

### Record of decisions

#### Introduction

Targets for water quality and flows are determined for Natura 2000 sites by Natural England with reference to Common Standards Monitoring Guidance (CSMG). Targets for these elements similarly form the basis for assessments of the ecological status of water bodies under the Water Framework Directive (WFD). Water dependant Natura 2000 sites are defined as protected areas under the WFD.

Where possible a single target should be set for elements that are common to the water body and coincident Natura 2000 protected area. However, where achievement of the targets based on CSMG is not possible in the next river basin planning cycle then interim progress goals have been agreed by Natural England and the Environment Agency. These can be in the form of numerical targets or, if inappropriate to set quantitative targets, descriptive measures that will achieve, by 2021, progress towards the long term targets set using CSMG. Where only the CSMG target is expressed, this is the target for 2021.

This document summarizes the decisions made by Natural England and the Environment Agency on the standards that need to be achieved for elements of environmental quality that support the achievement of objectives for the named Natura 2000 protected area. The draft second river basin management plans were used to consult the public about the locally proposed measures and targets. Note that for Cumbria rivers, the need to gather additional data and extended discussions meant that the values were not available during the updated River Basin Management Plan consultation.

Where it has not been possible to agree specific targets, usually because further technical work is required, these will be indicated by an asterisk or referenced by a comment against the target. In these cases the proposed CSMG target is included as advice from Natural England but it is subject to further validation throughout the period of the consultation and beyond. Where no interim goal or CSMG targets are specified, it is currently considered that the elements are not relevant, or are insufficiently understood for this river.

**CSMG****Target Interim Progress Goal (quantitative target or descriptive measure) by 2021****Flows** (% deviations from daily naturalised flow)

Low flows	5	5; Natural flow regime, targets for HES to avoid deterioration, equates to old SAC targets used in RoC
Low-moderate flows	10	10; As above
Moderate-high flows	10	10; As above
High flows	10	10; As above

**Soluble Reactive Phosphorus** ('orthophosphate' expressed as P)

As annual and growing season means ( $\mu\text{g/L}$ ) 10 10; Unit 105, already meeting near natural target.

**Acidification**

pH		n/a
Acid Neutralising Capacity (ANC)		n/a

**Organic Pollution**

Un-ionised ammonia (mg/L as 95%ile)	0.030	0.03
Total ammonia (mg/L as 90%ile)	0.250	0.25
Mean Biological Oxygen Demand (mg/L)		EA no longer measure BOD, will rely on DO instead
Dissolved Oxygen (% saturation as 10%ile)	85	85

**CSMG****Target Interim Progress Goal (quantitative target or descriptive measure) by 2021****Flows** (% deviations from daily naturalised flow)

Low flows	5	Natural flow regime, targets for HES to avoid deterioration, equates to old SAC targets used in RoC
Low-moderate flows	10	..continued...Same target applies to both 118 (Gatesgarthdale) and 119 (B Dubs)
Moderate-high flows	10	".. CSMG standards not agreed by EA in absence of flow data. Further work req'd to agree long term
High flows	10	"...objectives, in interim EA will apply WFD supports good (i.e. EFI) in permitting as a minimum.

**Soluble Reactive Phosphorus** ('orthophosphate' expressed as P)

As annual and growing season means ( $\mu\text{g/L}$ )	5	5; 118/119 mtg n.n target using Spt 88021659 d'stream of B'mere, ideally need new m'g pt on 119.
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**Acidification**

pH		n/a
Acid Nuetralising Capacity (ANC)		n/a

**Organic Pollution**

Un-ionised ammonia (mg/L as 95%ile)	0.030	0.03
Total ammonia (mg/L as 90%ile)	0.250	0.25
Mean Biological Oxygen Demand (mg/L)		EA no longer measure BOD, will rely on DO instead
Dissolved Oxygen (% saturation as 10%ile)	85	85

**CSMG****Target Interim Progress Goal (quantitative target or descriptive measure) by 2021****Flows** (% deviations from daily naturalised flow)

Low flows	5	Interim Flow targets n/a as flow regulated by compensation flow from Crummock
Low-moderate flows	10	cont'd .... CSMG 5,10,10,10 as will be returned to natural flow
Moderate-high flows	10	Cont'd.... EA has not assessed flows for HMWBs, when all mitigation measures in place, will classify
High flows	10	Cont'd.....from Mitigation Measure Moderate to MM Good.

