Appendix to Chapter 11: Water

Appendix 11.1: Inventory & Classification of Watercourses at Crossing Locations

The data and descriptions in this appendix have informed the cumulative evaluations in the EIA Main Report.

Photos of Watercourse Crossings at the Mountphilips Substation site



Watercrossing Structure W1 (Temporary

Crossing)

Type: 1st Order Stream

Fisheries: Class 2, Optimal Fisheries

Location: Mountphilips Substation Site Existing Structure: No existing crossing

structure

Works at Crossing: Cable trenching under stream bed using dam & pump (flume) method. Temporary Bailey Bridge.

Ecology Notes: c. 2 m wide, c. 10 cm deep, gravel (70), cobbles (5), boulders (5),

Watercrossing Structure W2

Type: Drainage Ditch

Fisheries: Sub-Optimal Fisheries

Location: Mountphilips Substation Site Existing Structure: No existing crossing

structure

Works at Crossing: Installation of new permanent culvert. Cable trenching under new culvert.

Ecology Notes: c. 0.5 m wide, c. 10 cm deep, silts/muds (100)



Watercrossing Structure W3

Type: 1st Order Stream

Fisheries: Class 2, Optimal Fisheries

Location: Mountphilips Substation Site Existing Structure: No existing crossing

structure

Works at Crossing: Installation of new permanent culvert. Cable trenching under new culvert.

Ecology Notes: c. 1 m wide, c. 10 cm deep, cobbles (20), gravels (40), sands/silts (40)



Photos of UWF GRID CONNECTION Bridges / Culverts along Public Roads



Watercrossing Structure W4

Type: Stream

Fisheries: Class 3, Sub-optimal Fisheries

Location/Townland: L2166-0, Coole/Freagh Existing Structure: Concrete Block Box Culvert Works at the Crossing: Cable trenching under

structure

Ecology Notes: Downstream - Slow flowing, Coble (60), Gravel (40). Overgrown, vegetation shading. 1 metre wide and ~30cm deep.



Watercrossing Structure W5

Type: River

Fisheries: Class1, Optimal Fisheries

Location/Townland: L6013-0, Foildarrig/Freagh Existing Structure: Masonry Single Arch Bridge Works at the Crossing: Cable trenching over

structure

Ecology Notes: Upstream - riffle/glide sequence and pool. Bolder (30), cobble (30), sand/gravel (40). Culvert pipe also flowing into river.

Downstream - Riffle and pool present. Sand gravel under bridge (60), boulders/cobble(40).



Watercrossing Structure W6

Type: Stream

Fisheries: Class 3, Sub-Optimal Fisheries

Location/Townland: L6013-0, Oakhampton Existing Structure: Concrete Circular Culvert Works at the Crossing: Cable trenching over

structure

Ecology Notes: Pipe culvert with stream through it. Bolder (50), mud/gravel (50).



Type: River

Fisheries: Class1, Optimal Fisheries

Location/Townland: Rockvale Bridge, L2156-0, Oakhampton/Rockvale

Existing Structure: Masonry Single Arch Bridge Works at the Crossing: Cable trenching over structure. Additional works to raise road level & parapet wall height

Ecology Notes: Upstream - riffle and white water. Bedrock (70), cobble (20), sand (10). Deep water - could not judge depth. Downstream - white water, small riffle and some pooling. Deep water.



Watercrossing Structure W8

Type: Stream

Fisheries: Class1, Optimal Fisheries

Location/Townland: L6009-0, Ahane/Castlewaller

Existing Structure: Concrete Slab Bridge
Works at the Crossing: Directional Drill under stream bed.

Ecology Notes: Upstream - small riffle and glide. Pooling. Moderate flow. Cobble (70), gravel (30). Downstream - riffle and glide, pool at bridge. Cobble (60), gravel (40).



