








LEGEND

-  Viewpoint Location
-  10km study area (buffer of all schemes)
- Intake and powerhouse locations:
 -  Main intake
 -  Top-up intake
 -  Powerhouse
 -  Indicative penstocks/track routes (not included in ZTV)
- ZTV for all schemes combined:
 -  Visibility

NOTE

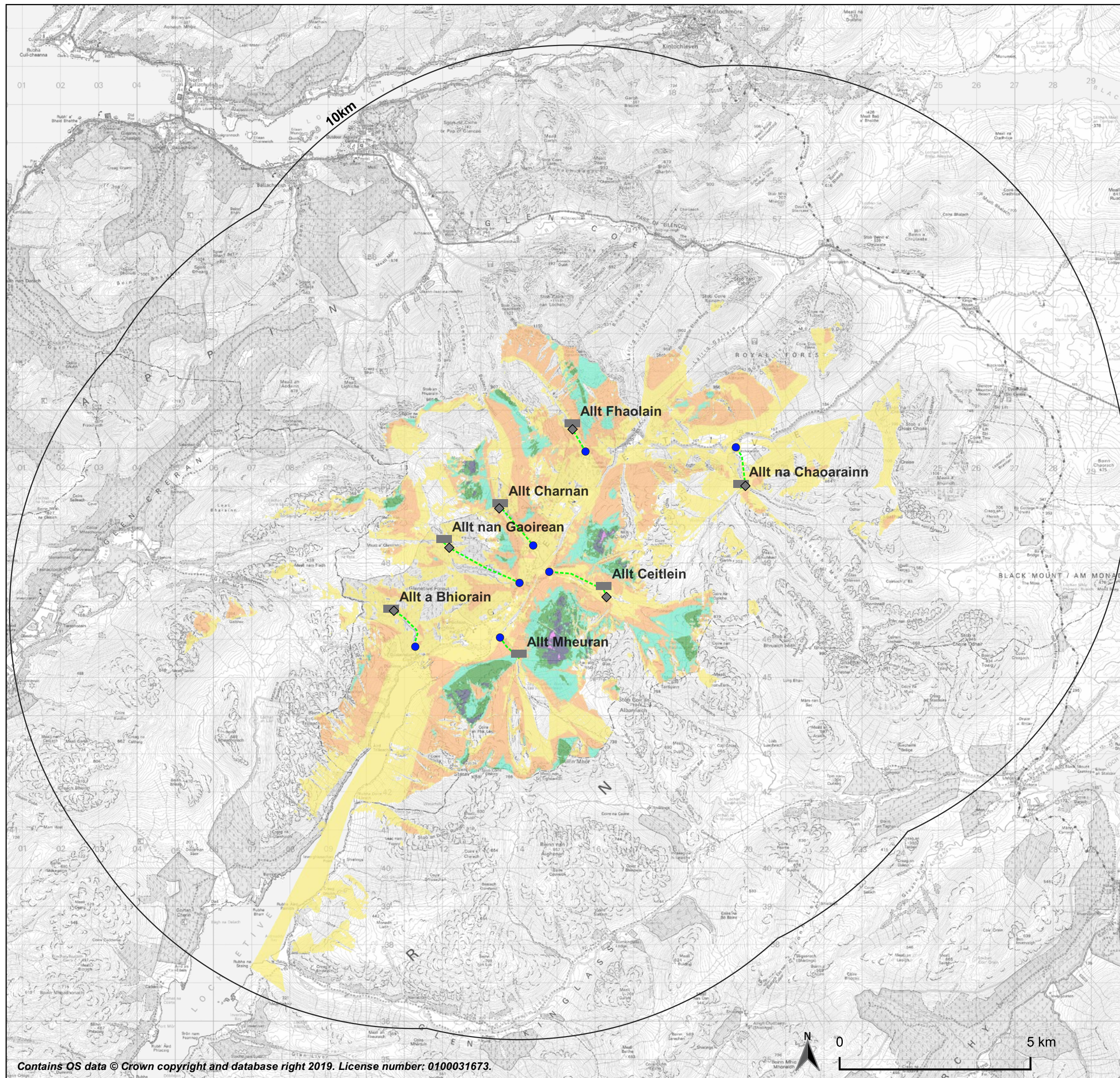
This drawing shows the Zone of Theoretical Visibility ('ZTV') of all intakes and powerhouses.

The calculation assumes a powerhouse height of 5.0m and an intake height of 2.0m. The viewer height is 1.6m.

The calculation uses OS Terrain 5 gridded height data which has a 5.0m post spacing. The ZTV for each intake and powerhouse is restricted to a 10.0km radius of each point.

Viewpoint	Title	Grid Ref
1	Gualachulain	NN 11319 45489
2	Path near to Ben Starav	NN 12646 42807
3	Kinlocheteive	NN 12854 45462
4	Glen Etive Road east of Loch Druiamachois	NN 13323 46582
5	Ben Starav accent	NN 13426 44985
6	Footpath west of Allt Mheuran	NN 13865 45010
7	Glen Etive Road north of Allt nan Gaoirean	NN 14205 47542
8	Glen Etive Road north of Invercharman	NN 14469 48548
9	Bridge south of Glenceitlein	NN 14801 47719
10	Allt Ceitlein	NN 15551 47561
11	Glen Etive Road west of Inbhir-fhaolain	NN 15690 50635
12	Allt Ceitlein top up intake	NN 15872 47331
13	Allt Ceitlein main intake	NN 16194 47306
14	Stob Dubh	NN 16616 48850
15	Stob na Brioge	NN 19070 52550
16	Slopes south of An Grianan	NN 19084 49921
17	An Grianan	NN 19141 50530
18	Glen Etive Road opposite Alltchaorunn	NN 19669 51191
19	Stob na Doire	NN 20886 53213
20	Stob Dearg	NN 22263 54261

