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Stormwater: Progress and Future Direction

1. Purpose

To provide the Committee with an overview of our work in addressing stormwater management issues and to seek endorsement of our future work direction.

2. Background

When the Council notified the Regional Freshwater Plan in 1997, most stormwater discharges were permitted activities, subject to conditions. In its Background Report on the notified Plan, the Council acknowledged that some stormwater discharges may be in breach of the minimum standards required for a permitted activity rule by the Resource Management Act 1991 (the Act).

A lack of regional data about the adverse effects of stormwater discharges and the large costs to territorial authorities of requiring resource consents for these discharges made the permitted activity rule an appropriate one. At the time, some territorial authorities in the Region were still having difficulty meeting their obligations to improve sewage discharges.

Measuring Up, the Council's 1999 State of the Environment Report, described that as the effects of major discharges were being reduced through resource consents taking effect, the issues arising from the uncontrolled discharge of rural run-off and stormwater were becoming more evident.

For some time we have suspected that our existing rules may not be effective in controlling adverse environmental effects arising from stormwater discharges. However, we have had very little quantitative information available for determining whether or not this is the case. Interim results from our stormwater investigations indicate that urban stormwater discharges are breaching the minimum standards for water quality that the Act requires. These interim results were reported to the last meeting of the Committee.

Any changes to the current permissive approach to stormwater discharges are likely to have significant implications for territorial authorities as they are the major owners of stormwater infrastructure in the Region. The territorial authorities have indicated quite strongly that if we intend to change our approach and require resource consents for stormwater discharges, we will need to have scientifically and legally defensible reasons for doing so.

In response to this situation, over the past four years Greater Wellington has been working on, or contributing to, a wide range of projects which have a stormwater focus. These include:

- Stormwater quality investigations
- Catchment models
- Pauatahanui sediment investigations
- Investigations of contaminants in marine food chains
- Catchment risk assessment
- Regional Stormwater Strategy scoping
- Pilot trials of stormwater devices
- Roof runoff investigation
- *Take Charge*
- *Take Action*
- Riparian Management Strategy
- Urban stream investigations
- The first *Be the Difference* Campaign

A summary of these projects, their expected outcomes, benefits and progress are appended to this report.

3. Objectives of recent work

Our recent work on stormwater has a number of objectives. These are:

1. To determine whether stormwater discharges are causing environmental effects and, if so, how much of an effect and where.
2. To identify the contaminants of concern and the sources of these contaminants.
3. To develop a predictive capability, i.e., to be able to predict where and when contamination arising from stormwater discharges will reach levels which exceed guideline levels and, therefore, need some form of intervention.
4. To develop a collaborative approach to stormwater management with the territorial authorities in the Wellington Region.

The results of all of this work will provide a basis for assessing the adequacy of our current approaches to managing stormwater discharges, and if it is deemed to be necessary, the development of new rules in our Regional Freshwater Plan.

4. Management options

We have identified a number of management approaches for progressing stormwater issues in our Region.

4.1 Enforce existing rules

Our present permitted activity rule for stormwater includes conditions requiring compliance with the minimum water quality standards of the Act. In particular, the Act and the rule require that, after reasonable mixing, stormwater discharges will not give rise to any of the following effects:

- The production of any conspicuous oil or grease films, scums or foams, or floatable or suspended material;
- any conspicuous change in the colour or visual clarity;
- any significant adverse effects on aquatic life.

In practice, these narrative conditions are difficult to enforce because they require us to quantify the standards. To do this we need to collect a lot of data on discharges and receiving water at specific locations where offending discharges may be occurring.

4.2 Develop new rules in the Regional Plans

There are changes that we could make to the rules in our Regional Freshwater Plan, now or in the future. One approach that we could implement now is to make stormwater discharges a controlled activity. This means that territorial authorities would need resource consents for stormwater discharges, which have to be granted. We could impose monitoring conditions that require the collection of appropriate data about any adverse effects. Taking such an approach now would impose significant obligations on territorial authorities. It could also be challenged if they are not satisfied that we have enough information about adverse environmental effects to justify the need for resource consents.

