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Cleaning up our act

Embracing Environmental Risk Management

Thought Leadership Series

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The State of the Environment

Despite New Zealand's clean, green image, concerning statistics from some recent studies have highlighted that our environment is just as prone to the damaging effects of man-made pollution as any other country:

- > Social costs resulting from air pollution are estimated to exceed \$4 billion.¹
- > Water quality has declined in recent years with nitrogen levels in fresh water increasing by just under 30% over the last two decades², with one study also rating half of New Zealand rivers being too polluted to use safely.³
- > Despite our small size, annual erosion in New Zealand accounts for 1.5% of global sediment loss.⁴
- > Even our native wildlife is now increasingly at risk with a third of seabirds and a quarter of marine mammals threatened with extinction.⁵

There are many factors that have given rise to the increase in pollution in New Zealand. Some of this is driven by residential human activity such as carbon emissions produced by road vehicles, burning wood and coal for home heating, and human waste. However a significant cause of pollution is commercial and industrial activity such as manufacturing, electricity generation, property development, agricultural activity, transportation, mining and resource extraction and if there isn't effective environment regulation undertaken in these industries, it is likely that the quality of New Zealand's environment will continue to erode in the near future.

The growing levels of reported pollution incidents have sharpened the social and governmental focus on curbing the deterioration of our environment. Policymakers are more actively monitoring the pollution of our natural resources as evidenced by the enactment of the Environmental Reporting Act 2015 that is designed to improve national environmental reporting in New Zealand as well as informing the policy response to protect NZ's environment while balancing the social and economic outcomes.

However a further response to these social issues is that regulators and courts are increasingly seeking to discourage negligent behaviour by imposing more severe penalties on anyone that causes pollution or doesn't comply with environmental legal requirements. Thus, businesses are at a far greater risk of having financial penalties imposed against them by regulators or having to pay legal damages claims and clean-up costs off the company balance sheet. Worse still, company directors are exposed to paying out of their own pockets or indeed, in the worst cases, being imprisoned.

There has been an upward trend in legal action in the Environmental Court, with the number of filed appeals increasing by 24% over the past year⁶. Stricter enforcement of the Resource Management Act 1991 and penalties imposed on guilty parties have in some cases amounted to hundreds of thousands of dollars. The costs of containing and remediating contamination may inflict a severe financial toll on the business, due to the often complex processes that are involved with cleaning up and fully remediating a site.

It's in these kinds of scenarios where the adoption of an Environmental & Pollution Liability policy can pay rich dividends to companies, particularly in those industries where there is a history of environmental issues. These bespoke insurance policies are specifically designed to provide a comprehensive protection for pollution events that will complement and go well beyond traditional insurance policies – protection that includes broad coverage to manage a pollution incident and which will cover the costs of clean-up and remediating contamination as well as cover for any third party claims or regulatory action that might arise. These policies can also cover unique perils such as asbestos as well as covering business interruption costs and public relations consultancy fees, all of which are typically not covered under traditional insurance policies.

This research paper is intended to provide a broad overview of environmental risks and the legislative landscape that businesses must operate within. The paper will discuss how companies can be held liable for the pollution they cause and will discuss some of the key risk management principles that companies can adopt to protect themselves. Finally the paper will also provide a summary of how Environmental & Pollution Liability insurance can strategically be used to protect companies and their directors from financial and reputational damage.

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Environmental Risk by Industry Type

All businesses will have an impact on the environment in some shape or form.

To help illustrate the types of pollution that businesses can cause, we have mapped out some of the key risks in several New Zealand industries. This chart is indicative only but helps highlight some of the critical environmental considerations for each industry.

INDUSTRY TYPE	LOW RISK	MEDIUM RISK	HIGH RISK
Agriculture (Dairy)	Air Pollution from Burning Off	Methane Pollution From Livestock Hazardous Chemical Spills Historic Usage eg. Dip Sites Animal Waste Run-Off	Water Pollution (Effluent) Water Pollution (Fertiliser Run-Off)
Agriculture (Other)	Air Pollution from Burning Off	Hazardous Chemical Spills Historic Usage eg. Diesel Spills, Dip Sites	Chemical Spray Drift Water Sediment (Fertiliser Run-Off)
Construction	Paint Discharges	Hazardous Chemical Spills eg. Diesel	Asbestos Hazardous Dust eg. Pm ₁₀ Sediment Discharges Concrete Discharges
Property Development	Soil Erosion Arising from Site Works	Asbestos eg. Refurbishment Works	Unknown Pollutants From Previous Site Use
Waste Management	Airborne Litter	Air Pollution eg. Dust Hazardous Chemical Spill	Water Contamination eg. Raw Sewage Into Waterways Contamination From Leachates
Mining/Oil & Gas		Air Pollution eg. Burning Off Excess Gas Hazardous Waste Disposal	Groundwater Pollution eg. Fracking, Seepage from Extraction / Tailings Ponds Soil Contamination Surface Water Pollution
Manufacturing		Air Pollution Hazardous Chemical Spills	Hazardous Waste Disposal Raw Material Storage
Trades		Asbestos Exposure Hazardous Chemical Spills	
Transportation			Hazardous Chemical Spills Pollution Caused by Road Accidents
Asbestos Specialists		Hazardous Chemical Spills	Non-Compliance with Asbestos Regulations Improper Disposal of Asbestos
Medical		Hazardous Wastes Disposal Hazardous Chemical Spills	Healthcare Associated Infections eg. Mrsa
Storage Facilities			Gradual Pollution from Storage Tanks Hazardous Chemical Spill

