BANKS PENINSULA WATER MANAGEMENT ZONE COMMITTEE
21 AUGUST 2012

A meeting of the Banks Peninsula Water Management Zone Committee was held in Governors Bay Hotel on Tuesday 21 August 2012 at 4pm

PRESENT:	Richard Simpson, Community Representative (Chairperson) Donald Couch, Commissioner Environment Canterbury Iaean Cranwell, Te Rūnanga o Wairewa Steve Lowndes, Community Representative Pam Richardson, Community Representative Pere Tainui, Te Rūnanga o Ōnuku Kevin Simcock, Community Representative June Swindells, Te Hapu O Ngati Wheke
APOLOGIES:	An apology for absence was received and accepted from Claudia Reid, Yvette Couch-Lewis and Wade Wereta-Osborn.

The meeting was opened with a karakia from Peter Ramsden.

1. CONFIRMATION OF MINUTES – 24 JULY 2012

It was **decided** that the minutes of 24 July 2012 be approved as a true and accurate record.

2. DEPUTATIONS BY APPOINTMENT

Nil.

3. IDENTIFICATION OF URGENT ITEMS

Nil.

4. MATTERS ARISING

4.1 COMMITTEE WORKSHOPS

The Committee gave feedback on the work in progress on the draft Zone Implementation Programme developed through committee workshops. The Committee acknowledges that all chapters are still in development. The Committee agreed that the topic of water quality should be included in the Zone Implementation Programme.

4.2 PUBLIC MEETING VENUES

The Committee **decided** to accept the proposed venues for the three public consultation meetings as follows:
(i) 30 October – Akaroa Sports Complex 6-8pm
(ii) 31 October – Little River Rugby Clubroom 6-8pm
(iii) 1 November – Diamond Harbour Community Centre

The Committee suggested that a Lyttelton public meeting would also be appropriate if a venue could be found.

4 Cont'd

The Committee suggested that an article on the Zone Committee be placed in the Akaroa Mail and the Diamond Harbour Herald as a means of communicating with the public.

5. REGIONAL COMMITTEE UPDATE

Iaean Cranwell will be attending a Regional Committee infrastructure meeting on 23 August and an Ecosystem and Biodiversity meeting on 28 August as the Committee's representative.

6. PRONUNCIATION PRACTICE

The Committee deferred the pronunciation practice to the next meeting.

7. SEPTIC TANK AND STORMWATER REGULATIONS

The Committee received a presentation from Olivia Cook and Nicola Bassi, Environment Canterbury, regarding the operative and proposed rules for wastewater and storm water discharges (refer **attached**).

8. EROSION AND SEDIMENT CONTROL

The Committee received a presentation from Blair Gray, Environment Canterbury, regarding soil erosion and sediment control (refer **attached**).

9. FARM NUTRIENT BUDGETS

The Committee received a presentation from Peter Brice, Ravensdown, regarding farm nutrient budgets (refer **attached**).

10. IDENTIFICATION OF ANY GENERAL PUBLIC CONTRIBUTIONS

The Committee received comments regarding nutrient budgets in Banks Peninsula from Ian Richardson, Chris Chamberlain and Tim Coop.

The Committee received comments regarding the issue of soil erosion and sediment control around Lyttelton from Claire Findlay.

The meeting concluded at 6.15pm.

CONFIRMED THIS 18TH DAY OF SEPTEMBER 2012

RICHARD SIMPSON
CHAIRPERSON

Operative and Proposed Rules for Wastewater and Stormwater Discharges

Resource Management Group Implementation - August 2012

Environment Canterbury Regional Council
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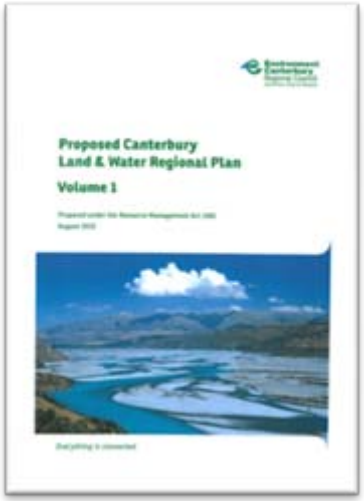
Regional Plans

Natural Resources Regional Plan (NRRP) – Operative June 2011.



