



Frequently Asked Questions Roof run-off

1	What is "Roof run-off"?	This term is used to refer to run-off water from installed roofing materials. Run-off water, which usually ends up in the stormwater system, also comes from roads and other drained areas, and may contain contaminants.
2	What is the reason for New Zealand Steel concern about the roof run-off issue?	Auckland Regional Council (ARC) is concerned about the level of contaminants, including zinc and other compounds, in harbour sediment around Auckland. Research commissioned in 2003 by the ARC states the main sources of zinc to be unpainted 'galvanised' roofs and car tyres (which contain zinc oxide).
3	Does the Auckland Regional Council (ARC) have a policy on roof run-off?	Currently No. In April 2004 the ARC developed a draft document entitled "Policy Implications from Roof Run-off Study". That draft was promoted widely to both Territorial Authorities (TAs, ie local councils) and the general public through the media. It included the statement that "unpainted galvanised, zinc/aluminium and copper materials" were considered high risk and would require water quality source control or treatment. Recently (August 2006) the ARC sent a letter to Territorial Authorities in the Auckland region advising them that the draft document "Policy Implications from Roof Run-off Study" has been withdrawn and should no longer be used in decision-making. ARC Source Control Letter . The ARC, in a joint effort with the TAs, has initiated a "Management of Stormwater Contaminants at Source Issues and Options Scoping Project" to correctly address this issue.
4	Why are some Territorial Authorities banning zinc based roofs?	TAs have been referencing the (now withdrawn) draft document "Policy Implications from Roof Run-off Study" in consent decisions. This should no longer be the case, pending the outcome of the "Management of Stormwater Contaminants at Source Issues and Options Scoping Project". New Zealand Steel is monitoring this situation and approaching TAs directly where necessary.
5	What is the "Management of Stormwater Contaminants at Source Issues and Options Scoping Project"?	This "Scoping Project" has been initiated by the ARC, and will address the following <ol style="list-style-type: none"> 1. Contaminants of concern 2. Sources of contaminants of concern 3. Robust scientific justification for the control of contaminants at source 4. Consideration of new and existing development 5. Range of potential methods for implementing source control (regulatory, incentives, education, etc.) 6. Recommending a preferred combination of methods 7. Necessary and likely timeframes for implementation 8. Changes required to existing ARC or TA RMA or LGA policy documents 9. Consideration of Building Act and Building Code review process 10. Illustrative regulatory provisions 11. Estimate of costs for ARC, TAs, LNOs, and building sectors <p>The final product will be an issues and options paper which will hopefully provide a way forward on the source control issue.</p>



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6	How can the run-off of zinc from roofs be minimised?	Selection of modern roofing materials such as ZINCALUME® coated steel and COLORSTEEL® prepainted steel greatly reduces the amount of zinc or zinc compounds in run off water. The run-off of zinc from older galvanised steel roofs can be very effectively controlled by periodic painting.
7	How can the run-off of zinc be prevented from entering waterways?	Stormwater can be prevented from entering waterways by installing stormwater retention and treatment facilities. This can be a simple and effective preventative measure, particularly in rural situations or township developments.
8	Is ZINCALUME® coated steel a problem?	The run-off of zinc from unpainted ZINCALUME® coated steel is approximately 18% of that from galvanised material. The alloy nature of the zinc/aluminium coating, combined with the resin coating of ZINCALUME® coated steel dramatically reduces the rate of loss of zinc from the steel surface.
9	Does painting the steel prevent the run-off of zinc?	COLORSTEEL® prepainted steel minimises zinc in the roof run-off, through a combination of the barrier provided by the paint system, and the superior qualities of the ZINCALUME® coated steel substrate.
10	Can we challenge Territorial Authorities decisions which restrict use of roofing materials containing zinc?	If you are in a situation where your consent application or building is being affected, New Zealand Steel considers that you are quite within your rights to challenge objections to zinc based roofs as these objections are not a legitimate part of the resource management framework.
11	What is currently being done by NZ Steel about this issue?	<p>New Zealand Steel has been actively engaged on this topic since 2004.</p> <ul style="list-style-type: none"> • New Zealand Steel has developed a collaborative working relationship with the ARC • New Zealand Steel has shared information regarding products, product usage, potential BlueScope Steel research, approved BlueScope Steel research and market data (where relevant). • New Zealand Steel, in conjunction with the New Zealand Metal Roofing Manufacturers Association has shared concerns regarding the draft document “Policy Implications from Roof Run-off Study” including the flawed research it was based upon and the way in which it is being implemented by TAs. • In August, after the ARC withdrew their draft document “Policy Implications from Roof Run-off Study”, New Zealand Steel was invited to participate in the “Management of Stormwater Contaminants at Source Issues and Options Scoping Project”. • New Zealand Steel is also active in communicating to the market to correct misunderstandings, and to prevent these misunderstandings from negatively impacting on the use of metal roofs.
12	There has been a lot in the media about this issue. What is the truth?	It is a fact that zinc levels in sediments of waterways are changing, however scientific studies are yet to show whether this is harmful to the environment. Water run-off from roofing products does contribute to zinc levels in stormwater, along with many other sources. Other sources include road run-off containing contaminants from tyres, brake pads, bitumen, road barriers, signs etc. Unfortunately generalisations have been drawn by commentators which treat all steel roofing materials as “bad”, leading to incorrect conclusions. For example, zinc levels in run-off vary widely depending on environmental conditions, age of roof, composition of coating etc. Zinc in stormwater exists in different forms and the nature of each of these



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		forms and their impact on the environment is poorly understood and often misinterpreted. No relationship has been shown between dissolved zinc in run-off from roofs, and accumulation of zinc in harbour sediment.
13	Can I drink water from from my roof?	Rainwater collected from roofs clad with products made from GALVSTEEL™ coated steel, COLORSTEEL® prepainted steel and ZINCALUME® coated steel will comply with the provisions of NZBC G12.3.1, provided the water is not contaminated from other sources. Zinc levels in tankwater are well below the recommended maximum for drinking water.
14	Is the ARC Source Control study targetting roofs alone?	No. The effects of other sources such as roads and general public activity are also being studied.
15	Who can I contact at NZ Steel about this issue?	Inquiries should be directed to David Gifford, Technical Market Manager, 09 3758090