













A selection of organisations who provide data within this report







Data Supplier	Data Supplier Logo
Ordnance Survey	
Environment Agency	
Scottish Environment Protection Agency	
The Coal Authority	
British Geological Survey	 British Geological Survey <small>NATURAL ENVIRONMENT RESEARCH COUNCIL</small>
Centre for Ecology and Hydrology	 Centre for Ecology & Hydrology <small>NATURAL ENVIRONMENT RESEARCH COUNCIL</small>
Natural Resources Wales	
Scottish Natural Heritage	
Natural England	
Public Health England	 Public Health England
Ove Arup	
Peter Brett Associates	


Contact	Name and Address	Contact Details
1	British Geological Survey - Enquiry Service British Geological Survey, Kingsley Dunham Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG	Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk
2	Scottish Environment Protection Agency - East Region Clearwater House, Heriot Watt Research Park, Avenue North, Riccarton, Edinburgh, Midlothian, EH14 4AP	Telephone: 0131 449 7296 Fax: 0131 449 7277
3	Scottish Environment Protection Agency - Head Office Erskine Court, The Castle Business Park, Stirling, Stirlingshire, FK9 4TR	Telephone: 01786 457700 Fax: 01786 446885
4	Centre for Ecology and Hydrology Maclean Building, Crowmarsh Gifford, WALLINGFORD, Oxfordshire, OX10 8BB	Telephone: 01491 838800 Fax: 01491 692424
5	Fife Council - Regional Headquarters Fife House, North Street, Glenrothes, Fife, KY7 5LT	Telephone: 01592 414141 Fax: 01592 414142 Website: www.fife.gov.uk
6	Scottish Environment Protection Agency - East Region - Perth Office 1 South Street, Perth, Perthshire, PH2 8NJ	Telephone: 01738 627989 Fax: 01738 630997
7	Scottish Natural Heritage 12 Hope Terrace, Edinburgh, Midlothian, EH9 2AS	Telephone: 0131 447 4784 Fax: 0131 446 2279
8	Scottish Executive - Geographic Information Service St Andrews House, Regent Road, Edinburgh, EH1 3DG	Telephone: 0300 244 4000 Email: ceu@gov.scot Website: www.gov.scot
-	Public Health England - Radon Survey, Centre for Radiation, Chemical and Environmental Hazards Chilton, Didcot, Oxfordshire, OX11 0RQ	Telephone: 01235 822622 Fax: 01235 833891 Email: radon@phe.gov.uk Website: www.ukradon.org
-	Landmark Information Group Limited Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk

Please note that the Environment Agency / Natural Resources Wales / SEPA have a charging policy in place for enquiries.











Geology 1:50,000 Maps Legends

Superficial Geology

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	RMDF	Raised Marine Deposits Of Flandrian Age	Sand and Gravel	Flandrian - Flandrian
	ALV	Alluvium	Clay, Silt, Sand and Gravel	Flandrian - Flandrian
	RMDV	Raised Marine Deposits, Devensian	Clay, Silt, Sand and Gravel	Devensian - Devensian
	TLLD	Till, Devensian	Darcton	Devensian - Devensian
	MBD	Marine Beach Deposits	Gravel, Sand and Silt	Quaternary - Quaternary
	BSA	Blown Sand	Sand	Quaternary - Quaternary

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
		Silt Siltie		
		Faults		

Bedrock and Faults

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	SCPPV	Scottish Late Carboniferous to Early Permian Plugs and Vents Siltie	Tuff and Agglomerate	Cosullian - Silesian
	CSTD	Central Scotland Late Carboniferous Tholeiitic Dyke Swam	Quartz-Microgabro	Silesian - Silesian
	SCPPV	Scottish Late Carboniferous to Early Permian Plugs and Vents Siltie	Basaltite	Cosullian - Silesian
	PDB	Pathhead Formation	Sedimentary Rock Oycles, Strathclyde Group Type	Brigantian - Brigantian
	HUR	Hurler Limestone	Limestone	Brigantian - Brigantian
	LLGS	Lower Limestone Formation	Sedimentary Rock Oycles, Cleadramnan Group Type	Pendleian - Brigantian
	SCB	Sandy Craig Formation	Sedimentary Rock Oycles, Strathclyde Group Type	Brigantian - Asbian
	PMB	Pittenweem Formation	Sedimentary Rock Oycles, Strathclyde Group Type	Asbian - Asbian
	ARBS	Anstruther Formation	Sedimentary Rock Oycles, Strathclyde Group Type	Asbian - Asbian
	MCPAS	Midland Valley Carboniferous to Early Permian Alkaline Basic	Olivine-basalt	Cosullian - Carboniferous



