South East River Basin Management Plan submission

Liaison Panel
meeting 17th November 2015

Jon Sellars & David Howarth–

National River Basin Management Service

Aim for today

Highlight key data on the updated South East RBMP, discussion and questions

Start to identify where other activity is occurring in the RBD and where efforts need to be targeted to help achieve water body improvements.

Scene setting

- Legally compliant plan
- Does not contain catchment scale information, with the exception of catchment pages.
- Now submitted for approval

refresh of the basic requirements

- Produce a legally compliant RBMP.
- Define, monitor and classify water bodies using defined standards.
- Consider the current and future pressures acting on the environment and investigate deteriorations and failures against those standards.
- Set environmental objectives.
- Develop a summary programme of measures designed to meet the objectives.
- Report on progress.

Statutory Products

- Part 1 – River Basin District Summary (x8).
- Part 2 – Planning overview and additional information, for England .
- Impact Assessment for England.
- Strategic Environmental Assessment (SEA). (x 8)
- Habitats Regulation assessment report(x 8)
- Consultation response document for England. (combined with FRMP's)
- Guide to accessing data and information.
- Glossary

Part 1- Summary

- This plan updates and replaces the 2009 plan.
- Provides a framework for decision making
- Comprises a number of significant data sets.
- Describes the current state
- Pressures on the environment,
- Water body objectives
- Programme of measures
- Progress since 2009

Water for life and livelihoods

Part 1: South East river basin district

River basin management plan

(2015 proposed update)

Current State of the Environment

- Change from 2009
- 2015 classifications become the new baseline
- Data download
- Fewer water bodies

(441 wb's cycle 1)

Table 5: Number of water bodies in the South East River Basin District

Water body categories	*Natural*	*Artificial*	*Heavily modified*	*Total*
Rivers, canals and surface water transfers	138	13	69	220
Lake	2	16	10	28
Coastal	2	0	9	11
Estuarine	1	5	17	23
Groundwater	33	0	0	33
Total	**176**	**34**	**105**	**315**

current state of the environment

Table 6: Ecological and chemical 2015 classification for surface waters

	Ecological status or potential					Chemical status	
No. of water bodies	Bad	Poor	Mod	Good	High	Fail	Good
282	10	60	169	43	0	5	277

Table 7: Chemical and quantitative 2015 classification for groundwater

	Quantitative status		Chemical status	
No. of water bodies	**Poor**	**Good**	**Poor**	**Good**
33	16	17	16	17

% of water bodies at GES/GEP by River Basin

River Basin	Cycle 1 (2009)	Cycle 1 (2015)	Cycle 2 (2015)	Difference in 2015 data from Cycle 1-2
England	26.1	21.4	17.4	- 4.2
Northumbria	**42.6**	**40.8**	**26.7**	-14.1
Anglian	18.3	13.3	10.3	-3
North West	30	27.7	21.7	-6
Severn	29	27.2	20.0	-7.2
Solway Tweed	45.3	42.1	42.8	+0.7
South East	18.5	14.1	15.2	+1.1
South West	33.3	24.7	23.2	-1.5
Thames	23.2	14.5	7.4	-7.1
Humber	17.7	16.4	15	-1.4
Western Wales	29.3	38.8	42.5	+4.2

Part 1- Issues, Deteriorations and Reasons for Not Achieving Good Status (RNAGS)

- Significant Water Management Issues (in section 1.4 and tables 32 & 33).
- Water body deteriorations - (table 27)
- Data download - (links/geopdf's)

Table 33: Significant water management issues preventing waters reaching good status and the sectors identified as contributing to the impact (reasons for not achieving good status) in the South East river basin district

Significant water management issue	Agriculture and rural land management	Industry	Mining and quarrying	Navigation	Urban and transport	Water Industry	Local & central government	Domestic general public	Recreation	Waste treatment and disposal	Other	No sector responsible	Sector under investigation	Total
Physical modifications	40	2	0	0	25	13	36	2	3	0	21	138	8	288
Pollution from waste water	0	13	0	0	8	236	0	28	5	0	4	0	0	294
Pollution from towns, cities and transport	0	3	0	0	33	4	0	0	0	0	2	0	2	44
Changes to the natural flow and level of water	6	1	0	0	0	28	0	0	0	0	3	0	0	38
Non-native invasive species	0	0	0	0	0	0	0	0	0	0	0	8	0	8
Pollution from rural areas	191	0	0	0	0	0	0	0	0	0	6	0	0	197
Pollution from abandoned mines	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 34: Reasons for deterioration from one or more status class and the sectors identified as contributing to the impact in the South East river basin district

