

SCHEDULE 1

Licence	Scheme	Freshet condition number(s)	Fish lift / fish trap condition	Appendix	SEPA team
CAR/L/1011412/V2	Breadalbane	4.2.5	4.3.1	1	Perth
CAR/L/1011462/V2	Awe	4.2.2	4.3.1	2	West Highland & Argyll
CAR/L/1011463/V2	Shin	3.3.3, 3.3.5	4.3.3	3	North Highland
CAR/L/1011464/V2	Conon	4.2.2, 4.2.4, 4.2.6, 4.2.9	4.3.3	4	North Highland
CAR/L/1011467/V2	Beauly	4.2.6 & 4.2.7	4.3.2	5	Hebrides & Central Highland
CAR/L/1011471/V2	Ness	4.2.2, 4.2.5, 4.2.8	4.3.3	6	Hebrides & Central Highland
CAR/L/1011485/V2	Tummel	4.2.5, 4.2.10, 4.2.13	4.3.3	7	Perth/North Grampian & Speyside
CAR/L/1011854/V2	Shira	4.2.2	n/a	8	West Highland & Argyll
CAR/L/1011896/V2	Kingairloch	4.2.2	n/a	9	West Highland & Argyll
CAR/L/1010015/V2	Mucomir	n/a	4.3.3	10	West Highland & Argyll

General Notes:

1. Unless stated otherwise all times referred to in this document shall be local times, i.e. GMT or BST as appropriate to the time of year.
2. All freshet volumes released are in addition to the compensation flows unless otherwise stated.
3. All freshet start and end times are approximate, however SSE will endeavour to deliver the freshets as close to the stated time as practicable.
4. All Borland fish passes to operate between the stated dates except for periods of essential maintenance as authorised in writing by SEPA.
5. Where a day of the week is specified as the start of a freshet, the first freshet of the season shall be delivered starting on the first such day in the freshet season.
6. Where a freshet starts within the freshet season but would end beyond the end date, the full duration of the freshet shall be delivered as if it was within the freshet season.

SCHEDULE 2

APPENDIX 1

CAR/L/1011412 V2 - Breadalbane

FRESHETS

Licence condition – 4.2.5

NGR: NN 5073 4200

LOCATION: Stronuich

TOTAL AVAILABLE VOLUME: 9,546,600 m³ (in addition to compensation flows)

FREQUENCY: Release dates as specified below for 2018.

No	Day	Date	Month
1	Monday	16th	April
2	Friday	27th	April
3	Thursday	3rd	May
4	Monday	7th	May
5	Wednesday	16th	May
6	Friday	25th	May
7	Friday	1st	June
8	Tuesday	5th	June
9	Wednesday	13th	June
10	Thursday	21st	June
11	Monday	25th	June
12	Friday	6th	July
13	Wednesday	11th	July
14	Friday	20th	July
15	Thursday	26th	July
16	Monday	30th	July
17	Tuesday	7th	August
18	Tuesday	14th	August
19	Friday	24th	August
20	Thursday	30th	August
21	Thursday	6th	September
22	Wednesday	12th	September
23	Thursday	20th	September
24	Friday	28th	September
25	Tuesday	2nd	October

Three additional freshets will be available for release at the request of SEPA. Five working days' notice will be given for their release.

FRESHETS PROFILE: Freshet release commences at 15:00 the stated day, continues for 20 hours, finishing at 11:00 the following day and releasing a total volume of 340,957 m³/day. 28 freshets lasting 20 hours are available per annum.

TOTAL ALLOCATED VOLUME: 9,546,796 m³ per annum.

SCHEDULE 2

BORLAND FISH PASSES

Licence condition – 4.3.1

NGR: NN 5074 4192 **LOCATION:** Stronuich Dam

OPERATING SEASON: 1st April – 30th November (or following working day if 30th falls on a weekend or public holiday).