Types of Pollution Risks

Whilst pollution risks are broad in nature they can typically be categorised into three main groups: air pollution, water pollution and land pollution. We have expanded on these below providing commentary on some of the key international and local pollution issues within each of these categories.

Air Pollution

The excessive effects of air pollution, including social costs of \$USD 1.7 trillion in OECD countries in 2010⁷ and an estimated 7 million premature deaths per year globally⁸ has placed a greater need than ever before to enforce air quality standards and increase the regulation of emissions. International co-operation in tackling the issue of air pollution has seen the introduction of doctrines such as the Montreal Protocol, which has seen global consumption of ozone depleting substances reduce by a staggering 97%⁹.

Key Pollution Issues

- > Dust known as PM₁₀ released into the air can cause significant health issues for workers or other persons exposed to the pollutants¹⁰. While New Zealand has one of the lowest PM₁₀ concentration levels in the OECD¹¹, PM₁₀ concentration levels are measured to be several times higher than the NES standard¹² in some parts of the country. This can be emitted through the dispersal of dust in the air, which can cause a nuisance to public, and may be washed into natural receiving environments when it falls to the ground.

There are an estimated 7 million premature deaths globally per year due to the excessive effects of air pollution.

What is PM₁₀?

PM₁₀ (particulate matter up to 10 micrometres in size) is a pollutant with a major source being diesel engine exhausts and exposed earth. It has been linked to several health problems and has been regarded as the major contributor to breaches of national air quality standards.

- > The presence of chemicals such as paints, paint thinners, oils and glues on construction sites also emit noxious pollutants that increase air pollution.¹³
- > In cold and windy conditions during the winter, the chances of air pollution increases, as the wind is able to carry pollutants and transport them into calm atmosphere.
- > Spray drift which originates from the horticulture and agriculture industries can occur when the spraying of chemicals or pesticides over crops drifts away from the intended area and flows on to an unrelated natural body¹⁴. This drift can result in not just the pollution of nearby waterways or public facilities, but also the release of chemicals into the air.
- > With livestock farming being responsible for 49% of our emissions alone¹⁵, the intensification of dairy farming has put a serious strain on the country's ability to maintain high air quality standards. Emissions of methane from livestock are the biggest risk to air pollution facing dairy farming, with nitrous oxide emitted from cows forming a third of all greenhouse gas emissions in the agricultural sector. Two-thirds of methane produced in New Zealand is also attributed to the agricultural sector¹⁶.

Water Pollution

Given the significant water bodies in and around New Zealand, we are more prone to suffering water contamination than any other form of pollution. Despite the clean, green image and high environmental standards we hold the country to, over half of New Zealand's rivers are too polluted to be used safely¹⁷. It is also estimated that with our current rate of water pollution there will be no native fish in New Zealand waters by 2050¹⁸. Since the turn of the century, public spending has increased to over half a billion dollars to clean up and protect our lakes and rivers¹⁹, with more rigorous law enforcement being implemented to address the issue of pollution.

Despite the clean, green image and high environmental standards we hold the country to, over half of New Zealand's rivers are too polluted to be used safely.

Key Pollution Issues

- > **Animal waste** - the intensification of dairy farming has taken a sustained toll on the environment, with 90% of lowland rivers being polluted by farming. Although animal waste is largely disposed on land, run-off is still washed away into rivers when it rains, and can lead to water-borne diseases such as jaundice and cholera²⁰, as well as being highly toxic to marine life²¹.
- > **Agricultural fertilisers** - fertilisers contain chemical compounds that add to the nitrogen, phosphorus and potassium content of the soil. Excess fertiliser not taken up by plants can be leached from the soil or carried away in run-off, with the nutrients ending up in waterways and groundwater and this causes excessive growth of aquatic plants which in turn has a significant negative effect on aquatic species. Excessive nitrogen can also become harmful when it gets into groundwater as it can lead to bacteriological contamination of waterways.
- > **Landfill leachate** - produced by toxic chemicals held in landfills. Leachate production is a result of rainfall and surface or ground water entry to the landfill site. Leachate leaking has been responsible for contaminating ground water supplies and surface water ecosystems in communities all over the world. It can contain toxic substances such as mercury, which are harmful to anybody that comes in contact with it²².
- > **Wash water** - the discharge of water used in manufacturing facilities can enter stormwater systems and discharge to receiving environments if not managed properly.
- > **Construction** - disturbing soil and removing vegetation during construction activities can result in a discharge of sediment to receiving environments. Without the correct controls in place stormwater will pick up sediment and contaminants and discharge contaminated water to natural environments. While sediment is a natural substance it can cause significant adverse effects to aquatic environments. Build-up of sediment in streams or the stormwater system can also cause flooding. Another risk associated with construction is the use of concrete. If concrete-contaminated run-off or slurry enters the receiving environment the pH can become highly alkaline and can kill fish and other aquatic life.