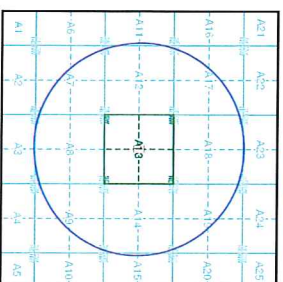
Geology 1:50,000 Maps

This report contains geological map extracts taken from the BGS Digital Geological map of Great Britain at 1:50,000 scale and is designed for users carrying out preliminary site assessments who require geological maps for the area around the site. This mapping may be more up to date than previously published paper maps. The various geological layers - artificial and landscape deposits, superficial geology and solid (bedrock) geology are displayed in separate maps, but superimposed on the final Combined Surface Geology map. All map legends feature on this page. Not all layers have complete nationwide coverage, so availability of data for relevant map sheets is indicated below.

Geology 1:50,000 Maps Coverage

Map ID: 1
 Map Sheet No: 048
 Map Name: South
 Map Date: 1991
 Bedrock Geology: Available
 Superficial Geology: Available
 Artificial Geology: Available
 Faults: Not Supplied
 Landmarks: Available
 Rock Segments: Not Supplied

Geology 1:50,000 Maps - Slice A



Order Details:

Order Number: 83739123_1_1
 Customer Reference: 1603407
 National Grid Reference: 351540, 716480
 Site: A
 Site Area (Ha): 0.23
 Search Buffer (m): 1000

Site Details:

St. Leonards School, South Street, ST. ANDREWS, Fife, KY16 9QU



Tel: 0944 844 899
 Fax: 0944 844 891
 Web: www.envirocheck.co.uk

Combined Surface Geology

The Combined Surface Geology map combines all the previous maps into one combined geological overview of your site.

Please consult the legends to the previous maps to interpret the Combined "Surface Geology" map.

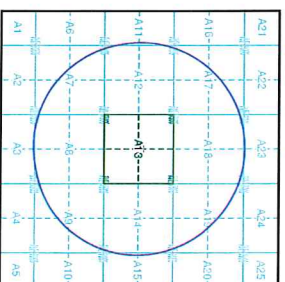
Additional Information

More information on 1:50,000 Geological mapping and explanations of rock classifications can be found on the BGS website. Using the LEX Codes in this report, further descriptions of rock types can be obtained by interrogating the BGS Lexicon of Named Rock Units. This database can be accessed by following the "Information and Data" link on the BGS website.

Contact

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 Kingsley Dunham Centre
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 Nottingham
 NG12 5GG
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 website: www.bgs.ac.uk

Combined Geology Map - Slice A



Order Details:

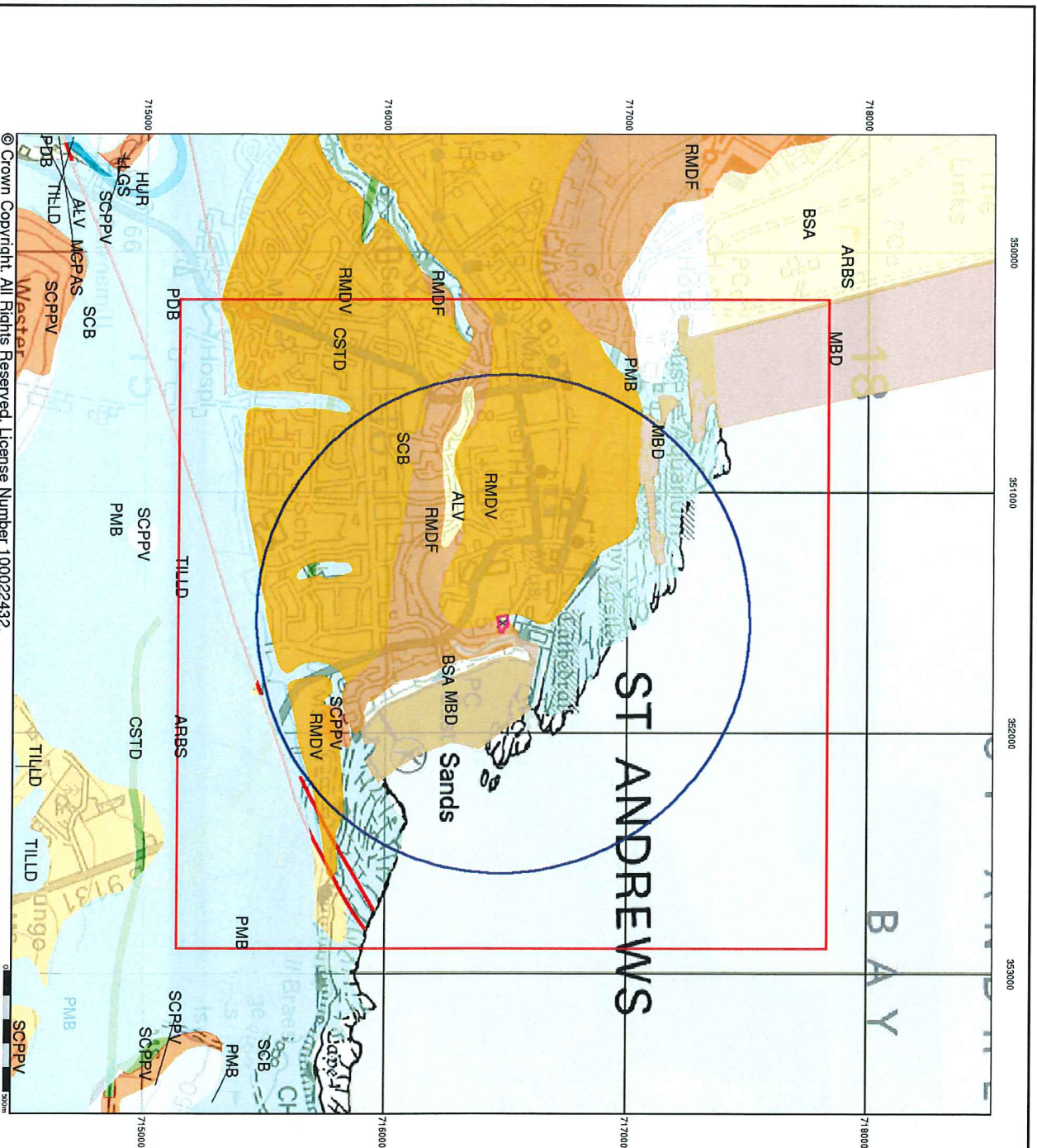
Order Number: 83793123_1_1
 Customer Reference: 1603-07
 National Grid Reference: 361540, 716480
 Slice: A
 Site Area (Ha): 0.23
 Search Buffer (m): 1000

Site Details:

St. Leonard's School, South Street, ST. ANDREWS, File, KY16 9QJ



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 Fax: 0844 844 8267
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RBMP Water body information sheet for water body 200069 in Tay

General details

Water body name: Carnoustie to Fife Ness
Water body Identifier code: 200069
Area: 235.27 km²
Water body category: Coastal
Baseline: Y
River basin district: Scotland
Area advisory group: Tay
Associated protected areas: Barry Links - SPECIAL AREA OF CONSERVATION
Firth of Tay and Eden Estuary - SPECIAL AREA OF CONSERVATION
Firth of Tay and Eden Estuary - SPECIAL PROTECTION AREA
Firth of Forth - SPECIAL PROTECTION AREA
Kingsbarns - EC BATHING WATER
St. Andrews East Sands - EC BATHING WATER
St. Andrews West Sands - EC BATHING WATER
Tentsmuir Sands - EC BATHING WATER
Carnoustie - EC BATHING WATER
Fife Ness to Elie - SHELLFISH WATER
Strathmore / Fife - NITRATE VULNERABLE ZONE
Responsible body: SEPA
Angus & Dundee, Fife
Heavily modified: No
Artificial: No
Typology: CW5
National Grid Reference: NO 58342 20099
Latitude: 56.37134
Longitude: -2.67601