NUMBER OF LIFTS PER DAY: At least 3 lifts per day

TIMING OF LIFTING PHASE: During daylight where possible

DURATION OF LIFTING PHASE: 1 hour

NGR: NN 5437 3503 **LOCATION:** Lochay Fish Pass Weir

OPERATING SEASON: 1st March – 30th November (or following working day)

NUMBER OF LIFTS PER DAY: At least 3 lifts per day

TIMING OF LIFTING PHASE: During daylight where possible

DURATION OF LIFTING PHASE: 1 hour

SCHEDULE 2

APPENDIX 2

CAR/L/1011462 V2 - Awe

FRESHETS

Licence condition – 4.2.2

NGR: NN 0453 2868

LOCATION: Awe Barrage

TOTAL AVAILABLE VOLUME: 24,300,000 m³ (in addition to compensation flows)

FRESHET SEASON: 1 May – 23 December

FREQUENCY: The following freshet regime shall be delivered subject to the baseline compensation flow being amended in the Awe CAR licence and the annual compensation and freshet totals not being exceeded:

- One freshet to be delivered to facilitate a kayaking event on the Saturday 28th April 2018. The freshet on this day shall deliver a volume of 300,000 m³ over a period of 12 hours, i.e. the total flow including the compensation flow shall be increased to the equivalent of 1,500,000 m³/day, starting at 08:00 and finishing at 20:00.
- Two freshets to be delivered to facilitate a kayaking event on Saturday 12th and Sunday 13th May 2018. The freshet on these days shall deliver a volume of 300,000 m³ over a period of 12 hours, i.e. the total flow including the compensation flow shall be increased to the equivalent of 1,500,000 m³/day, starting at 06:00 and finishing at 18:00 on each day.
- One freshet starting at 08:00 on the last Sunday in July and August, each of these freshets shall deliver a volume of 500,000 m³ over one day (24 hours) i.e. the total flow including the compensation shall be increased to 1,500,000 m³/day.
- One freshet starting at 08:00 on the last Sunday in September. This freshet shall deliver a volume of 600,000 m³ over one day (24 hours) i.e. the total flow including the compensation shall be increased to 1,500,000 m³/day.
- A total of six freshets, the first freshet commencing at 12:00 on the second Friday in October and commencing at 12:00 every second Friday thereafter. Where the sixth freshet would fall outside the freshet season above, it may be delivered earlier. Each freshet shall deliver a volume of 2,100,000 m³ over three days (72 hours) i.e. the total flow including the compensation shall be increased to 1,500,000 m³/day.

TOTAL ALLOCATED VOLUME: 18,000,000m³

SMOLT FRESHETS

A 'smolt freshet' shall be released when the following conditions occur:

- There are reliable reports of a build-up of smolts upstream of the Awe Barrage (this is likely to be by the fisheries board bailiff and/or fisheries trust biologist),
- No main machine running at Inverawe because of insufficient water,

SCHEDULE 2

- No planned machine running at Inverawe due to insufficient water / forecast rainfall, and,
- SSE receive a written request from SEPA that a release be made.

Each smolt freshet shall consist of the following actions:

- The flow will be maintained at the current level, i.e. either the normal compensation flow or a lower flow, based on the inflow to Loch Awe (condition 4.2.3 of the licence allows that when the inflow to Loch Awe falls below 15.785 m³/s the outflow shall be equal to the inflow).
- All the flow, apart from the fish pass flow, shall be passed via the freshet gate.
- The freshet will start on or about 19:00 and finish on or about 07:00 the following morning.

Notwithstanding condition 4.2.3 of the licence which limits the required flow if the flows entering Loch Awe are less than 15.785 m³/s

SCHEDULE 2

BORLAND FISH PASSES

Licence condition – 4.3.1

NGR: NN 0455 2870 **LOCATION:** Loch Awe Barrage

OPERATING SEASON: All year

NUMBER OF LIFTS PER DAY: 26th March – 30th September 4 per Day and 1st October – 25th March 2 per Day

TIMING OF LIFTING PHASE: From 26th March – 30th September, where possible, 3 during daylight and 1 at night. From 1st October to 25th March, 2 during daylight where possible.

DURATION OF LIFTING PHASE: 1 hour

SCHEDULE 2

APPENDIX 3

CAR/L/1011463 V2 – Shin

FRESHETS

Licence condition – 3.3.3

NGR: NC 3679 2029 **LOCATION:** Duchally

TOTAL AVAILABLE VOLUME: 2,864,038m³

FRESHET SEASON: 1st May – 30th September

FREQUENCY: 7 freshets per month.