Notable Local Water Pollution Incidents:

- > Tauranga companies were fined \$75,000 after large volumes of sediment-contaminated storm-water bypassed the pond, discharging down a bank and into the stream²³
- > Mobil were recently charged \$10 million in clean-up costs for discharging contaminants into the Wynyard Quarter in an ongoing legal case.²⁴
- > Mt Ruapehu - a ski lift company had to pay over \$300,000 in clean-up costs and penalties following a diesel spill that cut off water supply to a nearby town for 2 weeks²⁵
- > A Napier director was fined for his company's pollution of a nearby estuary²⁶.

Land Pollution

Production activities from the past have unfortunately caused a world of soil contamination problems that we face in the present. Nearly 500 sites across the country have been found to be contaminated, with many more estimated to be contaminated yet unidentified²⁷. Nitrogen levels in land are reported to have increased by 29% in the last 25 years²⁸. Business activities including the use of pesticides, the production and storage of resources including coal, gas and petroleum and mining are held primarily responsible for the subsequent contamination of soil.

Key Pollution Issues

- > Polluted run-off in groundwater can leach into soil, with potential contaminants in the groundwater concentrating in the soil over time if left undetected.
- > Industrial activities that handle environmentally hazardous substances can cause ground pollution through spills or gradual leaks. Hydrocarbons are generally the most common contaminant that requires remediation due to their widespread occurrence and the risks they pose to human health and controlled waters. The clean-up costs of these substances can be very significant due to the complex processes that involve removal and disposal of polluted land.
- > Agricultural soils can become contaminated by the overuse or wrong use of fertilisers and pesticides. In addition some chemicals historically used for control of parasites in animals through “dipping” are known to be toxic to the environment.

Sheep Dips

Historically used to control parasites in sheep, sheep dipping incorporates the use of chemicals such as arsenic and organochlorine pesticides. These can take decades to degrade naturally in the environment. This puts you at risk of being exposed to pollutants that not only pose harmful effects on the environment, but also on humans. Land used in your business activities may have historically been the site of activities such as sheep dipping, which means that the land may still be contaminated and require extensive remediation. Sheep dips are required to be identified and monitored by Regional Councils²⁹.

Nearly 500 sites across the country have been found to be contaminated, with many more estimated to be contaminated yet unidentified.

- > Mining can disturb landscape and cause structural changes, such as waste-rock piles and open pits. This can affect existing flora and fauna in the area. Mine subsidence, which is ground movement caused by underground mining³⁰, can cause structural damage to buildings and roads over extensive periods of time. This is of particular concern, especially in areas of historical mining where it is difficult to establish where the burden of liability lies. Furthermore, the residual contamination caused by the process of mining is a key environmental concern that needs considering.

Other Risks

These refer to risks not specifically categorised under air, water or land pollution, but can still arise among the course of your business activities. These can have severe financial consequences upon your business due to their environmental externalities.

Asbestos

If there is friable asbestos onsite, it is critical that the person in charge of the property works towards having it removed as soon as possible. Fallout from the Christchurch earthquake has seen a spate of asbestos-related incidents in construction zones, and the removal of asbestos remains a large concern for many construction-related projects.

There are strict compliance rules in place in New Zealand regarding the handling of asbestos, as prescribed under the Health and Safety in Employment (Asbestos) Regulations 1998.

Asbestos

Known as the “miracle mineral” due to its fireproof nature, asbestos is the name given to a group of minerals composed of many small fibres. These fibres can cause serious health problems if inhaled. However, if left undisturbed, asbestos is not harmful.

Many historical buildings often contain asbestos in old floor tiles, ceiling tiles, insulation and pipe cement.

The removal of asbestos from your premises must be conducted only by certified specialists who are thoroughly trained in assessing asbestos risk and handling asbestos.

Any person exposed to asbestos fibre must complete an incidence report. The exposure to asbestos fibres is a serious issue, due to severe health risks such as mesothelioma. There have been over 12,000 estimated deaths arising from asbestos-related causes in New Zealand³¹.

