

Board Members

Land Use Futures Board



NOTICE IS GIVEN that a meeting of the **Land Use Futures Board** will be held in Committee Meeting Room 2 at Rotorua District Council, 1061 Haupapa Street, Rotorua on:

Wednesday, 14 July 2010

commencing at 10.00 am

Terms of Reference

Land Use Futures Board

- 1 The primary purpose of the Board is to give leadership to and advise on implementing sustainable land use management and change in the Rotorua Lakes Catchments that will achieve the land based component of nutrient reduction targets defined through the various action plans.
- 2 Sustainability includes the economic, social, cultural and environmental wellbeing of the community.
- 3 The primary reporting relationship of the Board shall be to the Rotorua Te Arawa Lakes Strategy Group (RTALSG). In addition to reporting to the RTALSC, the Board will also give updates on target achievement to the appropriate action plan working parties. Dependent on the actions recommended, they may need to be further considered separately by the organisations that make up the RTALSG.
- 4 Reporting will be through the Manager Land Resources (Rotorua) who will ensure appropriate administrative services are available to the Board.
- 5 The Board shall consider and advise on:
 - The development and regular review of an implementation plan to achieve reduced nutrient loss from land use activity. The initial plan to be prepared by March 2008 outlining mitigation options and timing.
 - Relevant nutrient mitigation research, both current work and potential i.e. gap analysis.
 - Evaluate and recommend land management options, including incentives that may assist in achieving land use management change.
 - Actual or potential impediments to achieving nutrient reduction targets, including planning regimes implemented by the Regional and District Council.
 - Advise on the development of a Communication Plan to communicate with and receive feedback from the range of landowners. Bay of Plenty Regional Council and Rotorua District Council will support and integrate the Plan into its overall programme for the Protection and Restoration of the Rotorua Lakes.
 - Advise on the development of regulations and Statutory Planning Policy of Bay of Plenty Regional Council and Rotorua District Council including possible changes to these regimes.
 - Any other matters that the Board considers necessary to achieve nutrient reduction targets in a sustainable manner.
- 6 The Board shall not engage consultants to carry out research or otherwise enter into financial or contractual commitments with other parties. Recommendations that require funding, including research, will need to go through normal approval and funding channels of the respective councils.
- 7 The Land Use Technical Advisory Group will be a source of technical advice. The Board may request other advice or invite third parties to attend its meetings, subject to the constraints in 4 of these Terms of Reference.

- 8 The Board shall elect its own chairperson, meet regularly (not less than quarterly), keep accurate meeting records and present an annual report to the RTALSG.
- 9 The Board shall endeavour to operate by consensus.
- 10 The initial appointment is for a period of 3 years upon when time members can be nominated.
- 11 Board may establish sub-committees which may include external members to address specific topics.

Land Use Futures Board

Board Membership

Chairman:	Bill Cleghorn (Lifestyle Representative)
Members:	Peter Guerin (Rotorua District Council) John Ford (Sheep Farmer Representative) Roku Mihinui (Te Arawa Lakes) Mike Bramley (DairyNZ) Chris Sutton (Dairy Farmer Representative) Kit Richards (Forestry Representative) Neil Heather (Sheep Farmer Representative) Dr Nick Edgar (NZ Landcare Trust) Lee Matheson (Dry Stock Advisor) Tom Walters (Te Arawa FOMA) Stuart Morrison (Dairy Farmer Representative) Tina Ngatai (Office of the Māori Trustee) Warwick Murray (Bay of Plenty Regional Council) Barnett Vercoe (Onuku Māori Lands Trust)
Secretary:	Jenny Clarke

Agenda

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3	Matters Arising from Previous Minutes (10.10 am – 10.25 am)	5-8
4	General Business and Tabled Items (10.25 am – 10.40 am)	9
5	Land use initiatives (10.40 pm – 12.00 pm)	11-26
6	Impact of Rule 11 on land values – presentation by Martyn Craven (Reid & Reynolds Ltd.) (12.00 pm – 12.30 pm)	
	Lunch served at 12.30 pm	