Proposed Canterbury Land and Water Regional Plan (pCLWRP) – Notified 11 August 2012.

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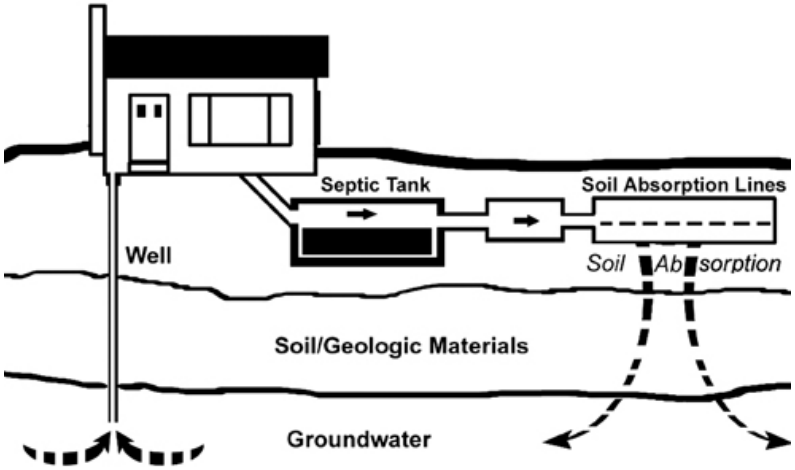
On-Site Wastewater Systems

- Domestic Wastewater
  - Liquid waste (which may contain solids) from domestic, industrial or commercial premises which is consists of toilet waste and greywater (household wastewater from kitchens, bathrooms and laundries) – *proposed Canterbury Land and Water Regional Plan .*
- Onsite Wastewater System
  - A system that receives domestic wastewater from a single site and treats and applies the wastewater to a land application system.



Onsite Wastewater System Rules

- NRRP
  - In the NRRP, discharges from existing and new onsite wastewater systems are addressed under one rule - Rule WQL9 – *Discharge of contaminants into land from an on-site wastewater system.*
- pCLWRP
  - Discharges from **Existing** Onsite Wastewater Systems
    - Rule 5.7 – Permitted Discharges
    - Rules 5.8 – Discharges requiring resource consent
  - Discharges from **New or Upgraded** Onsite Wastewater Systems
    - Rule 5.9 – Permitted Discharges
    - Rule 5.10 – Discharges requiring resource consent.

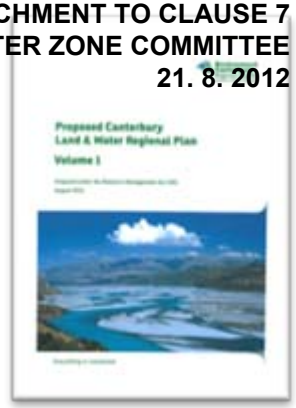
Rule WQL9 - NRRP

Summary of Key Conditions:

- The disposal system must be either a drip line irrigation system or a 2A sand trench.

- Separation distances to property boundaries, wells, surface waterbodies and other wastewater systems.

- Groundwater must be greater than two metres (for a drip line) or greater than six metres (for a sand trench).

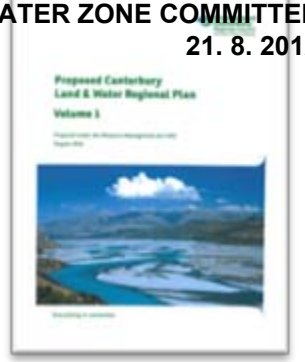


Rules 5.7 and 5.8 - pCLWRP

- Rules relates to discharges onto or into land from **existing** on-site wastewater systems.