FRESHETS PROFILE: 35 releases of 81,830 m³

No more than 3 consecutive daily (24hr) freshets.

If there is insufficient water for a freshet the allocation will be carried over to next month. Released when the flows start rising.

Licence condition – 3.3.5

NGR: NC 6321 1521 **LOCATION:** Dalnessie

TOTAL AVAILABLE VOLUME: 1,432,000m³

FRESHET SEASON: 1st April – 30th September

FREQUENCY: Released during periods of increased inflow.

FRESHETS PROFILE: 21 releases of 68,191m³ where the natural flow upstream allows.

SCHEDULE 2

BORLAND FISH PASSES

Licence condition – 4.3.3

NGR: NC 5749 0695 **LOCATION:** Lairg dam

OPERATING SEASON: 1st April – 31st December (or following working day if 31st December falls on a weekend or public holiday)

NUMBER OF LIFTS PER DAY: At least 3 lifts per day

TIMING OF LIFTING PHASE: During daylight where possible

DURATION OF LIFTING PHASE: 1 hour

NGR: NC 5817 0511 **LOCATION:** Loch Shin diversion dam

OPERATING SEASON: 1st April – 31st December (or following working day if 31st December falls on a weekend or public holiday)

NUMBER OF LIFTS PER DAY: At least 3 lifts per day

TIMING OF LIFTING PHASE: During daylight where possible

DURATION OF LIFTING PHASE: 1 hour

NGR: NC 3680 2027 **LOCATION:** Duchally intake

OPERATING SEASON: 1st April – 30th November (or following working day if 30th November falls on a weekend or public holiday)

NUMBER OF LIFTS PER DAY: At least 3 lifts per day

TIMING OF LIFTING PHASE: During daylight where possible

DURATION OF LIFTING PHASE: 1 hour

SCHEDULE 2

APPENDIX 4

CAR/L/1011464 V2 – Conon

FRESHETS

Licence condition – 4.2.2

NGR: NH 3876 5797

LOCATION: Luichart

TOTAL AVAILABLE VOLUME: 11,592,530m³

FRESHET SEASON: 1st June – 15th November

FREQUENCY: Twice per week

FRESHETS PROFILE: Freshet releases commence at 09:00 on Monday and continuing for 26 hours finishing at 11:00 on Tuesday and also on Friday at 09:00 continuing for 26 hours until 11:00 on Saturday. Each freshet shall release 159,110m³.

TOTAL ALLOCATED VOLUME: 7,637,280m³

Licence condition – 4.2.4

NGR: NH 3754 5600

LOCATION: Meig

TOTAL AVAILABLE VOLUME: 9,887,750m³

FRESHET SEASON: 1st June – 31st October

FREQUENCY: Once per week

FRESHETS PROFILE: Freshet releases commence at 09:00 on Thursday continuing for 24 hours until 09:00 on Friday. Each freshet shall release a minimum of 36,000m³.

TOTAL ALLOCATED VOLUME: 3,341,310m³

ADDITIONAL NOTES

The unallocated volumes may be considered for release here or elsewhere as part of measures to deliver the second cycle of the river basin management plan.

SCHEDULE 2

Licence condition – 4.2.6

The freshet volumes for the Orrin are now available on request.

NGR: NH 4026 5035

LOCATION: Orrin

TOTAL AVAILABLE VOLUME: 4,625,666 m³

FREQUENCY: on request

FRESHETS PROFILE: As required

Licence condition – 4.2.9

NGR: either Vaich dam NH 3461 7496 or Glascarnoch dam NH 3455 7073

LOCATION: Blackwater

TOTAL AVAILABLE VOLUME: 2,618,549m³

FREQUENCY: on request

FRESHETS PROFILE: As required

BORLAND FISH PASSES

Licence condition – 4.3.3

NGR: NH 3002 6148 **LOCATION:** Loch a' Chuilinn Dam

OPERATING SEASON: 1st July – 16th November (or following working day)

NUMBER OF LIFTS PER DAY: At least 2 lifts per day

TIMING OF LIFTING PHASE: During daylight where possible

DURATION OF LIFTING PHASE: 1 hour

NGR: NH 3881 5798 **LOCATION:** Luichart Dam

OPERATING SEASON: 1st May – 16th November (or following working day)