Amphetamines

Over recent years, there have been an increasing number of documented cases where landlords have been required to clean-up premises they own that have been used for the purpose of illegally producing methamphetamine. It is likely that in the event where part of your premises have been used for the manufacture of methamphetamine or other illicit chemical-based substances, you as the landlord or lease-holder may be required to pay the subsequent costs of remediation.

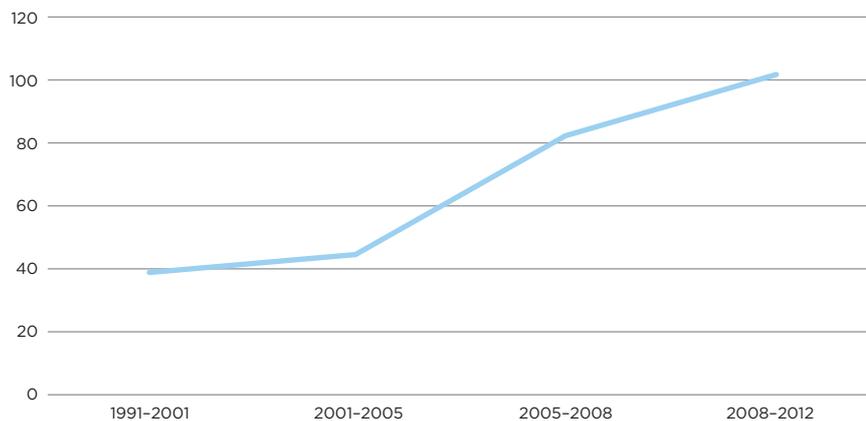
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Legislative Framework

The principal statute governing environmental protection in New Zealand is the Resource Management Act 1991 (RMA).

Under the RMA, every person who commits an offence against the Act can face enforcement action. The usual legal action you're likely to face relate to offences that include discharges of contaminants to land, air or water, unauthorised works in the coastal marine area, waterways or riverbeds, and not following resource consent protocols or permitted activity conditions. As highlighted earlier in this paper, there has been an increasing trend in relation to the number of prosecutions per year over the last twenty years and this is dramatically highlighted in the below graph.

Average # RMA prosecutions per year



Source: A study into the use of Prosecutions under the RMA 1991³²

Pollution incidents can also give rise to legal action under the Health Act 1956, where pollution can result in a danger to public health, and remediation is required to be undertaken by the polluter. Improper handling of hazardous substances and wastes that cause a pollution incident are also be addressed under the Hazardous Substances and New Organisms Act 1996³³. This Act is enforced by the EPA which is

Resource Management Act

- > Introduced in 1991 with the intent to promote “sustainable management” of the country’s natural and physical resources
- > Responsible for majority of environmental-related prosecutions
- > Penalties under the RMA can extend to up to 2 years imprisonment or fines of up to \$300,000 for individuals or \$600,000 for businesses.

responsible for the approval of all hazardous substances and outlines the necessary protocols that must be followed by any party using a defined hazardous substance³⁴. In 2014-2015 there were 938 hazardous substance instances reported to the EPA across a range of categories as highlighted in the below graph.

Type of hazardous substance incidents 2014/15 compared with 2013/14

TYPE	2014/15	%	2013/14
Spills/leakages	556	59	711 (65%)
Fires	317	34	312 (28%)
Other	54	6	66 (6%)
Explosions	6	<1	10 (<1%)
Spray drift	5	<1	1 (<1%)
TOTAL	938		1,100

Source: EPA Annual Report 2015³⁵.

Regulatory Framework

There are a number of governmental bodies which have oversight in respect of environmental issues and the following provides a brief summary of their roles.

Regional Council – has functions under s30 of the RMA for the purpose of giving effect to the Act. Regional councils generally take action in the event of water and air pollution incidents, but also have jurisdiction to take enforcement action in cases of land contamination.

Territorial Authority/District Council – has the same powers as Regional Councils (outlined under s31 of the RMA). While the Regional Council's role is to protect the natural environment, Territorial Authorities and District Councils are more concerned with human-related effects. However, both parties can get involved in incidents that impact both humans and the environment.

In some instances both regional and district councils can take enforcement action. For example, if someone buries waste underground without permission, the district council can take action under land use rules while the regional council can take action under rules related to discharging contaminants. The enforcement powers available to both types of council are listed in the bar to the right. In addition, councils have the power to carry out remediation themselves and recover the costs from the polluter.

