

B.9 Kennet and Pang catchments

Rivers and Lakes

There are 31 river water bodies and 4 lake water bodies within the Kennet and Pang catchments.

Figure B.9.1 **Proposed status objectives for rivers and lakes in the Kennet and Pang catchments**

Water body category	Proposed status objective					Total number of water bodies
	Good or high in 2015	Good or high in 2021	Good or high in 2027	Less than good	Not yet assessed	
Rivers	13	13	27	0	1	28
Lakes	0	0	0	0	2	2
Rivers proposed as heavily modified	0	0	2	0	1	3
Lakes proposed as heavily modified	0	0	0	0	0	0
Proposed artificial water bodies	2	2	2	0	0	2

Proposed actions for rivers and lakes in the Kennet and Pang catchment

There are a number of actions that are being proposed and which will benefit rivers and lakes in the catchment. Figure B.9.3 below describes these. The objectives for water bodies in this catchment have been set based on the actions in scenarios A and B only. We have also listed in this table those scenario C actions specific to this catchment to help you respond to this consultation. These are actions that may be worthwhile but require additional information to reduce uncertainty, primarily in relation to ensuring that costs are proportionate and actions are technically feasible. It is hoped that your response on actions in scenario C will improve the certainty of the effectiveness and benefits of these actions enabling some to move to scenario B. Annex E explains these scenarios in more detail.

National and river basin district level actions are shown in Annexes F and C respectively.

Figure B.9.3 Actions that will benefit rivers and lakes in the Kennet and Pang catchment

Pressure	Sector	Description of the Action				Lead Organisation	Driver for Action
		What will happen	When it will happen	Where it will happen	Means of Delivery		
Scenario: A							
Abstraction and other artificial flow pressures	Environment Agency	Investigations at other water dependent nature conservation sites perceived to be adversely affected by abstraction	2010	Applies to many catchments across the Thames River Basin District	Environment Act 1996 - Management of Abstraction	Environment Agency	Reduction of uncertainty
Abstraction and other artificial flow pressures	Environment Agency	Sites of Special Scientific Interest - Modification of Abstraction licences to ensure no adverse impact on conservation objectives	2015	Applies to many catchments across the Thames River Basin District	Water Resources Act 1991, The Wildlife & Countryside Act 1981	Environment Agency, Natural England	Defra Public Service Agreement
Abstraction and other artificial flow pressures	Fisheries and conservation	Agri-environment scheme	2012	Kennet and Lambourn Floodplain SAC	Environmental Stewardship Scheme	Natural England	PSA

Description of the Action							
Pressure	Sector	What will happen	When it will happen	Where it will happen	Means of Delivery	Lead Organisation	
						Driver for Action	
Nutrients	Fisheries and conservation	Agri-environment scheme	2012	River Lambourn SAC	Environmental Stewardship Scheme	Natural England	PSA
Sediment (as a direct pollutant)	Fisheries and conservation	Agri-environment scheme	2012	River Lambourn SAC	Environmental Stewardship Scheme	Natural England	PSA
Nutrients, Organic pollutants	Fisheries and conservation	Discharge/PPC consent	2012	River Lambourn SAC	Water Resources Act 1991, Water Act 2003	Environment Agency	PSA
Nutrients	Fisheries and conservation	Existing Local Project	2012	River Lambourn SAC	Partnership working	Natural England	PSA
Sediment (as a direct pollutant)	Fisheries and conservation	Existing Local Project	2012	River Lambourn SAC	Partnership working	Natural England	PSA
Abstraction and other artificial flow pressures	Fisheries and conservation	Implement AMP Scheme	2012	Kennet and Lambourn Floodplain SAC	Water Resources Act 1991 s88 (discharge consent) or WRA 91 s90B (enforcement notices)	Water companies	PSA
Abstraction and other artificial flow pressures, Nutrients, Organic pollutants	Fisheries and conservation	Implement AMP Scheme	2012	River Lambourn SAC	Water Resources Act 1991 s88 (discharge consent) or WRA 91 s90B (enforcement notices)	Water companies	PSA

