

SEPA Annual Report to The Water Industry Commission for Scotland

Table 1: Pollution incidents

Reporting period Apr-Mar 2008

		Year 2007			
		Category 1	Category 2	Category 3	Total
<b>Sewage Related Premises</b>		Total Number	Total Number	Total Number	Total Number (Cat 1-3 incidents) (Automatically Calculated)
1	Sewage Treatment Works	2	10	80	92
2	Storm Tank	0	0	5	5
3	Combined Sewer Overflow	1	9	62	72
4	Foul Sewer	0	31	237	268
5	Pumping Station	1	11	135	147
6	Rising Mains	0	2	7	9
7	Other	0	2	16	18
8	<i>Number of incidents where site compliant with discharge consent</i>				0

		Category 1	Category 2	Category 3	Total
<b>Water and Surface Water Related Premises</b>		Total Number	Total Number	Total Number	Total Number (Cat 1-3 incidents) (Automatically Calculated)
9	Water Treatment Works	0	0	6	6
10	Water Distribution System	0	0	5	5
11	Surface Water Outfall	0	4	46	50
12	<i>Number of incidents where site compliant with discharge consent</i>				0

13	Total (Sewage and Water and Surface Water) related Premises (Automatically Calculated)	4	69	599
14	<i>Total (Sewage and Water and Surface Water) number of Incidents where site compliant with Discharge Consent (Automatically Calculated)</i>	0	0	0

15	Total Number of all Category 1-3 incidents (Automatically Calculated)	672
16	Total Number where site compliant with Consent (Automatically Calculated)	0
17	Total Number of Water Company self reported incidents	369

Includes 268 events recorded by SW but not by SEPA

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Table 2: Compliance

Reporting period

Apr-Mar 2008

			Calendar Year 2006
<b>A) All Discharges</b>			
1	Total consented discharges at year end	nr	
2	Total discharges sampled in year	nr	
3	Number of discharges compliant	nr	
<b>B) Look-up Table Lower Tier Consents</b>			
4	Total consented discharges at year end	nr	
5	Total discharges sampled in year	nr	606
6	Number of discharges compliant	nr	575
<b>C) Upper Tier Consents</b>			
7	Total consented discharges at year end	nr	
8	Total discharges sampled in year	nr	606
9	Number of discharges compliant	nr	573
<b>D) Single Tier Consents</b>			
10	Total consented discharges at year end	nr	
11	Total discharges sampled in year	nr	30
12	Number of discharges compliant	nr	29
<b>E) Absolute non-Sanitary Consents</b>			
13	Total consented discharges at year end	nr	
14	Total discharges sampled in year	nr	
15	Number of discharges compliant	nr	
<b>F) Non-numeric Consent</b>			
16	Total consented discharges at year end	nr	
17	Total discharges sampled in year	nr	
18	Number of discharges compliant	nr	
<b>G) Discharges confirmed as failing</b>			
19	Number of discharges confirmed as failing	nr	
20	Total population equivalent confirmed as failing	pe	
21	Total population equivalent served by STWs (resident) (numeric consents)	pe	
22	Percentage population equivalent confirmed as failing	%	

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Table 3: Discharges Confirmed as Failing

Reporting period

Apr-Mar 2008

SEWAGE TREATMENT WORKS (including septic tanks and crude outfalls)