- Key differences between the conditions of Rule 5.7 of the pCLWRP and Rule WQL9 of the NRRP:
  - Maintenance now required.
  - Discharge must be within the area mapped “Septic Tank Suitability – Area A” in the Planning Maps.
  - Prohibits discharges in sensitive sites as permitted activities (*e.g. Contaminated sites, archaeological sites).*

Rule 5.7 and 5.8 – pCLWRP cont

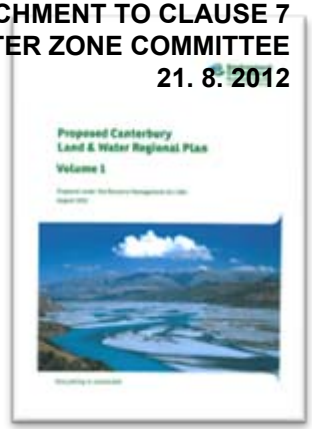


- A system can only be considered under Rule 5.7 if:
  - it was lawfully established before 1 November 2013;
  - the system has not been modified; and
  - There is no increase in the volume of discharge.

- Existing systems which don't comply with Rule 5.7 require resource consent under Rule 5.8.

- However, under Section 20A of the RMA, discharges from existing onsite wastewater systems can continue until the Land and Water Regional Plan becomes operative.

Rules 5.9 and 5.10 - pCLWRP



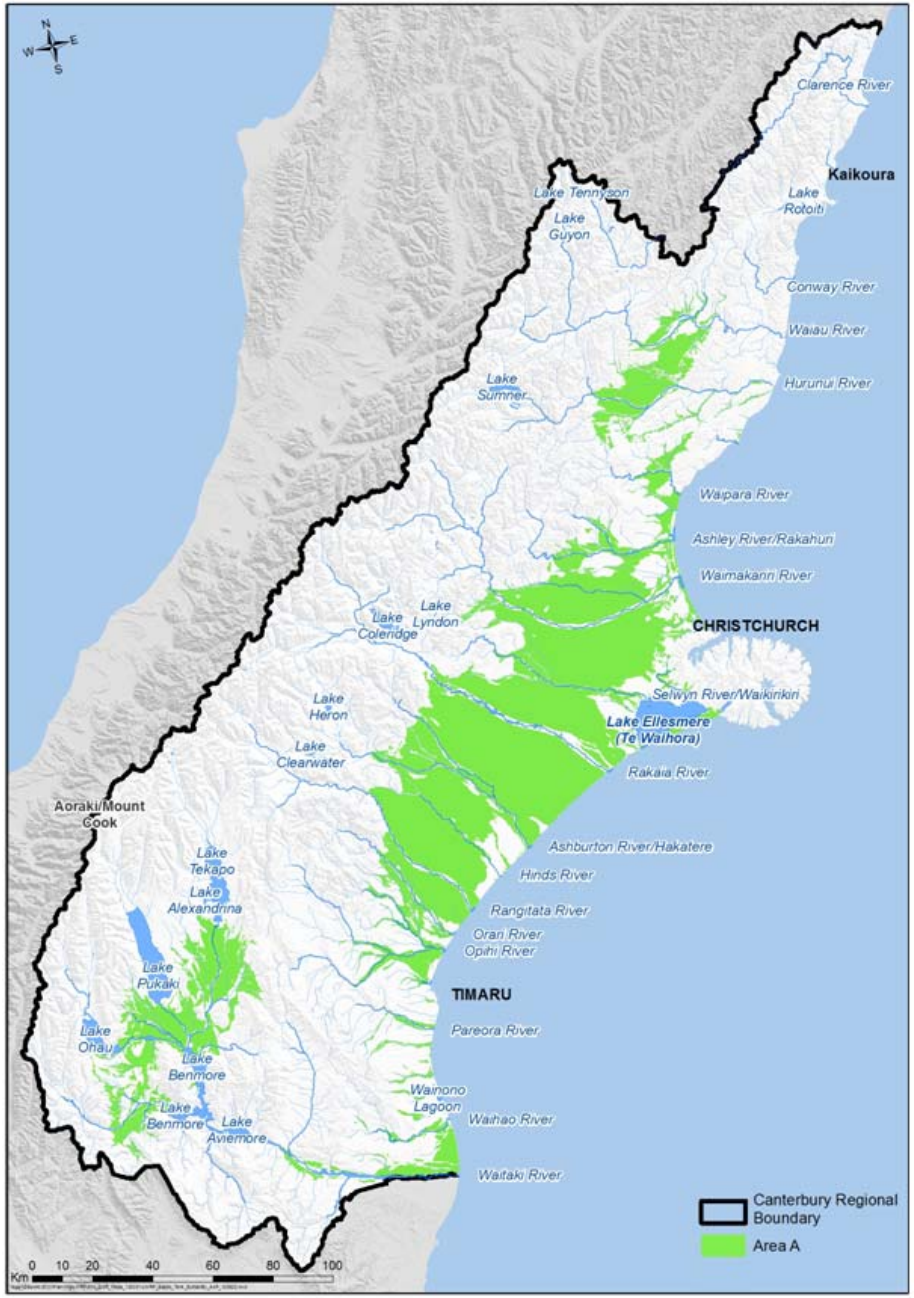
- Relates to discharges from **new and upgraded** onsite wastewater systems.
- Key Differences between the conditions in Rule 5.9 of the pCLWRP and Rule WQL9 of the NRRP :
  - Change from a daily limit on the volume of wastewater discharged to a weekly limit.
  - Conditions aren't as specific with regards to system design and separation distances.
  - Discharge must be within the area mapped "Septic Tank Suitability – Area A" in the Planning Maps.
  - No requirement to submit designs to Ecan prior to carrying out the activity.
- New or Upgraded systems which don't comply with Rule 5.9 require resource consent under Rule 5.10.