PROJECT:	GLEN ETIVE HYDRO
DRAWING TITLE:	ZTV & Viewpoint Locations (all schemes)
DRAWING NO:	5.4
DOCUMENT SIZE:	A3
SCALE:	1:100000
DATE:	2019-01-24
DRAWN BY:	MW
APPROVED BY:	DH



LEGEND

□ 10km study area (buffer of all schemes)

Intake and powerhouse locations:

■ Main intake

◆ Top-up intake

● Powerhouse

--- Indicative penstocks/track routes (not included in ZTV)

ZTV showing total no. intakes and/or powerhouses visible:

■ 1 - 2

■ 3 - 4

■ 5 - 6

■ 7 - 8

■ 9 - 10

■ 11 - 12

NOTE

This drawing shows the Zone of Theoretical Visibility ('ZTV') of all intakes and powerhouses.

The calculation assumes a powerhouse height of 5.0m and an intake height of 2.0m. The viewer height is 1.6m.

The calculation uses OS Terrain 5 gridded height data which has a 5.0m post spacing. The ZTV for each intake and powerhouse is restricted to a 10.0km radius of each point.

PROJECT:	GLEN ETIVE HYDRO
DRAWING TITLE:	Zone of Theoretical Visibility (all schemes)
DRAWING NO:	5.33
DOCUMENT SIZE:	A3
SCALE:	1:100000
DATE:	2019-01-24
DRAWN BY:	MW
APPROVED BY:	DH



VP1a: Existing view - Gualachulain facing SW



VP1a: Annotated view - Gualachulain facing SW

Landing point/jetty
 Laydown area mostly screened by trees
 Existing road - transport route



Project: Glen Etive Hydro Project
 Figure No: 12a
 Locogen Ref: 0410-PLN-0026-02C
 Drawn by: MW
 Approved by: JP
 Date: 06/12/2017

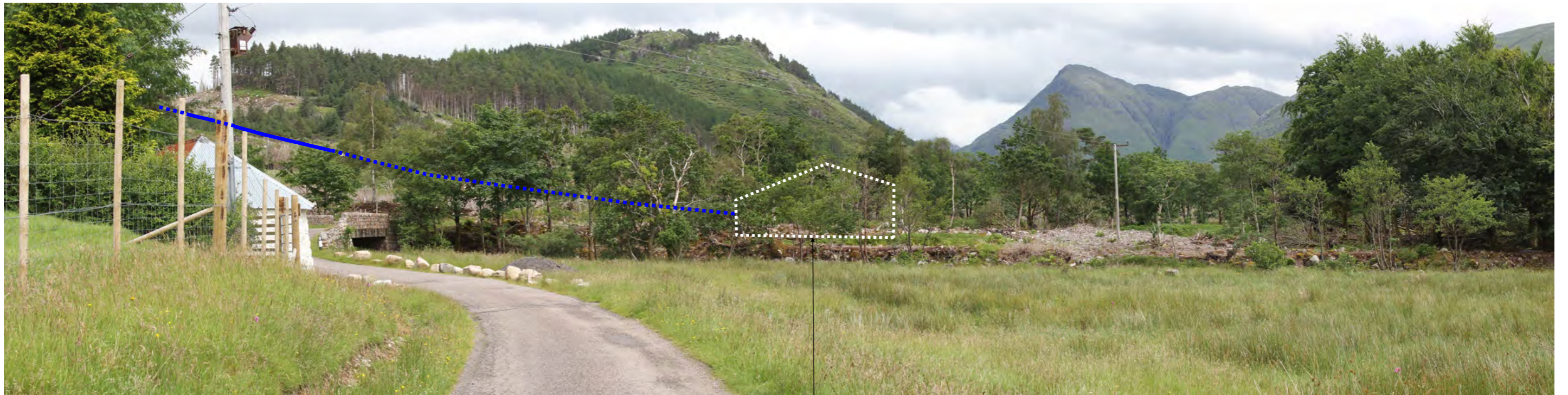
Viewpoint Name: VP1a: Gualachulain facing SW
 Grid Reference: NN 11319 45489
 View Direction: 220°

Field of View: 45°
 Camera: Canon EOS 7D
 Elevation: 765m
 Time/Date taken: 12:14 04/07/2017
 OS Licence No: 0100031673





VP1b: Existing view - Gualachulain facing NE



VP1b: Annotated view - Gualachulain facing NE

Allt a Bhorain powerhouse
(out of view)

— — — — — Proposed penstock (temporary impact during construction - short-term)



Project: Glen Etive Hydro Project
 Figure No: 12b
 Locogen Ref: 0410-PLN-0026-03C
 Drawn by: MW
 Approved by: JP
 Date: 06/12/2017

Viewpoint Name: VP1b: Gualachulain facing NE
 Grid Reference: NN 11319 45489
 View Direction: 040°

Field of View: 45°
 Camera: Canon EOS 7D
 Elevation: 765m
 Time/Date taken: 12:14 04/07/2017
 OS Licence No: 0100031673





VP2: Existing view - Ben Starav path



VP2: Annotated view - Ben Starav path

Allt a Bhiorainn

Allt nan Gaoirean

Allt Charnan

Allt Fhaolain

Allt Ceitlein

Allt Mheuran
main intake

- Proposed penstock (temporary impact during construction - short-term)
- Proposed access track
- ● ⊗ Proposed location of intake / powerhouse / borrow pit


