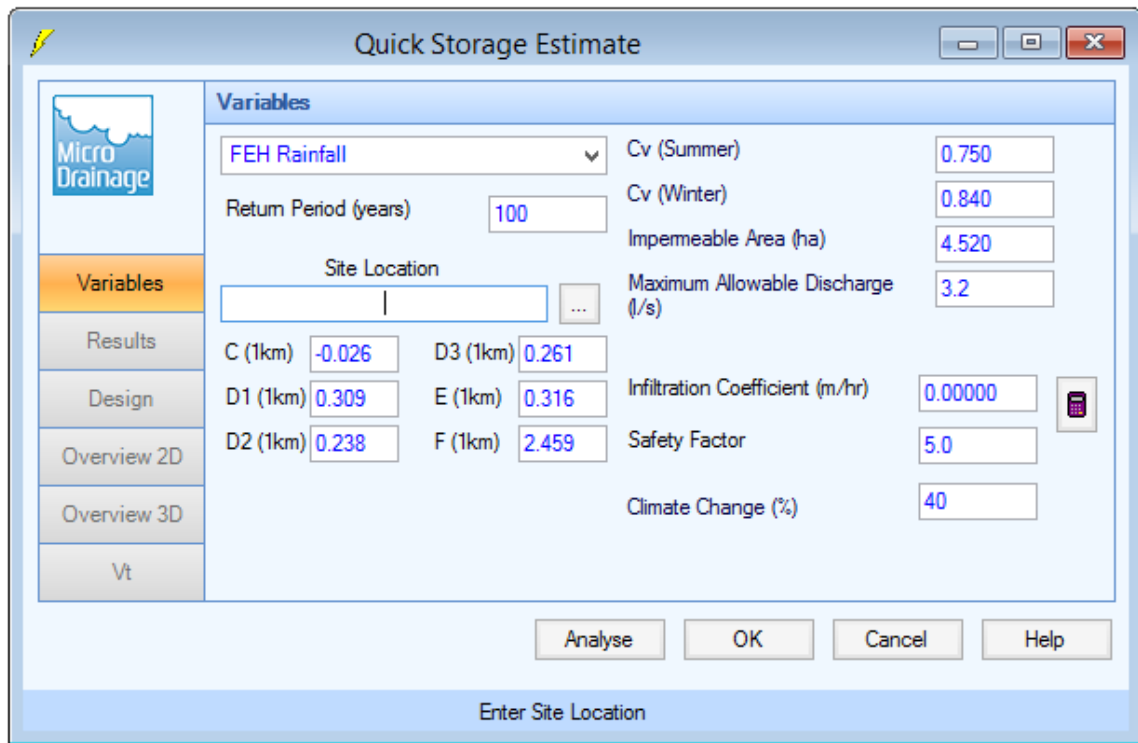
Analyse OK Cancel Help

Enter Site Location

Cambridge : 01223 314794
 Colchester : 01206 228800
 London : 020 7448 9910
 Norwich : 01603 230240

CONTRACT: Alington Estate	REF: 60830
ELEMENT: Site 10 to 18 – Quick Storage Calcs	SHEET: 9
	DATE: 28.7.21

Site 16



Quick Storage Estimate

Micro Drainage

Variables

FEH Rainfall Cv (Summer)

Return Period (years) Cv (Winter)

Site Location ... Impemeable Area (ha)

C (1km) D3 (1km) Maximum Allowable Discharge (l/s)

