## **Appendix C - Flood Mapping Methodology**

A number of flood outlines from different studies were used to derive the flood zone outlines, as follows:

Flood Zone	Watercourse	Model Description
3a	Eden, Petteril and	Linked ISIS-TUFLOW "do minimum" model updated to
	Caldew through Carlisle	create an undefended model for 1% AEP. Model outputs
		checked against the Eden CFMP undefended model for
		1% AEP
	Eden and Tributaries	Eden CFMP 1% AEP undefended model and the EA
	outside Carlisle	Flood Map Zone 3
	Dow Beck	1% AEP undefended linked ISIS-TUFLOW model
		(dow_cows_2d_Q100.dat)
	Gosling Sike	1% AEP undefended linked ISIS-TUFLOW model
3b		(goss_cows_2d_Q100.dat)
	Parham Beck	1% AEP undefended linked ISIS-TUFLOW model
	140 10 5	(Parh_cows_2d_Q100.dat)
	Wire Mire Beck	1% AEP undefended linked ISIS-TUFLOW model
	Eden Detterillend	(Wire_cows_2d_Q100.dat)
	Eden, Petteril and	Linked ISIS-TUFLOW "do minimum" model updated to
	Caldew through Carlisle	create an undefended model for 4% AEP. Model outputs checked against the Eden CFMP undefended model for
		4% AEP
	Eden and Tributaries	Eden CFMP 4% AEP undefended model
	outside Carlisle	Eddi of Wil 470 / El andoronded model
	Dow Beck	4% AEP undefended linked ISIS-TUFLOW model
		(dow_cows_2d_Q25.dat)
	Gosling Sike	4% AEP undefended linked ISIS-TUFLOW model
	3	(goss_cows_2d_Q25.dat)
	Parham Beck	4% AEP undefended linked ISIS-TUFLOW model
		(Parh_cows_2d_Q25.dat)
	Wire Mire Beck	4% AEP undefended linked ISIS-TUFLOW model
		(Wire_cows_2d_Q25.dat)
2	Eden, Petteril and	Linked ISIS-TUFLOW "do minimum" model updated to
	Caldew through Carlisle	create an undefended model for 0.1% AEP. Model
		outputs checked against the Eden CFMP undefended
	Eden and Tributaries	model for 1% AEP
		Eden CFMP 0.1% AEP undefended model and the EA Flood Map Zone 2
	outside Carlisle Dow Beck	0.1% AEP undefended linked ISIS-TUFLOW model
	DOW BECK	(dow_cows_2d_Q1000.dat)
	Gosling Sike	0.1% AEP undefended linked ISIS-TUFLOW model
	Cosming Circo	(goss_cows_2d_Q1000.dat)
	Parham Beck	0.1% AEP undefended linked ISIS-TUFLOW model
		(Parh cows 2d Q1000.dat)
	Wire Mire Beck	0.1% AEP undefended linked ISIS-TUFLOW model
		(Wire_cows_2d_Q1000.dat)
3a plus	Eden, Petteril and	Linked ISIS-TUFLOW "do minimum" model updated to
Climate	Caldew through Carlisle	create an undefended model for 0.5% AEP. Model
Change		outputs checked against the Eden CFMP undefended
		model for Climate Change
	Eden and Tributaries	Eden CFMP undefended model for Climate Change and
	outside Carlisle	the EA Flood Map Zone 2
	Dow Beck	0.5% AEP undefended linked ISIS-TUFLOW model
	0 11 011	(dow_cows_2d_Q1000.dat)
	Gosling Sike	0.5% AEP undefended linked ISIS-TUFLOW model

	(goss_cows_2d_Q1000.dat)
Parham Beck	0.5% AEP undefended linked ISIS-TUFLOW model
	(Parh_cows_2d_Q1000.dat)
Wire Mire Beck	0.5% AEP undefended linked ISIS-TUFLOW model
	(Wire_cows_2d_Q1000.dat)