Locogen
 Locogen Consulting Ltd 5 Mitchell Street,
 Edinburgh EH6 7BD
 Tel: +44(0)131 555 4745
 Email: info@locogen.com
 Company Number: SC521030

Project: Glen Etive Hydro Project
 Figure No: 13
 Locogen Ref: 0410-PLN-0040-02C
 Drawn by: MW
 Approved by: JP
 Date: 06/12/2017

Viewpoint Name: VP2: Ben Starav path (near summit)
 Grid Reference: NN 12646 42807
 View Direction: 015°

Field of View: 90°
 Camera: Canon EOS 7D
 Elevation: 1035m
 Time/Date taken: 13:40 12/08/2017
 OS Licence No: 0100031673





VP3a: Existing view - Kinlocheteive facing west



VP3a: Annotated view - Kinlocheteive facing west

Allt a Bhiorain powerhouse
(screened by buildings and dense
trees surrounding)

Allt a Bhiorain intake
(screened by plantation forestry)

— — — — — Proposed penstock (temporary impact during construction - short-term)



Project: Glen Etive Hydro Project
Figure No: 14a
Locogen Ref: 0410-PLN-0024-03C
Drawn by: MW
Approved by: JP
Date: 06/12/2017

Viewpoint Name: VP3a: Kinlocheteive facing west
Grid Reference: NN 12854 45462
View Direction: 290°

Field of View: 45°
Camera: Canon EOS 550D
Elevation: 10m
Time/Date taken: 14:48 04/07/2017
OS Licence No: 0100031673





VP3b: Existing view - Kinlochete facing NE



VP3b: Annotated view - Kinlochete facing NE

Allt Mheuran powerhouse
(partially screened by trees)

- - - - Proposed penstock (temporary impact during construction - short-term)
- - - Proposed access track



Project: Glen Etive Hydro Project
 Figure No: 14b
 Locogen Ref: 0410-PLN-0025-03C
 Drawn by: MW
 Approved by: JP
 Date: 06/12/2017

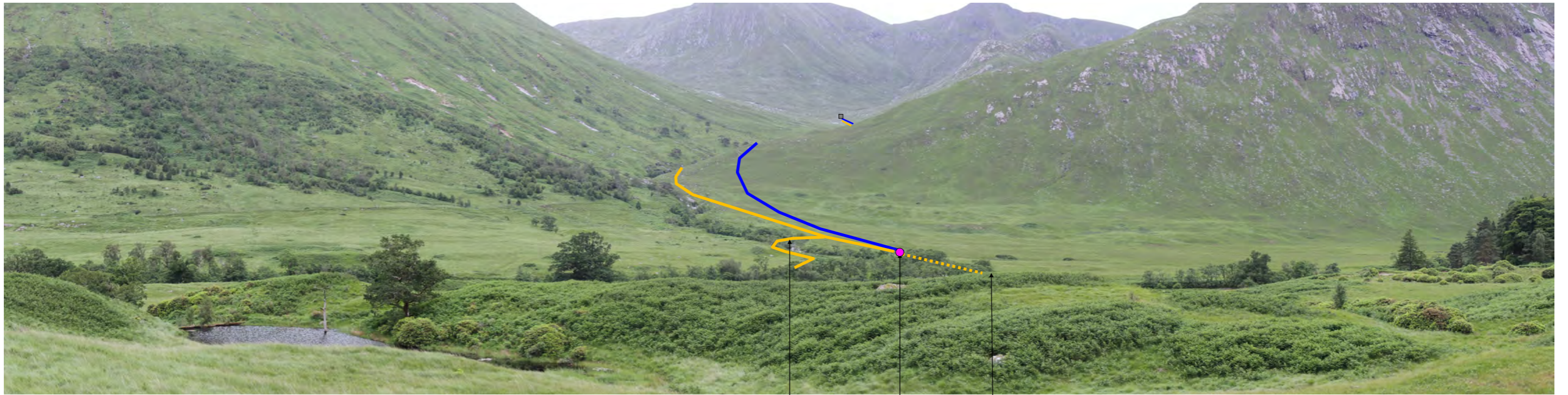
Viewpoint Name: VP3b: Kinlochete facing NE
 Grid Reference: NN 12854 45462
 View Direction: 045°

Field of View: 45°
 Camera: Canon EOS 550D
 Elevation: 10m
 Time/Date taken: 14:48 04/07/2017
 OS Licence No: 0100031673





VP4: Existing view - Glen Etive Road east of Loch Druimachoish



VP4: Annotated view - Glen Etive Road east of Loch Druimachoish

Bridge Allt Mheuran powerhouse Ford crossing River Etive (out of view)

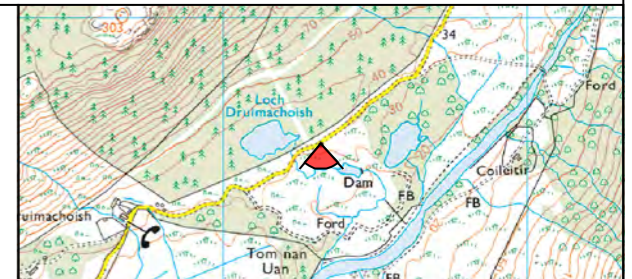
- - - - - Proposed penstock (temporary impact during construction - short-term)
- - - - - Proposed access track
- Proposed location of intake / powerhouse



Project: Glen Etive Hydro Project
 Figure No: 15
 Locogen Ref: 0410-PLN-0023-04C
 Drawn by: MW
 Approved by: JP
 Date: 19/12/2017

