

Pollution Control Annual Report 2005-2006

Environmental Regulation Department
Greater Wellington Regional Council

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1. Regional Overview

Greater Wellington has a 24-hour, 7-day incident response service to deal with pollution incidents that occur in the region and conducts environmental audits of businesses. Our investigating officers assess the compliance status of environmental issues we encounter, determine necessary action, gather evidence and take enforcement action where appropriate.

This report summarises the Council's pollution control activities over the financial year 1 July 2005 to 30 June 2006. A total of 1,368 environmental incidents were processed by Greater Wellington during this reporting period, which gave rise to a total of 1,579 individual complaints. When compared to the previous financial year, there has been a 9% increase in pollution incident numbers and a 7% increase in complaints. This is consistent with the upward trend evident since 1998 (see Figure 1). The increase during this reporting period is attributed to the boom in building activity and associated subdivision around the region, and the proactive approach of our Pollution Control Officers to identify pollution incidents. Sections 1.1 to 1.10 of this report provide a more detailed analysis of recent trends for specific pollution classes.

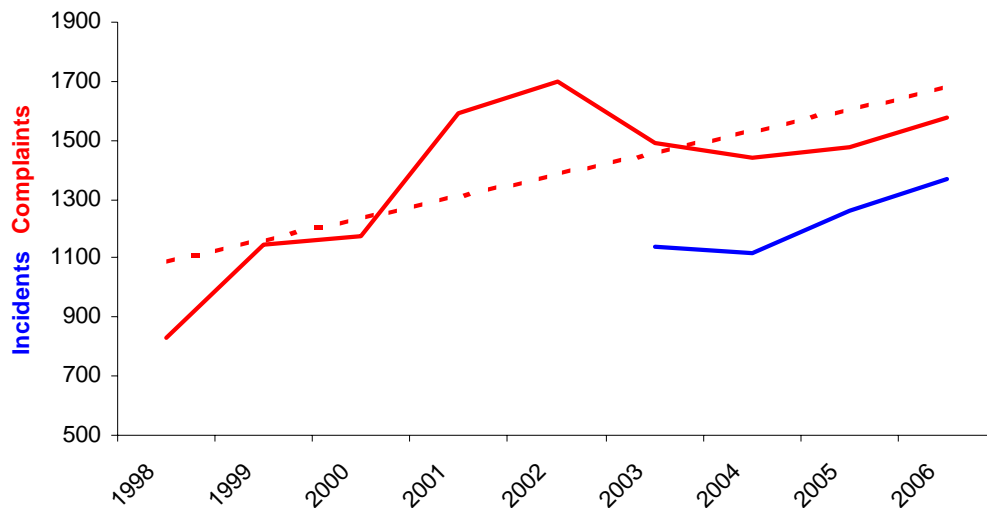


Figure 1: Incidents and complaints

Table 1 summarises the geographical distribution of incidents in the region. When compared to the previous year, there is a marked increase in environmental incidents in the Wellington City Council (17%) and Hutt City Council (9%) areas, which is largely attributed to the growing number of earthworks sites discharging sediment into stormwater systems and streams.

Table 1: Geographic distribution of incidents in 2005/06 (and 2004/05)

Territorial Authority	Number of Incidents	Proportion of Total
Wellington City Council	690 (591)	50%
Hutt City Council	334 (306)	24%
Upper Hutt City Council	76 (70)	6%
Porirua City Council	106 (119)	8%
Kapiti Coast District Council	82 (83)	7%
Wairarapa councils	80 (89)	6%
Total	1,368 (1,258)	100%

Table 2 provides a breakdown of environmental incidents by category. This shows that sediment incidents in the region increased by 41% when compared to the previous year (see section 1.4 for further detail). There was a small decline in odour incidents, which is consistent with the trend of recent years. This reflects the improvement in odour control measures by some of the key odour sources, particularly in Wellington City (see 1.1 for more detail).

Table 2: Incident categories 2005/06 (and 2004/05)

Incident Category	Number of Incidents	Proportion of Total
Odour	406 (426)	30% (34%)
Liquid waste	251 (192)	18% (15%)
Hydrocarbons	110 (101)	8% (8%)
Sediment	127 (90)	9% (7%)
Sewage	33 (70)	2% (6%)
Natural occurrence	55 (66)	4% (5%)
Hazardous material	58 (60)	4% (5%)
Unconsented work	78 (51)	6% (4%)
Solid waste	59 (45)	4% (4%)
Smoke & dust	90 (44)	7% (4%)
Dead animal	19 (31)	1% (2%)
Vehicle	39 (23)	3% (2%)
Other	43 (55)	3% (4%)
Total	1368	100%

Figure 2 illustrates which parts of the environment are affected by pollution incidents. The most commonly affected environments were air (by emissions of odorous contaminants) and surface water. The growth in incidents affecting surface water is largely due to subdivision and construction activity generating sediment runoff. Wetlands form less than 1% of affected environments.

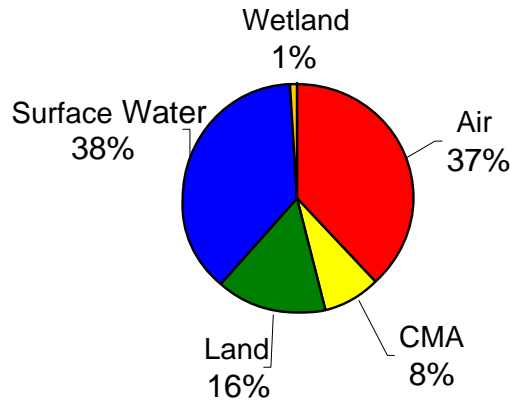


Figure 2: Parts of the environment

Figure 3 illustrates 16% of all reported incidents fell outside the jurisdiction of Greater Wellington, and were referred to the appropriate territorial authority or other regulatory agency. No response was necessary for 42% of reported incidents, as notification was received some time after the incident occurred or thresholds for incident response were not met.

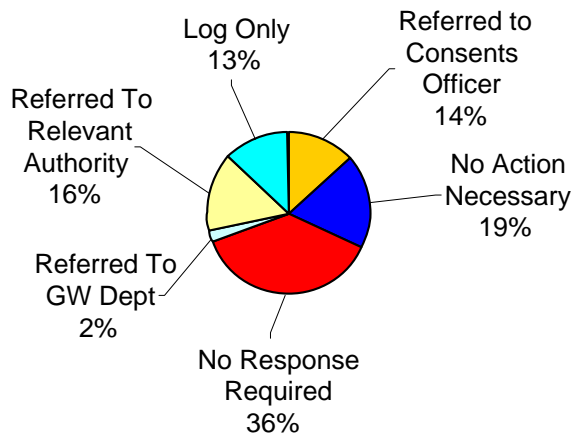


Figure 3: Incident processing

A third of all reported incidents were confirmed as breaches of Regional Plans or the Resource Management Act 1991, and resulted in some form of further action (see Figure 4). It was not possible to assess compliance for 40% of all incidents attended, either due to lack of sufficient evidence at the time of visit, or the investigating officer was unable to locate the cause of complaint.

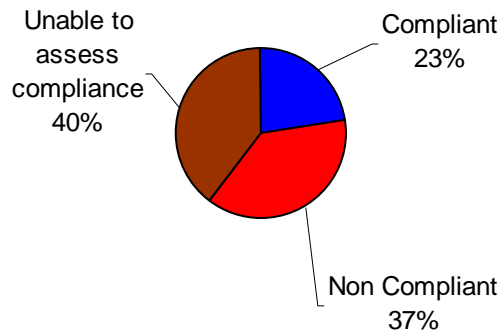


Figure 4: Incident compliance

All reported incidents are ranked according to their significance, based upon their severity, extent and duration of environmental effects. Figure 5 illustrates only 1% of reported incidents were considered to be of 'high' significance, with 86% being ranked as having 'very low' significance. There was a similar distribution for incident significance in the previous year. Table 3 provides an overview of the more significant incidents in the reporting period.

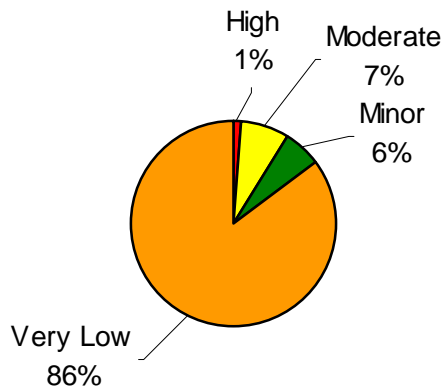


Figure 5: Incident significance

Table 3: Overview of significant incidents

Rank	Incident description (and responsible party)	Territorial Authority	Score	Class
1	Unconsented reclamation of four streams in Belmont (Barry Hayes)	Hutt City Council	5000	High
2	Effluent disposal into the Mangaroa River (John Gabites)	Upper Hutt City Council	4922	High
3	Silt discharge into the Hutt River (Silverstream Landfill)	Upper Hutt City Council	4918	High
4	Silt discharge into Owhiro Stream (Brooklyn Holdings Limited)	Wellington City Council	4692	High