NUMBER OF LIFTS PER DAY: At least 2 lifts per day

TIMING OF LIFTING PHASE: During daylight where possible

DURATION OF LIFTING PHASE: 1 hour

SCHEDULE 2

NGR: NH 3751 5602 **LOCATION:** Meig Dam

OPERATING SEASON: 1st May – 16th November (or following working day)

NUMBER OF LIFTS PER DAY: At least 2 lifts per day

TIMING OF LIFTING PHASE: During daylight where possible

DURATION OF LIFTING PHASE: 1 hour

NGR: NH 4026 5035 **LOCATION:** Orrin Dam

OPERATING SEASON: See freshet for operation details.

Additional Notes:

The Orrin Borland lift only acts as a mechanism for downstream passage. The fish trap below covers the upstream passage.

NGR: NH 4462 5454 **LOCATION:** Loch Achonachie Dam

OPERATING SEASON: 1st April – 30th November (or following working day)

NUMBER OF LIFTS PER DAY: At least 2 per day

TIMING OF LIFTING PHASE: During daylight where possible

DURATION OF LIFTING PHASE: 1 hour

SCHEDULE 2

FISH TRAPS

Licence condition – 4.3.3

NGR: NH 4041 5028

LOCATION: Orrin Dam

TYPE: Adult Fish Trap

OPERATING SEASON: 1st August – 30th November or other dates as agreed in writing, by exchange of emails between SEPA and SSE no less than 2 working days before the change is put into effect.

NGR: NH 3081 6181

LOCATION: Achanalt Dam

TYPE: Smolt Trap

OPERATING SEASON: 1st April – 15th June or other dates as agreed in writing, by exchange of emails between SEPA and SSE no less than 2 working days before the change is put into effect.

CAR LICENCE: CAR/L/1011873

NGR: NH 4285 5923

LOCATION: Loch na Croic

TYPE: Adult trap

OPERATING SEASON: Unless otherwise agreed with SEPA in writing, the fish trap shall be maintained and operated to facilitate the free passage of fish at all times except during the period 1 June to 31 December inclusive, during which time screens effective for preventing the passage of adult migratory fish may be provided.

SCHEDULE 2

APPENDIX 5

CAR/L/1011467 V2 - Beauly

FRESHETS

Licence condition – 4.2.6 & 4.2.7

NGR: NH 3255 3933

LOCATION: Beannachran

TOTAL AVAILABLE VOLUME: 13,638,000 m³ (in addition to compensation flows.)

FREQUENCY: To be released once per week commencing on the first Thursday in July on 15 occasions.

FRESHETS PROFILE: Freshet releases commence at 08:00 on Thursday continuing for 56 hours until 16:00 on Saturday. Each freshet shall release 910,136 m³.

TOTAL ALLOCATED VOLUME: 13,652,040 m³.

BORLAND FISH PASSES

Licence condition – 4.3.2

NGR: NH 3257 3936

LOCATION: Beannachran Dam

OPERATING SEASON: 1st May – 30th November (or following working day)

NUMBER OF LIFTS PER DAY: At least 3 lifts per day

TIMING OF LIFTING PHASE: During daylight where possible

DURATION OF LIFTING PHASE: 1 hour

NGR: NH 4743 4365

LOCATION: Aigas Dam

OPERATING SEASON: 1st April – 30th November (or following working day)

NUMBER OF LIFTS PER DAY: At least 2 lifts per day

TIMING OF LIFTING PHASE: During daylight where possible

DURATION OF LIFTING PHASE: 1 hour

SCHEDULE 2

NGR: NH 4940 4421

LOCATION: Kilmorack Dam

OPERATING SEASON: 1st April – 30th November (or following working day)

NUMBER OF LIFTS PER DAY: At least 2 lifts per day

TIMING OF LIFTING PHASE: During daylight where possible

DURATION OF LIFTING PHASE: 1 hour

SCHEDULE 2

APPENDIX 6

CAR/L/1011471 V2 - Ness

FRESHETS

Licence condition – 4.2.2

The freshet volumes for the Cluanie are not delivered at present but available on request.