Regulatory Action Available to Government:

- > **Infringement Notice** (criminal process)
Issues an instant fine of up to \$1,000.
- > **Abatement Notice** (civil process)
Requires the guilty party to stop the spill or discharge, and to remediate the damage that has occurred.
- > **Enforcement Order** (civil process)
Can be used if an abatement notice is ignored requiring the guilty party to remediate the discharge. It can be applied for by anyone, but is issued and enforced by the Environmental Court.
- > **Prosecution** (criminal process)
Can be used if all other measures fail (e.g. for contravention of an Abatement Notice or an Enforcement Order) in order to ensure that the discharge has been remediated or the costs of remediation have been reimbursed. Although prosecutions largely adopt a proactive approach, some may aim to impose further fines on the polluters.

Environmental Court – has the authority to hear criminal prosecutions and impose criminal liability through the imposition of fines and imprisonment. They can also enforce orders under s314 where a council will bring a case, and the court can impose fines or imprisonment, or can enforce orders set under s314. It is the only body that can issue enforcement orders.

Environmental Protection Authority – oversees the regulation of New Zealand’s environmental resource management³⁶. The EPA manages the environmental impact of activities in the exclusive economic zone, and administers the Emissions Trading Scheme, as well as holding delegated powers relating to applications made under the Hazardous Substances and New Organisms Act.

Legal Repercussions in a Pollution Incident

District and Regional Councils have significant powers to manage pollution risks and incidents.

The most commonly adopted legal remedies used by the courts are abatement notices and enforcement orders that usually seek the stoppage and remediation of pollution incidents from the offending parties. In the wake of a pollution incident, councils have a variety of options that they can choose to implement in order to restore the polluted area to its original state.

The most common action taken by district and regional councils is to prevent or contain the spread of the pollution immediately, before determining liability. Therefore, should your activities result in an act of pollution, the likely outcome is that either you or the council will be tasked with remediating the polluted area. Should the Council choose to take on this task, you will most likely be invoiced the costs of remediation, or if you choose not to, be required to do so by way of an enforcement order.

While prosecutions can have a substantial economic impact on your business through the ongoing legal costs and potential legal penalties imposed, fortunately they are generally reserved for more serious cases. Regardless, with prosecutions under the RMA yielding an average fine in excess of \$10,000³⁷; and with companies being fined up to a quarter of their equity in the past³⁸ it is best that you reduce the possibility of ever facing a prosecution through immediate and ready compliance with governing bodies in response to a pollution incident. It’s worth noting, however, that co-operation alone will not ensure that you escape prosecution.

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Other Areas of the Law Involved

In addition to the Resource Management Act, common law doctrines, more specifically the tort of nuisance and the tort of negligence may also be invoked in determining liability arising from pollution incidents, if the guilty party is found to be negligent in the course of their activities, or if their activities result in a pollution incident that causes a nuisance. You are most likely to face action under the Resource Management Act as it is much easier in New Zealand for the councils and Environment Court to seek compensation and remediation via these means. Legal action is not, however, limited to public authorities and claims in nuisance or negligence can be brought by your neighbouring property owners or other third parties who have been affected by the pollution incident.

Polluter Pays Principle

The Polluter Pays Principle refers to the idea that the person(s) who pollute should be held liable for the subsequent clean-up costs. This view is consistently endorsed both by courts here in New Zealand and in most OECD countries.

It generally uses two approaches in its implementation³⁹ – the “command and control” approach, and the alternative approach. The former enforces tougher pollution and technology standards, with emphasis placed on the monitoring of these standards. The alternative approach uses market-based controls such as pollution taxes and pollution permits.

The intended effect of the Polluter Pays principle therefore, is to not only discourage the pollution of the environment due to the effects it has on the polluter, but also promote a greater environmental awareness among companies and more attention to waste management and environmental protection procedures.

How are Clean-Up Costs Recovered?

When pollution incidents occur the governing body, usually the local or regional council, may choose either to issue an enforcement order to the pollutants requiring them to remediate the spill; or they can remediate the spill themselves and then recover the costs from the guilty parties involved.

In the case of a **sudden pollution** incident, the 'net of liability' is cast wide and the case of who bears the brunt of the liability depends on the facts of the incident. Remediation costs can be sought from the owner of the polluted property, the occupier or the polluter - with councils often opting to engage with all three parties. The directors of the company may even be personally liable for remediation costs or subsequent penalties - s340 of the Resource Management Act holds a separate criminal liability for directors and officers. Following the "polluter pays" approach, the courts hold stricter demands over the involvement of senior management emphasizing that a more assertive role be adopted by management in such circumstances.

With **gradual pollution**, yet again the 'net of liability' depends on the facts of the case with both the owner and occupier vulnerable to liability. Even the acquisition of historically-contaminated facilities may pose the threat of liability arising in the future, although the courts have generally been reluctant to remediate historically polluted sites. It is important to acknowledge that the burden of determining liability is exacerbated in gradual pollution cases due to the pollution in some cases being discovered years after the pollution occurs. Gradual pollution can remain undetected for long periods, and subsequent damage incurred before discovery could place substantial costs of remediation on those involved including landholders who have unwittingly inherited or purchased the contaminated site. It is possible also that landlords will be responsible for contamination on their land caused by the activities of their tenants.