Rank	Incident description (and responsible party)	Territorial Authority	Score	Class
5	Hydrocarbon Spill at Waikanae (Bruce Hill Transport)	Kapiti Coast District Council	4680	High
6=	Unconsented works in a Wetland (Rod Trass)	Masterton District Council	4602	High
6=	Unconsented works in Stebbings Stream (Stebbing's Farmlands Limited)	Wellington City Council	4602	High
6=	Silt discharge to stream in Wadestown (Wadestown Properties Limited)	Wellington City Council	4602	High
7=	Silt discharge to Kenepuru Stream (Carrus Limited)	Porirua City Council	4454	Moderate
7=	Odour in Brooklyn (Carey's Gully Complex)	Wellington City Council	4454	Moderate
8	Nutrient discharge to Mangaroa River (John Gabites)	Upper Hutt City Council	4436	Moderate
9=	Unconsented earthworks in Johnsonville (McDonnell Holmes)	Wellington City Council	4428	Moderate
9=	Dumping of cleanfill waste into Waipoua River (Dermot Payton)	Masterton District Council	4428	Moderate
10=	Septic tank discharge into Karori Stream (Terawhiti Station Farm)	Wellington City Council	4424	Moderate
10=	Stock in Mangaroa River (Van Riet Farm)	Upper Hutt City Council	4424	Moderate
11	Dumping of Clean Fill material into wetland (Ralph Williams)	Hutt City Council	4364	Moderate
12=	Sewage leak in tributary of Porirua Stream (Unknown Source)	Porirua City Council	4311	Moderate
12=	100L Hydrocarbon spill into Wellington Harbour (HMNZS Endeavour)	Wellington City Council	4311	Moderate
13=	Silt discharge into tributary of Owhiro Stream (C & D Landfill)	Wellington City Council	4198	Moderate
13=	Liquid waste discharge into Ngauranga stream (Taylor Preston Limited)	Wellington City Council	4198	Moderate
13=	Silt discharge into Browns Bay, Pauatahanui (Capital Project Management)	Porirua City Council	4198	Moderate
14	Eel kill in the Onepoto stream (unknown cause)	Porirua City Council	4151	Moderate
15	Silt discharge into Porirua stream (Best Farms Limited)	Wellington City Council	4043	Moderate
16	Unconsented seawall at Ivy Bay (Glenn Cooper)	Porirua City Council	4041	Moderate

Rank	Incident description (and responsible party)	Territorial Authority	Score	Class
17	Hazardous substance in Waiwhetu stream (Unknown source)	Hutt City Council	4038	Moderate
18	Hydrocarbon discharge to land (Aviation Ground Services)	Wellington City Council	4030	Moderate
19	Unconsented stream works (Tiniroa Grove Silverstream)	Upper Hutt City Council	4026	Moderate

1.1 Nuisance odour

For the first time in three years, nuisance odour represented less than one third of all reported incidents, and this year's total represented only half of odour incidents reported in 2002 (see Figure 6). As in previous years, the majority of reported incidents were associated with the Taylor Preston meat works in Ngauranga Gorge (17%) and the Carey's Gully complex (26%). However, the number of incidents for each site was substantially lower than previous years. This decrease is considered to be due to a combination of favourable weather conditions and improved management of odour sources and emissions at these sites.

A Wellington City Council odour mapping exercise conducted for facilities at the Carey's Gully site identified the Living Earth composting facility as the most likely source of nuisance, due to the large volume of air discharged from the process. However, it also confirmed that emissions from United Water's sludge dewatering facility had potential to be problematic due to their highly odorous nature.

Approximately 5% of all odour incidents were attributed to the Hutt Valley Water Services wastewater treatment plant at Seaview. Odour emissions from this site largely occurred as a result of illegal discharges to trade waste sewer which seriously disrupted the biological treatment processes at the plant.

The development of new inner city apartments in Wellington contributed to an increase in odour complaints about pre-existing businesses, particularly fish processing and spray painters. In the majority of cases, these odours were found to comply with regulatory requirements.

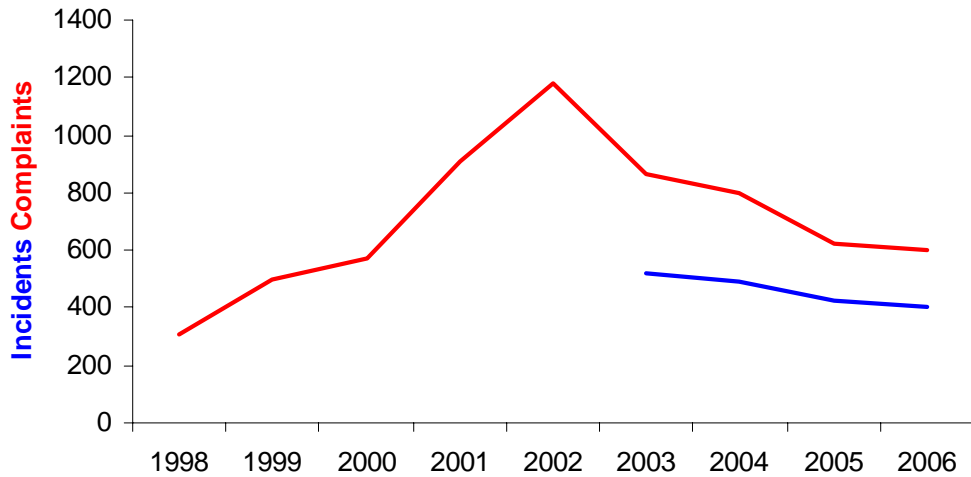


Figure 6: Odour incidents and complaints

1.2 Liquid waste

Pollution incidents involving inappropriate liquid waste disposal have more than doubled since 2002. These incidents included the inappropriate disposal of paint, detergent or concrete waste, typically into stormwater drains or watercourses. This increase is attributed to growth in the building sector and home renovation activity, in conjunction with growing public awareness about water pollution.

Significant initiatives taken by Greater Wellington to combat liquid waste pollution include release of the ‘Save the Drain for Rain’ pamphlet, and a focus on reducing stormwater pollution via the Council’s ‘Be the Difference’ campaign and several media releases. Despite these initiatives, it is disappointing to note that many contractors and members of the public remain unaware that discharges into stormwater drains can contaminate our surface waters.



Paint discharges into the Botanical Gardens



Discharge of liquid waste to stormwater in Wellington City

1.3 Hydrocarbons

Hydrocarbon incidents include the accidental or intentional disposal of fuel and oil, typically into stormwater drains. Accidental discharges included automotive fluid leaks into roadside drains following vehicle accidents, or leaks from above ground bulk storage tanks or pipes. Intentional discharges included the draining of vehicle fuel tanks onto paved surfaces (if filled with incorrect fuel), and the disposal of sump oil or edible oil onto land or into stormwater drains.

There has been an upward trend in hydrocarbon incidents since 1990 (see Figure 7), due to a combination of increased vehicle ownership, a decline in the number of garages accepting waste oil, rising landfill fees and growing public awareness.

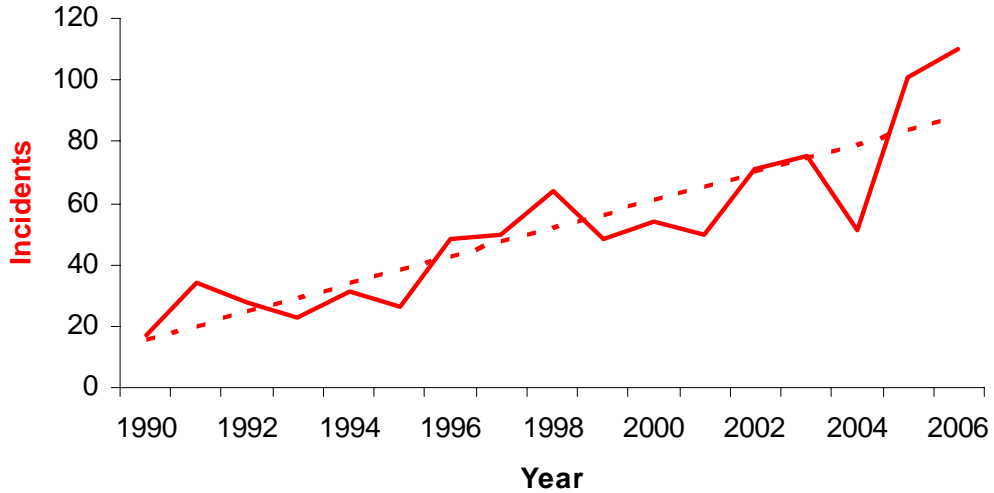


Figure 7: Hydrocarbon incidents

Greater Wellington’s Take Charge programme has focused upon preventing hydrocarbon discharges into the stormwater system from industrial and commercial sites. Our audits of service stations and motor vehicle workshops in particular have emphasised stormwater protection and the appropriate storage and disposal of fuel, lubricants and waste materials.



Fuel spill at Pauatahanui

1.4 Sediment

There has been substantial growth in vegetation clearance and earthwork activities around the region, as part of the building boom in recent years. Where developers fail to adequately control muddy run-off from their sites, this can result in heavy sediment loading for nearby streams and rivers. Sediment incidents have increased 41% since last year, and threefold since 2002 (see Figure 8).

Greater Wellington identified this emerging problem back in 2004, and our 'Muddy Waters' programme (see section 4.2.1) has since up-skilled regulators, developers and contractors in how to control erosion and sediment loss at construction sites. The increase in incident numbers is mainly attributed to improved regulator scrutiny, rather than an actual increase in offending. Greater Wellington has also published the 'Small Sites Guidelines', which is a best practice guide for erosion and sediment control (see below)

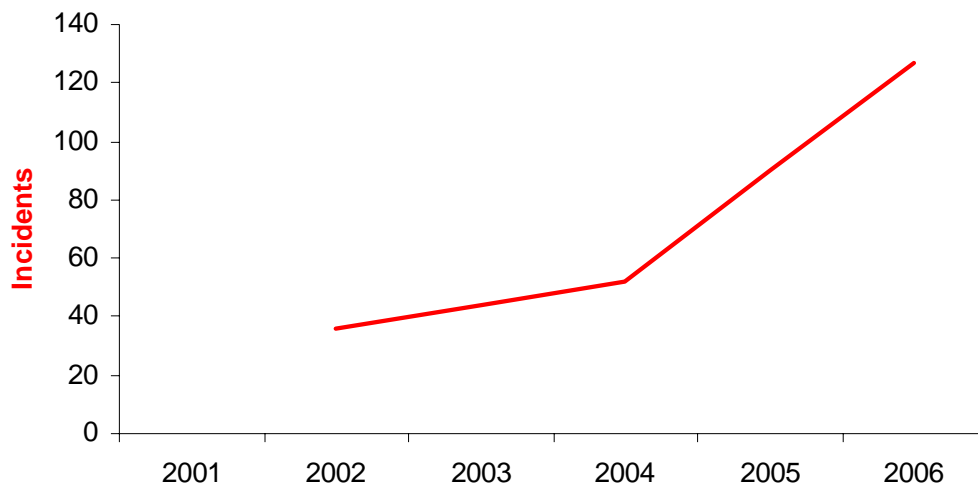


Figure 8: Sediment incidents



A total of 9,000 copies of this guideline have been distributed to territorial authorities around the region so far.