Viewpoint Name: VP4: Glen Etive Road east of Loch Druimachoish
 Grid Reference: NN 13323 46582
 View Direction: 170°

Field of View: 45°
 Camera: Canon EOS 550D
 Elevation: 34m
 Time/Date taken: 17:17 03/07/2017
 OS Licence No: 0100031673





VP5: Existing view - Ben Starav ascent



VP5: Ben Starav ascent

Allt Mheuran powerhouse

Allt Mheuran main bridge (follows existing bridge and track)

Allt Ceitlein

Allt Mheuran top-up intake

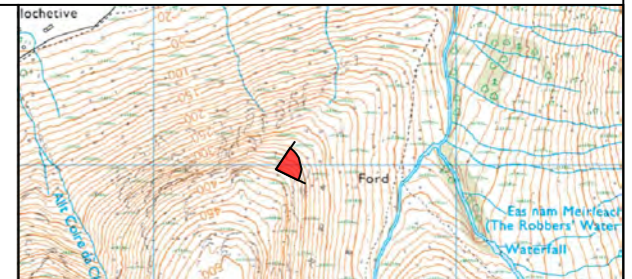
- Proposed penstock (temporary impact during construction - short-term)
- Proposed access track
- ● ⊗ Proposed location of intake / powerhouse / borrow pit

 **Locogen**
 Locogen Consulting Ltd 5 Mitchell Street,
 Edinburgh EH6 7BD
 Tel: +44(0)131 555 4745
 Email: info@locogen.com
 Company Number: SC521030

Project: Glen Etive Hydro Project
 Figure No: 16
 Locogen Ref: 0410-PLN-0039-03C
 Drawn by: MW
 Approved by: JP
 Date: 19/12/2017

Viewpoint Name: VP5: Ben Starav ascent
 Grid Reference: NN 13426 44985
 View Direction: 080°

Field of View: 90°
 Camera: Canon EOS 7D
 Elevation: 390m
 Time/Date taken: 16:10 12/08/2017
 OS Licence No: 0100031673





VP6: Existing view - Footpath west of Allt Mheuran



VP6: Annotated view - Footpath west of Allt Mheuran

Allt Mheuran top up intake

Route of access track follows existing stalkers track

Allt Mheuran intake

Route of access track

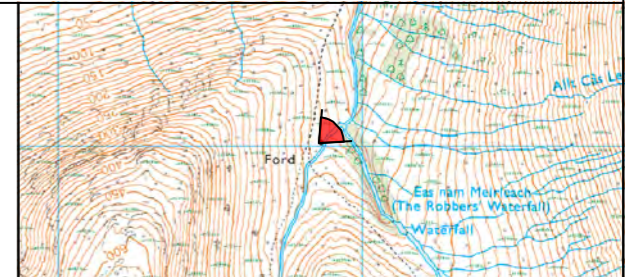
- Proposed penstock (temporary impact during construction - short-term)
- Proposed access track
- Proposed location of intake



Project: Glen Etive Hydro Project
 Figure No: 17
 Locogen Ref: 0410-PLN-0028-04C
 Drawn by: MW
 Approved by: JP
 Date: 19/12/2017

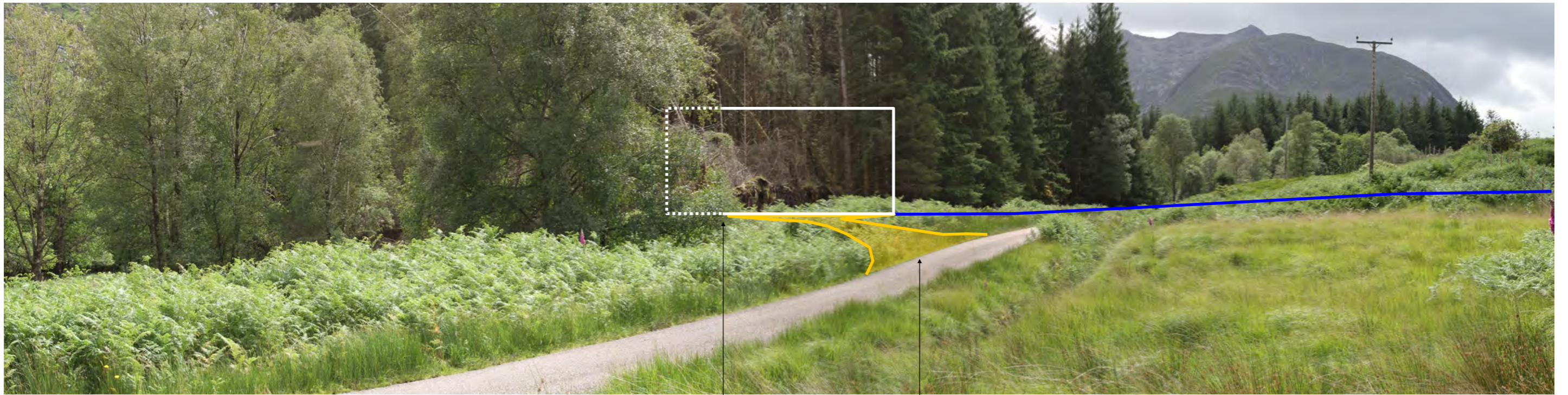
Viewpoint Name: VP6: Footpath west of Allt Mheuran
 Grid Reference: NN 13865 45010
 View Direction: 040°

Field of View: 45°
 Camera: Canon EOS 7D
 Elevation: 765m
 Time/Date taken: 15:45 04/07/2017
 OS Licence No: 0100031673