7 **Overview of Acres land use decision support tool
– James Turner and Jeremy Snook (Scion)
(1.00 pm – 1.30 pm)**

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8 **DairyNZ / Rotorua Dairy Farmers voluntary
stewardship – presentation by Dennis Collins
and Stuart Morrison
(1.30 pm – 2.00 pm)**

Consideration of General Business Items

Minutes for Land Use Futures Board

Rotorua District Council – Committee Room 2
1061 Haupapa Street, Rotorua

10.15 am, 9 June 2010

Chair: Bill Cleghorn (Lifestyle Representative)

Members: John Ford (Sheep Farmer Representative); Neil Heather (Sheep Farmer Representative); Tom Walters (Te Arawa FOMA); Lee Matheson (Dry Stock Advisor); Mike Bramley (DairyNZ); Barnett Vercoe (Onuku Māori Lands Trust)

In Attendance: Greg Corbett, Anna Grayling, (Environment Bay of Plenty); Hera Naera (on behalf Tina Ngatai, Office of the Maori Trustee, arrived 10.20 am); Jenny Clarke (Minutes Secretary) (Environment Bay of Plenty)

Item	Discussion/Decision	Action	Responsibility/ Timeframe
1. Apologies	Stuart Morrision (Dairy Farmer Representative); Nick Edgar, Kate Akers (NZ Landcare Trust); Kit Richards (Forestry representative); Chris Sutton (Dairy Farmer Representative); Warwick Murray (Environment Bay of Plenty); Nigel Wharton (Rotorua District Council)	Receives the apologies	John/Mike (CARRIED)
2. Confirmation of minutes from last meeting	Correction to minutes Item 5, last paragraph, should read “A comment was made that public funding for ‘community good’ may be used to fund nutrient reduction requirements for landowners”	Subsequent approval of minutes from meeting held 12 May 2010	Tom/John (CARRIED)
3. Matters arising from previous minutes	Action point feedback from previous meeting: 1. Draft recommendations report for Maori land issues to RTALSG (Hera/Anna) – completed 2. Forward costing of lakes intervention projects (per unit of P or N) to John Ford (Andy/Jenny) – still to do 3. Forward costing of nutrient reduction (EBOP component) to Bill C (Ben/Jenny) – completed	1. Forward costing of lakes intervention projects (per unit of P or N) to John Ford	Andy/Jenny
4. General business and tabled items	Items for General business: 1. Benchmarking discussion (John Ford)		

	<p>Tom informed that this paper will be taken to the members of Te Arawa FOMA for comment.</p> <p>There was a discussion on Tom's notes based on a FOMA meeting held last year. Aspects of some of these points will be incorporated into the main paper.</p> <p>April 2009 FOMA</p> <ul style="list-style-type: none"> • The lack of direct engagement between Land Trusts and Council staff on planning policies and rules • The unfairness of applying Rule 11 to Māori land at a time when our land is just beginning to be developed • Failure to take into account the Kaitiakitanga role of Māori land trusts and the magnitude of conservation activities and voluntary retirement of farming already carried out on Māori land • The need for development of an extension service of the LUF Board to monitor progress of agreements between councils and Māori land trusts. 		
6. Land use initiatives recommendations (12.30 – 1.30 pm)	A paper will be developed to discuss for the next meeting	3. Develop paper in Land use initiatives recommendations	Bill/Greg
Consideration of General Business Items	<p>1. Benchmarking discussion</p> <p>An explanation given by Neil Heather of the farming community frustrations. There is a reluctance to supply information to EBOP on Rule 11 as no guarantee can be given as to future use of the data and Councils have not yet developed policy and rules for future nutrient reduction matters.</p> <p>There is a meeting with landowners on 20 June. Board members are welcome to attend – Council staff are not.</p> <p>Possible agenda items for the next meeting:</p> <ul style="list-style-type: none"> ✓ Presentation on the dairy collective at the next meeting ✓ Presentation from Martyn Craven on impacts of R11 on Land values ✓ Feedback from the first draft of paper to RTALSG ✓ Discussion on land use initiatives recommendations paper 		