Sediment runoff into Evans Bay

1.5 Unconsented works

This category includes stream works (such as erosion protection, channel diversion or culvert placement), earthworks and vegetation clearance that have been done without the necessary resource consent being obtained. Most unconsented works were associated with the establishment of building platforms, access roads, erosion protection and stream re-alignment. The doubling of unconsented work incidents since 2003 (see Figure 9) is attributed to a combination of the building boom and greater scrutiny by regulatory officers.



Unconsented works in the Porirua Stream

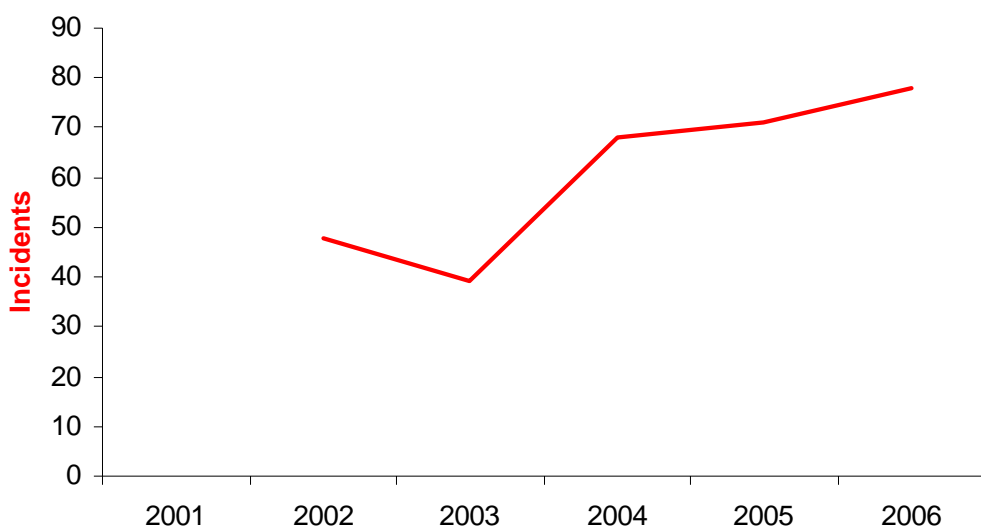


Figure 9: Unconsented works

Where those responsible for unconsented works are able to obtain resource consent retrospectively, Greater Wellington actively encourages them to do so. However, there is likely to be an additional penalty for intentional avoidance of due process. Where unconsented works do not qualify for retrospective resource consent, the owner is typically required to remove non-complying structures or reinstate affected areas, and may also incur a penalty.

1.6 Smoke, dust and uncontrolled burning

The number of incidents associated with smoke and dust has increased three fold since 2003 (see Figure 10). Common sources include windblown dust from contractors' yards and bark yards, and bonfires at industrial and residential sites. The most serious instances of non-compliance were associated with metal recycling, where oil or plastic residues were removed from metal surfaces by burning. The marked increase in incident numbers is principally due to an increase in complaints about residential burning of vegetation, possibly as a consequence of increased landfill fees.



Unauthorised burning at Judgeford



Figure 10: Smoke, dust and uncontrolled burning

The Pollution Control Team is developing Memoranda of Understanding with several territorial authorities throughout the region, to clarify regulatory jurisdiction for smoke, dust and uncontrolled burning. The introduction of the National Environmental Standard for Air Quality will also strengthen the Council's ability to regulate smoke arising from the open burning of oil, tyres, coated wire and bitumen.

1.7 Sewage

Greater Wellington responds to sewage spills onto land or into water, which typically occurs as a consequence of pump failure, pipe blockage or pipe defects. Despite the significant variability in sewage incident numbers over recent years (see Figure 11), there is a general upward trend. This variation is largely attributed to better reporting rather than deterioration in the condition or maintenance of municipal sewerage infrastructure in the region.

A reporting and response protocol is in place for sewage incidents, through which territorial authorities notify Greater Wellington and the Regional Public Health service about accidental sewage discharges. This ensures public health effects and environmental consequences are adequately managed.



Sewage overflow in Petone

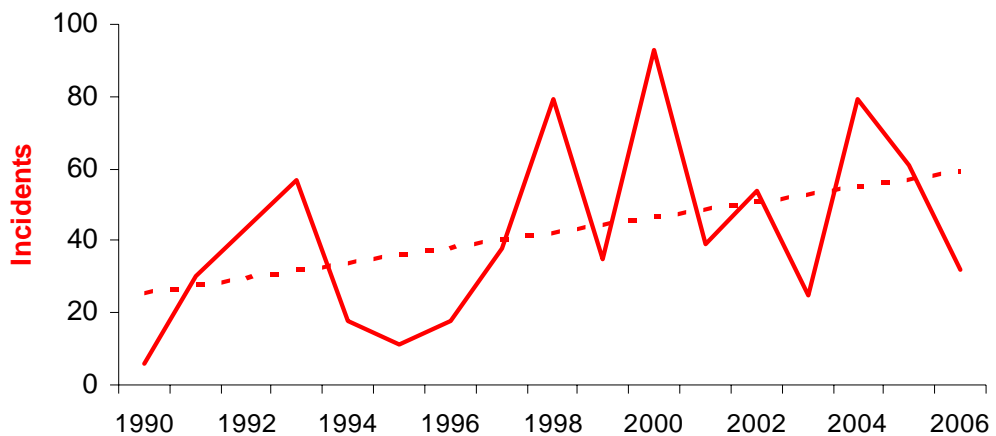


Figure 11: Sewage incidents

1.8 Solid waste

Solid waste incidents refer to the inappropriate disposal of household or commercial waste, which is typically dumped on private land, roads, or recreational areas such as parks and stream beds. There has been a long term upward trend in solid waste incidents (see Figure 12), and it is anticipated this will continue as people avoid disposal fees at municipal landfills.

The building boom has led to a rise in illegal dumping. This typically occurs where somebody wants to fill a hole on their land to create a building platform, but does not adequately control the content of materials dumped. Greater Wellington requires inappropriate fill material to be removed, and has fined several non-compliant activities. Where hazardous materials are involved, a site will be placed on our Selected Land Use Register as a site where contamination has been confirmed.



Sludge spill from Taylor Preston on SH1

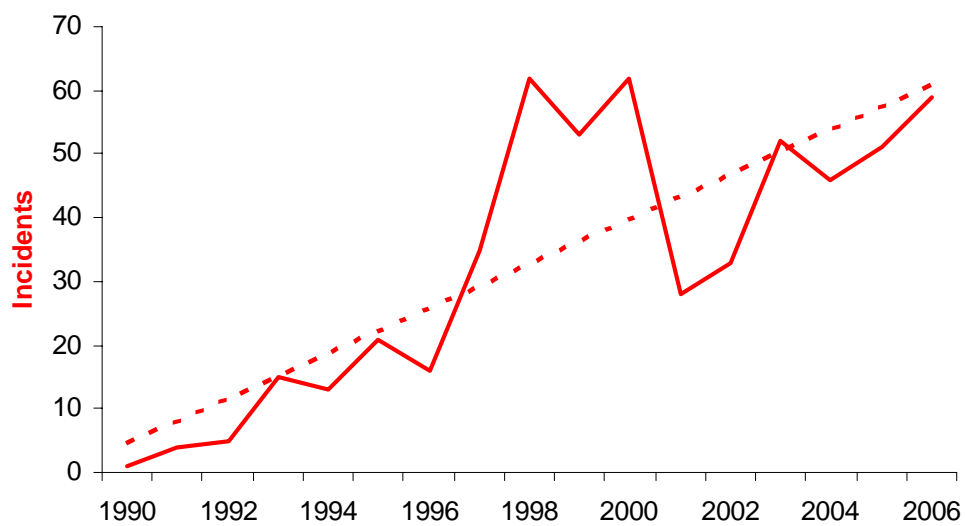


Figure 12: Solid waste incidents

1.9 Natural occurrences

This incident category was added in 2004, and includes incidents such as algal blooms, land slips, pollen, seaweed, jellyfish swarms, flood debris, erosion and dead animals. This year has seen fewer incidents related to extreme weather, with the exception of large landslips following heavy rain. Toxic algae incidents increased in several rivers throughout the region, due to a prolonged warm, dry spring and summer.



Pollen in Te Mome stream at Bracken St in Petone

1.10 Hazardous substances

Incidents involving hazardous substances include spills or leaks from accidents on roads and at industrial sites, intentional dumping to avoid disposal fees, and requests for the collection of household agrichemicals. There has been a notable upward trend in hazardous substance incidents since 2003, as illustrated in Figure 13. This is despite the provision of hazardous substance disposal facilities at some landfills. Greater Wellington arranges for the collection of unwanted agrichemicals in rural areas, and loans its Hazmobile to territorial authorities wishing to organise household hazardous waste collections in their areas. This initiative contributes to the collection and appropriate disposal of approximately 7 tonnes of household hazardous waste each year.