Current status of this water body

We have classified this water body as having an overall status of Good with High confidence in 2008 with overall ecological status of Good and overall chemical status of Pass.

This overall classification of status is made up of many different tiers of classification data. A complete set of classification data for 2008 is shown at the end of this document.

RBMP Water body information sheet for water body 200069 in Tay

Targets for the future status of this water body

We have set environmental objectives for this water body over future river basin planning cycles in order that sustainable improvements to its status can be made over time, or alternatively that no deterioration in status occurs, unless caused by a new activity providing significant specified benefits to society or the wider environment.

For this water body we have set the overall environmental objectives for the first, second and third River Basin Management Planning (RBMP) cycles as:

Year	2008	2015	2021	2027
Status	Good	Good	Good	Good

The current status of the water body meets the requirements of the Water Framework Directive, thus we must ensure that no deterioration from good status occurs, unless caused by a new activity providing significant specified benefits to society or the wider environment.

Pressures and measures on this water body

No pressures exist on this water body.

Future work

Additional work to identify pressures and to develop and implement measures to mitigate their impacts will continue over subsequent river basin cycles.

Complete classification for this water body in 2008

Parameter	Status	Confidence of Class
OVERALL STATUS	GOOD	HIGH
Pre-HMWB status	Good	High
Overall chemistry	Pass	Low
Priority substances	Pass	Low
Hexachlorobenzene	Pass	Low
pp-DDT	Pass	Low
Hexachlorobutadiene	Pass	Low
Overall ecology	Good	High
Physico-Chem	High	High

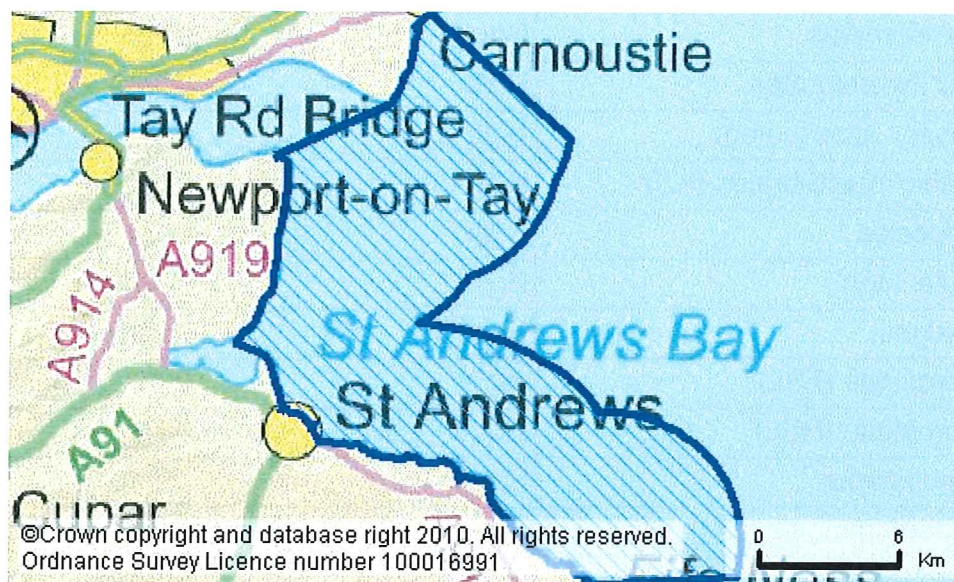
RBMP Water body information sheet for
water body 200069 in Tay

