

# Applying for a Resource Consent to Divert and Discharge Stormwater

2007

The Resource Management Act 1991 (RMA) aims to promote the sustainable management of the natural and physical resources of our environment. The Auckland Regional Council has a responsibility under the RMA to manage the air, land and water (including coastal) resources. This includes the regulation of stormwater discharges.

Stormwater management is important to maintain and enhance the value of all water resources and aquatic ecosystems. Stormwater discharge resource consents are used to control and monitor the discharge of stormwater from industrial, commercial and residential developments. The conditions of the resource consent will ensure that the environmental effects of the activity are avoided, remedied and mitigated.

The proposed Auckland Regional Plan: Air, Land and Water establishes thresholds over which a resource consent is required for the discharge of stormwater. If you are creating more than 1000m<sup>2</sup> of impervious surfaces (roof, concrete, asphalt, gravel), you should contact the Auckland Regional Council to determine whether you require a resource consent. Staff will provide information about stormwater management options and identify the level of detail required for an application. This discussion will ensure delays and extra costs are minimised and sufficient consultation is carried out. The Auckland Regional Council also recommends that you obtain advice from suitably qualified stormwater or resource management professionals, to assist in the consent process and the design and implementation of the management devices.

As a minimum, your resource consent application should contain the following:

- details of your project proposal,
- a description of the activity and its location and
- an assessment of environmental effects and how they will be avoided, remedied and mitigated.

In addition to this, there are various considerations that are specific to stormwater discharge consents including treatment requirements, flood protection, extended detention and operation and maintenance. These are discussed in more detail below.

## Treatment

Stormwater treatment practices are implemented to remove contaminants entrained in stormwater flows. Contaminants are often attached to sediments entrained in the stormwater, such as metals like zinc and copper. Other contaminants are carried directly in the stormwater such as hydrocarbons (oils etc). Stormwater contaminants do not easily settle out, therefore they must be removed by a combination of sedimentation, adsorption and filtration. Stormwater devices are designed and installed to meet specific site requirements set by the Auckland Regional Council to and ensure at least 75% of suspended solids are removed. A stormwater discharge consent application should include detailed designs of the site and treatment device(s), along with supporting calculations that show the level of treatment that is to be achieved.

## **Flooding**

Stormwater management is also undertaken to prevent an increase in upstream and downstream flood levels. Stormwater is temporarily held onsite and released at a controlled rate. To prevent flooding the Auckland Regional Council has set standards to ensure that post-development peak flow rates for the 2, 10 and 100 year ARI event are limited to pre-development levels. The Auckland Regional Council or local authorities often have information on the issues surrounding flooding in different catchments throughout the Region. Where flooding issues are evident, rainfall and run-off modeling may be required. The local territorial authority may have completed area-modeling exercises or catchment management plans. If the onsite design falls in accordance with these guidelines, this information may be sufficient to support the application.

## **Stream Channel Protection**

Impervious surfaces cause an increase in the rate and volume of stormwater discharges. Stormwater can discharge both directly and indirectly (via a stormwater reticulation) to a watercourse. For any discharges to watercourses, the ARC requires extended detention to ensure that the watercourse is protected from accelerated bank erosion. Channel erosion is limited by the storage and release of runoff from the first 34.5mm of rainfall over a 24-hour period. Detailed information of the stormwater outlet device and supporting calculations should be supplied to show extended detention standards are achieved.

## **Future Ownership, Operation and Maintenance**

An operation and maintenance plan details the various actions necessary to ensure that the stormwater devices continue to operate at the designed efficiency. The plan should detail the on-going maintenance and outline aspects such as clean out requirements; frequency of monitoring along with this whom will be responsible for the works. Ownership is a key consideration when seeking a stormwater discharge consent. If the local territorial authority (council) is to take over the ownership of stormwater discharge, written approval is required from them to confirm they will be taking over the device. In such cases it is best to contact the local council stormwater asset manager for this approval. Where a private entity will be formed i.e. Body Corporation, details of the set up and structure must be outlined.

## **For more information**

The Auckland Regional Council TP10: Stormwater Management Devices: Design Guidelines Manual provides greater detail on the above considerations of a stormwater discharge consent application. This guideline is available on the ARC website [www.arc.govt.nz](http://www.arc.govt.nz).