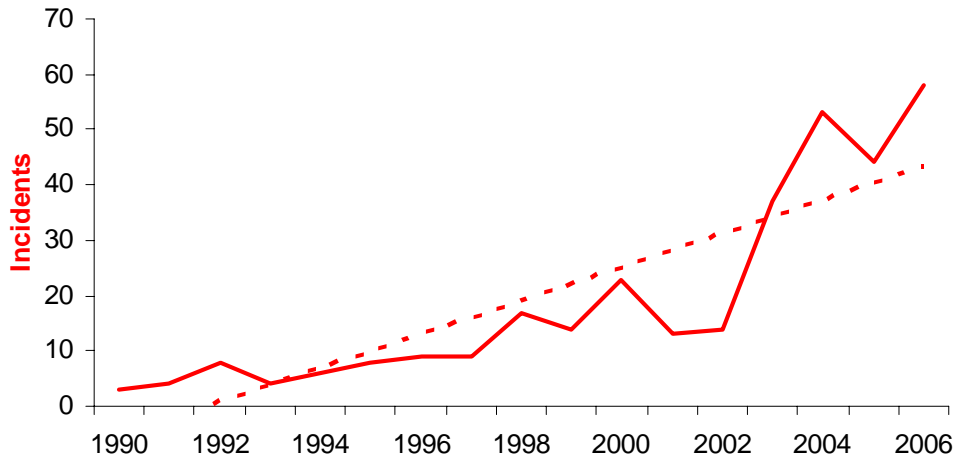


Figure 13: hazardous substance incidents



Unknown hazardous substance dumped in Titahi Bay

2. Regional incident summary

Table 4 illustrates the distribution of incidents amongst territorial authority areas in the region. As in previous years, almost 50% of incidents occurred in the areas administered by Wellington City Council and the Hutt City Council, largely due to the concentration of industry and population in these areas.

Table 4: Regional incident summary 2005-06 (2004-05)

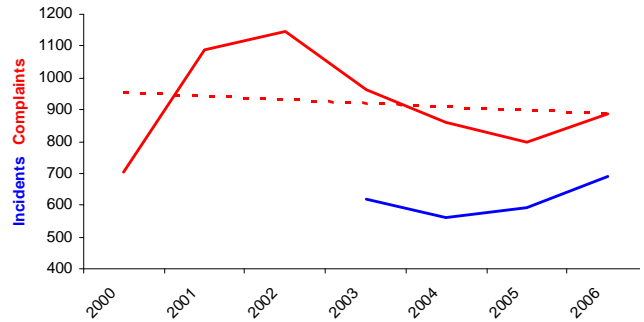
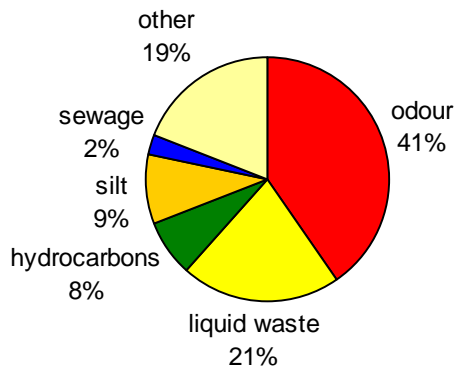
TYPE	Territorial Authority					
	WCC	HCC	UHCC	PCC	KCDC	WAIR*
Odour	278(260)	116(149)	2(1)	3(13)	2(5)	5(0)
Liquid waste	148(106)	51(42)	11(12)	21(13)	10(4)	10(15)
Hydrocarbons	52(63)	30(12)	6(6)	8(8)	12(7)	2(5)
Sediment	62(40)	31(18)	9(7)	15(12)	3(12)	7(1)
Sewage	17(28)	5(14)	2(3)	3(4)	5(9)	1(3)
Natural occurrence	12(19)	15(7)	2(1)	11(8)	7(7)	8(6)
Hazardous material	27(16)	13(9)	9(3)	3(7)	5(5)	1(4)
Unconsented works	15(16)	22(13)	12(16)	9(10)	10(9)	10(7)
Solid waste	21(15)	9(10)	9(9)	7(8)	9(4)	4(5)
Smoke & Dust	37(15)	20(14)	7(4)	5(10)	12(8)	9(15)
Dead animal	4(5)	5(7)	2(2)	4(3)	1(2)	3(4)
Vehicle	3(1)	10(5)	2(2)	13(14)	4(5)	7(4)
Other	14(7)	7(6)	3(4)	4(9)	2(7)	13(22)
Total	690(591)	334(306)	76(70)	106(119)	82(83)	80(89)

* Wairarapa territorial authorities comprise Carterton DC, Masterton DC & S. Wairarapa DC.

Territorial authorities that have large urbanised areas showed a similar distribution of incident types, with odour, liquid waste, hydrocarbons and sediment incidents dominating. By contrast, incidents in the more rural areas tended to arise from smoke, sediment and unconsented works.

The following sections provide an assessment of incidents and complaints by geographic area.

2.1 Wellington City



Incidents: 690 (591 in 2004/2005)

Complaints: 889 (798 in 2004/2005)

Following a sustained decline in incident numbers in recent years (likely due to fewer odour complaints), sediment incidents have increased markedly, largely due to building/earthworks activities causing surface water pollution.

Significant incidents:

Surface water

- Sewage was discovered leaking into the Karori Stream from a defective septic tank at Terawhiti Station farm. Greater Wellington obtained water samples to assess the level of contamination and asked the property owner to upgrade and repair the system to eliminate future discharges. The owner has replaced the septic tank and re-laid the field drains.
- Operational problems at the treatment plant for Taylor Preston's meatworks wastewater resulted in a discharge of stock effluent to the Ngauranga Stream on two separate occasions. Greater Wellington issued an infringement fine for both these incidents.
- Stormwater runoff from Horokiwi quarry led to a significant sediment plume in Wellington Harbour on Anzac Day. A site management plan, with works to be completed by the end of 2006, was prepared by staff at Greater Wellington and the quarry. The quarry was rated non-compliant for its 2005-06 consent.
- Earthworks Marlborough Limited was issued an infringement fine for discharging hydrocarbons into the Karori Stream in February 2006.
- The cleaning and degreasing of vehicles by Aviation Ground Services at Wellington Airport resulted in oil and other contaminants entering the stormwater system (see below). The company has now ceased all outdoor washing activity, pending installation of a purpose-built wash pad.



Fuel spill from Aviation Ground Services in Miramar

- Concrete wastewater from the Allied Concrete batching plant on Landfill Road discharged into the Owhiro Stream in April 2006 (see below). Greater Wellington issued an infringement fine for this incident and issued an abatement notice to cease all offsite discharges.



Wastewater runoff from Allied Concrete at Landfill Road

Stream works

- The unconsented extension of a stream culvert led to substantial discoloration of the Owhiro Stream. Preparations were underway to initiate a prosecution for this matter early in the next current year.
- An unnamed tributary of the Porirua Stream was piped before necessary resource consents had been obtained in October 2005. John Walsh Limited (Contractor) and Truebridge Callender Beach Limited (Consultant) were infringed for these unconsented works.
- An unconsented gabion basket wall in the bed of the Karori Stream in South Makara resulted in an infringement notice for New Zealand Forestry Group.
- Silt laden water in the Takarau Stream led to the discovery of unconsented stream works in a tributary of the Takarau Stream along Takarau Gorge Road. Wellington City Council was responsible for the works and was issued with an infringement notice.

Earthworks

- Pollution Control Officers attended multiple incidents where sediment was discharged into stormwater from subdivision developments which had inadequate erosion and sediment control measures. The most significant discharges occurred from the following developments:
 - 282 Ohiro Road (Brooklyn Holdings Limited)
 - Wadestown Road (Wadestown Properties Limited)
 - Cortina Avenue, Johnsonville (McDonnell Homes)
 - Amesbury Drive, Churton Park (Best Farm Ltd)
 - 318 Ohiro Road (Ohiro Properties Limited)

Land

- Failure of a lock bolt on a truck's tailgate caused 17 tonnes of meatworks waste sludge to spill onto State Highway 1 at Ngauranga Gorge. Pollution Control Officers supervised a prompt clean-up ensuring that environmental effects were negligible.
- Leachate was discovered leaking into surface water from South Street, Linden. Investigations discovered the Leachate was leaking from contaminated fill beneath Greenacres School into the stormwater network.

Air

- Greater Wellington issued infringement fines to the Southern Landfill (November 2005) and Taylor Preston Meatworks (November 2005 and January 2006) for failing to comply with their consent conditions, namely

no offensive and objectionable odour beyond the boundary of the permit holders premises.

- Smoke and soot from a large generator at Wellington Hospital caused numerous complaints in Newtown.



Smoke from Wellington Hospital

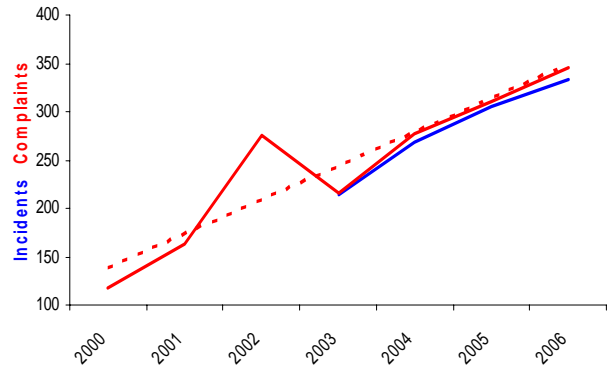
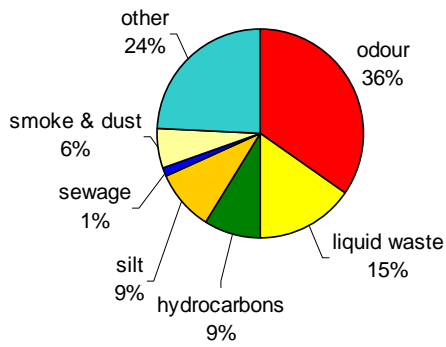
Coastal marine area

- Approximately 1,000 litres of oil spilled onto the deck of HMNZS Endeavour when it was berthed at Queens Wharf in April 2006. Despite a prompt and thorough clean-up, up to 100 litres entered the harbour, and led to oily sheens and odours between Frank Kitts lagoon and Te Papa for the following three days.