Pressure	Description of the Action				When it will happen	Where it will happen	Means of Delivery	Lead Organisation	Driver for Action
	Sector	What will happen							
Physical modification	Fisheries and conservation	River restoration project	2012	River Lambourn SAC	Partnership work	Environment Agency, Natural England	PSA		
Sediment (as a direct pollutant)	Fisheries and conservation	Undertake specific management works	2012	River Lambourn SAC	Partnership work	West Berkshire Council	PSA		
Abstraction and other artificial flow pressures	Fisheries and conservation	Water Abstraction licence - revoke/amend	2012	Kennet and Lambourn Floodplain SAC	Restoring Sustainable Abstraction Programme	Environment Agency	PSA		
Abstraction and other artificial flow pressures	Fisheries and conservation	Water Abstraction licence - revoke/amend	2012	River Lambourn SAC	Restoring Sustainable Abstraction Programme	Environment Agency	PSA		
Abstraction and other artificial flow pressures	Fisheries and conservation	Water level management plan	2012	Kennet and Lambourn Floodplain SAC	River Restoration Strategy	Environment Agency	PSA		
Abstraction and other artificial flow pressures	Fisheries and conservation	Water level management plan	2012	River Lambourn SAC	River Restoration Strategy	Environment Agency	PSA		
Abstraction and other artificial flow pressures	Industry, manufacturing and other business	Disincentives / incentives to encourage purchase of water efficient appliances.	2012	Thames Water London Zone SWOX Zone SWA Zone	Fiscal measures and incentives	Water Companies	WFD - basic measure (Art 11.3 c)		
Abstraction and other artificial flow pressures	Industry, manufacturing and other business	Reduction of demand through labelling of water efficient appliances (Market Transformation)	2010	Applies to many catchments across the Thames River Basin District		DEFRA Water Savings Group	WFD - basic measure (Art 11.3 c)		

Description of the Action							
Pressure	Sector	What will happen	When it will happen	Where it will happen	Means of Delivery	Lead Organisation	
						Driver for Action	
Abstraction and other artificial flow pressures	Industry, manufacturing and other business	Reduction of demand through offering of tax incentives (enhanced Capital Allowances) for the purchase and use of efficient plant and fittings by commercial organisations	2010	Applies to many catchments across the Thames River Basin District	Fiscal measures and incentives	DEFRA, HMRC and Envirowise	WFD - basic measure (Art 11.3 c)
Priority Hazardous Substances, Priority Pollutants, Nutrients, Organic pollutants	Water Industry	AMP4	2010	Ashamstead (The Stubbles) STW	Water Resources Act 1991 s88 (discharge consent) or WRA 91 s90B (enforcement notices)	Water companies	GI
Priority Hazardous Substances, Priority Pollutants, Nutrients, Organic pollutants	Water Industry	AMP4	2010	Baydon STW	Water Resources Act 1991 s88 (discharge consent) or WRA 91 s90B (enforcement notices)	Water companies	GI
Priority Hazardous Substances, Priority Pollutants, Nutrients, Organic pollutants	Water Industry	AMP4	2010	East Ilsley STW	Water Resources Act 1991 s88 (discharge consent) or WRA 91 s90B (enforcement notices)	Water companies	GI
Priority Hazardous Substances, Priority Pollutants, Nutrients, Organic pollutants	Water Industry	AMP4	2010	Newbury STW	Water Resources Act 1991 s88 (discharge consent) or WRA 91 s90B (enforcement notices)	Water companies	II, U2

Description of the Action		When it will happen	Where it will happen	Means of Delivery	Lead Organisation	Driver for Action
Pressure	Sector	What will happen				
Abstraction and other artificial flow pressures	Water Industry	Coordinated education and awareness on water efficiency and re-use to promote value of water	2010 Thames Water London Zone SWOX Zone SWA Zone	Water Company Plans (WA 2003)	Water Companies	WFD - basic measure (Art 11.3 c)
Priority Hazardous Substances, Priority Pollutants, Nutrients, organic pollutants	Water Industry	Impact of sewage treatment works effluent quality to be modelled under the Periodic review (2010-2015) and altered to protect the environment and prevent deterioration.	2015 East Shefford STW	Water Resources Act 1991 s88 (discharge consent) or WRA 91 s90B (enforcement notices)	Water Companies	FLOW1
Priority Hazardous Substances, Priority Pollutants, Nutrients, organic pollutants	Water Industry	Impact of sewage treatment works effluent quality to be modelled under the Periodic review (2010-2015) and altered to protect the environment and prevent deterioration.	2015 Great Bedwyn STW	Water Resources Act 1991 s88 (discharge consent) or WRA 91 s90B (enforcement notices)	Water Companies	II, FLOW1, G3
Priority Hazardous Substances, Priority Pollutants, Nutrients, organic pollutants	Water Industry	Impact of sewage treatment works effluent quality to be modelled under the Periodic review (2010-2015) and altered to protect the environment and prevent deterioration.	2015 Hampstead Norreys STW	Water Resources Act 1991 s88 (discharge consent) or WRA 91 s90B (enforcement notices)	Water Companies	FLOW1
Priority Hazardous Substances, Priority Pollutants, Nutrients, organic pollutants	Water Industry	Impact of sewage treatment works effluent quality to be modelled under the Periodic review (2010-2015) and altered to protect the environment and prevent deterioration.	2015 Marlborough STW	Water Resources Act 1991 s88 (discharge consent) or WRA 91 s90B (enforcement notices)	Water Companies	FLOW1