VP7: Existing view - Glen Etive Road north of Allt nan Gaoirean



VP7: Annotated view - Glen Etive Road north of Allt nan Gaoirean

Allt nan Gaoirean powerhouse
(partially screened by trees)

Allt nan Gaoirean new access
point from main road

- - - - - Proposed penstock (temporary impact during construction - short-term)
- - - - - Proposed access track



Project: Glen Etive Hydro Project
 Figure No: 18
 Locogen Ref: 0410-PLN-0022-05C
 Drawn by: MW
 Approved by: JP
 Date: 19/12/2017

Viewpoint Name: VP7: Glen Etive Road north of
 Allt nan Gaoirean
 Grid Reference: NN 14205 47542
 View Direction: 170°

Field of View: 45°
 Camera: Canon EOS 550D
 Elevation: 34m
 Time/Date taken: 13:39 03/07/2017
 OS Licence No: 0100031673





VP8: Existing view - Glen Etive Road north of Invercharnan



VP8: Annotated view - Glen Etive Road north of Invercharnan

Allt Mheuran scheme

Allt Charnan powerhouse

Access track junction with main road

- Proposed penstock (temporary impact during construction - short-term)
- Proposed access track





VP9a: Existing view - Bridge south of Glenceitlein facing north



VP9a: Annotated view - Bridge south of Glenceitlein facing north

Allt Ceitlin powerhouse
(partially buried)

- Proposed penstock (temporary impact during construction - short-term)
- Proposed access track



Project: Glen Etive Hydro Project
 Figure No: 20
 Locogen Ref: 0410-PLN-0029-03C
 Drawn by: MW
 Approved by: JP
 Date: 06/12/2017

Viewpoint Name: VP9a: Bridge south of
 Glenceitlein facing north
 Grid Reference: NN 14801 47719
 View Direction: 000°

Field of View: 45°
 Camera: Canon EOS 7D
 Elevation: 765m
 Time/Date taken: 15:01 03/07/2017
 OS Licence No: 0100031673





VP9b: Existing view - Bridge south of Glenceitlin facing east



VP9b: Annotated view - Bridge south of Glenceitlin facing east

- Proposed penstock (temporary impact during construction - short-term)
- Proposed access track

Allt Ceitlin top-up intake

Allt Ceitlin main intake (screened by trees)



Project: Glen Etive Hydro Project
 Figure No: 21
 Locogen Ref: 0410-PLN-0030-04C
 Drawn by: MW
 Approved by: JP
 Date: 19/12/2017

Viewpoint Name: VP9b: Bridge south of
 Glenceitlin facing east
 Grid Reference: NN 14801 47719
 View Direction: 095°

Field of View: 45°
 Camera: Canon EOS 7D
 Elevation: 765m
 Time/Date taken: 15:01 03/07/2017
 OS Licence No: 0100031673





VP10: Existing view - Allt Ceitlein facing west



VP10: Annotated view - Allt Ceitlein facing west

- - - - - Proposed penstock (temporary impact during construction - short-term)
- Proposed access track
- Proposed location of powerhouse

Allt nan Gaoirean

Allt Ceitlin powerhouse
(out of view)

Access track

Access track



Project: Glen Etive Hydro Project
 Figure No: 22
 Locogen Ref: 0410-PLN-0031-03C
 Drawn by: MW
 Approved by: JP
 Date: 06/12/2017

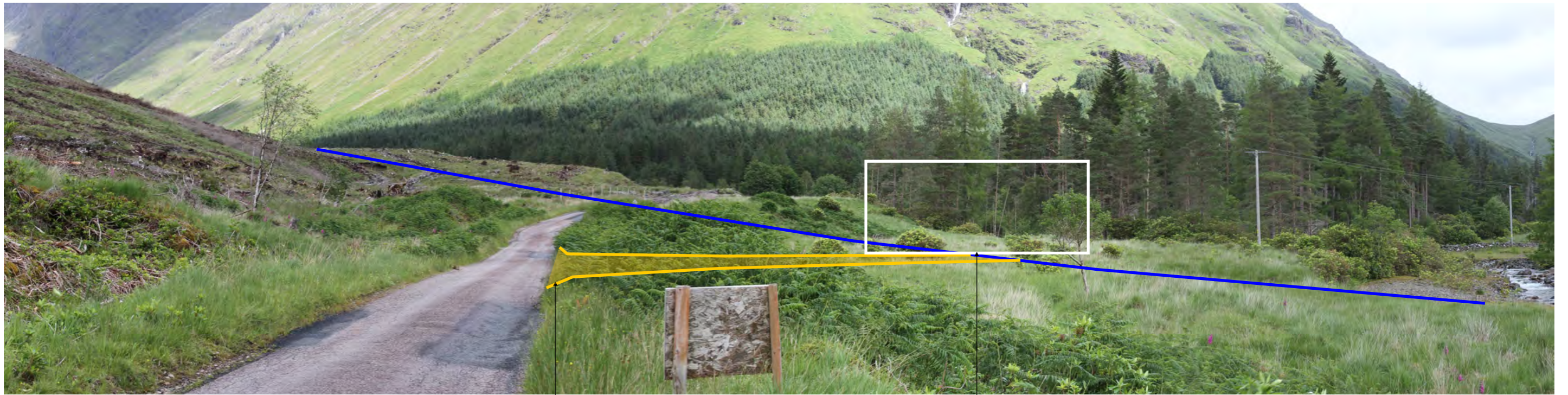
Viewpoint Name: VP10: Allt Ceitlein facing west
 Grid Reference: NN 15551 47561
 View Direction: 290°

Field of View: 45°
 Camera: Canon EOS 7D
 Elevation: 765m
 Time/Date taken: 15:47 03/07/2017
 OS Licence No: 0100031673





