

7.12 Wetlands monitoring

Introduction

A regional plan is required by sections 35(2)(b) and 67(1)(i) to state the procedures to be used to monitor the efficiency and effectiveness of policies, rules, or other methods. A regional plan has to be reviewed not more than ten years after it has been made operative. For a review to be successful it is necessary to know how efficient and effective the policies and methods have been in contributing to achieving the plan's objectives and environmental results anticipated. In particular it is necessary to know whether each individual policy, and the methods to implement it, are contributing positively, neutrally or negatively.

Linked to this is the need to monitor the state of the environment, understand the causes of any changes, and the extent to which provisions in this chapter may have brought about those changes.

Chapter 1.3 of the Proposed NRRP outlines the general procedures to be used to monitor the overall effectiveness of the Proposed NRRP. Section 7.12 of this chapter is additional to that. This section sets out the general procedures to be used in Chapter 7 to monitor the:

- (a) achievement of the anticipated environmental results; and
- (b) the efficiency and effectiveness of the chapter's policies and methods.

It also identifies some other areas of environmental monitoring that Environment Canterbury intends to undertake. From time to time Environment Canterbury may need to deviate from the specific programmes listed if it is shown that the monitoring identified is no longer appropriate, or there is a more effective way of undertaking the monitoring.

7.12.1 Monitoring procedure

The procedures to monitor the effectiveness and efficiency of the wetlands chapter of the Proposed Canterbury Natural Resources Regional Plan are outlined below. Environment Canterbury will monitor:

- (a) progress towards achieving the environmental results specified;
- (b) the effectiveness and efficiency of this chapter; and
- (c) compliance with resource consents, permitted activities and the other obligations or duties of resource users to ensure that the requirements of the Resource Management Act and this chapter are being given effect to.

7.12.2 Monitoring environmental results anticipated

Environment Canterbury will base its monitoring of progress towards achieving the environmental results anticipated on the observation factors and pressure indicators set out in the following table:

Environmental result anticipated	Observation factor	Pressure indicator	Location of monitoring	Method of monitoring	Frequency of monitoring	Method of reporting
Fifty percent of landholders on properties where the wetlands have been assessed will be implementing management plans to protect and enhance their moderate and higher significance wetlands.	Percentage of landholders implementing management plans	Wetland area and condition	Whole region	Random sample of moderate or higher significance wetlands on private land	five-yearly	Next annual report
Some general improvement will have occurred in the ecological integrity and functioning of wetlands in the region.	Condition of sites randomly selected from wetland inventory	Ecosystem health - hydrology - biotic health index - habitat health index	Whole region	Random sampling	five-yearly	Next annual report
Ngāi Tahu will be enjoying greater access to some traditional wetlands on private land where mahinga kai and other cultural values are important.	Feedback from Ngāi Tahu	Satisfaction with access	Whole region	Records of communication about wetland access	Ongoing	As necessary
Recreationists and other members of the general public will have greater access to wetlands on private land where recreation and other amenity values are important.	Feedback from recreationists and others	Satisfaction with access	Whole region	Records of communication about wetland access	Ongoing	As necessary
The range and diversity of wetlands in the region will have begun to increase, with particular improvement in the proportion representing coastal, lowland and inland basin wetland types.	Extent of enhanced, restored and created wetlands	Amount and quality of any increase	Coastal, lowland and inland basin areas	Study	five-yearly	Next annual report

7.12.3 Monitoring effectiveness and efficiency

Environment Canterbury will base its monitoring of the effectiveness and efficiency of this chapter on pressure/state monitoring as set out in the following table:

Pressure	State indicator	Location of monitoring	Method of monitoring	Frequency of monitoring	Method of reporting
Drainage affecting any wetland	New wetland drains	Whole region	On-site/remote sensing	Three-yearly	Three-yearly review of trends
Cultivation/earthworks affecting any wetland	New wetland disturbance	Whole region	On-site/remote sensing	Three-yearly	Three-yearly review of trends
Induced hydrological change (existing and new) affecting moderate or higher significance wetlands	Water table/related stream flows, wetland species composition/condition	Whole region	Randomly selected sites	Three-yearly	Three-yearly review of trends
Grazing affecting moderate or higher significance wetlands	Condition/composition of vegetation—endemics, threatened species	Whole region	On-site/remote sensing	Three-yearly	Three-yearly report
Undesirable plants affecting moderate or higher significance wetlands	Species and density	Whole region	Monitor sites/remote sensing	Three-yearly	Three-yearly report
Undesirable animals affecting moderate or higher significance wetlands	Species and density	Whole region	Randomly selected areas	Three-yearly	Three-yearly report
Motor vehicles affecting moderate or higher significance wetlands	Damage due to motor vehicles	Whole region	Regular assessment of problem sites	Continuous record keeping	Annual report

7.12.4 Compliance monitoring

Environment Canterbury will carry out compliance monitoring on the basis set out in the following table:

Type of authorisation	Method of monitoring	Frequency of monitoring	Reporting
Permitted activities	Inspection of randomly selected sites Inspection in response to complaints	Ongoing	Annually in Environment Canterbury Annual Compliance Monitoring report
Discretionary activities	Site inspections. Inspections in response to complaints	On the basis of: Potential extent and severity of adverse effects Imminence of threats History of compliance Extent and type of self-monitoring Number, frequency and type of complaints	

For more information on monitoring of compliance with resource consents, refer to the **Resource Consent Information Series Booklet No. 9**, obtainable from your nearest Environment Canterbury office or the Customers Services section by phoning 0800 EC INFO (0800 32 4636).