Description of the Action							
Pressure	Sector	What will happen	When it will happen	Where it will happen	Means of Delivery	Lead Organisation	
						Driver for Action	
Priority Hazardous Substances, Priority Pollutants, Nutrients, organic pollutants	Water Industry	Impact of sewage treatment works effluent quality to be modelled under the Periodic review (2010-2015) and altered to protect the environment and prevent deterioration.	2015	Stratfield Mortimer STW	Water Resources Act 1991 s88 (discharge consent) or WRA 91 s90B (enforcement notices)	Water Companies	FLOW1
Priority Hazardous Substances, Priority Pollutants, Nutrients, organic pollutants	Water Industry	Impact of sewage treatment works effluent quality to be modelled under the Periodic review (2010-2015) and altered to protect the environment and prevent deterioration.	2015	Upper Dun	Water Resources Act 1991 s88 (discharge consent) or WRA 91 s90B (enforcement notices)	Water Companies	I5
Priority Hazardous Substances and Specific Pollutants, Nutrients, organic pollutants	Water Industry	Impact of sewage treatment works effluent quality to be modelled under the Periodic review (2010-2015) and altered to protect the environment and prevent deterioration.	2015	Washwater STW	Water Resources Act 1991 s88 (discharge consent) or WRA 91 s90B (enforcement notices)	Water Companies	FLOW1
Abstraction and other artificial flow pressures	Water Industry	Reduction of demand through promotion of free household meters	2008	Thames Water London Zone SWOX Zone SWA Zone	Water Company Plans (WA 2003)	Water Companies	WFD - basic measure (Art 11.3 c)
Abstraction and other artificial flow pressures	Water Industry	Reduction of demand through specification of water efficient fittings in new and refurbished homes under Building Regulations	2010	Applies to many catchments across the Thames River Basin District	Regulations	CLG	WFD - basic measure (Art 11.3 c)

Description of the Action		When it will happen	Where it will happen	Means of Delivery	Lead Organisation	Driver for Action
Pressure	Sector	What will happen				
Abstraction and other artificial flow pressures	Water Industry	Reduction of demand through use of rising block tariff at metered properties	Thames Water London Zone SWOX Zone SWA Zone	Water Company Plans (WA 2003)	Water Companies	WFD - basic measure (Art 11.3 c)
Abstraction and other artificial flow pressures	Water Industry	Reduction of leakage through active leakage control and customer supply pipe repair policies	Thames Water London Zone SWOX zone	Water Company Plans (WA 2003)	Water Companies	WFD - basic measure (Art 11.3 c)
Abstraction and other artificial flow pressures	Water Industry	Reduction of summer peak demands through use of seasonal tariffs	Thames Water London Zone SWOX Zone SWA Zone	Water Company Plans (WA 2003)	Water Companies	WFD - basic measure (Art 11.3 c)
Abstraction and other artificial flow pressures	Water Industry	Schools based education and awareness campaigns for sustainable water use	Thames Water London Zone SWOX Zone SWA Zone	Water Company Plans (WA 2003)	Water Companies	WFD - basic measure (Art 11.3 c)
Scenario: B						
Nutrients, Organic pollutants, Sediment (as a direct pollutant), Priority hazardous substances and priority substances and specific pollutants	Agriculture and rural land management	Reduce diffuse pollution from agricultural sources through the English Catchment Sensitive Farming Delivery Initiative in priority catchments.	Applies to Kennet & Pang, Loddon, and Roding, Beam & Ingrebourne catchments	English Catchment Sensitive Farming Delivery Initiative	Natural England, DEFRA, Land managers, NFU, Environment Agency	WFD, PSA
Sediment (as a direct pollutant), Organic pollutants	Environment Agency	Further develop links with British Waterways to manage canal discharges and abstractions	Dun, Shalbourne, Kennet and Avon Canal	Working agreements	British Waterways, Environment Agency	WFD

Description of the Action		When it will happen	Where it will happen	Means of Delivery	Lead Organisation	Driver for Action
Pressure	Sector	What will happen				
Priority Hazardous Substances, Priority Substances and Specific Pollutants	Environment Agency	Further water quality monitoring to determine the sources of Hazardous Substances	2015	Applies to Cotswolds, Kennet & Pang, Thame Vale of White Horse, and Cherwell catchments	Investigation Water Companies, Environment Agency	WFD
Priority Hazardous Substances, Priority Substances and Specific Pollutants, Sediment (as a direct pollutant)	Environment Agency	Influence Local Planning Authority to enforce Circular 03/99 (Land use planning guidance) in relation to non-mains drainage.	2015	Applies to Cherwell, Cotswolds, Kennet and Pang, Thames and Vale of White Horse catchments	Working agreements Environment Agency	WFD
Nutrients, Sediment (as a direct pollutant), Priority hazardous substances, priority substances and specific pollutants, organic pollutants	Environment Agency	Target high risk farms and undertake regulatory farm visits using pollution prevention notices and advisory letters where necessary	2015	Applies to many catchments across the Thames River Basin District	Water Resources Act/Environment Act	WFD
Nutrients, Sediment (as a direct pollutant)	Fisheries and conservation	English Catchment Sensitive Farming Delivery Initiative	2012	River Lambourn SAC	English Catchment Sensitive Farming Delivery Initiative	PSA
Sediment (as a direct pollutant), Organic pollutants	Fisheries and conservation	Further develop links with British Waterways to manage canal discharges and abstractions	2015	Dun, Shalbourne, Kennet and Avon Canal	Working agreements British Waterways, Environment Agency	WFD
Physical modification	Fisheries and conservation	Implement Public Service Agreement/Water Level Management Plan physical habitat restoration programme	2015	Kennet, Lambourn	River Restoration Strategy	WFD, PSA, Habitats Directive