Watercrossing Structure W9

Type: Stream

Fisheries: Class 1, Optimal Fisheries

Location/Townland: L6009-0, Castlewaller/Carrowkeale

Existing Structure: Concrete Slab Bridge Works at the Crossing: Directional Drill under stream bed.

Ecology Notes: Upstream - riffle and glide and pool (with sand). Sand (30), cobble (50), gravel (20). Downstream - flat rock (40), boulders (30), cobble (30), riffle. Some pooling at edge, no visible build-up of sand. Fast flowing.



Type: Stream, 1st Order

Fisheries: Class 3, Sub-optimal Fisheries Location/Townland: R503, Kilnacappagh

Existing Structure: HDPE Plastic Circular Culvert Works at the Crossing: Cable trenching over structure

Ecology Notes: deep, drained, flow



Watercrossing Structure W11

Type: Stream

Fisheries: Class 3, Sub-optimal Fisheries

Location/Townland: R503, Scrageen/Derrygareen

Existing Structure: Masonry Box Culvert

Works at the Crossing: Cable trenching over

structure

Ecology Notes: c. 1 m wide, c. 20 cm deep



Watercrossing Structure W12

Type: Drain

Fisheries: Class 4, Poor Fisheries

Location/Townland: R503, Derrygareen

Existing Structure: Masonry Box Culvert & Circular

Concrete Culvert

Works at the Crossing: Cable trenching under

structure

Ecology Notes: c. 0.8m wide, c. 15 cm deep



Type: Stream, 1st Order

Fisheries: Class 4, Poor Fisheries

Location/Townland: R503, Knockancullenagh

Existing Structure: Masonry Box Culvert

Works at the Crossing: Cable trenching under

structure. Culvert may need replacing.

Ecology Notes: No Fisheries Potential



Watercrossing Structure W14

Type: Stream, 1st Order

Fisheries: Class1, Optimal Fisheries

Location/Townland: R503, Knockancullenagh Existing Structure: Masonry Box Culvert Works at the Crossing: Cable trenching under structure. Culvert may need replacing.

Ecology Notes: steep gradient, cobble/gravel.

100% shade



Watercrossing Structure W15

Type: Stream, 1st Order

Fisheries: Class 3, Sub-optimal Fisheries

Location/Townland: R503, Knockancullenagh

Existing Structure: Masonry Box Culvert

Works at the Crossing: Cable trenching under

structure. Culvert may need replacing.

Ecology Notes: No Fisheries Potential



Type: Drain

Fisheries: Class 4, Poor Fisheries

Location/Townland: R503, Knockancullenagh

Existing Structure: Plastic Circular Culvert.

Works at the Crossing: Cable trenching over

structure.

Ecology Notes: No Fisheries Potential



Watercrossing Structure W17

Type: Stream, 1st Order

Fisheries: Class 3, Sub-optimal Fisheries

Location/Townland: R503, Knockancullenagh

Existing Structure: Masonry Box Culvert

Works at the Crossing: Cable trenching under

structure. Culvert may need replacing.

Ecology Notes: No Fisheries Potential, steep



Watercrossing Structure W18

Type: Stream, 2nd Order

Fisheries: Class1, Optimal Fisheries

Location/Townland:

R503, Knockancullenagh/Fanit

Existing Structure: Masonry Box Culvert Works at the Crossing: Cable trenching over

structure.

Ecology Notes: steep, boulder cobble pool riffle. Downstream 100% shade, steep gradient



Type: Drain

Fisheries: Class 4, Poor Fisheries

Location/Townland: R503, Fanit

Existing Structure: Masonry Box Culvert

Works at the Crossing: Cable trenching under

structure. Culvert may need replacing.

Ecology Notes: No Fisheries Potential



Watercrossing Structure W20

Type: Drain

Fisheries: Class 4, Poor Fisheries

Location/Townland: R503, Fanit

Existing Structure: Masonry Box Culvert

Works at the Crossing: Cable trenching under structure. Culvert may need replacing.