Parameter	Status	Confidence of Class
Dissolved Oxygen	High	High
Dissolved inorganic nitrogen	High	High
DIN (field salinity)	High	Low
DIN (laboratory salinity)	High	High
Biological elements	Good	High
Benthic invertebrates	High	High
Imposex assessment	High	Low
Benthic invertebrates (IQI)	High	High
Alien species	High	Low
Phytoplankton	High	Medium
Macroalgae	Good	High
Macroalgae (FSL)	High	Low
Macroalgae (RSL)	Good	High
Specific pollutants	Pass	High
Unionised ammonia	Pass	High
Hydromorphology	High	Medium
Morphology	High	Medium
Water quality	Good	

RBMP Water body information sheet for water body 200069 in Tay

Location of this water body

You can find the geographical location of this water body by searching on water body ID in the interactive maps at www.sepa.org.uk/water/river_basin_planning.aspx



SEPA Contact Details: rbmp@sepa.org.uk

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RBMP Water body information sheet for water body 6107 in Tay

General details

Water body name:	Kinness Burn
Water body Identifier code:	6107
Length:	15.67 km
Water body category:	River
Baseline:	Y
River basin district:	Scotland
Area advisory group:	Tay
Catchment:	North Fife Coastal
Associated protected areas:	Kinness Burn - FRESHWATER FISH (EXISTING) Kinness Burn (including Cairnsmill Burn) - UWWTD SENSITIVE AREA (EXISTING) Strathmore / Fife - NITRATE VULNERABLE ZONE
Associated groundwater:	East Fife bedrock and localised sand and gravel aquifers
Responsible body:	SEPA Fife
Heavily modified:	No
Artificial:	No
Typology:	Lowland Small Calcareous
National Grid Reference:	NO 49106 12972
Latitude:	56.30641
Longitude:	-2.82413

Current status of this water body

We have classified this water body as having an overall status of Poor with Medium confidence in 2008 with overall ecological status of Poor and overall chemical status of Pass.

This overall classification of status is made up of many different tiers of classification data. A complete set of classification data for 2008 is shown at the end of this document.

Targets for the future status of this water body

We have set environmental objectives for this water body over future river basin planning cycles in order that sustainable improvements to its status can be made over time, or alternatively that no deterioration in status occurs, unless caused by a new activity providing significant specified benefits to society or the wider environment.

RBMP Water body information sheet for water body 6107 in Tay

For this water body we have set the overall environmental objectives for the first, second and third River Basin Management Planning (RBMP) cycles as:

Year	2008	2015	2021	2027
Status	Poor	Poor	Poor	Good

We have established an ongoing programme of monitoring in order to identify pressures on our water bodies. The pressures listed below contribute to this water body's failure to meet good ecological status. River basin planning allows us to plan improvements for particular parameters over time. We have collaborated with others to identify measures which will act to protect or improve our water environment in order that all water bodies reach good status over successive RBMP cycles.

Pressures and measures on this water body

The pressures listed below contribute to this water body's failure to meet good ecological status or potential. River basin planning allows us to plan improvements for particular parameters over time. We have collaborated with others to identify measures which will act to protect or improve our water environment in order that all water bodies reach good status over successive RBMP cycles.

The following table shows our collated information on the pressures on this water body, their causes and the measures which could be introduced to mitigate their effects. We have also indicated the current funding status of the measure; with projected measures being potentially funded and agreed measures having funding in place. Finally, we have included information on the potential or actual owner of the measure, the date it will be effective and information on the justification for extending the deadlines or for setting an alternative objective, where appropriate.