NGR: NH 1845 0981

LOCATION: Cluanie

TOTAL AVAILABLE VOLUME: 8,000,960 m³

Licence condition – 4.2.5

NGR: NH 3572 1565

LOCATION: Dundreggan (River Moriston)

TOTAL AVAILABLE VOLUME: 43,778,866 m³

FRESHET SEASON: 1st May - 31st October

FREQUENCY: Once per week

FRESHETS PROFILE: Freshet releases commence at 11:00 on Tuesday continuing for 29 hours until 16:00 on Wednesday.

Except for weeks beginning 21st May, 4th June, 9th July, 30th July, and 3rd September when the freshets shall be released as follows:

- Saturday 26th May starting at 05:00 continuing for 29 hours until 10:00 on Sunday.
- Saturday 9th June starting at 09:00 continuing for 29 hours until 14:00 on Sunday.
- Saturday 14th July starting at 09:00 continuing for 29 hours until 14:00 on Sunday.
- Saturday 4th August starting at 10:00 continuing for 32 hours until 18:00 on Sunday.
- Saturday 8th September starting at 05:00 continuing for 29 hours until 10:00 on Sunday.

Each freshet shall release a minimum of 736,467 m³

NATURAL SPATES: The freshets at Dundreggan take into account natural spates and count one natural spate as one freshet.

TOTAL ALLOCATED VOLUME: 19,884,609 m³
2018 SSE Freshet Schedule v1.4final Page 15 of 22

15 March 2018

SCHEDULE 2

Licence condition – 4.2.8

NGR: NH 2759 0202

LOCATION: Garry (Invergarry)

TOTAL AVAILABLE VOLUME: 27,640,239 m³

FRESHETS PROFILE: Freshet release commences at 08:00 on the stated day and continuing for 20 hours until 04:00 on the following day.

Each freshet shall release a volume of 684,225 m³.

40 such freshets shall be released per annum as per the table below. Except freshets delivered on the Saturday 28th July and Sunday 9th September which will commence at 06:00 and continue for 13 hours until 19:00 releasing 444,746 m³.

TOTAL -ALLOCATED VOLUME: 27,369,000 m³

No	DAY	DATE	MONTH
1	Thursday	22 nd	March
2	Thursday	29 th	March
3	Thursday	5 th	April
4	Saturday	7 th	April
5	Thursday	12 th	April
6	Thursday	19 th	April
7	Thursday	26 th	April
8	Friday	27 th	April
9	Thursday	3 rd	May
10	Saturday	5 th	May
11	Saturday	12 th	May
12	Thursday	17 th	May
13	Thursday	24 th	May
14	Thursday	31 st	May
15	Thursday	7 th	June
16	Thursday	21 st	June
17	Thursday	28 th	June
18	Saturday	30 th	June
19	Thursday	5 th	July
20	Saturday	7 th	July
21	Thursday	12 th	July
22	Saturday	14 th	July
23	Thursday	19 th	July
24	Thursday	26 th	July
25	Saturday	28 th	July
26	Thursday	2 nd	August
27	Saturday	4 th	August
28	Thursday	9 th	August
29	Saturday	11 th	August
30	Thursday	16 th	August
31	Thursday	23 rd	August
32	Thursday	30 th	August

SCHEDULE 2

33	Thursday	6 th	September
34	Sunday	9 th	September
35	Thursday	20 th	September
36	Thursday	27 th	September
37	Thursday	4 th	October
38	Thursday	11 th	October
39	Thursday	18 th	October
40	Thursday	25 th	October

BORLAND FISH PASSES

Licence condition – 4.3.3

NGR: NH 2760 0203 **LOCATION:** Invergarry Dam

OPERATING SEASON: 1st March – 30th November (or following working day)

NUMBER OF LIFTS PER DAY: At least 3 per day

TIMING OF LIFTING PHASE: During daylight where possible

DURATION OF LIFTING PHASE: 1 hour

NGR: NH 3574 1562 **LOCATION:** Dundreggan Dam

OPERATING SEASON: 1st March – 30th November (or following working day)

NUMBER OF LIFTS PER DAY: At least 3 per day

TIMING OF LIFTING PHASE: During daylight where possible

DURATION OF LIFTING PHASE: 1 hour

SCHEDULE 2

APPENDIX 7

CAR/L/1011485 V2 - Tummel

FRESHETS

Licence condition – 4.2.5

The freshet volumes for Errochty are currently used to supplement the compensation flows.