Ecology Notes: No Fisheries Potential 100%

shade downstream



Watercrossing Structure W21

Type: Stream, 1st Order

Fisheries: Class 3, Sub-optimal Fisheries

Location/Townland: R503, Fanit

Existing Structure: Masonry Single Arch Bridge

Works at the Crossing: Cable trenching over

structure.

Ecology Notes: No Fisheries Potential 100%

shade downstream



Type: Stream, 1st Order

Fisheries: Class 3, Sub-optimal Fisheries
Location/Townland: R503, Fanit/Lackamore

Existing Structure: Masonry Single Arch Bridge

Works at the Crossing: Cable trenching over structure.

Ecology Notes: steep/cascade



Watercrossing Structure W23

Type: Stream

Fisheries: Class 3, Sub-optimal Fisheries Location/Townland: R503, Lackamore

Existing Structure: Masonry Arch Bridge Works at the Crossing: Cable trenching over structure.

Ecology Notes: No Fisheries Potential

Upstream:100% shade. Minor steep cascades

Downstream: 100% shade



Watercrossing Structure W24

Type: Stream, 1st Order

Fisheries: Class 3, Sub-optimal Fisheries Location/Townland: R503, Lackamore

Existing Structure: Concrete Circular Culvert Works at the Crossing: Cable trenching over structure.

Ecology Notes: No Fisheries Potential



Type: Stream, 1st Order

Fisheries: Class 3, Sub-optimal Fisheries Location/Townland: R503, Lackamore

Existing Structure: Plastic Circular Culvert Works at the Crossing: Cable trenching over structure.

Ecology Notes: No Fisheries Potential, Steep

Gradient



Watercrossing Structure W26

Type: Stream, 1st Order

Fisheries: Class 3, Sub-optimal Fisheries Location/Townland: R503, Lackamore

Existing Structure: Concrete Circular Culvert Works at the Crossing: Cable trenching over structure.

Ecology Notes: No Fisheries Potential, Steep

Gradient



Watercrossing Structure W27

Type: Stream, 1st Order

Fisheries: Class 3, Sub-optimal Fisheries Location/Townland: R503, Lackamore

Existing Structure: Masonry Box Culvert Works at the Crossing: Cable trenching over

structure.

Ecology Notes: No Fisheries Potential, Steep

Gradient



Type: Stream

Fisheries: Class 3, Sub-optimal Fisheries

Location/Townland:

R503, Lackamore/Tooreenbrien Upper

Existing Structure: Masonry Box Culvert Works at the Crossing: Cable trenching under

structure.

Ecology Notes: No Fisheries Value

Upstream: steep/cascade Boulder/cobble



Watercrossing Structure W29

Type: Stream

Fisheries: Class 3, Sub-optimal Fisheries

Location/Townland: R503, Tooreenbrien Upper

Existing Structure: Concrete Slab Bridge Works at the Crossing: Cable trenching over

structure.

Ecology Notes: No Fisheries Value

100% cover, steep gradient. Boulder cascade.



Watercrossing Structure W30

Type: Drain

Fisheries: Class 4, Poor Fisheries

Location/Townland: R503, Tooreenbrien Upper

Existing Structure: Masonry Box Culvert

Works at the Crossing: Cable trenching over

structure.



Type: Stream, 1st Order

Fisheries: Class 3, Sub-optimal Fisheries

Location/Townland: R503, Tooreenbrien Upper

Existing Structure: Concrete Circular Culvert Works at the Crossing: Crossing under new existing culvert

Ecology Notes: No Fisheries Value, Steep

Gradient



Watercrossing Structure W32

Type: Minor Stream

Fisheries: Class 3, Sub-optimal Fisheries

Location/Townland: R503, Tooreenbrien Upper

Existing Structure: Masonry Box Culvert Works at the Crossing: Cable trenching under structure. Culvert may need replacing.