**Soluble Reactive Phosphorus** ('orthophosphate' expressed as P)

As annual and growing season means ( $\mu\text{g/L}$ )	14	14; Unit 123, meeting WFD H of 14, < near natural of 20
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**Acidification**

pH		n/a
Acid Neutralising Capacity (ANC)		n/a

**Organic Pollution**

Un-ionised ammonia (mg/L as 95%ile)	0.030	0.03
Total ammonia (mg/L as 90%ile)	0.250	0.25
Mean Biological Oxygen Demand (mg/L)		EA no longer measure BOD, will rely on DO instead
Dissolved Oxygen (% saturation as 10%ile)	85	85

**CSMG****Target Interim Progress Goal (quantitative target or descriptive measure) by 2021****Flows** (% deviations from daily naturalised flow)

Low flows	5	5; Natural flow regime, targets for HES to avoid deterioration, equates to old SAC targets used in RoC
Low-moderate flows	10	10; As above
Moderate-high flows	10	10; As above
High flows	10	10; As above

**Soluble Reactive Phosphorus** ('orthophosphate' expressed as P)

As annual and growing season means ( $\mu\text{g/L}$ )	13	13; Unit 121, meeting WFD H of 13, < nr.n target of 15
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**Acidification**

pH		n/a
Acid Neutralising Capacity (ANC)		n/a

**Organic Pollution**

Un-ionised ammonia (mg/L as 95%ile)	0.030	0.03
Total ammonia (mg/L as 90%ile)	0.250	0.25
Mean Biological Oxygen Demand (mg/L)		EA no longer measure BOD, will rely on DO instead
Dissolved Oxygen (% saturation as 10%ile)	85	85

**CSMG****Target Interim Progress Goal (quantitative target or descriptive measure) by 2021****Flows** (% deviations from daily naturalised flow)

Low flows	5	5; Targets are for Sandy Beck (unit 122), part of the larger Cocker waterbody; interim..
Low-moderate flows	10	10; cont'd:....targets do not apply outside of Unit 122 in the waterbody (which is part of unit 123)
Moderate-high flows	10	10; cont'd.. Target in U122 is CSMG Table 2, WFD High; see U123 in WB...0370
High flows	10	10

**Soluble Reactive Phosphorus** ('orthophosphate' expressed as P)

As annual and growing season means ( $\mu\text{g/L}$ ) 14 14; 123 mtg WFD H of 14, < nn 20; 122 Sandy Beck: needs new s.pt, int tgt is 20 (original SAC)....

**Acidification**

pH n/a .....P continued: 122 - can't be sure mtg nn 15, EA not planning to sample, cont'd..  
 Acid Nuetralising Capacity (ANC) n/a ...so Sandy Beck could be assessed as part of 123, and trgt would be 14.

**Organic Pollution**

Un-ionised ammonia (mg/L as 95%ile)	0.030	0.03
Total ammonia (mg/L as 90%ile)	0.250	0.25
Mean Biological Oxygen Demand (mg/L)		EA no longer measure BOD, will rely on DO instead
Dissolved Oxygen (% saturation as 10%ile)	85	85

**CSMG****Target Interim Progress Goal (quantitative target or descriptive measure) by 2021****Flows** (% deviations from daily naturalised flow)

Low flows	5	Natural flow regime, targets for HES to avoid deterioration, equates to old SAC targets used in RoC.
Low-moderate flows	10	Cont'd..No assessment pt in U106, CSMG standards are not agreed by EA, further work will be req'd
Moderate-high flows	10	"... to agree them for long term; in interim, EA will apply WFD supports good (i.e. EFI) as a minimum
High flows	10	".....in permitting decisions

**Soluble Reactive Phosphorus** ('orthophosphate' expressed as P)

As annual and growing season means ( $\mu\text{g/L}$ )	10	10; Unit 106, already meeting near natural target
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**Acidification**

pH		n/a
Acid Neutralising Capacity (ANC)		n/a

**Organic Pollution**

Un-ionised ammonia (mg/L as 95%ile)	0.030	0.03
Total ammonia (mg/L as 90%ile)	0.250	0.25
Mean Biological Oxygen Demand (mg/L)		EA no longer measure BOD, will rely on DO instead
Dissolved Oxygen (% saturation as 10%ile)	85	85

**CSMG****Target Interim Progress Goal (quantitative target or descriptive measure) by 2021****Flows** (% deviations from daily naturalised flow)

Low flows	5	5; Natural flow regime, targets for HES to avoid deterioration, equates to old SAC targets used in RoC
Low-moderate flows	10	10
Moderate-high flows	10	10
High flows	10	10