Meeting finished at 1.50 pm

Next meeting: 14 July 2010

MEMORANDUM



To: LUF Board

From: Andy Bruere
Lake Operations Manager

Date: 22 June 2010

File Ref:

Copy To: Eddie Grogan

Subject: Cost of lake interventions per kg N and P

A presentation was made to the LUF Board during April 2010 updating the progress with various interventions. The Board asked that we report back on the cost of these interventions per kg of nutrient removed. Note that the costs below are estimates from various sources and that each specific project may vary from these depending upon site differences.

The following table summarises the costs:

Project	Nutrient	Phosphorus Cost per kg	Nitrogen Cost per kg
P locking on streams	P	210*	NA
Sewage Reticulation	N & P	**	553*
Tikitere De-nitrification	N	NA	\$19
Algae Harvest	N & P	Under assessment	
Sediment capping	P	62 to 600	NA
Gorse to pines	N	NA	60-200
Weed harvest	N & P	11-14	71-110
Floating Wetland	N	NA	Under assessment

*From Proposed Rotorua/Rotoiti Action Plan, Environmental Publication 2007/11

** The Proposed Action Plan states "As waste water reticulation primarily reduces N inputs to the lakes, and extra P reductions are minimal, only cost per kg-N should be used for a fair comparison with other actions." However more recent investigations show P inputs from septic tanks can be significant for some lakes and reticulation does have an associated beneficial effect in reducing P, Pers comm. JJ MacIntosh.



Advice to Rotorua Te Arawa Lakes Strategy Group on Māori land utilisation

June 2010

Purpose of this paper

This paper summarises constraints around the utilisation and development of Māori land generally and within the “Rule 11” catchments. It also provides advice and recommendation to Rotorua Te Arawa Lakes Strategy Group (RTALSG) on how partner agencies can better work within key constraints.

The utilisation of under-developed Māori land that is currently constrained by “Rule 11” was discussed by The Land Use Futures Board (LUFB) following a field trip held on 14 April and during its meetings on 12 May and 9 June 2010. The LUFB considered constraints and opportunities and rationalised these into three groups: Governance, block size and funding.

Constraints for Māori land

Governance/Tenure

- Te Ture Whenua Māori Act 1993 – This Act dictates the constitution of the Māori Land Court and the obligations and responsibilities in the governance and management of Māori land.
- Can involve large numbers of shareholders which makes communications and decision making difficult.
- A minority of shareholders can prevent a change in land use.
- Apathy of shareholders to attend meetings and make decisions to effect change.
- Councils’ current RMA consultation processes focus on Hapū Iwi and do not always engage with Māori land owners and Trusts.

Block size

- The small size of many Māori land blocks limits the ability to generate income and deal with issues such as high overhead costs.

Funding

- Māori land owners have a limited ability to raise funds to pursue new business options for their land because it is more difficult for the land to be used as security against loans.
- Owners motivated by cash returns rather than capital gains.
- Rule 11 can limit the potential to develop the land for its’ highest and best use.
- Councils have wanted funding secured with covenants (covenants seen as an alienation of land). This issue has been addressed by Regional Council.
- Inadequacy of Rotorua Lakes Deed funding for land use change limits opportunities (refer further recommendations of Section 5.1 of the LUFB Position Paper (December 2009)).

Recommendations and Advice

Governance

- **Advice:** Councils ensure staff are aware of the cultural linkages between Māori and whenua including the objectives of land owners and Trusts' for their land and people.
- **Advice:** Te Ture Whenua Māori Act 1993 – Councils ensure staff are knowledgeable about the constraints imposed by this Act prior to negotiating with Māori Land owners.
- **Advice:** Councils ensure adequate timeframes are allowed for when negotiating with Māori land owners.