Description of the Action						
Pressure	Sector	What will happen	When it will happen	Where it will happen	Means of Delivery	Lead Organisation
Physical modification	Fisheries and conservation	Investigations into causes of declining fish stocks	2015	Enborne	Investigation	Environment Agency WFD
Nutrients	Fisheries and conservation	Regulatory Investigation - diffuse pollution (WPZ)	2012	River Lambourn SAC	Water Resources Act	Environment Agency PSA
Sediment (as a direct pollutant)	Fisheries and conservation	Regulatory Investigation - diffuse pollution (WPZ)	2012	River Lambourn SAC	Water Resources Act	Environment Agency PSA
Priority Hazardous Substances, Priority Substances and Specific Pollutants	Industry, manufacturing and other business	Investigate emissions from installations and appraise options (to reduce at source or treat, up to BATNEEC) to meet EQS and reduce/cease emissions in this or subsequent rounds, focussing on ship yards, timber treatment plants or treated timber storage are	2015	Sites contributing to potential EQS failures	Water Resources Act 1991 s88 (discharge consent) or WRA 91 s90B (enforcement notices)	Industry WFD
Priority Hazardous Substances, Priority Substances and Specific Pollutants	Industry, manufacturing and other business	Investigate losses from contaminated land, groundwater and sediments and appraise options for remediation to meet EQS and reduce/cease losses in this or subsequent rounds	Not in first round	Contaminated Land	Government framework on how to deal with contamination, Notices under Part 2A Environmental Protection Act 1990	Environment Agency WFD
Organic pollutants, Nutrients, Sediment (as a direct pollutant), Direct biological pressures, Physical modification	Local Government	Engage with local authority and local stakeholders to devise methods to tackle diffuse rural and urban pollution and river restoration through Kennet Chalkstream Restoration Project	2015	Kennet, Lambourn	Working agreements	Local Authorities WFD

Description of the Action							
Pressure	Sector	What will happen	When it will happen	Where it will happen	Means of Delivery	Lead Organisation	
						Driver for Action	
Organic pollutants, Nutrients, Sediment (as a direct pollutant), Direct biological pressures, Physical modification	Local Government	Engage with local authority and local stakeholders to devise methods to tackle diffuse rural and urban pollution and river restoration through Kennet Chalkstream Restoration Project	2016	Kennet, Lambourn	Working agreements	Local Authorities	WFD
Priority Hazardous Substances, Priority Substances and Specific Pollutants	Water Industry	Investigate emissions from installations and appraise options (to reduce at source or treat) to meet EQS and reduce/cease emissions in this or subsequent rounds	2015	Aldershot Town STW	PPC Regs 2000	Water Companies	WFD
Priority Hazardous Substances, Priority Substances and Specific Pollutants	Water Industry	Investigate emissions from installations and appraise options (to reduce at source or treat) to meet EQS and reduce/cease emissions in this or subsequent rounds	2015	Silchester STW	PPC Regs 2000	Water Companies	WFD
Nutrients	Water Industry	Investigate emissions from STWs and appraise options (to reduce at source or treat at STW) to meet EQS and reduce/cease emissions in this or subsequent rounds	2015	Kimbury	Water Resources Act 1991 s88 (discharge consent) or WRA 91 s90B (enforcement notices)	Environment Agency, Water Companies	WFD
Nutrients	Water Industry	Investigate emissions from STWs and appraise options (to reduce at source or treat at STW) to meet EQS and reduce/cease emissions in this or subsequent rounds	2015	Reading (New)	Water Resources Act 1991 s88 (discharge consent) or WRA 91 s90B (enforcement notices)	Environment Agency, Water Companies	WFD