VP11: Existing view - Glen Etive Road west of Inbhir-fhaolain



VP11: Annotated view - Glen Etive Road west of Inbhir-fhaolain

Access track junction with main road

Allt Fhaolain powerhouse

- Proposed penstock (temporary impact during construction - short-term)
- Proposed access track



Project: Glen Etive Hydro Project
Figure No: 23
Locogen Ref: 0410-PLN-002-04C
Drawn by: MW
Approved by: JP
Date: 19/12/2017

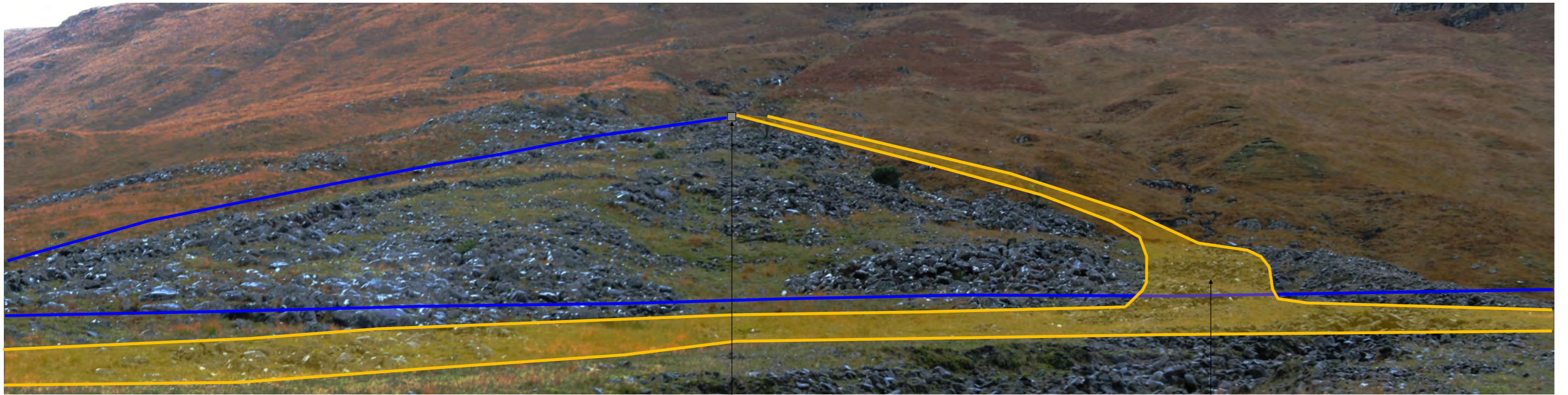
Viewpoint Name: VP11: Glen Etive Road west of Inbhir-fhaolain
Grid Reference: NN 15690 50635
View Direction: 000°

Field of View: 45°
Camera: Canon EOS 550D
Elevation: 72m
Time/Date taken: 11:48 03/07/2017
OS Licence No: 0100031673





VP12: Existing view - Allt Ceitlein top-up intake



VP12: Allt Ceitlein top-up intake

Allt Ceitlein top-up intake

Track junction to top-up intake

- Proposed penstock (temporary impact during construction - short-term)
- Proposed access track
- Proposed location of intake



Project: Glen Etive Hydro Project
Figure No: 24
Locogen Ref: 0410-PLN-0037-03C
Drawn by: MW
Approved by: JP
Date: 19/12/2017

Viewpoint Name: VP12: Allt Ceitlein top-up intake
Grid Reference: NN 15872 47331
View Direction: 020°

Field of View: 45°
Camera: Canon EOS 7D
Elevation: 90m
Time/Date taken: 10:30 06/11/2017
OS Licence No: 0100031673





VP13: Existing view - Allt Ceitlein main intake



VP13: Allt Ceitlein main intake

Allt Ceitlein main intake
(indicative extents)

Access track

- Proposed penstock (temporary impact during construction - short-term)
- Proposed access track



Project: Glen Etive Hydro Project
 Figure No: 25
 Locogen Ref: 0410-PLN-0038-03C
 Drawn by: MW
 Approved by: JP
 Date: 19/12/2017

Viewpoint Name: VP13: Allt Ceitlein main intake
 Grid Reference: NN 16194 47306
 View Direction: 130°

Field of View: 67°
 Camera: Canon EOS 7D
 Elevation: 90m
 Time/Date taken: 10:40 06/11/2017
 OS Licence No: 0100031673





VP14: Existing view - Stob Dubh



VP14: Annotated view - Stob Dubh

Allt Fhaolain

- Proposed penstock (temporary impact during construction - short-term)
- Proposed access track
- ● Proposed location of intake / powerhouse


Locogen
 Locogen Consulting Ltd 5 Mitchell Street,
 Edinburgh EH6 7BD
 Tel: +44(0)131 555 4745
 Email: info@locogen.com
 Company Number: SC521030

Project: Glen Etive Hydro Project
 Figure No: 26
 Locogen Ref: 0410-PLN-0036-02C
 Drawn by: MW
 Approved by: JP
 Date: 06/12/2017

Viewpoint Name: VP14: Stob Dubh
 Grid Reference: NN 16616 48850
 View Direction: 340°

Field of View: 90°
 Camera: Canon EOS 7D
 Elevation: 883m
 Time/Date taken: 11:08 20/08/2017
 OS Licence No: 0100031673





VP15: Existing view - Stob na Broige



VP15: Annotated view - Stob na Broig

Allt Chaorainn intake

Allt Charnan

Allt Fhaolain

- Proposed penstock (temporary impact during construction - short-term)
- Proposed access track
- ● ⊗ Proposed location of intake / powerhouse / borrow pit