Pressure	As a Result of	Assessment Parameter	Objective	Reasons for Failure
	Measure	Funding	Owner	Effective date
Diffuse Source Pollution	Sewage disposal	Unknown Organics	Poor by 2015	Implementation of the measure by an earlier deadline would impose disproportionate burdens
	Reduce Diffuse Source Inputs	Neither Agreed nor Projected	Scottish Water	31/03/2024
Diffuse Source Pollution	Arable farming	Unknown Organics	Poor by 2015	Implementation of the measure by an earlier deadline would impose disproportionate burdens

RBMP Water body information sheet for
water body 6107 in Tay

Pressure	As a Result of	Assessment Parameter	Objective	Reasons for Failure
	Measure	Funding	Owner	Effective date
	Reduce Diffuse Source Inputs	Projected	Farmer(s)	31/12/2020
Morphological Alterations		Multiple Pressure	Moderate by 2015	Unfavourable balance of costs and benefits: measure not worthwhile
	Improve Modified Habitat	Projected	Landowner(s)	31/12/2020
Abstraction	Arable farming	Depletion of base flow from GW body	Moderate by 2015	Implementation of the measure by an earlier deadline would impose disproportionate burdens
	Control Abstraction	Neither Agreed nor Projected	Farmer(s)	31/12/2020
Diffuse Source Pollution	Mixed farming	Phosphorus	Moderate by 2015	Implementation of the measure by an earlier deadline would impose disproportionate burdens
	Non-urban land management measures	Projected	Farmer(s)	31/12/2020
Diffuse Source Pollution	Sewage disposal	Phosphorus	Moderate by 2015	Implementation of the measure by an earlier deadline would impose disproportionate burdens
	Reduce Diffuse Source Inputs	Neither Agreed nor Projected	Scottish Water	31/03/2024
	Reduce at source	Projected	Landowner(s)	31/12/2020
Abstraction	Recreational activities	Change from natural flow conditions	Moderate by 2015	Implementation of the measure by an earlier deadline would impose disproportionate burdens
	Control Abstraction	Neither Agreed nor Projected	Operator	31/12/2020

Future work

RBMP Water body information sheet for
water body 6107 in Tay

Additional work to identify pressures and to develop and implement measures to mitigate their impacts will continue over subsequent river basin cycles.

Complete classification for this water body in 2008

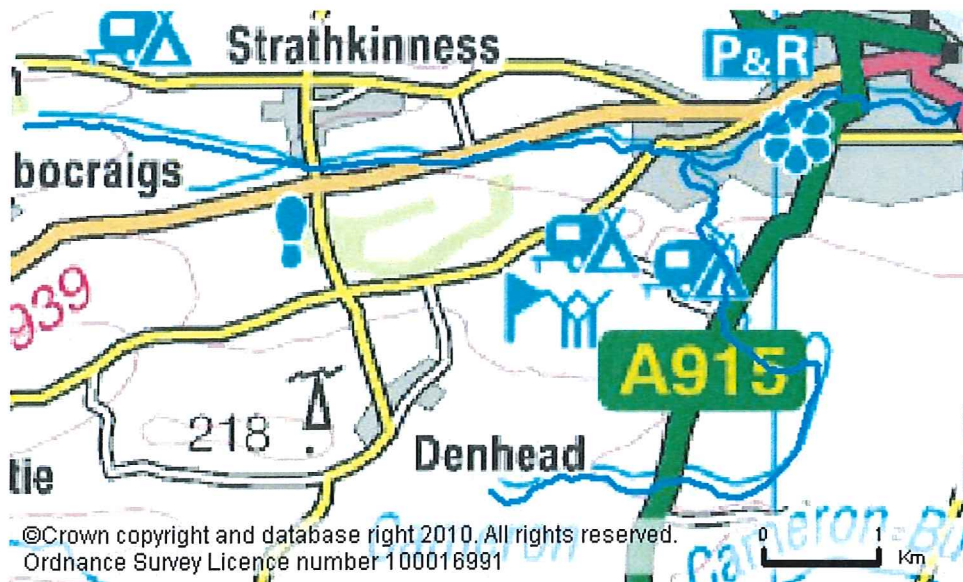
Parameter	Status	Confidence of Class
OVERALL STATUS	POOR	MEDIUM
Pre-HMWB status	Poor	Medium
Overall chemistry	Pass	Low
Priority substances	Pass	Low
Overall ecology	Poor	Medium
Physico-Chem	High	High
Temperature	High	High
Soluble reactive phosphorus	High	High
pH	High	High
Dissolved Oxygen	High	High
Biological elements	Poor	Medium
Phytobenthos	Moderate	High
Macrophytes	Good	High
Benthic invertebrates	Poor	Medium
Macro-invertebrates (acid)	High	Low
Macro-invertebrates (RiCT)	Poor	Medium
Macro-invertebrates (ASPT)	Poor	Medium
Macro-invertebrates (NTAXA)	Good	High
Alien species	High	Low
Fish	High	Medium
Fish ecology	High	Medium
Fish barrier	High	Low
Specific pollutants	Pass	High
Iron	Pass	Low
Ammonium	Pass	High
Chromium	Pass	Low
Hydromorphology	Moderate	Medium
Morphology	Moderate	Medium
Hydrology	Moderate	Medium