**Soluble Reactive Phosphorus** ('orthophosphate' expressed as P)

As annual and growing season means ( $\mu\text{g/L}$ )	5	5; Unit 103, Already meeting near natural target, no interim target needed
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**Acidification**

pH		n/a
Acid Neutralising Capacity (ANC)		n/a

**Organic Pollution**

Un-ionised ammonia (mg/L as 95%ile)	0.030	0.03
Total ammonia (mg/L as 90%ile)	0.250	0.25
Mean Biological Oxygen Demand (mg/L)		EA no longer measure BOD, will rely on DO instead
Dissolved Oxygen (% saturation as 10%ile)	85	85



**CSMG****Target Interim Progress Goal (quantitative target or descriptive measure) by 2021****Flows** (% deviations from daily naturalised flow)

Low flows		n/a as flows heavily regulated by compensation releases from Thirlmere, v. little flow variability,
Low-moderate flows		cont'd... except for flood releases, currently under review by NE/UU/EA
Moderate-high flows		As above
High flows		Currently impacted by flood release arrangements, UU reviewing as part of Thirlmere Transfer Scheme

**Soluble Reactive Phosphorus** ('orthophosphate' expressed as P)

As annual and growing season means (µg/L)	10	10; Unit 102, Already meeting near natural target
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**Acidification**

pH		n/a
Acid Neutralising Capacity (ANC)		n/a

**Organic Pollution**

Un-ionised ammonia (mg/L as 95%ile)	0.030	0.03
Total ammonia (mg/L as 90%ile)	0.250	0.25
Mean Biological Oxygen Demand (mg/L)		EA no longer measure BOD, will rely on DO instead
Dissolved Oxygen (% saturation as 10%ile)	85	85

**CSMG****Target Interim Progress Goal (quantitative target or descriptive measure) by 2021****Flows** (% deviations from daily naturalised flow)

Low flows	5	5; Natural flow regime, targets for HES to avoid deterioration, equates to old SAC targets used in RoC
Low-moderate flows	10	10
Moderate-high flows	10	10
High flows	10	10

**Soluble Reactive Phosphorus** ('orthophosphate' expressed as P)

As annual and growing season means ( $\mu\text{g/L}$ )	10	10; Unit 101, Already meeting near natural target
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**Acidification**

pH		n/a
Acid Neutralising Capacity (ANC)		n/a

**Organic Pollution**

Un-ionised ammonia (mg/L as 95%ile)	0.030	0.03
Total ammonia (mg/L as 90%ile)	0.250	0.25
Mean Biological Oxygen Demand (mg/L)		EA no longer measure BOD, will rely on DO instead
Dissolved Oxygen (% saturation as 10%ile)	85	85

**CSMG****Target Interim Progress Goal (quantitative target or descriptive measure) by 2021****Flows** (% deviations from daily naturalised flow)

Low flows	5	5; Natural flow regime, targets for HES to avoid deterioration, equates to old SAC targets used in RoC
Low-moderate flows	10	10
Moderate-high flows	10	10
High flows	10	10

**Soluble Reactive Phosphorus** ('orthophosphate' expressed as P)

As annual and growing season means ( $\mu\text{g/L}$ )	10	10; Unit 101, Already meeting near natural target
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**Acidification**

pH		n/a
Acid Neutralising Capacity (ANC)		n/a

**Organic Pollution**

Un-ionised ammonia (mg/L as 95%ile)	0.025	0.025
Total ammonia (mg/L as 90%ile)	0.250	0.25
Mean Biological Oxygen Demand (mg/L)		EA no longer measure BOD, will rely on DO instead
Dissolved Oxygen (% saturation as 10%ile)	85	85

**CSMG****Target Interim Progress Goal (quantitative target or descriptive measure) by 2021****Flows** (% deviations from daily naturalised flow)

Low flows	10	Figures used for RoC and in the old conservation objectives, already impacted by abstractions, no
Low-moderate flows	10	cont'd....further deterioration. No CSMG targets for U125 have been agreed with EA. Further work..
Moderate-high flows	15	"...required to agree long term flow objectives; and in the interim WFD supports good (i.e. EFI) as a
High flows	15	"...minimum will be applied in permitting decisions.

