Moving towards common standards monitoring guidance targets for SAC rivers

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.

GB112073071340 Flodder Beck (grayrigg beck) (river) North West River Basin District

	CSMG Target	Interim Progress Goal (quantitative target or descriptive measure) by 2021
Flows (% deviations from daily naturalised flow)		
Low flows	5	5; CSMG Table 2 WFD High, agreed
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 (µg/L)	10	22; *U 111 EA have not agreed CSMG SAC max 10 as long term tgt. Int is WFD H which is being met. Cont'd
Acidification		
pH		n/a….. P cont'd Feasibility of meeting SAC max to be assessed.
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	5; Lower Mint (Unit 110), Upper Mint is in WB 4640, though flows are the same, CSMG Table 2 WFD H
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 (µg/L)	27	27; Unit 110 has sep. tgts for 2 WBs: this is Lower Mint - mtg WFD H of 27, < nn 30
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	Upper part of unit 112 is in this WB, Need to agree assessment pt, CSMG standards…
Low-moderate flows	10	Cont'd.. for this unit have not been agreed by EA. Further work is required to understand deviation
Moderate-high flows	10	"…from natural and set long term objectives, in interim WFD supports good (i.e. EFI) as a …
High flows	10	"…minimum will be applied in permitting decisions.
Soluble Reactive Phosphorus ('orthophosphate' expressed as P)		
As annual and growing season means (µg/L)	20	20; Unit 112, mtg near natural target annual mean
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	Units 105/107 - although Kentmere Tarn sits at head of the catchment, it's not clear how this…..
Low-moderate flows	10	Cont'd…. Influences flows, with no abstraction are they near natural? Need to agree assessment pt.
Moderate-high flows	10	"….CSMG flow standards for these units have not been agreed by EA; need to understand deviations
High flows	10	"…from natural. In interim, WFD supports good (i.e. EFI) as a minimum will be used in permitting.
Soluble Reactive Phosphorus ('orthophosphate' expressed as P)		
As annual and growing season means (µg/L)	14	14; Units 105/107 K'mere mtg WFD H; need to look at feasibility of achieving n-n of 10, no s.pt on 105
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	Targets do not include Dubbs Beck (102) which is regulated with a comp flow, it's not clear how far
Low-moderate flows	10	….the impoundment at Borrans & Dubbs affects flow in Unit 104; U108 is unaffected by impoundments.
Moderate-high flows	10	…CSMG flows tgts not agreed by EA for these units, further work needed to agree
High flows	10	" long term tgts; 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)	25	25; Units 102,104,108. 102 mtg NN tgt of 5; 104 - mtg max of 25, look at feas'y of mtg NN of 15, cont'd
Acidification		
pH		n/a cont'd P: no sample pt on 108, use s. pt on 104 and max target of 25
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	5; CSMG Table 2, WFD High agreed
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 (µg/L)	18	18; Unit 109 Meeting WFD H, < NN of 20
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	10	Tgts apply to U113&115; U114 shld be 5,10,10,10 as no abstraction/discharge; 115 d'stream of
Low-moderate flows	15	…Kendal STW, flow enhanced, this does not apply to 113 which shld be unaffected by abst'n/discharge
Moderate-high flows	20	…but assessment pt is on 115; 115 the STW discharge creates an anomaly at Q95, needs further
High flows	10	… discussion, in interim EA will apply supports good (i.e. EFI) as a minimum in licensing.
Soluble Reactive Phosphorus ('orthophosphate' expressed as P)		
As annual and growing season means (µg/L)	30	30; Units 113,115, 114. Main river pts mtg NN of 30; 114 no samples, CSMG max is int tgt of 40, cont'd
Acidification		
pH		n/a….cont'd P: ideally wld have new sample pt on 114, cld be mtg NN/original SAC of 20
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	5; Upper Mint (Unit110), Lower M is in WB 1370; CSMG Table 2 WFD High agreed
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 (µg/L)	10	17; Unit 110 Upper Mint, mtg WFD H of 17, close to NN of 10; feasibility to be assessed
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

The targets and goals underpinning the conservation objectives for rivers within River Kent 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