Pressure causing deterioration	Agriculture and rural land management	Industry	Mining and quarrying	Navigation	Urban and transport	Water Industry	Local & central government	Domestic general public	Recreation	Waste treatment and disposal	Other	No sector responsible	Sector under investigation	Total
Abstraction & Flow	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chemicals	1	0	0	1	0	0	0	0	0	0	0	1	0	3
Biochemical oxygen demand	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dissolved Oxygen	3	0	0	0	0	3	0	0	0	0	0	2	1	9
Ammonia	2	0	0	0	0	5	0	0	0	0	0	0	0	7
Fine sediment	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Invasive non native species	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Nitrate	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Phosphate	6	0	0	0	1	12	0	1	0	0	1	0	0	21
Physical Modification	1	0	0	0	1	0	0	0	0	0	3	0	2	7

Environmental Objectives

The environmental objectives of the WFD are:

- to **prevent deterioration** of the status of surface waters and groundwater
- to **achieve objectives** and standards **for protected areas**
- **to aim to achieve good status for all water bodies** or, for heavily modified water bodies and artificial water bodies, good ecological potential and good surface water chemical status
- **to reverse** any significant and sustained upward trends in pollutant concentrations in **groundwater**
- **the cessation of discharges**, emissions and loses **of priority hazardous substances into surface waters**
- **progressively reduce the pollution of groundwater** and prevent or limit the entry of pollutants

Environmental Objectives

- The environmental objectives are legally binding.
- Environmental objectives have been set for all water bodies and protected areas.
- The default objective is to achieve GES/GEP by 2021.

- If GES by 2021 cannot be reached an **alternative objective** has been set.

- Either a lower objective is set or the date has been extended to 2027 due to:
  - Not technically feasible.
  - Disproportionately costly.
  - Natural conditions prevent improvement.

231 water bodies have an objective of maintaining or aiming to achieve good ecological status between 2015 and 2027

40 water bodies have already achieved their objective of moderate ecological status (a less stringent objective)

06 water bodies have been set an objective of reaching moderate ecological status (a less stringent objective) by 2027 (an extended deadline)

	Ecological status or potential						Chemical status			
	Bad	Poor	Mod	Good	High	Total	Fail	Good	Total	
By 2015	1	2	40	43	0	86	2	277	279	
By 2021	0	0	2	9	0	11	0	0	0	
By 2027	0	0	6	179	0	185	0	3	3	Extended deadline
Beyond 2027	0	0	0	0	0	0	0	0	0	
Total	1	2	48	231	0	282	2	280	282	
	Less stringent						Less stringent			

Environmental Outcomes for 2021 & 2027

Setting an objective for 2021 was based on the confidence of implementing measures where:

- The measure will happen by 2021.
- The location of the measure and benefitting water body are known .
- The change in element will occur.

Current and predicted surface water body status

	Ecological status				Chemical status	
	Bad	Poor	Mod	Good or better	Fail	Good
Current status	10	60	169	43	5	277
Predicted 2021 status	8	51	171	52	5	277
Predicted change	-2	-9	2	9	0	0
Objective by 2027	**1**	**2**	**48**	**231**	**2**	**280**

Groundwater bodies

Current and predicted status for groundwater bodies

	Quantitative status		Chemical status	
	Poor	Good	Poor	Good
Current status	16	17	16	17
Predicted 2021 status	11	22	16	17
Predicted change	-5	5	0	0
Objective by 2027	**9**	**24**	**33**	**33**

Element Improvements

Current and predicted 2021 surface water **element** status

	Ecological status				Chemical status	
	Bad	Poor	Mod	Good or better	Fail	Good
Current status	43	146	281	1506	5	456
Predicted 2021 status	41	131	255	1544	5	456
Predicted change	-2	-15	-26	38	0	0