RBMP Water body information sheet for water body 6107 in Tay

Parameter	Status	Confidence of Class
Hydrology (impoundment)	High	Medium
Hydrology (abstraction)	Moderate	Medium
Regulatory ammonium	High	High
Water quality	Poor	
Morphological pressures	Moderate	

Location of this water body

You can find the geographical location of this water body by searching on water body ID in the interactive maps at www.sepa.org.uk/water/river_basin_planning.aspx



SEPA Contact Details: rbmp@sepa.org.uk
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RBMP Water body information sheet for water body 150243 in Tay

General details

Water body name:	East Fife bedrock and localised sand and gravel aquifers
Water body identifier code:	150243
Area km ² :	213.03
Water body category:	Groundwater
Baseline:	Y
River basin district:	Scotland
Area advisory group:	Tay
Associated protected areas:	East Fife bedrock and localised sand and gravel aquifers Strathmore / Fife
Associated surface waters:	Balmonth Burn Cambo Burn Cameron Burn (Source to confluence with Kinaldy Burn) Cocklemill Burn/Den Burn (Saw Mill Bridge to Estuary) Crail Burn Dreel Burn Kenly Water (Confluence with Kinaldy Burn to Estuary) Kilrenny Burn Kinaldy Burn u/s confluence with Kenly Water Kinness Burn St. Monans Burn/Inverie Burn
Responsible body:	SEPA Fife
National Grid Reference	NO 52498 09857
Latitude:	56.27878
Longitude:	-2.76875

Current status of this water body

We have classified this water body as having an overall status of Poor with Medium confidence in 2008.

The quality of the groundwater has been classified as Good with High confidence and the quantity of groundwater has been classified as Poor with Medium confidence in 2008

There is no trend for pollutants for this water body.

This overall classification of status is made up of many different tiers of classification data. A complete set of classification data for 2008 is shown at the end of this document.

RBMP Water body information sheet for water body 150243 in Tay

Targets for the future status of this water body

We have set environmental objectives for this water body over future river basin planning cycles in order that sustainable improvements to its status can be made over time, or alternatively that no deterioration in status occurs, unless caused by a new activity providing significant specified benefits to society or the wider environment.

For this water body we have set the overall environmental objectives for the first, second and third River Basin Management Planning (RBMP) cycles as:

Year	2008	2015	2021	2027
Overall Status	Poor			
Chemistry Status	Good	Good	Good	Good
Quantitative Status	Poor	Poor	Poor	Good

We have established an ongoing programme of monitoring in order to identify pressures on our water bodies. The pressures listed below contribute to this water body's failure to meet good ecological status. River basin planning allows us to plan improvements for particular parameters over time. We have collaborated with others to identify measures which will act to protect or improve our water environment in order that all water bodies reach good status over successive RBMP cycles.

RBMP Water body information sheet for water body 150243 in Tay

Pressures and measures on this water body

We have established an ongoing programme of monitoring in order to identify pressures on our water bodies.

The pressures listed below contribute to this water body's failure to meet good ecological status or potential. River basin planning allows us to plan improvements for particular parameters over time. We have collaborated with others to identify measures which will act to protect or improve our water environment in order that all water bodies reach good status over successive RBMP cycles.

The following table shows our collated information on the pressures on this water body, their causes and the measures which could be introduced to mitigate their effects. We have also indicated the current funding status of the measure; with projected measures being potentially funded and agreed measures having funding in place. Finally, we have included information on the potential or actual owner of the measure, the date it will be effective and information on the justification for extending the deadlines or for setting an alternative objective, where appropriate.