Septic Tank Suitability Map

- Provides a mapped area of Canterbury

  which is suitable for septic tanks.
  - Systems inside this mapped area are permitted activities provided they comply with all the other conditions of the rule.
  - Outside of this mapped area, they require a resource consent.

- This mapped area has been determined by:
  - Groundwater Depth
  - Drainage Capability of the Soil
  - Slope of the land



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What does this mean for Banks Peninsula

- Most of Banks Peninsula is outside of the mapped “Septic Tank Suitability” area.
  - A resource consent is required to discharge from an onsite wastewater system in Banks Peninsula.
  - Site specific wastewater system are required in Banks Peninsula.
  - An assessment of the environmental effects of the wastewater discharge must be carried out for all systems in Banks Peninsula.

Stormwater Discharges

- Stormwater
  - Runoff that has been channelled, diverted, intensified or accelerated by human modification of the land surface or runoff from the external surface of any structure as a result of precipitation ***and includes entrained contaminants and sediment including that generated during construction or earthworks –*** *pCLWRP definition*

Onsite Stormwater Rules

- NRRP
  - Rule WQL6 – Discharge of Stormwater onto or into land.
  - Rule WQL7 – Discharge of Stormwater into a river, lake or artificial watercourse.
- pCLWRP
  - Rule 5.72 – The discharge of stormwater into a river, lake, wetland or artificial watercourse or onto or into land in circumstances where a contaminant may enter water – Permitted.
  - Rule 5.73 – Non-Complying

Stormwater Conditions

- Key differences between the stormwater discharge rules in the pCLWRP and NRRP:
  - Discharges of stormwater to land and to water have been combined under one rule in the pCLWRP.
  - Greater flexibility in the design of the stormwater system
  - No limits on the area of disturbed land.

Key Conditions from Both Plans

- No discharge from or onto potentially contaminated land.
- No discharge to NATURAL class waterways
- No overland flow.
- No increase in the flow rate of a receiving waterbody.
- Discharges not allowed to enter neighbouring property boundaries.
- Suspended solid concentration in the discharge not to exceed
    - 50gm/m^3 where the discharge is into a spring-fed river, Banks Peninsula River or to a lake
    - 100gm/m^3 where the discharge is to any other river or an artificial watercourse

Questions??