Legal Difficulties under the RMA

What is of particular concern is that the prosecuting body, such as a local council, is not required to establish intention or negligence on the part of the defendant. You could therefore be successfully prosecuted without clear evidence of negligence on your part.

However, you can raise a defence to prosecutions under the Resource Management Act by successfully showing that you have taken the appropriate steps to prevent the chance of a pollution incident and that you have properly conducted remedial clean-ups of any spills or subsequent environmental effects. Having risk management procedures already in place, such as a pollution incident plan, is critical when establishing this defence³⁷.

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Canterbury Regional Council v Steelbro NZ Ltd

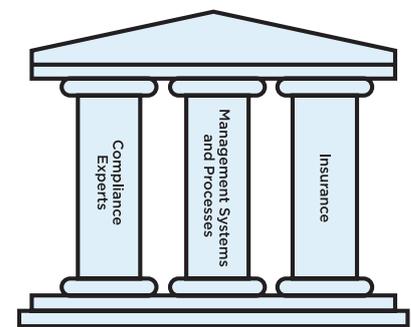
The defendant was prosecuted for a diesel spill caused by vandals. Despite the defendants arguing that the spill was beyond their control, they were still fined as they were unable to prove that the spill was not foreseeable. With RMA prosecutions, the onus is on you to prove your innocence, rather than the other way around⁴⁰.

Environmental Risk Management

Ultimately, the best way to avoid liability for a pollution incident is to try and prevent one from occurring in the first place. To do this, establish at the beginning of the project or activity whether effective environmental risk management controls are in place. Following 4Sight's 3 pillars of risk management is an effective way of reducing your environmental risks.

The first pillar is the identification of environmental risks and the controls that can be implemented by engaging **Compliance Experts**. An experienced environmental consultant can provide invaluable assistance with issues such as:

- > Establishing the environmental legal requirements (eg. resource consents, building consents, trade waste agreements and Hazardous Substances and New Organisms certificates) that are needed for the project.
- > Acquiring the approvals if required.
- > Developing an Environmental Management Plan and Emergency Spill Response Plan specific to the activities and risks of the project or activity.
- > Implementing management controls such as correct storage of hazardous substances, treatment devices, and spill kits.
- > Involving senior level management in the development of plans and observance and maintenance environmental controls.
- > Training staff on the plans, the site's risks, management controls and what to do in the event of a pollution incident.
- > Ensuring that subcontractors are well-versed in any legal requirements and environmental plans, and are fully committed to complying with these.
- > Undertaking frequent inspections and audits to ensure controls are still in place.



The three pillars of risk management

4SIGHT CONSULTING

4Sight Consulting is a New Zealand-owned award winning multidisciplinary planning and environmental consultancy. They are able to deliver a full range of end-to-end environmental and resource management planning services. They work with a wide range of clients, from central and local government, iwi, and network utility providers, through to land and marine developers, and private individuals.

They have offices in Northland, Auckland, Bay of Plenty and Wellington, and work nationwide.

The second pillar is managing the risks identified by the implementation of a **Management System** for the management of legal requirements. For companies which have numerous environmental legal requirements, resource consents or approvals, the management of these is essential to reducing your environmental risk. Tools such as Online Management Systems are available and are specifically designed to assist you in managing and maintaining your environmental legal requirements. A system can be set up with actions for maintenance, inspections, training, or updating procedures. With active management of your actions and legal requirements the likelihood of an environmental incident is reduced.

Unfortunately even with the best controls in the world accidents still happen and this is where Environmental and Pollution Liability **Insurance**, the third pillar, can assist in reducing your exposure to the financial effects of environmental risks.

The third pillar is discussed in detail in the next section of this White Paper.

Environmental Liability Insurance

There is a certain level of cover for pollution incidents under General Liability and Statutory Liability policies and there may be an element of cover under Property insurance; however, none of these policies provide a fully comprehensive solution for such events. In the past there have been many pollution incidents where insurance claims have been declined or only partially covered.

For example, General Liability policies will only provide cover for sudden and accidental pollution incidents. This means ongoing or gradual pollution that later results in a claim would not necessarily be covered under a General Liability policy. Even in the case of sudden and accidental events there will be no cover for the actual cost of cleaning up or for other associated costs such as emergency response or business interruption to the operations.

Statutory Liability policies will in many cases respond to statutory prosecutions arising from a pollution incident and will cover fines and reparation awarded. However, they will not cover third party damages claims, emergency response services or the costs of actually cleaning up the event.

Most good Directors and Officers Liability insurance policies will include some protection for senior management of companies for their personal liability, however they will typically only respond to defence costs arising from civil claims or investigations only and will not provide cover for damages awarded, clean-up costs, remedial costs, fines or reparation awards.