Ecology Notes: No Fisheries Value



Watercrossing Structure W33

Type: Stream

Fisheries: Class1, Optimal Fisheries

Location/Townland: R503, Tooreenbrien

Upper/Tooreenbrien Lower

Existing Structure: Masonry Arch Bridge - Single Works at the Crossing: Cable trenching over

structure.

Ecology Notes: cobble substrate, drained,

channelised, riffle/glide



Type: Drain

Fisheries: Class 4, Poor Fisheries

Location/Townland: R503, Tooreenbrien Lower

Existing Structure: Masonry Box Culvert

Works at the Crossing: Cable trenching under structure. Culvert may need replacing.

Ecology Notes: No Fisheries Value



Watercrossing Structure W35

Type: Drain

Fisheries: Class 4, Poor Fisheries

Location/Townland: R503, Tooreenbrien Lower

Existing Structure: Masonry Box Culvert

Works at the Crossing: Cable trenching over

structure.

Ecology Notes: No Fisheries Value



Watercrossing Structure W36

Type: River

Fisheries: Class1, Optimal Fisheries

Location/Townland: Tooreenbrien Bridge, R503, Tooreenbrien Lower/Reardnogy Beg

Existing Structure: Masonry Arch Bridge - Double Works at the Crossing: Cable trenching over structure. Additional works to raise road level & parapet wall height

Ecology Notes: c. 5 m wide, c. 100cm deep



Type: Stream, 1st Order

Fisheries: Class 3, Sub-optimal Fisheries
Location/Townland: R503, Reardnogy Beg

Existing Structure: Masonry Arch

Works at the Crossing: Crossing over culvert

Ecology Notes: No Fisheries Value



Watercrossing Structure W38

Type: Stream, 1st Order

Fisheries: Class1, Optimal Fisheries

Location/Townland: R503, Reardnogy

Beg/Reardnogy More

Existing Structure: Plastic Circular Culvert Works at the Crossing: Cable trenching under

structure.

Ecology Notes: c. 0.7 m wide, c. 140cm deep



Watercrossing Structure W39

Type: Stream, 2nd Order

Fisheries: Class1, Optimal Fisheries

Location/Townland: R503, Reardnogy More Existing Structure: Plastic Circular Culvert Works at the Crossing: Cable trenching over

structure.

Ecology Notes: c. 0.6 m wide, c. 100cm deep



Type: Drain

Fisheries: Class 4, Poor Fisheries

Location/Townland: R503, Rear Cross Village, Reardnogy More/ Shanballyedmond

Existing Structure: Concrete Circular Culvert X 3 Works at the Crossing: Cable trenching under structures.

Ecology Notes: No Fisheries Value



Watercrossing Structure W41

Type: Stream, 1st Order

Fisheries: Class 3, Sub-optimal Fisheries

Location/Townland: R503,

Reardnogy More/Baurnadomeeny

Existing Structure: Masonry Box Culvert Works at the Crossing: Cable trenching over structure.

Ecology Notes: Downstream:, cobble gravel

substrate, riffle, steep banks



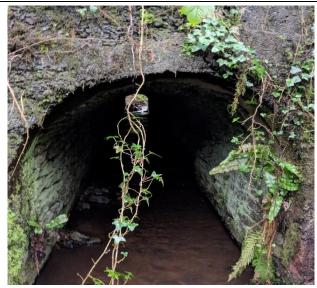
Watercrossing Structure W42

Type: Stream, 1st Order

Fisheries: Class 3, Sub-optimal Fisheries
Location/Townland: R503, Baurnadomeeny

Existing Structure: Masonry Box Culvert Works at the Crossing: Cable trenching over structure.

Ecology Notes: No Fisheries Potential



Type: Stream, 1st Order

Fisheries: Class 3, Sub-optimal Fisheries
Location/Townland: R503, Baurnadomeeny

Existing Structure: Masonry Arch

Works at the Crossing: Cable trenching over

structure.