Fuel spill on the HMNZS Endeavour

2.2 Hutt City



Incidents: 334 (306 in 2004/2005)

Complaints: 346 (311 in 2004/2005)

Significant incidents:

Surface water

- Effluent was discharged into the lower part of the Waiwhetu Stream to enable repair of defects on the main outfall pipe. The environmental effects were considered not significant, as the discharge was treated/disinfected effluent.



Alkaline wastewater discharges from exposed aggregate driveways

- Several incidents involving contractors causing discharges of cement wastes to surface water, while installing aggregate driveways.
- An unknown hazardous substance was discharged into the Waiwhetu Stream in February 2006. The substance caused significant discolouration and several fish died. Although no source was found, Pollution Control Officers have conducted take charge audits in this area to prevent a reoccurrence.
- Toxic cyanobacterial growths were identified in the Hutt and Wainuiomata rivers during the spring and summer, which led to restrictions on recreational access. The growth is thought to have occurred due to a combination of unusually low rainfall and warm conditions. An algae alarm has been developed by Greater Wellington to allow staff to monitor trends in river flows.



Algae in the Hutt River during December 2005

Stream works

- Works were undertaken to illegally culvert a stream on Ohariu Road, causing a significant long term environmental effect. Three infringements were issued to the consultants (Truebridge Callender Beach), the contractor (John Walsh Limited) and the landowner (Stebbings Farmland Limited) for not obtaining necessary resource consents for this activity.
- An investigation in Wainuiomata discovered Paddy Hannan of Droque Construction Limited had undertaken stream clearance and channel realignment of an unnamed tributary of Black Creek. Although a consent had been lodged for these works, it was not issued when these works were undertaken and therefore was illegal. An infringement notice was issued to Paddy Hannan.



Stream works in Stokes Valley

- A tributary of Stokes Valley Stream was illegally piped. An advisory notice was issued to remove inappropriate materials and obtain a retrospective consent.
- Unconsented gravel extraction resulted in significant excavation of the Wainuiomata River bed in October 2005. An infringement notice was issued to Norman Cobb and JB Hughes Contractors who were the responsible parties. In December 2005 the same parties were infringed for diverting the Wainuiomata River without necessary resource consent. An abatement notice was issued to each party to reinstate the stream by March 2006. An inspection in April 2006 revealed they had not complied with the abatement notice and further infringement notices were issued.
- Unconsented stream works in Walter Road, Lowry Bay resulted in an infringement notice being issued to Wellington Water Management Limited. The works, including widening of the channel, installation of a debris arrestor and gabion basket did not have the required resource consents.
- Discharges associated with truck washing and sediment ponds from the Winstone Aggregates complex at Belmont Quarry resulted in foam and discoloration of the Hutt River. A written warning was issued and Greater Wellington officers worked with the quarry to develop a stormwater management plan.



Sediment laden discharges from the Belmont Quarry

Earth works



Unconsented vegetation clearance in Hutt City

- Unconsented vegetation clearance and earthworks by Barry Hayes reclaimed four streams in the Speedy's Stream catchment, while the absence of erosion and sediment control measures resulted in stream pollution. Mr Hayes was issued with an infringement fine and two abatement notices to install silt control measures and reinstate the stream.

Land

- Several landslips occurred in June/July 2006 causing damage to several homes. The most significant was in Vista Grove in Kelson, where sewage pipes damaged in the slip discharged into the Speedy's Stream for several days following.

Air



Discharge to the Wainuiomata River

- Odour complaints about Wainuiomata landfill led officers to discover that hazardous waste was being disposed of at this site. This site is not authorised to accept such waste, and poor site management practices resulted in heavy metal discharges into the Wainuiomata River. The waste is now sent to Silverstream Landfill, and site management practices have been improved.

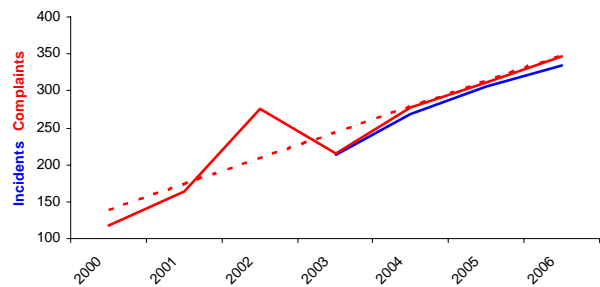
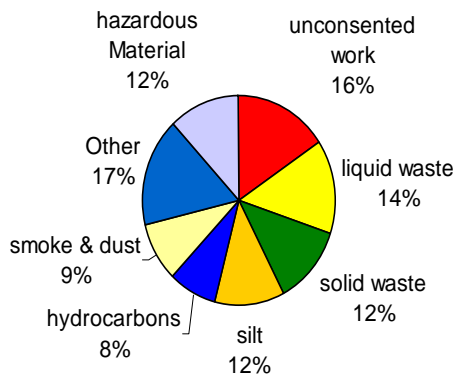
Wetland

- An infringement and abatement notice was issued to Ralph Williams of Wainuiomata when he dumped cleanfill material into a wetland. The abatement notice required Ralph to remove the clean fill material and restore the wetland to its natural state.



Cleanfill in a Wainuiomata wetland

2.3 Upper Hutt City



Incidents: 76 (70 in 2004/2005)

Complaints: 76 (73 in 2004/2005)

Significant incidents:

Surface water

- Incorrect disposal of pig slurry at the Gabites Pig farm resulted in a significant quantity of the slurry entering the Mangaroa River. A sampling program conducted upstream and downstream of the farm indicated a significant increase in nutrient as a result of the effluent entering the Mangaroa River. Greater Wellington is in the process of initiating an Enforcement Order against the property owner.
- Insufficient erosion and sediment controls led to significant discharge of sediment into the Mangaroa River from earthworks at the former Gabites pig farm by Maymourn Contractors Limited.

- A significant quantity of silt was discharged into the Hutt River as a result of uncontrolled discharge from stormwater ponds at Silverstream Landfill. No silt control measures were used at the site. Charges were laid against Tenga Pickering Contractors Limited for the silt discharge.
- Toxic cyanobacterial growths were identified in the Hutt and Mangaroa rivers during the spring and summer, which led to restrictions on recreational access. The growth is thought to have occurred due to a combination of unusually low rainfall and warm conditions.



Unconsented fill in a stream along Mulhern Road

Stream works

- Pollution Control Officers discovered fill material had been deposited in the Cooley's Stream at Mangaroa Valley Road from a cleanfill operating on the site. Greater Wellington identified Graeme Alexander as the responsible party and issued him with an abatement notice requiring fill material to be removed.
- A retrospective consent was issued after Pollution Control Officers discovered part of Hulls Creek at Tiniroa Grove in Silverstream had been culverted.

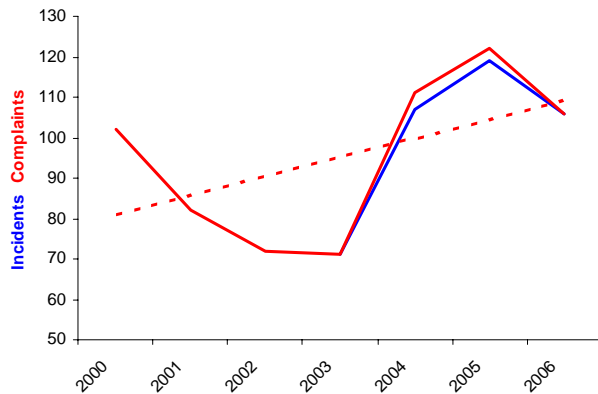
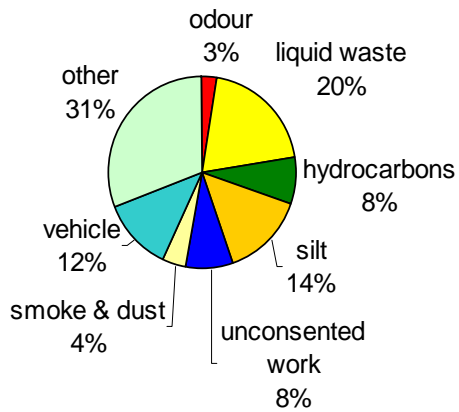
Land

- After significant investigation nine vehicles were discovered buried in a residential property in Gillespies Road, Upper Hutt. Greater Wellington issued an abatement notice to the landowner ordering them to remove the vehicles and any contaminated soil. Greater Wellington supervised the removal of the vehicles and ensured correct disposal to landfill.



Vehicles once buried in a backyard in Upper Hutt

2.4 Porirua City



Incidents: 106 (119) in 2004/2005

Complaints: 106 (122) in 2004/2005

Significant incidents:

Surface water

- Silt was discharged into the Kenepuru Stream from the sediment retention pond at Somerset Villages, part of the Aotea Block Subdivision. An

abatement notice was issued to Carrus Limited (Developer) directing them to ensure all sediment control structures are constructed in accordance with their earthworks management plan.