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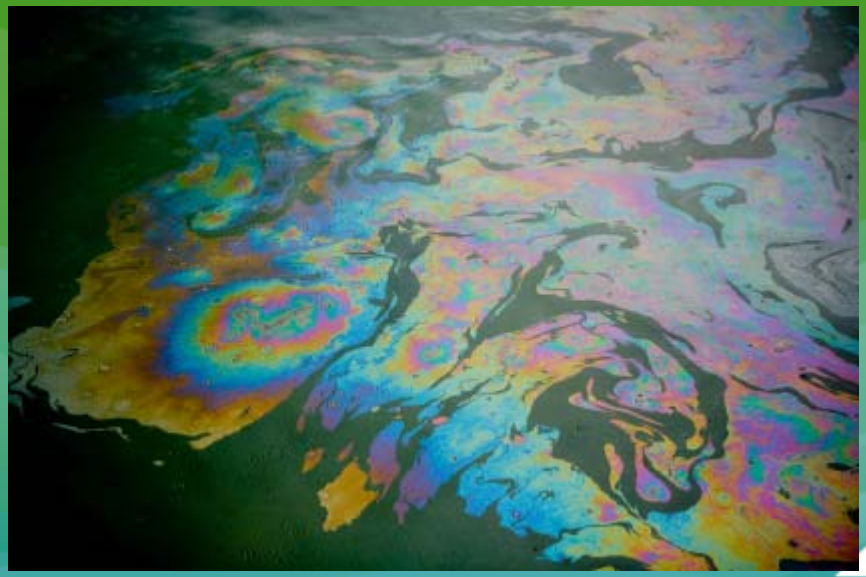
Environment Canterbury

Erosion and Sediment Control Presentation

Presented by Blair Gray
Senior Resource Management Officer

Environment Canterbury Regional Council



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Stream and rivers have life

Canterbury
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Would you swim in this? Would a fish?

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Would a fish swim here?

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Building site with no E&SC in place

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2.4 Km downstream stream is dirty

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Why do we need Sediment Control Measures?

Sediment in streams is unappealing to us and is a bad habitat for fish and insects

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When it all goes horribly wrong…

its not just the environment that is affected

- Infringement Notice: $300 - $1000
- Abatement Notice: Stop works
- Prosecution: up to
  - » $200,000
  - » $10,000 a day ongoing
  - » Two years in jail
- Individual operators fined $2500

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The good news – ECan would rather work with you to prevent the problems from occurring – and keep you smiling….

Our Environmental goal posts have changed…

Erosion & Sediment Control Inspection Sheet

Site Score:	
Average*	3
Highest**	3

Date:	25Jan12
Time:	0930
Weather:	Fine
ESC Plan Rev:	R9

Site Name: Hill Top Developments

Consent No.: CRC012345

Site Contact: Mr Contractor, Ms Consultant, Mr Consent Holder

E-mailed to: Consent Holder, Everyone else

Type of activity: • Earthworks • Stormwater ~~• Works in Waterways/CMA~~ ~~• Quarry~~

Note: The purpose of the site visit was to inspect the installation and maintenance of the erosion and sediment control devices on site. The E&SC devices detailed on the E&SCP were assessed against the E&SC Guideline design criteria.

Control	Location	Rating	Comments	Action Date
Stabilised Ent	Entrance	1	Required cleaning earlier in the week. Someone sweeping at time of visit – good effort	
Silt Fence/Geotextile	Soil stock piles	1	Ensure Clay piles covered/protected	
CW Diversion	**Above works site**	**3**	**CW discharging through site**	**ASAP**
DEB	Mid site	1	Ensure fabric on inlet pinned, ½ full sediment - clean out	ASAP
Silt Fence (SF)	E site	1	Appeared OK	
SF	N site	1	Footing and joins much improved	
Unstabilised surfaces	Mid site	1	Most area seeded. Sediment logs installed. Hydroseed buffer around water margin.	Ongoing

Notes:
The site is becoming progressively more stabilised. Please ensure ESC measures e.g. silt fences are installed and maintained correctly. ESCP needs updating as some measures have been removed/altered.