Ecology Notes: cobble gravel substrate, riffle,

steep banks



Watercrossing Structure W44

Type: Stream, 1st Order

Fisheries: Class 3, Sub-optimal Fisheries
Location/Townland: R503, Baurnadomeeny

Existing Structure: Masonry Arch

Works at the Crossing: Cable trenching over

structure.

Ecology Notes: cobble gravel substrate, riffle,

steep banks



Watercrossing Structure W45

Type: Stream, 1st Order

Fisheries: Class1, Optimal Fisheries

Location/Townland: R503, Baurnadomeeny/Coonmore

Existing Structure: Concrete Circular Culvert Works at the Crossing: Cable trenching over

structure.

Ecology Notes: Riffle / glide, cobble substrate,

channelised



Type: Drain

Fisheries: Class 4, Poor Fisheries

Location/Townland: R503, Coonmore

Existing Structure: Masonry Box Culvert Works at the Crossing: Cable trenching over

structure.

Ecology Notes: No Fisheries Value



Watercrossing Structure W47

Type: Drain

Fisheries: Class 4, Poor Fisheries

Location/Townland: R503, Coonmore

Existing Structure: Masonry Box Culvert Works at the Crossing: Cable trenching over

structure.

Ecology Notes: No Fisheries Value



Watercrossing Structure W48

Type: Drain

Fisheries: Class 4, Poor Fisheries

Location/Townland: R503, Coonmore

Existing Structure: Plastic Circular Culvert Works at the Crossing: Cable trenching over

structure.



Type: River

Fisheries: Class1, Optimal Fisheries

Location/Townland: R503, Coonmore/Foildarragh

Existing Structure: Masonry Arch

Works at the Crossing: Cable trenching over

structure.

Ecology Notes: Cobble/gravel, channelised, riffle



Watercrossing Structure W50

Type: Stream, 1st Order

Fisheries: Class 3, Sub-optimal Fisheries Location/Townland: R503, Foildarragh

Existing Structure: Masonry Box Culvert Works at the Crossing: Cable trenching over

structure.

Ecology Notes: No Fisheries Value, Very steep

gradient, in gorge, 100% cover.



Watercrossing Structure W51

Type: Stream, 1st Order

Fisheries: Class 3, Sub-optimal Fisheries Location/Townland: R503, Foildarragh

Existing Structure: Masonry Box Culvert Works at the Crossing: Cable trenching over

structure.

Ecology Notes: No Fisheries Value, Very steep

gradient, in gorge, 100% cover.



Type: Stream, 1st Order

Fisheries: Class 3, Sub-optimal Fisheries Location/Townland: R503, Foildarragh

Existing Structure: Masonry Box Culvert Works at the Crossing: Cable trenching under structure.

Ecology Notes: No Fisheries Value, steep, drained



Watercrossing Structure W53

Type: River

Fisheries: Class1, Optimal Fisheries

Location/Townland: Anglesey Bridge, R503, Foildarragh/Kilcommon

Existing Structure: Double Masonry Arch Works at the Crossing: Cable trenching over structure, additional works to raise road level & parapet wall height Ecology Notes: U/s: riffle, glide channelized,

cobble gravel, sand



Watercrossing Structure W54

Type: Drain

Fisheries: Class 4, Poor Fisheries

Location/Townland: R503, Kilcommon

Existing Structure: Plastic Circular Culvert Works at the Crossing: Cable trenching under structure.



Type: Drain

Fisheries: Class 4, Poor Fisheries

Location/Townland: R503, Kilcommon

Existing Structure: Masonry Box Culvert Works at the Crossing: Cable trenching under structure. Culvert may need replacing.

Ecology Notes: No Fisheries Value



Watercrossing Structure W56

Type: Drain

Fisheries: Class 3, Sub-optimal Fisheries Location/Townland: R503, Kilcommon

Existing Structure: Concrete Circular Culvert Works at the Crossing: Cable trenching over structure.