- An unknown white substance was identified as the cause of 26 eel deaths in the Onepoto Stream in April 2006. No obvious sources were identified in the small industrial area surrounding the Onepoto stream; however, a take charge assessment was conducted in the area to prevent a reoccurrence.



Eels dead in Onepoto Stream from unknown chemical

- Sewage was detected in a tributary to the Porirua Stream in July 2005. Greater Wellington referred this matter to Porirua City Council to find the source and ensure sufficient signage was erected to warn stream users of potential danger.

Stream works

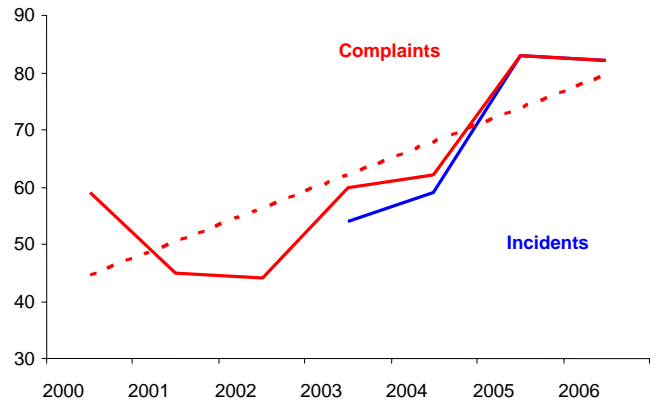
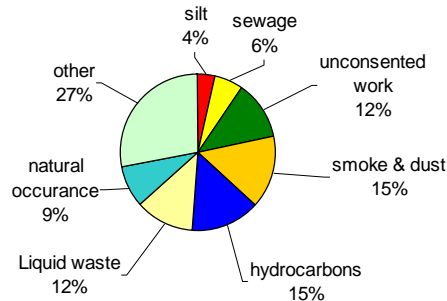
- Christopher Mason was issued with three infringement notices for discharging silt into an un-named tributary of Browns Bay Stream, stream realignment and deposition of fill material into an un-named stream. All incidents originated from an earthworks site at Staithes Drive North in Whitby. In addition, an abatement notice was issued to Christopher Mason to control surface water runoff from the site and to reinstate affected watercourses.

Coastal marine area

- A seawall was built in Ivey Bay, Pauatahanui, without the necessary resource consent. Pollution Control requested the landowner (Glenn Cooper) apply for a retrospective consent for the seawall.

- This reporting year has seen a reduction of complaints regarding vehicles driving on Titahi Bay following a re-definition of MWS and Porirua City Council staff monitoring the beach during peak times.

2.5 Kapiti Coast District



Incidents: 82 (83 in 2004/2005)

Complaints: 82 (83 in 2004/2005)

Incident numbers were similar to the previous year on the Kapiti Coast. However, there was a general increase in waste related incidents, and a corresponding fall in sediment and odour incidents.

Significant incidents:

- Toxic cyanobacterial growths were identified in the Otaki and Waikanae rivers during the spring and summer, which led to restrictions on recreational access. The growth is thought to have occurred due to a combination of unusually low rainfall and warm conditions.
- The Pollution Control Team received multiple notifications of silt in the Waitohu Stream. The silt tends to be related to rain events suggesting natural erosion of the channel; however, we plan to conduct a catchment survey to identify any other sources and if necessary, ensure adequate erosion and sediment controls are used.
- Pollution Control Officers attended a number of petrochemical incidents resulting from spills and poor storage of oil/petrol at service stations and workshops. Greater Wellington actively improved site storage to prevent future incidents. No incidents resulted in major long term environmental effects.
- A 25km long paraffin oil spill occurred on State Highway 1 between Paremata and Waikanae. A 17 tonne load was leaking from inside a container. The clean up was co-ordinated by Greater Wellington, Kapiti Coast District Council and Fulton Hogan.



Paraffin oil spill clean up in Waikanae

- A dump site was investigated at the Forest Lakes Christian Camp; a significant quantity of waste materials was dumped adjacent to a wetland. An advisory notice was issued to remove all the illegal materials and a written warning issued to stop further dumping and erect warning signs.



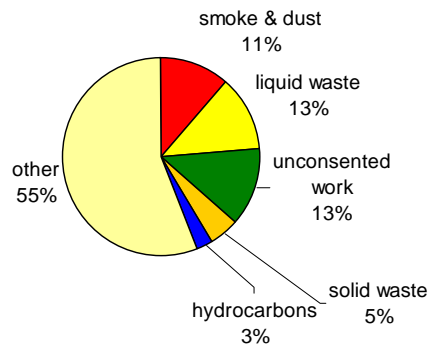
A dump site adjacent to a wetland in Otaki

- Stream works were undertaken without consent prior to subdivision in Te Horo (Catalonia Estates Limited). A retrospective consent was granted for the works.



Illegal stream works in Te Horo

2.6 Wairarapa*



Incidents: 80 (89 in 2004/2005)

Complaints: 80 (89 in 2004/2005)

The last year saw a continued downward trend in incident numbers in the Wairarapa, which is attributed to reduced reporting. There was still the normal level of incidents surrounding dead animals and vehicles in waterways. During the summer the main issues concerned unusually low stream/spring flows and bore/wells drying up. Low rainfall was the likely cause of these incidents.

Significant incidents:

- Infringement notices were issued for illegal river works on the Huangarua River.

* Comprising Masterton District Council, South Wairarapa District Council and Carterton District Council



Illegal river works on Huangarua River

- A significant quantity of demolition waste had been deposited in the riverbed of the Waipoua River. An abatement notice was issued to Dermont Payton to cease further discharges of materials.
- Overflow from a dairy shed effluent sump on the Sage dairy farm in Carterton resulted in Greater Wellington issuing an abatement notice requiring installation of a larger sump to manage the effluent.
- Abatement notices were issued to Capital Precut Solutions (Masterton) and International Timber Processors (Carterton) to cease all burning of industrial waste and use alternative disposal methods. The smoke generated from the waste was likely to contravene the Regional Air Quality Management Plan.
- Groundwater was being used to irrigate grapes on a Martinborough property (Lifestyle Capital Limited). The water was being taken at a rate of greater than 2.5 litres per second, and 20 000 litres per day, and without resource consent under Rule 16 of the Regional Freshwater Plan. An abatement notice was issued to cease further unauthorised abstractions until a resource consent has been granted for taking water on this property.
- Unconsented works resulted in extensive excavations in the Manuka Flats wetland in Masterton. The wetland had been dredged and material removed from the wetland.



The Manuka Flats wetland

- Investigations by the Pollution Control Officers have identified concerns with stormwater runoff from a timber treatment yard in the Wairarapa. A resource consent application is being worked through to resolve stormwater issues at the site.
- Blue-Green (cyanobacterial) growths were identified in the Waipoua River during the summer, which led to restrictions on recreational access. The growth is thought to have occurred due to a combination of unusually low rainfall and warm conditions.

2.7 Regulatory action

Of all incidents attended during the year, 37% were confirmed as non-compliant with Greater Wellington's Regional Rules or the Resource Management Act 1991. Officers employed a range of regulatory action to address this non-compliance, depending upon the significance of environmental effects, causal factors, compliance history, and likelihood of recurrence. Table 5 summarises regulatory action taken during the year.

Table 5: Regulatory action summary 2005-06 (2004-05)

	Pollution Control	Consents Management	Wairarapa Division	Total
Advisory Notices	58(61)	0(5)	0	58(68)
Infringement Notices	21(9)	18(8)	5(4)	44(21)
Abatement Notices	14(17)	2(6)	8(3)	24(26)
Enforcement Orders	0(2)	0(0)	0(0)	0(2)
Prosecutions	0(0)	0(0)	0(0)	0(0)

Figure 14 illustrates how our level of formal regulatory activity has grown in recent years. The steady increase in the issue of infringement notices and abatement notices since 2003 is attributed to improved officer training and streamlining of our administrative procedures. This figure also shows that the use of advisory notices is a well established means of dealing with minor non-compliance.

Although no enforcement or prosecutions were initiated during the year, work was undertaken to prepare for two prosecutions and two enforcement orders that were issued after the 30 June cut-off for this reporting period.

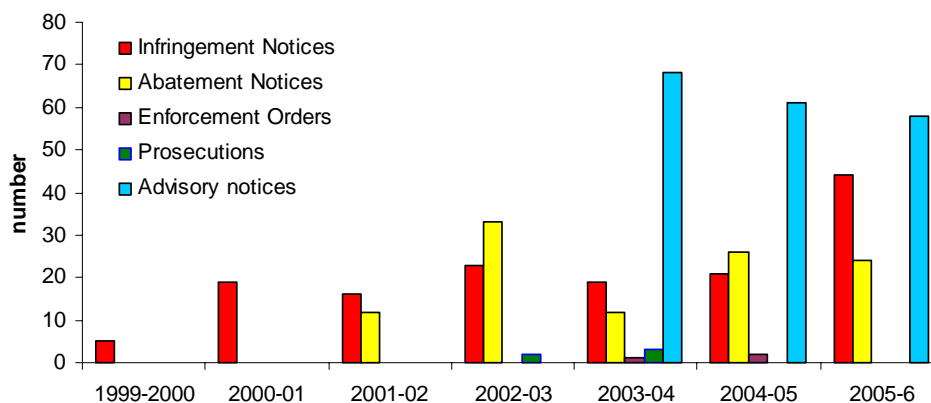


Figure 14: Enforcement action

2.8 Informal action

Advisory notices are issued 'on the spot' to deal with minor non-compliance. They direct the recipient to take specified action, and have proven to be an effective regulatory tool. Our officers issued 58 advisory notices during the year.

2.9 Formal action

2.9.1 Retrospective resource consents

Some non-compliant activities can be dealt with by issuing resource consent retrospectively, where there is a need to control future effects or ongoing maintenance. This approach may require the applicant to undertake

supplementary work, and does not preclude the use of other regulatory tools such as infringement fines or cost recovery.