Description of the Action							
Pressure	Sector	What will happen	When it will happen	Where it will happen	Means of Delivery	Lead Organisation	
						Driver for Action	
Nutrients	Water Industry	Investigate emissions from STWs and appraise options (to reduce at source or treat at STW) to meet EQS and reduce/cease emissions in this or subsequent rounds	2015	Silchester	Water Resources Act 1991 s88 (discharge consent) or WRA 91 s90B (enforcement notices)	Environment Agency, Water Companies	WFD
Nutrients	Water Industry	Investigate emissions from STWs and confirm whether further investigation into sources discharging to sewer is required	2010	Aldermaston		Environment Agency, Water Companies	WFD
Nutrients	Water Industry	Investigate emissions from STWs and confirm whether further investigation into sources discharging to sewer is required	2010	Chilton Foliat		Environment Agency, Water Companies	WFD
Nutrients	Water Industry	Investigate emissions from STWs and confirm whether further investigation into sources discharging to sewer is required	2010	Mortimer (Stratfield Mortimer)		Environment Agency, Water Companies	WFD
Nutrients	Water Industry	Investigate emissions from STWs and confirm whether further investigation into sources discharging to sewer is required	2010	Reading (New)		Environment Agency, Water Companies	WFD
Nutrients	Water Industry	Investigate emissions from STWs and confirm whether further investigation into sources discharging to sewer is required	2010	Silchester		Environment Agency, Water Companies	WFD
Abstraction and other artificial flow pressures	Water Industry	Modification of the West Berkshire Groundwater Scheme (WBGWS) operating agreement to protect the River Lambourn SAC and the Kennet & Lambourn Floodplain SAC Habitats Directive sites from groundwater abstraction via the WBGWS	2015	Winterbourne, Lambourn		Environment Agency	WFD

Scenario: C

Description of the Action		When it will happen	Where it will happen	Means of Delivery	Lead Organisation	Driver for Action
Pressure	Sector	What will happen	When it will happen	Where it will happen	Means of Delivery	Driver for Action
Sediment (as a direct pollutant), Organic pollutants	Environment Agency	Further develop links with British Waterways to manage canal discharges and abstractions	2015	Dun, Shalbourne, Kennet and Avon Canal	Working agreements	British Waterways, Environment Agency
<i>Technical feasibility uncertain - further work needed to demonstrate that the measure is technically feasible</i>						
Abstraction and other artificial flow pressures	Environment Agency	Further monitoring to improve understanding of the hydrological regime	2015	Og	Investigation	Environment Agency
<i>Investigation to reduce uncertainty - may go beyond what is required to achieve WFD objectives</i>						
Abstraction and other artificial flow pressures	Environment Agency	Further monitoring to improve understanding of the hydrological regime	2015	Pang	Investigation	Environment Agency
<i>Investigation to reduce uncertainty - may go beyond what is required to achieve WFD objectives</i>						
Abstraction and other artificial flow pressures	Environment Agency	Further monitoring to improve understanding of the hydrological regime	2015	Shalbourne (source to Kennet at Hungerford)	Investigation	Environment Agency
<i>Investigation to reduce uncertainty - may go beyond what is required to achieve WFD objectives</i>						
Nutrients, Organic pollutants, Priority Hazardous substances, priority substances and specific pollutants	Environment Agency	Further water quality monitoring to determine impacts of local Sewage Treatment Works	2015	Applies to many catchments across the Thames River Basin District	Investigation	Environment Agency
<i>Investigation to reduce uncertainty - may go beyond what is required to achieve WFD objectives</i>						
Sediment (as a direct pollutant)	Environment Agency	Investigate impact of sediments on ecological status	2015	Applies to Cherwell, London, Wey, Kennet & Pang and Cotswolds catchments	Investigation	Environment Agency, Natural England, Water Companies, Local Authorities
<i>Investigation to reduce uncertainty - may go beyond what is required to achieve WFD objectives</i>						
Nutrients, Priority hazardous substances and priority substances and specific pollutants	Environment Agency	Local pollution prevention campaign (including, where appropriate, campaigns to raise awareness of existing marketing and use restrictions)	2015	Sites contributing to potential EQS failures	Locally targeted pollution prevention campaigns based on national guidance	Environment Agency
<i>Uncertain if cost of measure is proportionate - further work needed to improve confidence in expected benefits.</i>						

Pressure	Description of the Action			When it will happen	Where it will happen	Means of Delivery	Lead Organisation	Driver for Action
	Sector	What will happen	What will happen					
Priority Hazardous Substances, Priority Pollutants, Nutrients	Environment Agency	Pollution Prevention advice and campaigns	Ongoing	Applies to many catchments across the Thames River Basin District	Local action including use of anti-pollution works notices under WRA91 Section 161, 161A to D as detailed in the Anti-Pollution Works Regulations 1999, and enforcing prohibition under WRA91 Sections 85, 91A, 91B, 92 & 96	Environment Agency	WFD	
<i>Uncertain if cost of measure is proportionate - further work needed to improve confidence in expected benefits.</i>								
Organic pollutants	Fisheries and conservation	Further investigations to improve understanding of habitat restoration required to achieve GES.	2015	Applies to many catchments across the Thames River Basin District	Investigation	Environment Agency	WFD	
<i>Investigation to reduce uncertainty - may go beyond what is required to achieve WFD objectives</i>								
Physical modification	Fisheries and conservation	Further investigations to improve understanding of habitat restoration required to achieve GES.	2015	Applies to many catchments across the Thames River Basin District	Investigation and partnerships	Environment Agency	Investigation	
<i>Investigation to reduce uncertainty - may go beyond what is required to achieve WFD objectives</i>								
Physical modification	Fisheries and conservation	Further investigations to improve understanding of habitat restoration required to achieve GES.	2015	Applies to many catchments across the Thames River Basin District	Investigation	Environment Agency	WFD	
<i>Investigation to reduce uncertainty - may go beyond what is required to achieve WFD objectives</i>								
Direct biological pressures	Fisheries and conservation	Invasive species control programme	2012	River Lambourn SAC	Partnership work	Environment Agency, Natural England	PSA	
<i>Uncertain if cost of measure is proportionate - further work needed to improve confidence in expected benefits.</i>								