Ecology Notes: No Fisheries Value, some flow



Watercrossing Structure W57

Type: Drain

Fisheries: Class 4, Poor Fisheries

Location/Townland: R503, Kilcommon/Loughbrack

Existing Structure: Masonry Box Culvert Works at the Crossing: Cable trenching under structure. Culvert may need replacing.



Type: Drain

Fisheries: Class 4, Poor Fisheries

Location/Townland: R503, Loughbrack

Existing Structure: Concrete Circular Culvert Works at the Crossing: Cable trenching under structure.

Ecology Notes: No Fisheries Value



Watercrossing Structure W59

Type:

Upstream: Drain, Downstream: Stream, 1st

Order

Fisheries: Class 4, Poor Fisheries

Location/Townland: R503, Loughbrack

Existing Structure: Concrete Culvert & Masonry

Box Culvert

Works at the Crossing: Cable trenching under

structures.

Ecology Notes: No Fisheries Value. Downstream:

flow, through forestry



Watercrossing Structure W60

Type: Drain

Fisheries: Class 4, Poor Fisheries

Location/Townland: R503, Loughbrack

Existing Structure: Masonry Box Culvert Works at the Crossing: Cable trenching under

structure. Culvert may need replacing.



Type: Drain

Fisheries: Class 4, Poor Fisheries

Location/Townland:

R503, Knocknabansha/Knockmaroe

Existing Structure: Masonry Box Culvert Works at the Crossing: Cable trenching under structure. Culvert may need replacing.

Ecology Notes: No Fisheries Value



Watercrossing Structure W62

Type: Drain

Fisheries: Class 4, Poor Fisheries

Location/Townland: L2264-50, Knockmaroe

Existing Structure: Masonry Box Culvert Works at the Crossing: Cable trenching over

structure.

Ecology Notes: No Fisheries Value



Watercrossing Structure W63

Type: Drain

Fisheries: Class 4, Poor Fisheries

Location/Townland: L2264-50,

Knockmaroe/Knockcurraghbola Crownlands

Existing Structure: Circular Concrete Culvert Works at the Crossing: Cable trenching under

structure.



Type: Drain

Fisheries: Class 4, Poor Fisheries

Location/Townland: L2264-50, Knockmaroe

Existing Structure: Masonry Box Culvert Works at the Crossing: Cable trenching under structure. Culvert may need replacing.

Ecology Notes: No Fisheries Value



Watercrossing Structure W65

Type: Stream

Fisheries: Class 2, Optimal Fisheries

Location: L6188-0, Knockmaroe

Existing Structure: Concrete Circular Culvert Works at Crossing: Cable trenching under structure.

Ecology Notes: Steady flow to 20 cm deep with wetted width of c. 1 m. gravel bed.



Watercrossing Structure W66

Type: Drain

Fisheries: Class 4, Poor Fisheries

Location/Townland: L6188-0, Knockmaroe

Existing Structure: Concrete Circular Culvert Works at the Crossing: Cable trenching under structure.

Photos of UWF GRID CONNECTION Bridges / Culverts along Private Paved Road



Watercrossing Structure W67

Type: Drain

Fisheries: Class 4, Poor Fisheries

Location/Townland: Private Paved Road,

Knockcurraghbola Commons

Existing Structure: Concrete Circular Culvert Works at the Crossing: Cable trenching under

structure.

Ecology Notes: c. 0.5 m wide, 10 cm deep



Watercrossing Structure W68

Type: Drain

Fisheries: Class 4, Poor Fisheries

Location/Townland: Private Paved Road,

Knockcurraghbola Commons

Existing Structure: Concrete Circular Culvert Works at the Crossing: Cable trenching under

structure.

Ecology Notes: No Fisheries Value, Slow flowing