2.9.2 Infringement Notices

Infringement notices can be issued for specified offences under the Resource Management Act 1991, to punish offenders and deter others. An infringement notice can impose a fine of up to \$1,000. Table 6 summarises the 44 infringement notices served during this reporting period, which resulted in total penalty payments of over \$6,000. No infringement notices were appealed, and in two cases, unpaid infringement fines were referred to the District Court for recovery.

Table 6: Infringement notices issued 2004/2005

Recipient	Territorial Authority	Offence	Date
Stebbing's Farmlands Limited	Wellington City Council	Works in the bed of a stream	13-Feb-06
Taylor Preston Limited	Wellington City Council	Discharge to air	29-Jul-05
Richard Cade	Wellington City Council	Unconsented works in bed of a stream	10-Aug-05
Wellington City Resurfacing Department	Wellington City Council	Work in the bed of a river	23-Dec-05
Wellington City Council	Wellington City Council	Discharge to air	03-Feb-06
John Walsh	Wellington City Council	Works in the bed of a stream	13-Feb-06
Truebridge Callender Beach	Wellington City Council	Works in the bed of a stream	13-Feb-06
Taylor Preston Limited	Wellington City Council	Discharge to air	09-Mar-06
Clive Baddley	Wellington City Council	Discharge to water	13-Mar-06
Taylor Preston Limited	Wellington City Council	Discharge to air	24-Mar-06
Taylor Preston Limited	Wellington City Council	Discharge to Air	26-May-06
AML Limited	Wellington City Council	Discharge of contaminant onto land	30-May-06
Allied Concrete	Wellington City Council	Discharge of contaminant onto land then water	30-May-06

Recipient	Territorial Authority	Offence	Date
Earthworks Marlborough Limited	Wellington City Council	Discharge of contaminant to water	13-Jun-06
Tonkin and Taylor Limited	Wellington City Council	Discharge of contaminant to water	13-Jun-06
Earthworks Marlborough Limited	Wellington City Council	Discharge of contaminant to land then water	16-Jun-06
Christopher Mason	Wellington City Council	Deposition in the bed of a stream	28-Jun-06
Christopher Mason	Wellington City Council	Unauthorised Water Take	28-Jun-06
Christopher Mason	Wellington City Council	Discharge of contaminant to land then water	28-Jun-06
New Zealand Forestry Group	Wellington City Council	Work in the bed of a river	22-Dec-05
Graeme Alexander	Upper Hutt City Council	Breach of an abatement notice	20-Jan-06
Sommerset Villages	Porirua City Council	Discharge of contaminants to land	02-Aug-05
Keith Bullock	Porirua City Council	Discharge of contaminants to land	02-Aug-05
Patrick Roil	Porirua City Council	Breach of an abatement notice	16-Jan-06
Stan Waldman	Masterton District Council	Works in the bed of a river	30-Oct-05
Ken Barnes	Masterton District Council	Unauthorised Water Take	10-Feb-06
Ken Barnes	Masterton District Council	Discharge of contaminants to water	10-Feb-06
Rod Trass	Masterton District Council	Unauthorised Water Take	10-Feb-06
Rod Trass	Masterton District Council	Discharge of contaminants to water	10-Feb-06
Gary Holland	Kapiti Coast District Council	Unconsented works in a stream and coastal marine area	11-Jul-05
Norman Cobb	Hutt City Council	Work in the bed of a river	07-Nov-05
JB Hughes Contractors	Hutt City Council	Work in the bed of a river	07-Nov-05
JB Hughes Contractors	Hutt City Council	Unconsented water take	20-Jan-06

Recipient	Territorial Authority	Offence	Date
JB Hughes Contractors	Hutt City Council	Works in bed of a river	20-Jan-06
Barry Hayes	Hutt City Council	Works and disposition in a bed of a river	10-Feb-06
Paddy Hannan	Hutt City Council	Works in the bed of a stream or river	16-Feb-06
Barry Hayes	Hutt City Council	Breach of an abatement notice	17-May-06
Wellington Water Management Limited (Capacity)	Hutt City Council	Works in the bed of a stream of river	17-Mar-06
Ralph Williams	Hutt City Council	Unauthorised Water Take	23-Mar-06
Norman Cobb	Hutt City Council	Breach of an abatement notice	13-Apr-06

2.9.3 Abatement Notices

Abatement notices are a formal instruction issued to resolve an environmental problem and/or comply with regulatory requirements. If an abatement notice is not complied with, the Council issues an infringement notice or prosecutes the responsible party. A total of 24 abatement notices were served during this reporting period, as summarised in Table 7. There has been a significant increase in the issue of abatement notices when compared to the previous year (see Figure 14).

Table 7: Abatement notices issued 2004/2005

Recipient	Location	Offence	Date
John Gibbs	Hutt City Council	Unauthorised works in the bed of a lake	23-Dec-05
Norm Cobb	Hutt City Council	Unauthorised works in the bed of a stream	24-Jan-06
Barry Hayes	Hutt City Council	Discharge of contaminant to water	10-Feb-06
Barry Hayes	Hutt City Council	Works in bed of a stream	10-Feb-06
Ralph Williams	Hutt City Council	Unauthorised water Take	24-Mar-06
Guy Weaver	Kapiti Coast District Council	Discharge of contaminant onto land then water	21-Feb-06
Dermot Payton	Masterton District Council	Deposit in bed of a stream and water take	27-Sep-05

Recipient	Location	Offence	Date
Lifestyle Capital Limited	Masterton District Council	Unauthorised water Take	02-Feb-06
Martin Bonifant	Masterton District Council	Unauthorised water Take	02-Feb-06
Selwyn McLachlan	Masterton District Council	Unauthorised water Take	29-Mar-06
International Timber Processors	Masterton District Council	Discharge to air	06-Apr-06
Capital Precut Solutions	Masterton District Council	Discharge to air	06-Apr-06
Alan Smith	Masterton District Council	Discharge to air	06-Apr-06
Brian McNeil	Upper Hutt City Council	Unauthorised structures in the bed of a stream	25-Aug-05
Patrick Roil	Upper Hutt City Council	Works and deposition in a bed of a stream and discharge of contaminants onto land & water	07-Sep-05
Graeme Alexander	Upper Hutt City Council	Discharge of contaminant onto land & water	15-Nov-05
Wellington City Council	Wellington City Council	Deposition in the bed of a stream	23-Aug-05
Carrus Limited	Wellington City Council	Discharge of contaminant onto land & water	31-Aug-05
New Zealand Forestry Group	Wellington City Council	Unauthorised Structure in the bed of a stream	22-Dec-05
K and A Sage	Wellington City Council	Discharge of contaminant onto land then water	11-Apr-06
Adam Turner	Wellington City Council	Reclamation of stream bed and water take	16-May-06
Allied Concrete	Wellington City Council	Discharge of contaminant onto land then water	30-May-06
Brian Davis	Wellington City Council	Discharge of contaminant onto land then water	27-May-06
Christopher Mason	Wellington City Council	Reclamation of stream bed and discharge of contaminants onto land then water	28-Jun-06

2.9.4 Enforcement orders

No enforcement orders were sought during this financial year. However, preparatory work was undertaken during this period for enforcement orders which will be applied for during the next financial year.

2.9.5 Prosecutions

No information was laid during this reporting period. However, preparations were made for two prosecutions that will be initiated in the current financial year.

2.10 Cost recovery

It is our policy to recover costs for minor non-compliance. Figure 15 shows that we have maintained a good level of cost recovery during recent years, with almost \$6,000 recovered during the last financial year.

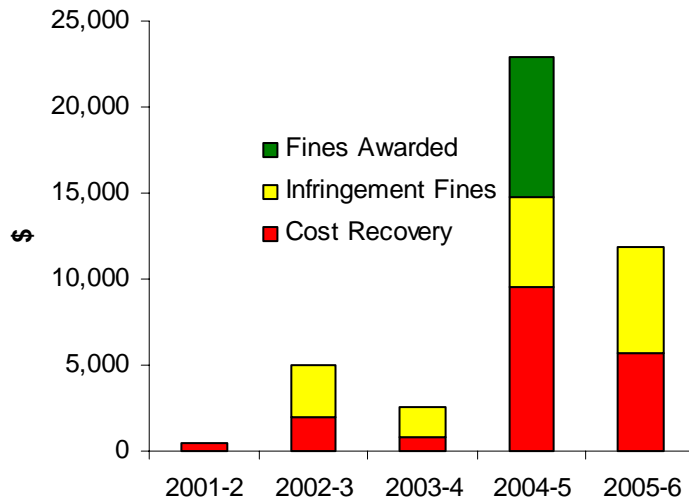


Figure 15: Penalty payments received

3. Pollution prevention

3.1 Take Charge

The Pollution Control Team has been conducting environmental audits of businesses through the Take Charge programme in the region for three years now. The objective of these audits is to characterise their environmental compliance and identify opportunities for improved environmental performance. Audits include an assessment of facilities, activities and management procedures, following which participants are provided with a short report outlining opportunities to address non-compliance and improve environmental performance. Key aspects of our Take Charge activities during the past year are summarised below:



Industrial - Commercial area in Ihakara Street, Paraparaumu

- Assessments were applied to a small industrial area in Onepoto, as a precursor to a Porirua City Council proposal to upgrade stormwater drainage in the area. This industrial area is suspected to be the source of several pollution incidents in the nearby stream in recent years, including an incident that killed 25 eels in April 2006.
- Assessments of 57 industrial/commercial sites in Paraparaumu, as part of a programme to identify and control polluting inputs to the Wharemauku Stream. More detailed inspections have been conducted for 24 of these sites, and recommendations made to address a range of polluting inputs.