Current status	2.2%	7.4%	14.2%	76.2%	1.0%	98.9%
Predicted 2021 status	2.0%	6.6%	12.9%	78.1%	1.0%	98.9%

Protected Area Objectives

- Drinking Water Protected Areas
- Shellfish Waters.
- Bathing Waters
- Nutrient sensitive Areas - Nitrate Vulnerable Zones
- Nutrient sensitive Areas - Urban Waste Water Treatment Directive
- Natura 2000 sites

Protected Areas – Planning Process

Protected Area	Measures
Drinking Water Protected Areas	Safeguard Zone Actions Plans
Bathing Waters	Bathing Water profiles
Natura 2000	SIPs
Shellfish	Shellfish water action plan
Nutrient Sensitive Areas	NVZ measures and uWWTD actions

Programme of Measures

The Summary of the programme of measures are the actions needed to meet the objectives .

- Measures to prevent deterioration
- Measures to achieve objectives by 2021
  - Main Programmes
  - Local Measures
- Measures beyond 2021
- Protected Area Measures

Main Programme of Measures

Water company investment programme

- £3.5 billion National for Environmental Improvements in AMP6
- £380 million for the South East

Countryside Stewardship

- £3.5 billion National fund divided between:
  -£2.6 billion on existing schemes and
  -£900 million new schemes
- Of the new schemes £400 million is allocated for water quality and flooding and £ 500 million for wildlife

Highways England Environment Fund

- Fund is £300 million National

Main Programme of Measures

Flood risk management investment programme

- yet to be declared nationally

Catchment level government funded improvements

- Fund for 2015/16
  - £10.86 million National fund divided between
    - £5.19 million Catchment Partnership Action Fund
    - £5.34 million Environment Program
    - £0.33 million Defra administration

- 2015/16 ,South East funding of confident measures

- **Water resources sustainability measures**

- yet to be declared nationally

South East RBD Programmes of Measures (£m) 2015-2021 (37 year undiscounted costs) – by sector

Funding stream	Funding up to 2021 (£m) 37 yrs
Government	8
Industry, services, infrastructure	0.07
Water Industry	384
Rural Land Management	20

Local Measures

Catchment Pages

- Catchment Partnerships detailed
- Contribution to environmental outcomes for 2021 identified
- Future aims outlined for additional funding if available for £100k and £1m

Forward look at measures beyond 2021

Opportunities for additional measures from strategic reviews and funding streams that could enable additional measures before 2021

- **External Funding sources**
  - LIFE regulation
  - Heritage Lottery Fund
  - Gov and local enterprise
- **Updated Directives**
  - Review of Urban Waste Water Treatment
  - EU Priority Substances
  - Review of water company price limits
  - Common Agricultural Policy
  - Water Resource Management Plans
  - Review of Nitrate Vulnerable Zones designation and action plans

Where does the greatest potential lie to achieve more than RBMP2?

	% of funding allocation in RBMP2	* confirmed measures	% of total RNAGS in England	RNAGS in England
Water Companies	64%	365*	24%	3546
Agriculture and Land use	15%	45*	28%	4133