Locogen
 Locogen Consulting Ltd 5 Mitchell Street,
 Edinburgh EH6 7BD
 Tel: +44(0)131 555 4745
 Email: info@locogen.com
 Company Number: SC521030

Project: Glen Etive Hydro Project
 Figure No: 27
 Locogen Ref: 0410-PLN-0034-02C
 Drawn by: MW
 Approved by: JP
 Date: 06/12/2017

Viewpoint Name: VP15: Stob na Broige
 Grid Reference: NN 19070 52550
 View Direction: 200°

Field of View: 90°
 Camera: Canon EOS 7D
 Elevation: 956m
 Time/Date taken: 15:34 05/11/2017
 OS Licence No: 0100031673





VP16: Existing view - Slopes south of An Grianan



VP16: Annotated view - Slopes south of An Grianan

Allt na Choirainn intake

- Proposed penstock (temporary impact during construction - short-term)
- Proposed access track
- Proposed location of intake

Locogen
 Locogen Consulting Ltd 5 Mitchell Street,
 Edinburgh EH6 7BD
 Tel: +44(0)131 555 4745
 Email: info@locogen.com
 Company Number: SC521030

Project: Glen Etive Hydro Project
 Figure No: XX
 Locogen Ref: 0410-PLN-0018-03C
 Drawn by: MW
 Approved by: JP
 Date: 06/12/2017

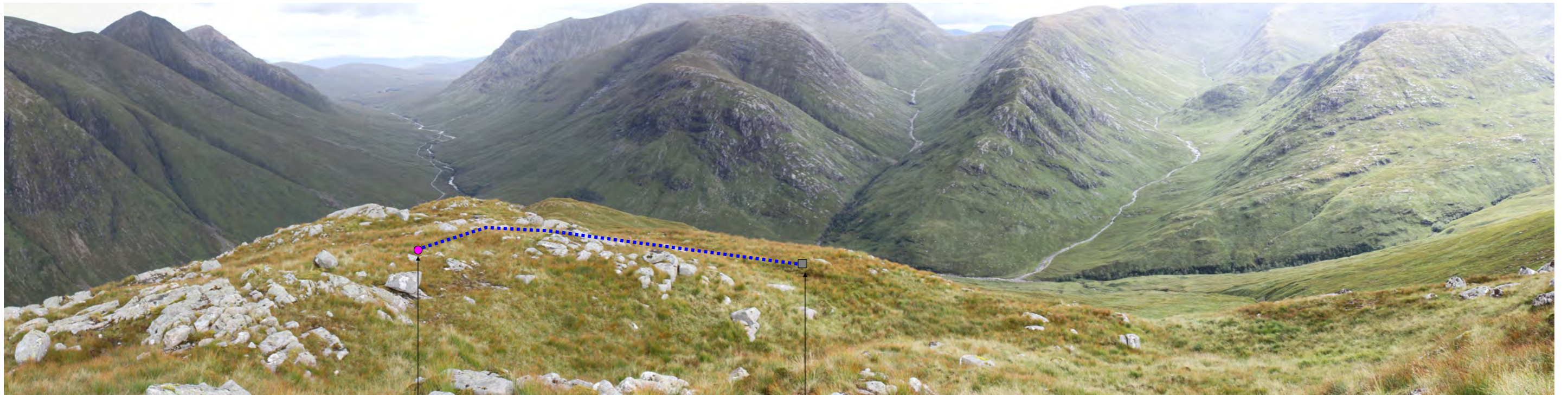
Viewpoint Name: VP16: Slopes south of An Grianan
 Grid Reference: NN 19084 49921
 View Direction: 110°

Field of View: 90°
 Camera: Canon EOS 7D
 Elevation: 361m
 Time/Date taken: 14:39 25/07/2017
 OS Licence No: 0100031673





VP17: Existing view - An Grianan



VP17: Annotated view - An Grianan

Allt Chaorainn powerhouse (out of view)

Allt Chaorainn intake (out of view)

- Proposed penstock (temporary impact during construction - short-term)
- ● Proposed location of intake / powerhouse


Locogen
 Locogen Consulting Ltd 5 Mitchell Street,
 Edinburgh EH6 7BD
 Tel: +44(0)131 555 4745
 Email: info@locogen.com
 Company Number: SC521030

Project: Glen Etive Hydro Project
 Figure No: 29
 Locogen Ref: 0410-PLN-0035-02C
 Drawn by: MW
 Approved by: JP
 Date: 06/12/2017