Description of the Action							
Pressure	Sector	What will happen	When it will happen	Where it will happen	Means of Delivery	Lead Organisation	Driver for Action
Physical modification	Fisheries and conservation	Investigate channel restoration projects to improve flow regime and habitat creation	2015	Applies to many catchments across the Thames River Basin District	Investigation	Environment Agency, Water Companies, other abstractors, Local Authorities, Developers, Thames River Restoration Trust	WFD
<i>Uncertain if cost of measure is proportionate - further work needed to improve confidence in expected benefits and/or Technical feasibility uncertain - further work needed to demonstrate that the measure is technically feasible</i>							
Abstraction and other artificial flow pressures, Direct biological pressures, Nutrients, Organic pollutants, Physical modification, Priority hazardous substances and priority substances and specific pollutants, Sediment (as a direct pollutant)	Fisheries and conservation	Investigations into causes of declining fish stocks	2015	Enborne	Investigation	Environment Agency	WFD
<i>Investigation to reduce uncertainty - may go beyond what is required to achieve WFD objectives</i>							
Organic pollutants, Nutrients, Sediment (as a direct pollutant)	Urban and transport	Educate builders and developers to design buildings that consider water efficiency, SUDS, rainwater harvesting, and grey water recycling systems and develop good practice for site clearance prior to development.	2015	Sites contributing to potential EQS failures	Codes of practice, targeted campaigns, voluntary agreements with Water Companies	Environment Agency, Local Authorities, Business & Industry	WFD
<i>Technical feasibility uncertain - further work needed to demonstrate that the measure is technically feasible.</i>							
Priority Hazardous Substances, Priority Pollutants, Sediment (as a direct pollutant)	Urban and transport	Identify hot spots for sediment and other pollutants from highway run-off	2015	Sites contributing to potential EQS failures	Investigation	Environment Agency	WFD
<i>Investigation to reduce uncertainty - may go beyond what is required to achieve WFD objectives.</i>							

		Description of the Action					
Pressure	Sector	What will happen	When it will happen	Where it will happen	Means of Delivery	Lead Organisation	Driver for Action
Nutrients, Organic pollutants, Sediment (as a direct pollutant), Priority hazardous substances and priority substances and specific pollutants	Urban and transport	Increase frequency of street cleaning, and gully cleansing. Co-ordinate Local Authority cleansing programmes.	Pilot in the first plan, ongoing thereafter	Applies to many catchments across the Thames River Basin District	Environment Agency-R&D, local strategic partnerships, clean neighbourhoods campaign, vets.	Local Authorities, Environment Agency	WFD

Uncertain if cost of measure is proportionate - further work needed to improve confidence in expected benefits.

Progress towards achieving good ecological status and good ecological potential

6.5 Kennet & Pang catchment

Currently 81 km of river length (34% of waterbodies) in this catchment are achieving good ecological status/potential. It is expected that by 2015 this will remain at 81 km, but with additional local input this could change.

Water abstraction in the catchment, which is predominately from groundwater sources, is mainly for public water supply. A number of abstraction licences have been investigated to assess their impacts on ecology and measures have been put in place or are planned to reduce these impacts where they have been established as unacceptable (e.g. at Axford on the Kennet). Further investigations are underway on other licences such as at Ogbourne and Pangbourne. Other local measures aimed at reducing demand for water will be centred on working in partnerships to promote and encourage water efficiency through campaigns and advice.

Surface water quality in the catchment is generally good, although Tributyltin compounds are causing a current failure in the Foudry Brook.

Measures to mitigate against diffuse pollution include promoting and ensuring implementation of Codes of Good Agricultural Practice (CoGAP), promoting the use of soil and nutrient management plans, and providing technical advice cards for farmers covering best practice. Some of this will be delivered through the Kennet Catchment Sensitive Farming Initiative and associated projects with FWAG. Work will continue to understand and mitigate the adverse impacts on river quality due to the interaction between the Kennet and the Kennet & Avon Canal. Other work to combat diffuse pollution includes the provision of pesticide handling advice/education to farmers, industry, golf courses and Network Rail.

Proposed solutions that are intended to deal with point source inputs include further investigation of impacts of emissions from Kintbury and Chilton Foliat STWs to inform options in order to achieve good ecological status. There is also a need to collect water quality and ecological monitoring samples from up and downstream of a number of smaller sewage treatment works along these rivers in order to assess the impact of discharges and to provide information for future actions where additional data is required (i.e. for future AMP schemes).