Count	Reference	Name of Discharge	Receiving Water [1]	Population Equivalent	Criteria (please specify Y/N)				Legislation [2]	Parameter [3]
					LUT Sanitary	Upper Tier Sanitary	Single Tier Sanitary	Upper Tier/absolute Non sanitary		
1		Inverurie	I, S			Y			CAR	
2		Willowbank	I, N	44	Y					
3		Mintlaw	I, S			Y				
4		Hatton of Cruden	I, S	700	Y					
5		Woodlands of Durris	I, N	34	Y					
6		Echt	I, N	158	Y					
7		Dunnecht	I, N	100	Y					
8		Kinneff	I, N	165	Y					
9		Brechin	I, S	9943	Y					
10		Dunlop	I, S			Y				
11		Maybole	I, S			Y				
12		Stewarton	I, S			Y				
13		Cumnock	I, S	15695	Y					
14		Reston	I, N			Y				
15		Oxton	I, N	260	Y					
16		Alness	E, N			Y				
17		Conon Bridge	I, N			Y				
18		Milton of Kildary	I, N			Y				
19		Culloden	I, N			Y				
20		Croy	I, N			Y				
21		Tain	E, N			Y				
22		Brackla/Geddess	I, N			Y				
23		Kirkhill	I, N			Y				
24		Invergordon	E, N			Y				
25		Kiltarity	I, N			Y				
26		Dornoch	E, N			Y				
27		Portmahomack	C, N			Y				
28		Drummadrochit	I, N	1312	Y					
29		Dingwall	E, N			Y				
30		Stoneykirk	I, N	30	Y					
31		Canonbie	I, N			Y				
32		Pringleton Penpont	I, N	5	Y					
33		Rowanburn	I, N	7	Y					
34		Torthorwald	I, N	146	Y					
35		Glentworth	I, S			Y				
36		Inversnaid	I, S	55	Y					
37		Dalmuir	E, N			Y				
38		Kinloss	I, N			Y				
39		Insh	I, N	77	Y					
40		Aviemore	I, N			Y				
41		Grantown	I, N	4391	Y					
42		Dufftown	I, N	1759	Y					
43		Dyke	I, N			Y				
44		Plean	I, N			Y				
45		Armadale	I, N	11601	Y					
46		Whitburn	I, S			Y				
47		Livingston	I, S	4066	Y					
48		Abington	I, N	524	Y					
49		Carstairs Vill	I, N			Y				
50		Forth	I, S			Y				
51		Blackwood	I, N			Y				
52		Hamilton	I, S	64417	Y					
53		Cartland	I, N	82	Y					
54		Thurmster	I, N	193	Y					
55		Stromness	C, N	1741	Y					
56		Coupar Angus	I, N	2278	Y					
57		Aberfeldy	I, N			Y				
58		Worlith	I, N	164	Y					
59		Tyndrum	I, N			Y				
60		Callander	I, N	3836	Y					
61		Blackford	I, N	685	Y					
62		Doune	I, N	1144	Y					
63		Tarbert	C, N			Y				
64		Clachan				Y				
65		Scalloway	C, N				Y			

See Footnote

Note: Dalmuir is recorded as a failing works due to a sample history for BOD which ended in May 2007 following the completion of a Capital Improvement project and a licence review which removed this parameter from the CAR conditions of the licence

[1] One from: I = Inland, E = Estuarial, C = Coastal, G = Groundwater, and one from: N = Normal, S = Sensitive Area (UWWTD), H = exHNDAs (please specify)

[2] Please indicate the legislation in which the discharge has not been compliant (i.e. UWWTD, CRA, other)

[3] BOD, COD, SS, NH3, pH, Scheme in breach of statutory deadlines, etc. For UWWTD failures specify: Reporting, Audit, Insufficient samples, BOD UT, BOD LUT, COD UT, COD LUT or Annual average (or a combination of these). For UV disinfection failures

Levels of Service analysis

1) The Levels of Service analysis only includes BOD LUT and P failures for UWWTD reporting

2) In the Levels of Service analysis, where a STW failures both the LUT part of its CRA consent and the BOD LUT or P UWWTD consent condition, the failure is reported against the WRA consent only

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Table 1: Pollution incidents

Reporting period

Jan - Dec 2007

		Year 2007			
		Category 1	Category 2	Category 3	Total
<b>Sewage Related Premises</b>		Total Number	Total Number	Total Number	Total Number (Cat 1-3 incidents) (Automatically Calculated)
1	Sewage Treatment Works				0
2	Storm Tank				0
3	Combined Sewer Overflow				0
4	Foul Sewer				0
5	Pumping Station				0
6	Rising Mains				0
7	Other				0
8	<i>Number of incidents where site compliant with discharge consent</i>				0

		Category 1	Category 2	Category 3	Total
<b>Water and Surface Water Related Premises</b>		Total Number	Total Number	Total Number	Total Number (Cat 1-3 incidents) (Automatically Calculated)
9	Water Treatment Works				0
10	Water Distribution System				0
11	Surface Water Outfall				0
12	<i>Number of incidents where site compliant with discharge consent</i>				0

13	Total (Sewage and Water and Surface Water) related Premises (Automatically Calculated)	0	0	0
14	<i>Total (Sewage and Water and Surface Water) number of Incidents where site compliant with Discharge Consent (Automatically Calculated)</i>	0	0	0

15	Total Number of all Category 1-3 incidents (Automatically Calculated)	0
16	Total Number where site compliant with Consent (Automatically Calculated)	0
17	Total Number of Water Company self reported incidents	