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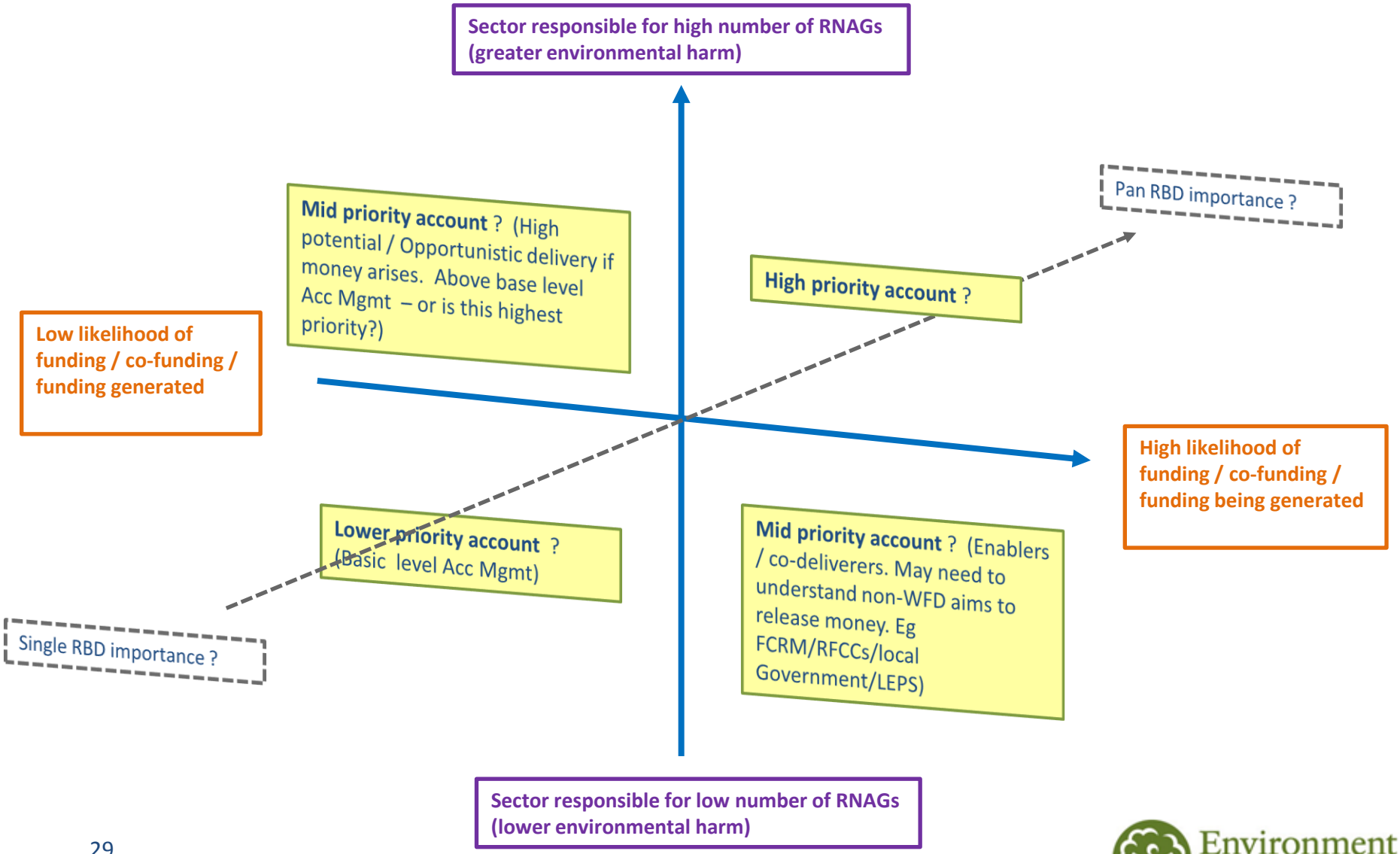
Sectors causing failures (confirmed/ probable)

RNAGS - Sector breakdown for RBD

Boundary	Agriculture & Rural Land Management	Industry	Mining & Quarying	Navigation	Urban & Transport	Water Industry	Local & Central Government	Domestic General Public	Recreation	Waste Treatment & Disposal	Other	Sector under investigation	No Sector Responsible	Total
Anglian	844	68	0	1	100	502	67	18	4	1	124	105	496	2330
Dee	43	4	18	0	31	21	6	2	0	1	0	26	67	219
Humber	760	105	77	11	380	950	36	62	2	12	32	241	698	3366
North West	238	55	31	5	193	318	7	45	4	1	22	130	453	1502
Northumbria	76	10	111	0	49	123	3	5	0	3	29	116	223	748
Severn	811	47	71	6	182	399	8	30	0	1	43	245	238	2081
Solway Tweed	114	1	5	0	2	7	0	0	0	0	1	8	19	157
South East	**237**	**20**	**0**	**1**	**70**	**281**	**36**	**30**	**8**	**0**	**51**	**82**	**184**	**1000**
South West	696	46	164	3	64	395	9	9	1	1	75	114	323	1900
Thames	396	38	6	20	496	592	35	61	5	1	99	35	345	2129
England	4133	391	398	43	1513	3546	201	260	24	21	474	933	2898	14835

RBD stakeholder analysis



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