Pressure Type	As a Result of	Assessment Parameter	Objective	Reasons for Failure
	Measure	Funding	Owner	Effective date
Abstraction	Arable farming	Assessment Parameter associated with Surface Water Body	Poor by 2015	Implementation of the measure by an earlier deadline would impose disproportionate burdens
	<i>Control Abstraction</i>	<i>Neither Agreed nor Projected</i>	<i>Farmer(s)</i>	<i>31/12/2026</i>
Abstraction	Arable farming	Assessment Parameter associated with Surface Water Body	Poor by 2015	Implementation of the measure by an earlier deadline would impose disproportionate burdens
	<i>Control Abstraction</i>	<i>Neither Agreed nor Projected</i>	<i>Farmer(s)</i>	<i>31/12/2026</i>
Abstraction	Arable farming	Assessment Parameter associated with	Poor by 2015	Implementation of the measure by an earlier deadline

**RBMP Water body information sheet
for water body 150243 in Tay**

Pressure Type	As a Result of	Assessment Parameter	Objective	Reasons for Failure
	<i>Measure</i>	<i>Funding</i>	<i>Owner</i>	<i>Effective date</i>
		Surface Water Body		would impose disproportionate burdens
	<i>Control Abstraction</i>	<i>Neither Agreed nor Projected</i>	<i>Farmer(s)</i>	<i>31/12/2026</i>
Abstraction	Arable farming	Assessment Parameter associated with Surface Water Body	Poor by 2015	Implementation of the measure by an earlier deadline would impose disproportionate burdens
	<i>Control Abstraction</i>	<i>Neither Agreed nor Projected</i>	<i>Farmer(s)</i>	<i>31/12/2026</i>
Abstraction	Arable farming	Assessment Parameter associated with Surface Water Body	Poor by 2015	Implementation of the measure by an earlier deadline would impose disproportionate burdens
	<i>Control Abstraction</i>	<i>Neither Agreed nor Projected</i>	<i>Farmer(s)</i>	<i>31/12/2026</i>
Abstraction	Arable farming	Assessment Parameter associated with Surface Water Body	Poor by 2015	Implementation of the measure by an earlier deadline would impose disproportionate burdens
	<i>Control pattern/timing of abstraction (Hands off flow/ utilisation of storage (new/ existing))</i>	<i>Neither Agreed nor Projected</i>	<i>Farmer(s)</i>	<i>31/12/2026</i>
Abstraction	Arable farming	Assessment Parameter associated with	Poor by 2015	Implementation of the measure by an earlier

**RBMP Water body information sheet
for water body 150243 in Tay**

Pressure Type	As a Result of	Assessment Parameter	Objective	Reasons for Failure
	<i>Measure</i>	<i>Funding</i>	<i>Owner</i>	<i>Effective date</i>
		Surface Water Body		deadline would impose disproportionate burdens
	<i>Control Abstraction</i>	<i>Neither Agreed nor Projected</i>	<i>Farmer(s)</i>	<i>31/12/2026</i>

Future work

Additional work to identify pressures and to develop and implement measures to mitigate their impacts will continue over subsequent river basin cycles.

Complete Classification for this water body in 2008

Parameter	Status	Confidence of Class
OVERALL STATUS	POOR	MEDIUM
Quantitative	Poor	Medium
Saline intrusion	Good	Medium
River impacts	Poor	Medium
Wetland interactions	Good	High
Water balance	Good	Medium
Groundwater chemistry	Good	High
Saline intrusion	Good	High
River interactions	Good	High
Diffuse impacts	Good	High
Point source impacts	Good	High
DWPA test	Good	Low
General chemical test	Good	High
General chemical test (other)	Good	High
General chemical test (mining)	Good	High
Trends in groundwater	None	High

You can find out more information on trends in groundwater pollutants at http://www.wfduk.org/tag_guidance/Article_05/Folder.2004-02-16.5332/gw_trend