Physical habitat restoration is needed at a number of locations to address the problems of past engineering and the impacts of control structures where these are severely limiting the ecological potential of the catchment. Some of this work will be done under a programme to restore the River Kennet and River Lambourn SSSIs, but additional works are required for degraded reaches elsewhere.

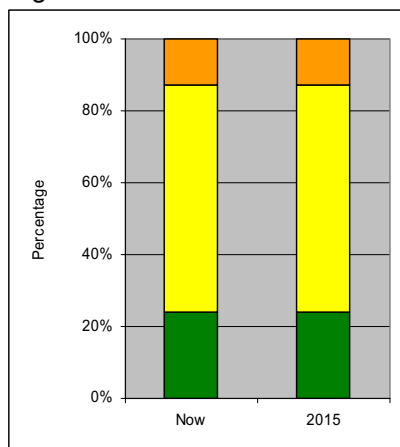


Figure 20 – Expected progress towards achieving good ecological status and good ecological potential in rivers in the Kennet & Pang catchment (as proportion of river length)



Map Reference:	23180		
Water body ID and name:	GB106039023180	Og	
WB Category:	River		
Current Overall Status:	Moderate		
Proposed Status Objective(s):	Good Ecological Status by 2027, Good Chemical Status by 2015		
Proposed Status Objective (Overall):	Good Status by 2027		
Justification if proposed objective is not good status by 2015:			
Protected area designation:	Nitrates Directive		
Hydromorphological Designation:	Not Designated	Surveillance Site:	No
Reason for Designation:			

Ecological Status

Current status (and how confident we are that the water body is less than good status) Moderate (Medium)

Elements currently achieving good or high status

Elements at high status Iron, Ammonia, Ammonia, Zinc, Dissolved Oxygen, Copper, pH

Elements at good status (and how confident we are that the water body is less than good status) Phosphate (Low), Invertebrates (Low)

Elements currently achieving less than good ecological status

Element (and how confident we are that the water body is less than good status)	Predicted status, and date by when it will be achieved	Justification for not achieving good status in 2015
Phytobenthos (Moderate, Medium)	Moderate by 2015	

Supporting quality elements currently achieving high ecological status

Supporting elements including where there is a risk of limiting the achievement of good ecological status

Element (current status and confidence)	Predicted status, and date by when it will be achieved	Justification for not achieving good by 2015
quantity and dynamics of flow (not good, high)	not good by 2015	Disproportionately expensive - Measure not worthwhile

Ecological Potential Assessment for hydromorphology

Hydromorphological mitigation measures currently absent and future plans

Chemical status

Current status (and confidence in this) Good

Elements currently achieving good or high status

Elements at good status Nickel And Its Compounds, Cadmium And Its Compounds, Lead And Its Compounds

Kennet and Pang

Thames

For help in understanding this table please refer to Figure B4.1 in this Annex

Map Reference:	23171		
Water body ID and name:	GB106039023171	Upper Kennet to Marlborough	
WB Category:	River		
Current Overall Status:	Not Yet Assessed		
Proposed Status Objective(s):	Not Yet Assessed, Good Chemical Status by 2015		
Proposed Status Objective (Overall):	Not Yet Assessed		
Justification if proposed objective is not good status by 2015:			
Protected area designation:	Freshwater Fish Directive, Nitrates Directive		
Hydromorphological Designation:	Candidate Heavily Modified	Surveillance Site:	No
Reason for Designation:			

Ecological Potential

Current status (and how confident we are that the water body is less than good status)	Not Yet Assessed
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Elements currently achieving good or high status

Elements at high status	Copper, Ammonia, Zinc, Ammonia, Dissolved Oxygen, Phosphate, pH
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Elements at good status (and how confident we are that the water body is less than good status)	Invertebrates (Medium)
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Elements currently achieving less than good ecological status

Supporting quality elements currently achieving high ecological status

Supporting elements including where there is a risk of limiting the achievement of good ecological status

Element (current status and confidence)	Predicted status, and date by when it will be achieved	Justification for not achieving good by 2015
quantity and dynamics of flow (not good, low)	not good by 2015	Disproportionately expensive - low or uncertain benefits

Ecological Potential Assessment for hydromorphology

Current potential	Predicted potential and date by when it will be achieved	Justification for not achieving good potential in 2015
Not Yet Assessed		

Hydromorphological mitigation measures currently absent and future plans

Chemical status

Current status (and confidence in this)	Good
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Elements currently achieving good or high status

Elements at good status	Nickel And Its Compounds, Lead And Its Compounds, Cadmium And Its Compounds
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Elements currently achieving less than good chemical status

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For help in understanding this table please refer to Figure B4.1 in this Annex

Map Reference:	23172		
Water body ID and name:	GB106039023172	Middle Kennet (Marlborough to Newbury)	
WB Category:	River		
Current Overall Status:	Moderate		
Proposed Status Objective(s):	Good Ecological Potential by 2027, Good Chemical Status by 2027		
Proposed Status Objective (Overall):	Good Potential by 2027		
Justification if proposed objective is not good status by 2015:	Disproportionately expensive - Low or uncertain benefits,		
Protected area designation:	Freshwater Fish Directive, Nitrates Directive		
Hydromorphological Designation:	Candidate Heavily Modified	Surveillance Site:	No
Reason for Designation:			