Our preferred approach is to continue our programme of stormwater investigations so that we have adequate region specific data to justify any changes that may be needed to our rules. Better information would allow us to prepare stormwater rules that can be enforced more easily. Knowing the magnitude of any adverse effects and being able to target the worst affected receiving waters are priorities for our current investigations that will help with the development of new rules.

Such an investigations programme will need to include:

- Further quantification of stormwater contaminants, in terms of their type, concentration, sources and transport mechanism; and
- The assessment of the effects of these contaminants in the receiving environments, for example, sediment quality monitoring (in both marine and freshwater environments) and food chain monitoring.

While we have some provision for pursuing these types of investigations in the current budgets, there is doubt about whether this is sufficient to make substantial progress on this issue. Greater Wellington needs to determine its level of commitment to addressing stormwater management issues in the Region and to set a timeline for resolving them. Then a comprehensive assessment of our investigative requirements can be made and proposals prepared for consideration in the 2006 LTCCP.

A common response to any discussion about the need to investigate stormwater impacts in the Wellington Region is "why don't we use the information already gathered by other people?" Auckland and overseas sources are commonly referred to. It is important to recognise that there are significant differences in the geology, soil chemistry, topography, weather and receiving environments in Wellington compared to other parts of the country, or the world. While it may be possible to use information derived from other areas, we will still need to undertake some investigation so that this relationship can be proven to a level which is scientifically, and hence legally, defensible.

When we review the rules in our Regional Freshwater Plan, we should also consider separate rules for new stormwater discharges, such as discharges from greenfield subdivisions. It is less costly to address the adverse effects of stormwater discharges when subdivisions are planned, rather than retrofitting solutions to existing infrastructure.

We should also consider having different rules for different parts of the Region based on the risk that discharges pose to the environment. For instance, stormwater controls into sensitive, low energy environments like Pauatahanui Inlet or our urban streams, may need to be stricter than controls for discharges into the higher energy environments of our exposed coastline.

4.3 Promote suitable technology and management practices

Future improvements to stormwater discharges will rely on applying management practices and technology that will get results in the Greater Wellington Region. Our approach will be to encourage territorial authorities in taking "first steps" (e.g., improving roadside sump maintenance programmes, increasing road sweeping frequencies and continuing or extending sewage elimination projects) and moving towards "best practice" (e.g., developing regional design guidelines for stormwater management devices).

4.4 Work collaboratively with territorial authorities

A Regional Stormwater Group made up of staff from Greater Wellington and territorial authorities has been established to oversee joint efforts on stormwater management. This Group provides a discussion forum for the work that we have completed to date. We will continue to convene the Group with the aim of achieving a region-wide approach to stormwater discharges.

5. Conclusion

Our current approach to managing stormwater discharges is a permissive one while we investigate the extent of adverse environmental effects and prioritise

where any action may be needed. Indications are that current stormwater discharges do not always meet the minimum water quality standards of the Resource Management Act, which means that Greater Wellington may have more of a role in controlling these discharges in the future.

Improving stormwater discharges will cost money and take time. To be effective, we need to have a better understanding of the science involved and the available technology and methods for mitigating adverse effects. Taking “first steps” that lead to “best practice” for stormwater discharges will require careful planning and implementation that involves City and District Councils who are responsible for most of our stormwater infrastructure. We should be working closely with them to achieve integrated region-wide action.

6. Strategic context

Clean and healthy rivers, streams and coasts are an objective of Greater Wellington’s strategic plan. One target for that objective is that by 2013 there will *be no significant deterioration of water quality in our key streams and rivers*. Stormwater discharges may represent a major impediment to the achievement of this objective.

7. Recommendation

It is recommended that the Committee:

1. *receive the report; and*
2. *note the contents*
3. *endorse ongoing work on stormwater discharges that:*
 - *progresses collaboratively with territorial authorities*
 - *develops and completes a programme of investigation that will assist with revision of our current stormwater rules; and*
 - *promotes the use of suitable technology and methods to improve stormwater discharges*

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