There are a number of areas that have had topsoil applied – please progress seeding and watering. I understanding this is occurring already.

Monitoring Officer: Blair Gray Signed:

DDI: 027 224 7171

1 = Full Compliance 2 = Minor non-compliance 3 = Repeated minor non-compliance or significant non-compliance 4 = Major and/or persistent non-compliance.

Notes: *Environment Canterbury will record the average rankings to allow comparisons between sites, contractors and consultants.
**Ratings of 3 or higher may result in enforcement action being taken.

Erosion and Sediment Control

- Control run on water
- Protect the land surface from erosion; and
- Prevent sediment from leaving the site.

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Control run on (clean) water

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Protect the land surface from erosion

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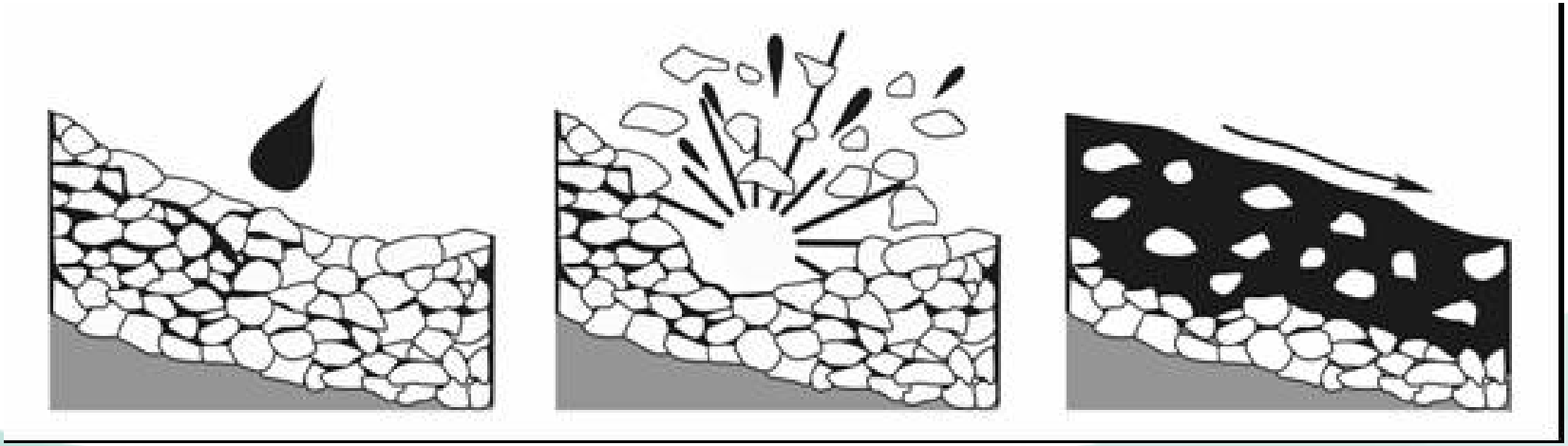
Raindrop Erosion



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Reduce rain drop erosion

- Grassing
  - Hydro-seeding
- Mulching (with geobinders)
- Straw/coconut matting blankets

Stop sediment from being produced -

Protect unstabilised soil from rain!

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Hydroseeding

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Straw blanket

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Matting + Seeding

Prevent sediment from leaving the site

Stabilised Entrance

Silt Fences

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Silt Fences

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Stabilised/Lined channels

Check Dams and sediment logs

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Sediment Ponds

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Summary:

1. Streams + Sediment ≠ Healthy Ecosystems
2. ECan wants to prevent problems occurring by:
    1. Engaging early
    2. Offering advice
    3. Providing education
3. Enforcement options only used as last resort

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Example - Silt Fences

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Example of a good joint…

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Silt Fences

Can you pick their intentional mistakes?

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Questions?

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Nutrient Budgets

Banks Peninsula Zone Committee Meeting

Peter Brice – Account Manager

Why Nutrient Budget?