Ecological Potential

Current status (and how confident we are that the water body is less than good status)	Moderate (Low)
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Elements currently achieving good or high status

Elements at high status	Dimethoate, Ammonia, Zinc, Toluene, Permethrin, Mecoprop, Iron, Dissolved Oxygen, Invertebrates, Linuron, Ammonia, Copper, pH, 2,4-dichlorophenol, 2,4-dichlorophenoxyacetic acid, Arsenic
Elements at good status (and how confident we are that the water body is less than good status)	Phosphate (Low)

Elements currently achieving less than good ecological status

Element (and how confident we are that the water body is less than good status)	Predicted status, and date by when it will be achieved	Justification for not achieving good status in 2015
Fish (Moderate, High)	Moderate by 2015	

Supporting quality elements currently achieving high ecological status

Supporting elements including where there is a risk of limiting the achievement of good ecological status

Element (current status and confidence)	Predicted status, and date by when it will be achieved	Justification for not achieving good by 2015
quantity and dynamics of flow (not good, low)	not good by 2015	Disproportionately expensive - low or uncertain benefits

Ecological Potential Assessment for hydromorphology

Current potential	Predicted potential and date by when it will be achieved	Justification for not achieving good potential in 2015
Moderate or worse	GEP by 2027	disproportionately expensive

Hydromorphological mitigation measures currently absent and future plans

Mitigation measure absent
Increase in-channel morphological diversity

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Thames

For help in understanding this table please refer to Figure B4.1 in this Annex

Preserve and where possible enhance ecological value of marginal aquatic habitat, banks and riparian zone

Chemical status

Current status (and confidence in this) Not Good (Low)

Elements currently achieving good or high status

Elements at good status Simazine, Nickel And Its Compounds, Napthalene, Lead And Its Compounds, Cadmium And Its Compounds, Atrazine, Trifluralin, Benzene

Elements currently achieving less than good chemical status

Element (current status including confidence)	Predicted status, and date by when it will be achieved	Justification for not achieving good status in 2015
Tributyltin Compounds (Moderate, Low confidence),	Not Good by 2015	Disproportionately expensive - Low or uncertain benefits

Kennet and Pang

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For help in understanding this table please refer to Figure B4.1 in this Annex

Map Reference:	17420		
Water body ID and name:	GB106039017420	Kennet (Lambourn confluence to Enborne confluence)	
WB Category:	River		
Current Overall Status:	Poor		
Proposed Status Objective(s):	Good Ecological Status by 2027, Good Chemical Status by 2015		
Proposed Status Objective (Overall):	Good Status by 2027		
Justification if proposed objective is not good status by 2015:			
Protected area designation:	Freshwater Fish Directive		
Hydromorphological Designation:	Not Designated	Surveillance Site:	No
Reason for Designation:			

Ecological Status

Current status (and how confident we are that the water body is less than good status) Poor (High)

Elements currently achieving good or high status

Elements at high status Arsenic, Ammonia, Zinc, Permethrin, Mecoprop, Linuron, Iron, Dimethoate, Copper, 2,4-dichlorophenoxyacetic acid, pH, Dissolved Oxygen, Ammonia, Invertebrates, Diazinon

Elements at good status (and how confident we are that the water body is less than good status) Phosphate (Low)

Elements currently achieving less than good ecological status

Element (and how confident we are that the water body is less than good status)	Predicted status, and date by when it will be achieved	Justification for not achieving good status in 2015
Phytobenthos (Poor, High)	Moderate by 2015	
Fish (Moderate, Medium)	Moderate by 2015	

Supporting quality elements currently achieving high ecological status

Supporting elements including where there is a risk of limiting the achievement of good ecological status

Element (current status and confidence)	Predicted status, and date by when it will be achieved	Justification for not achieving good by 2015
quantity and dynamics of flow (support good, low)	support good by 2015	

Ecological Potential Assessment for hydromorphology

Hydromorphological mitigation measures currently absent and future plans

Chemical status

Current status (and confidence in this) Good

Elements currently achieving good or high status

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For help in understanding this table please refer to Figure B4.1 in this Annex

Elements at good status

Tetrachloroethylene, Pentachlorophenol, Simazine, Trichloromethane, Carbon Tetrachloride, Nickel And Its Compounds, para - para DDT, Trichlorobenzenes, Trichloroethylene, DDT Total, Isoproturon, Hexachlorocyclohexane, Hexachlorobutadiene, Hexachlorobenzene, Diuron, Chlorfenvinphos, Cadmium And Its Compounds, Atrazine, 1,2-dichloroethane, Aldrin, Dieldrin, Endrin & Isodrin, Lead And

Elements currently achieving less than good chemical status

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For help in understanding this table please refer to Figure B4.1 in this Annex