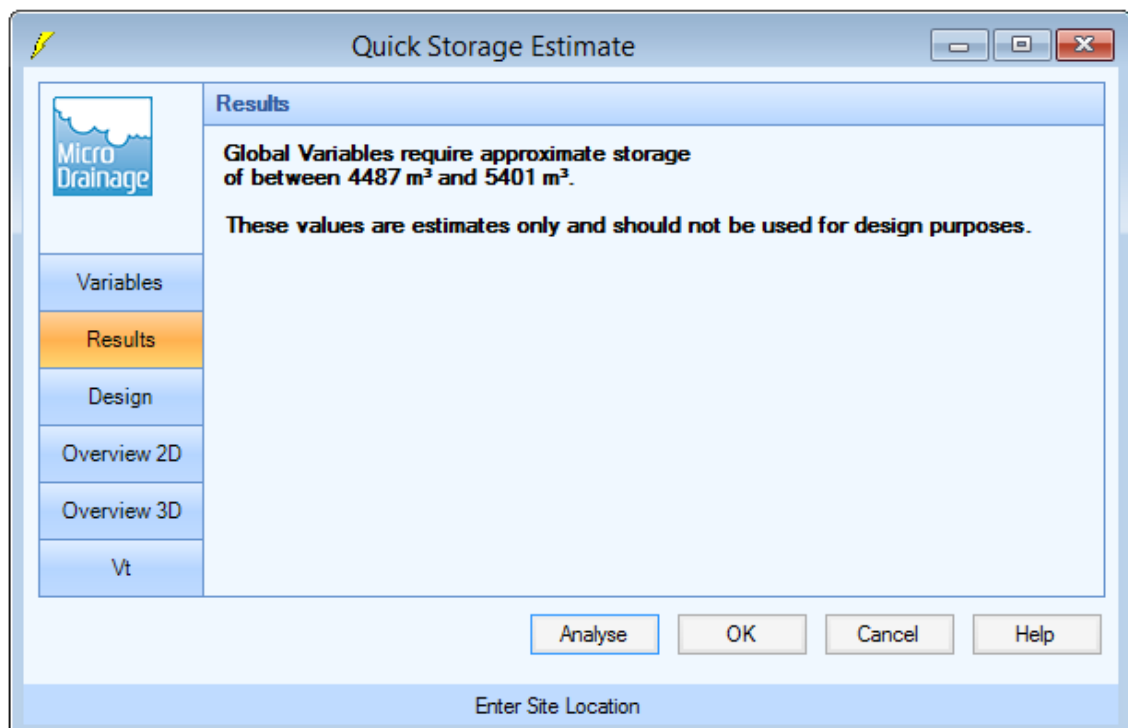
D1 (1km) E (1km) Infiltration Coefficient (m/hr)

D2 (1km) F (1km) Safety Factor

Climate Change (%)

Analyse OK Cancel Help

Enter Site Location



Quick Storage Estimate

Micro Drainage

Results

Global Variables require approximate storage of between 4487 m³ and 5401 m³.

These values are estimates only and should not be used for design purposes.

Analyse OK Cancel Help

Enter Site Location

Cambridge : 01223 314794 ☐
 Colchester : 01206 228800 ☐
 London : 020 7448 9910 ☐
 Norwich : 01603 230240 ☐

CONTRACT: Alington Estate	REF: 60830
ELEMENT: Site 10 to 18 – Quick Storage Calcs	SHEET: 10
	DATE: 28.7.21

Site 17

Cambridge : 01223 314794 ☐
 Colchester : 01206 228800 ☐
 London : 020 7448 9910 ☐
 Norwich : 01603 230240 ☐

CONTRACT: Alington Estate	REF: 60830
ELEMENT: Site 10 to 18 – Quick Storage Calcs	SHEET: 11
	DATE: 28.7.21

Site 18

Quick Storage Estimate

Micro Drainage

Variables

FEH Rainfall

Return Period (years) 100

Site Location

Cv (Summer) 0.750

Cv (Winter) 0.840

Impemeable Area (ha) 5.420

Maximum Allowable Discharge (l/s) 3.8

C (1km) -0.026 D3 (1km) 0.261

D1 (1km) 0.309 E (1km) 0.316

D2 (1km) 0.238 F (1km) 2.459

Infiltration Coefficient (m/hr) 0.00000

Safety Factor 5.0

Climate Change (%) 40

Analyse OK Cancel Help

Enter Site Location

Quick Storage Estimate

Micro Drainage

Results

Global Variables require approximate storage of between 5390 m³ and 6483 m³.

These values are estimates only and should not be used for design purposes.

Analyse OK Cancel Help

Enter Site Location



 **Colchester**
01206 228800

 **London**
020 7448 9910

 **Norwich**
01603 230240

 **Cambridge**
01223 314794

 **Bristol**
01172 020070

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