- Understand nutrient transfer – in and out
- Identify leaching “hot zones”
- Aid management decisions
- Create nutrient replacement strategies

How Do To Nutrient Budget?

ATTACHMENT TO CLAUSE 9
BP WATER ZONE COMMITTEE
21. 8. 2012

- Use Overseer computer programme
- Seek Advice from Local Rep
- Ensure accurate information is used
- Benchmark data

Overseer 6

- Developed by Ag research
- Animal nutrition model
- Long term averages
- Predictive and historic models
- Inputs and outputs for the farm

Example – Simpson Farm

- Fishermans Bay
  - 420 ha Cattle Farm
  - Roughly 1900 Stock Units
  - 160 fenced native bush
  - Developed pastures
  - Good soil fertility
  - Warm dry summers
  - Potentially wet cold easterly winters

Cattle Timeline

ATTACHMENT TO CLAUSE 9
BP WATER ZONE COMMITTEE
21. 8. 2012

- Distribution of Cattle throughout the year
- Winter is the key time for nutrient budget

Mob name	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun		
Breeding cows (mixed age) 1	190	190	190	190	190	190	190	190	190	190	190	190		
Dairy grazing (replacements) 1	50	50	50	50	50	50	50	50	50	50	50	50		
Dairy grazing (replacements) 2	50	50	50	50	50	50	50	0	0	0	0	0		
Dairy grazing (replacements) 3	0	0	0	0	85	85	85	85	85	85	85	85		
Dairy grazing (replacements) 4	85	85	85	85	85	85	85	85	85	85	85	85		
Breeding bulls (mixed age) 1	8	8	8	8	8	8	8	8	8	8	8	8		

Inputs

ATTACHMENT TO CLAUSE 9
BP WATER ZONE COMMITTEE
21. 8. 2012

- All Products coming in
- Transfer, mineralisation, importation
- Expand blue lines for more detail

(kg/ha/yr)	N	P	K	S	Ca	Mg	Na
Nutrients added							
Fertiliser, lime & other	0	11	0	13	68	0	0
Rain/clover N fixation	32	0	4	7	4	10	65
Irrigation	0	0	0	0	0	0	0
Supplements	1	0	1	0	0	0	0

Outputs

ATTACHMENT TO CLAUSE 9
BP WATER ZONE COMMITTEE
21. 8. 2012

- All nutrients leaving system

Nutrients removed							
As products	6	2	0	1	3	0	0
Exported effluent	0	0	0	0	0	0	0
As supplements and crop residues	0	0	0	0	0	0	0
To atmosphere	19	0	0	0	0	0	0
To water	**6**	**0.5**	**10**	**19**	**13**	**6**	**33**
Leaching - urine patches	3	0.0	1	0	2	0	0
Leaching - other	2	0.0	5	19	8	5	30
Runoff	0	0.4	3	0	2	1	3
Direct (animals, drains)	0	0.0	0	0	0	0	0
Direct pond discharge	0	0.0	0	0	0	0	0
Border dyke outwash	0	0.0	0	0	0	0	0
Septic tank outflow	0	0.0	0	0	0	0	0

Key Losses

- Nitrogen

Block name	Total N lost kg N/yr	N lost to water kg N/ha/yr	N in drainage * ppm
Bush	480	3	N/A
Plane applied	871	6	N/A
Truck applied	1193	10	2.9
Other sources	37		
Whole farm	2581	6	
Less N removed in wetland	0		
Farm output	2581	6	

Key Losses

- Phosphate

Block name	Total P lost	P lost to water	P loss categories		
	kg P/yr	kg P/ha/yr	Soil	Fertiliser	Effluent
Bush	16	0.1	N/A	N/A	N/A
Plane applied	193	1.4	Medium	Medium	N/A
Truck applied	214	1.8	High	Medium	N/A
Other sources	-224				
Whole farm	-54	-0.1			

Take Home Message

- Nitrogen moves through the soil
- Phosphate moves with the soil
- Fertiliser needs to be applied accurately
- Seek advice