One key peril which is not covered under other traditional liability insurance is asbestos which is typically fully excluded. Environmental Liability insurance will provide a critical protection for those handling asbestos that will not generally be otherwise covered.

Specialist environmental insurance policies seek to provide an all-encompassing 'environmental shield' that looks to provide coverage for all pollution events that may affect your business.

Under a general liability policy, even in the case of sudden and accidental events, there will be no cover for the actual cost of cleaning up or for other associated costs such as emergency response or business interruption to the operations.

The below table provides a good overview of the benefits of Environmental & Pollution Liability insurance relative to other traditional insurance policies:

Environmental Liabilities Coverage

	GENERAL LIABILITY	STATUTORY LIABILITY	PROFESSIONAL INDEMNITY	ENVIRONMENTAL AND POLLUTION LIABILITY
Civil Claim: 3rd Party Prop Damage - Sudden	●	-	●	●
Civil Claim: 3rd Party Prop Damage - Gradual	-	-	●	●
Business Interruption	-	-	-	●
Civil Claim: 3rd Party Bodily Injury	●	-	●	●
Environmental Damage	●	-	●	●
Emergency Response Costs	-	-	-	●
Clean-up Costs	●	-	-	●
Criminal Prosecution - Fines	-	●	-	●
Criminal Prosecution - Reparations	●	●	-	●
Asbestos contamination	-	-	-	●

● Coverage Provided ● Coverage Possible - No Coverage

It is also important to understand that there are different types of Environmental policies available depending on whether you are a site owner or a service provider. Fundamentally much of the coverage is similar however the Service Provider policies have more of an emphasis on covering the service provider's liabilities that may arise as a part of providing their services. Some Service Provider policies may provide a limited coverage for environmental damage caused to their own sites however this is not the core of the policy. Conversely that Fixed Site policies provides more extensive coverage in relation to the cost of remediating environmental damage emanating from policyholders own sites including associated business interruption exposures.

Whilst Environmental & Pollution Liability provides a broad coverage, because there is some cross-over with other liability policies it is highly recommended to incorporate both General Liability and Statutory Liability alongside your Environmental Liability insurance. This will minimise the risk of gaps arising between your insurance pollution risk and your insurance for traditional hazards.

Fixed Site vs Service Industries policies

	Fixed Site Policies OPERATORS OF OWNED OR LEASED SITES	Service Industries Policies CONTRACTORS OR SERVICE PROVIDERS
Civil Claim: 3rd Party Prop Damage	●	●
Civil Claim: 3rd Party Bodily Injury	●	●
Business Interruption	●	-
Environmental Damage to own site	●	●
Environmental Damage (except for own site)	●	●
Emergency Response Costs	●	●
Clean-up Costs	●	●
Criminal Prosecution - Fines	●	●
Criminal Prosecution - Reparations	●	●

● Coverage Provided ● Coverage Possible - No Coverage

How does Environmental & Pollution Liability coverage work?

Scenario 1: Asbestos Contractor – Property Damage

An asbestos removal specialist is tasked with replacing asbestos sheet roofing in a house. Whilst conducting the job, a rainstorm overnight damages the temporary roofing when he's off-duty, spreading friable asbestos dust throughout the property. It was later discovered that asbestos had contaminated a number of items in the house. It is alleged that the contractor was negligent in failing to adequately secure the roofing and there is subsequently a damages claim for replacement of the contents and emergency decontamination of the property resulting in total costs in excess of \$250,000. In addition legal costs were incurred of around \$40,000.

How would insurance respond?

A Statutory Liability policy or General Liability policy may not cover the loss as they typically have an absolute Asbestos exclusion which would invalidate cover. An Environmental & Pollution Liability policy could cover the following in this scenario:

- 1 Property damage claim of \$250,000;
- 2 Emergency clean-up costs associated with the decontamination;
- 3 \$40,000 legal costs would be covered;
- 4 The costs of a prosecution under the Health & Safety in Employment Act could also be covered provided an optional Statutory Liability Endorsement was included in the coverage; and
- 5 Because of the emergency clean-up operation an (uninsurable) fine would likely be reduced.

Scenario 2: Storage Facility Gradual Pollution (Fixed Site Policy)

A fuel supplier acquires a fuel storage facility which includes existing underground fuel storage tanks. At the time of its acquisition, the purchaser conducts soil sample testing on the facilities and discovers the presence of petroleum hydrocarbons in the soil, due to an existing leak. The vendor is contacted and remediates the premises at the time. Years later, further contamination is detected. There is also groundwater contamination, which poses a significant health risk as it may seep into the water supply of a nearby town.