Licence condition – 4.2.10

NGR: NN 7215 5912 **LOCATION:** Dunalastair

TOTAL AVAILABLE VOLUME: 20,454,000 m³ (including the compensation flow)

FRESHET SEASON: From June to November

FREQUENCY: 15 releases to meet the above volume.

No.	Day	Start Date	Month
1	Monday	4 th	June
2	Wednesday	13 th	June
3	Friday	29 th	June
4	Wednesday	4 th	July
5	Monday	16 th	July
6	Friday	27 th	July
7	Monday	6 th	August
8	Wednesday	15 th	August
9	Friday	24 th	August
10	Wednesday	5 th	September
11	Monday	17 th	September
12	Friday	28 th	September
13	Monday	8 th	October
14	Wednesday	17 th	October
15	Monday	29 th	October

FRESHETS PROFILE: Freshet releases commence at 14:00 on the stated day continuing for 47 hours until 13:00 on day three. Each freshet shall release 811,500 m³.

TOTAL ALLOCATED VOLUME: 12,172,500 m³/day (in addition to the compensation flow)

Licence condition – 4.2.13

NGR: NN 8843 6027 **LOCATION:** Clunie

TOTAL AVAILABLE VOLUME: 14,320,190 m³

SCHEDULE 2

FRESHET SEASON: 1st June – 30th September

FRESHETS PROFILE: Freshets shall be released weekly and shall commence at 16:00 on Friday continuing for 64 hours until 08:00 on Monday. Each freshet shall release 976,896 m³.

TOTAL ALLOCATED VOLUME: 14,653,440 m³

BORLAND FISH PASSES

Licence condition – 4.3.3

NGR: NN 4607 5680 **LOCATION:** Loch Eigheach dam

OPERATING SEASON: 1st March – 15th May (or following working day) – on flow through settings
16th May -30th November (or following working day) – on lift cycle settings

NUMBER OF LIFTS PER DAY: At least 3 per day

TIMING OF LIFTING PHASE: During daylight where possible

DURATION OF LIFTING PHASE: 1 hour

SCHEDULE 2

APPENDIX 8

CAR/L/1011854 V2 - Shira

FRESHETS

Licence condition – 4.2.2

NGR: NN 1274 1350 **LOCATION:** Shira

TOTAL AVAILABLE VOLUME: 2,909,499 m³

FRESHET SEASON: Freshet releases commence on the first Monday in June and continue every second Monday thereafter until a total of eight releases has been made.

FRESHETS PROFILE: Freshet releases commence on Monday at 10:00 continuing for 48 hours until 09:00 on Wednesday. Each freshet shall release 363,688 m³.

TOTAL ALLOCATED VOLUME: 2,909,504 m³

SCHEDULE 2

APPENDIX 9

CAR/L/1011896 V2 - Kingairloch

FRESHETS

Licence condition – 4.2.2

NGR: NM 8102 5469 **LOCATION:** Kingairloch – Loch Uisge Dam

TOTAL AVAILABLE VOLUME: 64,800 m³ (including the compensation flow)

FRESHET SEASON: 1st May to 31st August

FREQUENCY: 3 per month for a total of 12 freshets.

FRESHETS PROFILE: Each freshet shall last for 10 hours and shall release a volume of 4,320 m³.

NATURAL SPATES: Spill from the dam counts towards the freshet volume.

TOTAL ALLOCATED VOLUME: 51,840 m³ (in addition to the compensation flow)

SCHEDULE 2

APPENDIX 10

CAR/L/1010015 V2 - Mucomir

BORLAND FISH PASSES

Licence condition – 4.3.3

NGR: NN 1834 8386

LOCATION: Mucomir Barrage

OPERATING SEASON: 1st April – 30th November (or following working day)

NUMBER OF LIFTS PER DAY: At least 4 lifts per day

TIMING OF LIFTING PHASE: Where possible 3 during daylight and 1 at night

DURATION OF LIFTING PHASE: 1 hour