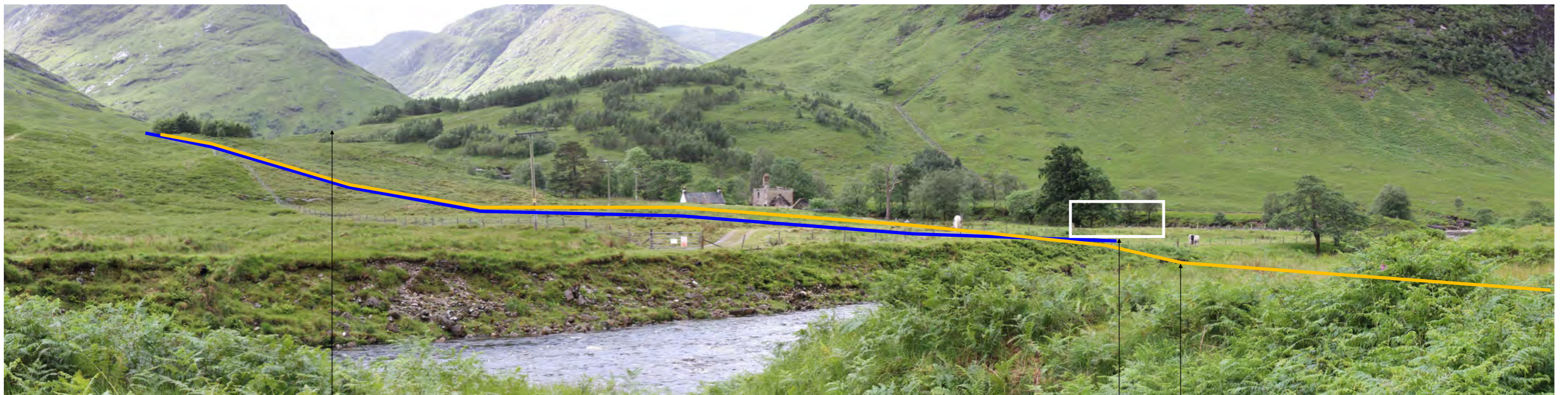
Viewpoint Name: VP17: An Grianan
 Grid Reference: NN 19141 50530
 View Direction: 110°

Field of View: 90°
 Camera: Canon EOS 7D
 Elevation: 494m
 Time/Date taken: 13:11 20/08/2017
 OS Licence No: 0100031673





VP18: Existing view - Glen Etive Road opposite Alltchaorunn



VP18: Annotated view - Glen Etive Road opposite Alltchaorunn

Allt na Choarainn intake
(out of view)

Allt na Choarainn
Powerhouse
(indicative extent)

Ford crossing

- Proposed penstock (temporary impact during construction - short-term)
- Proposed access track



Project: Glen Etive Hydro Project
 Figure No: 30
 Locogen Ref: 0410-PLN-0019-03C
 Drawn by: MW
 Approved by: JP
 Date: 06/12/2017

Viewpoint Name: VP18: Glen Etive Road opposite Alltchaorunn
 Grid Reference: NN 19669 51191
 View Direction: 180°

Field of View: 45°
 Camera: Canon EOS 7D
 Elevation: 113m
 Time/Date taken: 10:20 03/07/2017
 OS Licence No: 0100031673





VP19: Existing view - Stob na Doire



VP19: Annotated view - Stob na Doire

Allt Chaorainn
 Bridge connecting existing track

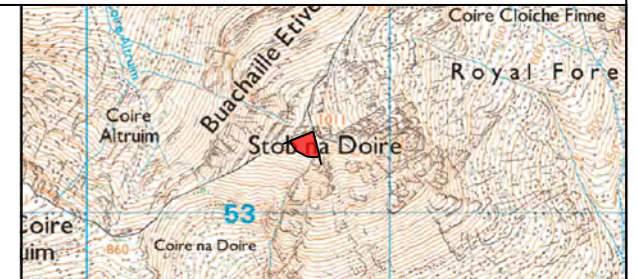
- Proposed penstock (temporary impact during construction - short-term)
- Proposed access track
- ● Proposed location of intake / powerhouse

 **Loco₂gen**
 Locogen Consulting Ltd 5 Mitchell Street,
 Edinburgh EH6 7BD
 Tel: +44(0)131 555 4745
 Email: info@locogen.com
 Company Number: SC521030

Project: Glen Etive Hydro Project
 Figure No: 31
 Locogen Ref: 0410-PLN-0033-02C
 Drawn by: MW
 Approved by: JP
 Date: 06/12/2017

Viewpoint Name: VP19: Stob na Doire
 Grid Reference: NN 20886 53213
 View Direction: 200°

Field of View: 90°
 Camera: Canon EOS 7D
 Elevation: 1011m
 Time/Date taken: 14:28 05/11/2017
 OS Licence No: 0100031673





VP20: Existing view - Stob Dearg



VP20: Annotated view - Stob Dearg

Allt Chaorainn intake

Allt Chaorainn powerhouse (out of view)

- Proposed penstock (temporary impact during construction - short-term)
- Proposed access track
- ● Proposed location of intake / powerhouse

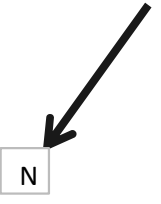

Locogen
 Locogen Consulting Ltd 5 Mitchell Street,
 Edinburgh EH6 7BD
 Tel: +44(0)131 555 4745
 Email: info@locogen.com
 Company Number: SC521030

Project: Glen Etive Hydro Project
 Figure No: 32
 Locogen Ref: 0410-PLN-0032-02C
 Drawn by: MW
 Approved by: JP
 Date: 06/12/2017

Viewpoint Name: VP20: Stob Dearg
 Grid Reference: NN 22263 54261
 View Direction: 210°

Field of View: 90°
 Camera: Canon EOS 7D
 Elevation: 1022m
 Time/Date taken: 13:24 05/11/2017
 OS Licence No: 0100031673

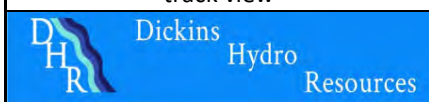




Notes

Project
Glen Etive Hydro Project

Drawing Title
Mheuran Hydro penstock and walkers track view



Chester House
81-83 Fulham Green, London SW6 3JA
tel: 0203 286 2203 www.dickinshydro.com

Scale	Date	By
Not scaled	08/12/2018	WD

Drawing / Map nos.	Sheet Number	Revision
1	1 of 1	

- Key
- - - - - Penstock route to be reinstated to original land form
 - - - - - Existing walkers access path
 - Powerhouse

Insert is view from the Glen road