The fuel supplier is prosecuted by the local council resulting in a fine of \$50,000 and a reparation order of \$40,000. The cost of remediating the environmental damage on-site is \$250,000. The neighbouring land is also contaminated and the neighbour sues for the cost of decontamination which is \$150,000. The local town incurs costs of \$75,000 to put in place measures to ensure that the water supply is suitable for drinking. The fuel supplier has a Fixed Site Environmental & Pollution Liability policy which has the site scheduled for coverage in relation to both existing and new conditions.

How would insurance respond?

A General Liability policy may not respond in this case as the damage is as a result of gradual pollution which is not typically covered under GL policies. The council's prosecution would likely trigger a Statutory Liability policy which could cover investigation costs, defence costs, reparations and any fines imposed. A Statutory Liability policy would typically not respond to clean-up costs or third party damages claims.

Under this scenario an Environmental & Pollution Liability Fixed Site policy could cover:

- 1 The \$250,000 associated with decontaminating the soil onsite;
- 2 The neighbour's damages claim of \$150,000;
- 3 The claim by the local water supply authority for \$75,000; and
- 4 Any defence costs associated with the above claims.

Scenario 3: Truck Spill (Service Industries Policy)

A truck transporting industrial paint overturns on a bridge crossing a river. The contents of the truck subsequently spill over into the river, and there is also notable spillage on the road. The crash also causes the entire road to be cordoned off for nearly the entire day, and the truck is ultimately written off. The spillage of paint into the water resulted in a significant loss of aquatic life and this has a profound effect on a fish farm which is located in the estuary down-river. The fish farm brings a damages claim of \$65,000. The local authorities respond to the situation by cleaning up the damage to the road and bridge however the truck company is issued with a claim by the local council, who seek to recover the clean-up costs which are \$350,000. These include the clean-up of the road, the bridge and the river.

How would insurance respond?

There is often a limited level of pollution cover under the truck's Commercial Motor Vehicle policy however this is typically limited to a relatively low value of around \$25,000. This may be paid by the motor vehicle insurer who may also cover the damage to the vehicle.

As it is a vehicle accident there is no cover under a General Liability policy. The prosecution by the local authority should be covered under a Statutory Liability policy and the investigation costs of \$30,000 and fine of \$75,000 should fall under that policy.

Under this scenario an Environmental & Pollution Liability Services Industries policy could cover:

- 1 The claim by the council to recover the clean-up costs of \$350,000;
- 2 Access to specialist environmental consultants to help with the emergency response;
- 3 The claim by the fish farm of \$65,000; and
- 4 Any Public Relations costs to manage the communication with the media.

Scenario 4: Paper Manufacturing (Fixed Site Policy)

A tank containing hazardous chemicals ruptured and released 250 m³ of chemicals into the retention basin at an industrial plant. The retention basin overflowed and pollution entered a nearby protected stream.

Thanks to very good pollution management procedures the plant incurred only small costs of around \$125,000 for emergency clean-up and biodiversity damages. However, the incident generated extensive loss of revenue to the tune of \$1.0 million as it was shut down for 2 months by the local authority to carry out root cause investigations and testing on other tanks.

How would insurance respond?

Under this scenario an Environmental & Pollution Liability Fixed Site policy could cover:

- 1 The \$125,000 of clean-up costs;
- 2 Business Interruption costs of \$1,000,000; and
- 3 Any associated legal and investigative costs.

Conclusion

The growing regulatory focus on pollution and contamination incidents in New Zealand means that businesses are increasingly vulnerable to the potentially high financial cost of such events. Various combinations of traditional liability policies, albeit each coming with their own exclusions, only serve to paper over the cracks of your environmental liability.

So what can be done to prevent or reduce the damage brought about by a pollution event? Firstly, taking a proactive risk management approach is paramount and as a minimum this needs to include:

- > an awareness of the environmental risks associated with your business;
- > the enforcement of sufficient controls to address these risks;
- > a thorough response plan should you fall victim to a pollution incident; and
- > an assessment of the likely financial impact on your business of any environmental incident.

Unfortunately, even despite the most robust risk management system it is impossible to entirely remove inherent risks from a business' operation. The consequences of a pollution event can be catastrophic for the environment but also financially for the polluter. It is here that the understanding and incorporation of comprehensive Environmental Liability and Pollution Insurance can protect your business in the wake of a pollution incident. It is critical that any environmental coverage is tailored to fit the needs of the business and it should be incorporated into a broader liability programme.

At Delta Insurance, we believe that protection of our environment is a social obligation for all individuals and organizations, a sentiment increasingly echoed by public and government opinion. Coupled with our observation of trends both here and overseas, we predict that the demand for more developed and customized Environmental and Pollution Liability solutions will continue to increase substantially over the next few years. Like many emerging risks it is important to be proactive now and be ahead of the curve rather than react when it's too late. We believe in Embracing Change and that through collectively cleaning up our act today we will help create a safer and more sustainable world for our children to inherit tomorrow.

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