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Table 2: Compliance

Reporting period

Jan-Dec 2007

			Calendar Year 2007
<b>A) All Discharges</b>			
1	Total consented discharges at year end	nr	
2	Total discharges sampled in year	nr	641
3	Number of discharges compliant	nr	
<b>B) Look-up Table Lower Tier Consents</b>			
4	Total consented discharges at year end	nr	
5	Total discharges sampled in year	nr	602
6	Number of discharges compliant	nr	567
<b>C) Upper Tier Consents</b>			
7	Total consented discharges at year end	nr	
8	Total discharges sampled in year	nr	602
9	Number of discharges compliant	nr	572
<b>D) Single Tier Consents</b>			
10	Total consented discharges at year end	nr	
11	Total discharges sampled in year	nr	39
12	Number of discharges compliant	nr	37
<b>E) Absolute non-Sanitary Consents</b>			
13	Total consented discharges at year end	nr	
14	Total discharges sampled in year	nr	
15	Number of discharges compliant	nr	
<b>F) Non-numeric Consent</b>			
16	Total consented discharges at year end	nr	
17	Total discharges sampled in year	nr	
18	Number of discharges compliant	nr	
<b>G) Discharges confirmed as failing</b>			
19	Number of discharges confirmed as failing	nr	
20	Total population equivalent confirmed as failing	pe	
21	Total population equivalent served by STWs (resident) (numeric consents)	pe	
22	Percentage population equivalent confirmed as failing	%	

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Table 3: Discharges Confirmed as Failing

Reporting period

Jan - Dec 2007

SEWAGE TREATMENT WORKS (including septic tanks and crude outfalls)

Count	Reference	Name of Discharge	Receiving Water [1]	Population Equivalent	Criteria (please specify Y/N)				Legislation [2]	Parameter [3]
					LUT Sanitary	Upper Tier Sanitary	Single Tier Sanitary	Upper Tier/absolute Non sanitary		
1		Inverurie	I, S			Y			CAR	
2		Willowbank	I, N	44	Y					
3		Daviot	I, N			Y				
4		Mintlaw	I, S			Y				
5		Ellon	I, S			Y				
6		Hatton of Crude	I, S	700	Y					
7		Woodlands of Dalry	I, N	34	Y					
8		Echt	I, N	158	Y					
9		Durneuch	I, N	100	Y					
10		Kinneff	I, N	165	Y					
11		Dunlop	I, S			Y				
12		Mavbole	I, S			Y				
13		Stewarton	I, S			Y				
14		Stow	I, N			Y				
15		Oxton	I, N	260	Y					
16		Alness	E, N			Y				
17		Culloden	I, N			Y				
18		Croy	I, N			Y				
19		Tain	E, N			Y				
20		Brackla/Geddes	I, N			Y				
21		Kirkhill	I, N			Y				
22		Invergordon	E, N	6772	Y					
23		Kiltarity	I, N			Y				
24		Dornoch	E, N			Y				
25		Portmahomack	C, N			Y				
26		Drumadroch	I, N	1312	Y					
27		Dingwall	E, N			Y				
28		Stoneykirk	I, N	30	Y					
29		Kirkconnell	I, N	5878	Y					
30		Pringleton Penh	I, N	5	Y					
31		Rowanburn	I, N	7	Y					
32		Torthorwald	I, N	146	Y					
33		Glentworth	I, S			Y				
34		Inversnaid	I, S	55	Y					
35		Dalmuir	E, N			Y				
36		Luss	I, S			Y				
37		Kinloss	I, N			Y				
38		Insh	I, N	77	Y					
39		Aviemore	I, N			Y				
40		Grantown	I, N	4391	Y					
41		Dufftown	I, N	1759	Y					
42		Dyke	I, N			Y				
43		Philpstoun	I, S	333	Y					
44		Armadale	I, N	11601	Y					
45		Whinchburgh	I, S	2657	Y					
46		Whitburn	I, S	11797	Y					
47		Bridgend	I, S	764	Y					
48		Largoward	I, N	306	Y					
49		Stonehouse	I, S			Y				
50		Abington	I, N	524	Y					
51		Forth	I, S			Y				
52		Douglas	I, N	2250	Y					
53		Hamilton	I, S	64417	Y					
54		Cartland	I, N			Y				
55		Thrumster	I, N	193	Y					
56		Stromness	C, N	1741	Y					
57		Coupar Angus	I, N	2278	Y					
58		Aberfeldy	I, N			Y				
59		Wolfhill	I, N	164	Y					
60		Tyndrum	I, N			Y				
61		Callander	I, N	3836	Y					
62		Blackford	I, N	685	Y					
63		Doune	I, N	1144	Y					
64		Tarbert	C, N			Y				
65		Tillicoultry	I, N			Y				
66		Johnstone Pk	I, N				Y			
67		Scalloway	C, N				Y			

See Footnote

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Levels of Service analysis

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**Overall Performance Assessment (OFWAT measures)**

**1) Sewage treatment works consent compliance**

An assessment of sewage treatment works (STWs) with the conditions of their discharge consents.