Take Charge Audit Report



1. General details			
Site Address:			
Business Name (Occupier):		Business Established:	
Site Owner:		Site Established:	
Interviewer:	Position:	Telephone:	
Auditor:	Date:	Audit Time:	
<input type="checkbox"/> Initial visit <input type="checkbox"/> Repeat <input type="checkbox"/> Incident		<input type="checkbox"/> Limited access (C101) <input type="checkbox"/> Normal access (104)	
Current Activities: (Describe type and scale)			
Facilities On Site: <input type="checkbox"/> UST/AST <input type="checkbox"/> DG store <input type="checkbox"/> waste oil/coolant <input type="checkbox"/> site ramps <input type="checkbox"/> Interceptor <input type="checkbox"/> dip tank (check total items) <input type="checkbox"/> wash area <input type="checkbox"/> carfall (waterway) <input type="checkbox"/> stack/exhaustor <input type="checkbox"/> boiler <input type="checkbox"/> petrol trap <input type="checkbox"/> waste skip			
Site History: <input type="checkbox"/> incident(s) <input type="checkbox"/> contamination <input type="checkbox"/> fit-out process <input type="checkbox"/> demolition <input type="checkbox"/> extension <input type="checkbox"/> fill/reclamation (check total items) <input type="checkbox"/> enforcement <input type="checkbox"/> other (describe)			
2. Issues requiring attention Ticked items listed below require attention (see explanation: overleaf)			
Management Systems		Plant and Facilities	
<input type="checkbox"/> M.1. Management systems	<input type="checkbox"/> M.2. Awareness of environmental effects	<input type="checkbox"/> M.3. Awareness of RMA requirements	<input type="checkbox"/> M.4. Necessary consents/permits
<input type="checkbox"/> M.5. Operating procedures	<input type="checkbox"/> M.6. Emergency procedures	<input type="checkbox"/> M.7. Staff instruction/supervisory training	<input type="checkbox"/> M.8. Site plan(s)
<input type="checkbox"/> M.9. Hazardous substance information	<input type="checkbox"/> M.10. Compliance management	<input type="checkbox"/> P.11. Plant/Facilities	<input type="checkbox"/> P.12. Hazardous substance tank/store
		<input type="checkbox"/> P.13. Stormwater infrastructure	<input type="checkbox"/> P.14. Sewerage infrastructure
		<input type="checkbox"/> P.15. Combustion plant	<input type="checkbox"/> P.16. Pollution control plant
		<input type="checkbox"/> P.17. Refuelling areas	<input type="checkbox"/> P.18. Oiled container areas
		<input type="checkbox"/> P.19. Washdown areas and wash bays	<input type="checkbox"/> P.20. Spill response measures
		<input type="checkbox"/> A.21. Site activities	<input type="checkbox"/> A.22. Liquid waste treatment/Disposal
		<input type="checkbox"/> A.23. Solid waste treatment/Disposal	<input type="checkbox"/> A.24. Discharge to atmosphere
		<input type="checkbox"/> A.25. Soil/groundwater contamination	<input type="checkbox"/> A.26. Routine inspection
		<input type="checkbox"/> A.27. Routine maintenance	<input type="checkbox"/> A.28. Recycling/recovery/reuse
		<input type="checkbox"/> A.29. Waste/energy conservation	<input type="checkbox"/> A.30. Housekeeping
3. Action required In response to non-compliance or opportunities to improve environmental performance			
Issue	Required action	Priority	To do by
Please write to the issuing officer regarding any checked (X) item below		Risk Category	Risk Exposure*
<input type="checkbox"/> Your proposal for how the required action will be implemented <input type="checkbox"/> Evidence that the required action has been completed <input type="checkbox"/> A written answer to the question(s) above		Compliance Status*	
Issuing Officer:		Recipient:	

* Risk: Not assessed, Negligible, Minor, Moderate, High, Extreme
 * Compliance: 4 = Beyond Compliance, 3 = Fully Compliant, 2 = Minor Non-compliance, 1 = Significant Non-compliance

- A new Take Charge audit form was developed to remove the delay between the audit taking place and a formal report being delivered to the site. Audit reports can now be issued on the spot as a tear-off form, giving recipients and instant record of their performance and reminder of actions required.
- Revisits have been conducted for service stations and motor vehicle workshops where significant issues were identified via our *Take Charge* programme in previous years using the new rapid report.
- A desktop assessment was made of the Wellington Zoo at their invitation to look at opportunities to improve their environmental performance.
- The Take Charge programme has been streamlined to allow targeting of areas highlighted through incident response and compliance work.

3.2 Special projects

The Pollution Control Team uses its observations of incident trends and environmental pressures to make detailed assessments of risk areas and issues that have local and regional significance. This work allows the Pollution Control Officers to extend the skills they have and undertake beneficial work resulting in constructive environmental outcomes. Key aspects of these projects during the past year are summarised below

3.2.1 Subdivision silt control – the ‘Muddy Waters’ project

Greater Wellington Consents and Pollution Control teams continue with the development of the muddy waters project. Achievements in the last financial year include a series of workshops to territorial authorities to provide information on how to assess development applications to reduce silt run offs from subdivision sites.

Greater Wellington also developed the ‘Small Earthworks: Erosion and Sediment control for small sites’ a best practice guideline designed for developers, contractors, earthworks companies and territorial authorities identifying how to minimise erosion and soil loss from vegetation clearance, earthworks and construction projects.

3.2.2 Te Mome Stream contamination assessment

Pollution Control Officers conducted an assessment of contaminants in the Te Mome Stream. This identified historic and recent discharges from the Exide Technologies site in Petone was contributing to heavy metal contamination of sediments and water in the stream.

An application was prepared for funding from Ministry for Environment’s Contaminated Site Remediation Fund. The aim was to obtain \$75 000 of funding for further investigation, would be sourced from a consortium comprising Greater Wellington, Hutt City Council, Exide Technologies and Unilever Australasia Limited. However, only Hutt City Council and Greater Wellington committed to this project.

3.2.3 Mangaroa River nutrient assessment

Pollution Control has undertaken a preliminary investigation to locate sources of nutrients in the Mangaroa river catchment.

3.2.4 Toxic algae protocols and alarms

Ten river sites were visited in January - February 2006 to determine whether toxic algae were present. Toxic species were confirmed at three of the sites, although toxin levels were not at a sufficient concentration to cause concern. Greater Wellington continues to work with Regional Public Health and territorial authorities in the region to coordinate our response to toxic algae in several of the region’s rivers.

An ‘algae alarm’ was developed to notify the Pollution Control Team when flow conditions in specific watercourses may be conducive to cause a toxic

algae bloom. The alarm is based on flow parameters which contributed to the algal bloom in the Hutt River in 2005. When an alarm notification is received, the Pollution Control Team will notify Greater Wellington hydrologists who will monitor flow conditions in the Hutt River. If an algal bloom is likely to occur Greater Wellington will notify regional public health. The alarm allows Greater Wellington to be better prepared for an algal bloom.

The alarm is being trialled in the Hutt River to check the accuracy of parameters used to monitor potential algae development and if successful will be applied across the region.

3.2.5 Development of an integrated environmental database

The Environment Regulation department has been working closely with IT & Support Services and Biosecurity departments to look at the scope and design of the proposed integrated database. This has involved looking at data needs and departmental procedures to ensure future work procedures can be integrated into the design. This work ties in enforcement tracking data and the accurate and timely recording of incident details. The proposed database is expected allow officers to carry out there work more efficiently and ensure information is more accessible allowing thorough and full histories of single offenders to be collated.

4. Miscellaneous

4.1 Regional Pollution Prevention Officers Forum

Greater Wellington initiated and co-ordinates a regional pollution prevention officer's forum, designed to share information and resources between regulatory agencies involved in pollution control. This group has grown rapidly to over 50 members, and has created closer operational ties with territorial authorities and other agencies in the region.

4.2 National Pollution Prevention Officers Special Interest Group

Similar to the Regional Pollution Prevention Officers Form, the Special Interest Group is a nationwide collection of enforcement officers from regional councils. It provides and an opportunity to exchange ideas and information affecting regulatory authorities nationwide e.g. enforcement outcomes, education material and incident trends.

5. Annual overview and direction for 2006-2007

The continued upward trend in incident numbers over recent years remains a concern, and is considered likely to continue in coming years due to increasing public awareness. The following outlines some of the key areas for attention in the coming year:

- Continue to work closely with territorial authorities in the region via the Regional Pollution Prevention Officer's Forum; this forum provides a good meeting space to take steps to align our respective regulatory responses via Memoranda of Understanding and a programme of staff secondments.
- Continue to expand our use of cost recovery, with an initial focus upon streamlining the administrative process.
- To focus Take Charge assessments to areas of suspected or known environmental impact. This methodology has been trialled this year and is believed to be the best way to deliver the Take Charge programme. We will also increase the number and frequency of audits and target issues on an area basis.
- Smarter use of the Greater Wellington website and the media to ensure greater public awareness and understanding of seasonal issues and to provide education for improved environmental awareness; an understanding of the alternatives; and an understanding of the consequences.
- Target urban development to avoid the loss of small streams and the corresponding environmental impacts.
- Ongoing engagement of contractors and developers through the *Muddy Waters* programme. Workshops are planned to address the growing number of sediment and stream works related incidents.
- Greater emphasis on a compliance role for existing consented sites, particularly landfill and bulk earthworks sites.
- Proactive monitoring to improve our understanding and knowledge of specific issues and to improve regional understanding of resource pressures.
- Closer collaboration with territorial authorities for illegal discharges into the stormwater network.
- Continue to develop our enforcement and decision making capabilities across the department to ensure a consistent approach to enforcement.