**Soluble Reactive Phosphorus** ('orthophosphate' expressed as P)

As annual and growing season means (µg/L)	22	22; Unit 125, meeting WFD High, < nr natural 30.
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**Acidification**

pH		n/a
Acid Neutralising Capacity (ANC)		n/a

**Organic Pollution**

Un-ionised ammonia (mg/L as 95%ile)	0.030	0.03
Total ammonia (mg/L as 90%ile)	0.250	0.25
Mean Biological Oxygen Demand (mg/L)		EA no longer measure BOD, will rely on DO instead
Dissolved Oxygen (% saturation as 10%ile)	85	85

**CSMG****Target Interim Progress Goal (quantitative target or descriptive measure) by 2021****Flows** (% deviations from daily naturalised flow)

Low flows	5	Near natural flow regime, targets for HES to avoid deterioration,
Low-moderate flows	10	cont'd....equates to old SAC targets used in RoC, and noting outcome of the RoC. CSMG flow standards
Moderate-high flows	10	".. for U124 have not been agreed by EA, further work is required to agree long term tgts,
High flows	10	"..and in interim WFD supports good (i.e. EFI) as a minimum will be applied in permitting.

**Soluble Reactive Phosphorus** ('orthophosphate' expressed as P)

As annual and growing season means (µg/L)	40	40; Unit 124 Marron, set as original SAC tgt, review feasib'y of achieving near nat of 30 in long term
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**Acidification**

pH		n/a
Acid Nuetralising Capacity (ANC)		n/a

**Organic Pollution**

Un-ionised ammonia (mg/L as 95%ile)	0.030	0.03
Total ammonia (mg/L as 90%ile)	0.250	0.25
Mean Biological Oxygen Demand (mg/L)		EA no longer measure BOD, will rely on DO instead
Dissolved Oxygen (% saturation as 10%ile)	85	85

**CSMG****Target Interim Progress Goal (quantitative target or descriptive measure) by 2021****Flows** (% deviations from daily naturalised flow)

Low flows	5	Natural flow regime, targets for HES to avoid deterioration, equates to old SAC targets used in RoC
Low-moderate flows	10	Cont'd..CSMG flow standards for U104+116 have not been agreed by EA. Further work required to agree
Moderate-high flows	10	"...flow objectives, and in the interim WFD supports good (i.e. EFI) as a minimum will be applied
High flows	10	"..in permitting. Unclear whether Thirlmere managed flows affect this far downstream.

**Soluble Reactive Phosphorus** ('orthophosphate' expressed as P)

As annual and growing season means (µg/L) 13 13; Unit 116 mtg WFD H of 13 which is < NN 20; Unit 104 mtg near natural 10

**Acidification**

pH		n/a
Acid Neutralising Capacity (ANC)		n/a

**Organic Pollution**

Un-ionised ammonia (mg/L as 95%ile)	0.030	0.03
Total ammonia (mg/L as 90%ile)	0.250	0.25
Mean Biological Oxygen Demand (mg/L)		EA no longer measure BOD, will rely on DO instead
Dissolved Oxygen (% saturation as 10%ile)	85	85

**CSMG****Target Interim Progress Goal (quantitative target or descriptive measure) by 2021****Flows** (% deviations from daily naturalised flow)

Low flows	5	Natural flow regime, tgts for HES to avoid deterioration, equates to original SAC targets used in RoC
Low-moderate flows	10	Cont'd..CSMG standards for U 117 have not been agreed by EA. Further work req'd to understand info
Moderate-high flows	10	"...from the assessment pt, and to set long-term objectives. In interim, supports good (i.e. EFI) as
High flows	10	"...a minimum will be applied in permitting.

**Soluble Reactive Phosphorus** ('orthophosphate' expressed as P)

As annual and growing season means (µg/L)	16	16; Unit 117 mtg WFD H of 16, < nr nat of 20
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**Acidification**

pH		n/a
Acid Neutralising Capacity (ANC)		n/a

**Organic Pollution**

Un-ionised ammonia (mg/L as 95%ile)	0.030	0.03
Total ammonia (mg/L as 90%ile)	0.250	0.25
Mean Biological Oxygen Demand (mg/L)		EA no longer measure BOD, will rely on DO instead
Dissolved Oxygen (% saturation as 10%ile)	85	85

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The targets and goals underpinning the conservation objectives for rivers within River Derwent & Bassenthwaite Lake Natura 2000 site have been jointly agreed between Natural England and the Environment Agency.

### **Natural England**

**Comment:** See audit trail and flow chart for record of discussions. Note that contrary to the standard wording of the database, the SRP targets relate only to annual means, not to growing season means - CSMG targets for the latter have not been agreed by EA.

**Agreed by:** Simon Humphries

**Date:** 20 May 2016

### **Environment Agency**

**Comment:** A technical feasibility assessment will need to be undertaken where it has not been possible to agree long term CSMG targets.

**Agreed by:** Stewart Mounsey

**Date:** 07 June 2016

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