**Unit of assessment**

An assessment of the percentage population equivalent (pe) served by STWs that do not comply with the conditions of their discharge consents. The measure addresses compliance with conditions covering the following.

- Sanitary determinands of 1991 Water Resources Act numeric consents.
- Bio-chemical oxygen demand and phosphorus determinands of Urban
- Waste Water Treatment Directive (UWWTD) consents.
- Phosphorus determinands of 1991 Water Resource Act numeric consents.
- Disinfection conditions of 1991 Water Resource Act consents.

**Sewage treatment works compliance conditions included in the OPA**

Parameter	Legislation	Compliance condition
Biochemical oxygen demand (BOD)	WRA <sup>1</sup>	Compliance with the look up table (LUT) effluent consent condition limits
	UWWT <sup>2</sup>	Compliance with LUT consent condition limit requiring percentage removal of BOD across the works, as assessed by influent and effluent BOD concentrations.
Suspended solids (SS)	UWWT <sup>2</sup>	Compliance with the LUT effluent consent condition limit
Ammonia (NH4)	WRA	Compliance with the LUT effluent consent condition limit
Phosphorus (P)	WRA	Compliance with the effluent consent condition limit
	UWWT <sup>2</sup>	Compliance with the consent condition limit requiring percentage removal of P across the works, as assessed by influent and effluent P concentrations.
UV Disinfection	WRA	Compliance with the required UV dose for 99% of the time (where the period of time is annual or seasonal as specified in the consent conditions <sup>3</sup> ).

<sup>1</sup> WRA – Water Resources Act

<sup>2</sup> UWWT – Urban Waste Water Treatment Regulations

The UWWT regulations provide two approaches for BOD and P: A works is considered to have met compliance conditions if it passes either of these conditions.

<sup>3</sup> Some works are required to apply UV disinfection year round, others during the bathing

**Calculation**

pe of STWs failing their consent conditions for sanitary determinands, phosphorus determinands and disinfection conditions x100  
Relevant pe served (resident) (numeric consents)

**Performance range**

The performance range against which individual company OPA scores are calculated will be:

Max 4.93

Min 0

**2) Category 1 and 2 pollution incidents (sewage)**

**Description**

An assessment of the number of category 1 and 2 pollution incidents resulting from sewage collection and treatment activities.

**Unit of assessment**

The number of category 1 and 2 pollution incidents resulting from sewage collection and treatment activities per million population equivalent (pe) served. See table for details of which pollution incidents are included.

**Classification of pollution incidents according to each OPA measure**

Source/premises	Category 1 & 2	Category 3
Sewage treatment works	Included in OPA.	Included in OPA. Category 3 pollution incidents (sewage).
Combined sewer overflow	Category 1 & 2 pollution incidents (sewage).	
Storm tank		
Rising main		
Water treatment works	Included in OPA.	Not included in the OPA.
Water distribution system	Category 1 & 2 pollution	
Surface water outfall	Not included in OPA.	
Pumping station	Included in OPA.	Included in OPA. Category 3 pollution incidents (sewage).
Foul sewers	Category 1 & 2 pollution incidents (sewage).	
Other		

**Calculation**

**Category 1 and 2 pollution incidents**

Population equivalent served resident / 1,000,000

**Performance range**

The performance range against which individual company OPA scores are calculated will be:

Max 6.17

Min 1.06

**3) Category 3 pollution incidents (sewage)**

**Description**

An assessment of the number of category 3 pollution incidents resulting from sewage collection and treatment activities.

**Unit of assessment**

The number of category 3 pollution incidents resulting from sewage collection and treatment activities per million population equivalent (pe) served. See table in (2) for details of which pollution incidents are included.

**Calculation**

**Category 3 pollution incidents**

Population equivalent served resident / 1,000,000

**Performance range**

The performance range against which individual company OPA scores are calculated will be:

Max 145.07

Min 9.44

**4) Category 1 and 2 pollution incidents (water)**

**Description**

An assessment of the number of category 1 and 2 pollution incidents resulting from water treatment and distribution activities.

**Unit of assessment**

The number of category 1 and 2 pollution incidents resulting from water treatment and distribution activities per million winter population served. See

table in (2) for details of which pollution incidents are included.

**Calculation**

**Category 1 and 2 pollution incidents**

Winter population / 1,000,000

**Performance range**

The performance range against which individual company OPA scores are calculated will be:

Max 1.7

Min 0