Block size

- **Recommendation:** That RTALSG actively encourage a collective approach in identifying opportunities for smaller landholdings to achieve a reduction in nutrient export, eg. joint landowner meetings, dedicated liaison person.

Funding

- **Recommendation:** Where covenanting land is an issue Councils pursue funding agreements for land use change using alternative legal mechanisms e.g. Memorandum of Understanding's and/or partnership agreements.
- **Recommendation:** That the Bay of Plenty Regional Council engages with Māori land owners to raise awareness of trading options under Rule 11.
- **Recommendation:** That Councils explore options (eg. leases or partnerships) with Māori land owners to develop and fund recreational amenities and environmental enhancement on Māori land around Rotorua's lakes in the interest of public good.
- **Recommendation:** That Councils support land use change on Māori land by providing flexible and negotiable development options.
- **Advice:** When negotiating for land use change with Māori land owners, Councils must also recognise the need for the land to generate benefits for the owners.

Environment Bay of Plenty name change

For Board members information – Environment Bay of Plenty is changing its name.

At our latest Council meeting it was decided to return the regional council to its original name – Bay of Plenty Regional Council.

While this is a topic that has been raised occasionally since adopting the brand name Environment Bay of Plenty in 1993, Council felt it was something that now had to be reconsidered.

Our organisation has a responsibility across all four of those well-beings under the Local Government Act and the Resource Management Act. It's hoped that the change will help us build more awareness of our roles in transport, flood management, public transport and economic development, to name a few.

So where to from here? Well, as they say on the TV commercial, it won't happen overnight. Changing a brand is a huge undertaking and Council has agreed that the change will be rolled out over the next two years, ensuring minimal cost. Where we can make the change quickly and easily we will – for example on our website, media releases and other regular publications. Longer term, logos on vehicles, buildings, uniforms and other promotional material and stationery will be replaced. The only change on our logo is to remove the word Environment.

Our legal name has always been Bay of Plenty Regional Council – this hasn't changed. Environment Bay of Plenty was our brand name only.



Land Use Change Interventions

A background paper prepared for

Land Use Futures Board

July 2010

Prepared by:

Tony Fenton
Alchemists Ltd



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Overview of Land Use Interventions

This background paper presents a summary of a range of interventions and related tools that could be undertaken to encourage land owners to change practices to achieve a reduction in nutrient losses within the Te Arawa/Rotorua Lakes catchments.

Interventions discussed fall into two categories – those tied to a regulation and those that are not. Interventions underpinned by regulation are generally considered to be more effective than voluntary measures primarily because of the ability to enforce actions (Greenhalgh, 2009). Note this is not an exhaustive list of interventions and tools that could be considered to address nutrient reductions in Te Arawa Rotorua lakes.

As well as interventions two tools are discussed as these can be used in the process of selection and implementation of interventions. Decision support tools can be used to assist and inform the selection of different interventions. The use of a 'Land Trust' is a tool or mechanism that can be used to implement many of the interventions outlined.

1. Decision Support Tools/Systems

Decision Support Tools/Systems can be frameworks, spreadsheets, or computer models that can provide guidance on what intervention might be appropriate to initiate, in what situation and where. For land management decision making they can incorporate economic, land use and geophysical information. Decision support tools/systems are not decision making tools and only provide information to support the decision making process not actually come to the decision.

A Decision Support System (DSS) is a class of information systems (including but not limited to computerized systems) that support business and organisational decision-making activities. A properly designed DSS is an interactive software-based system intended to help decision makers compile useful information from a combination of raw data, documents, personal knowledge or business models to identify and solve problems and make decisions.

Examples of DSS are the nutrient management model Overseer®, land use/management models recently developed by Scion (Octypus/ACRE) and broader spatial models such a Environment Waikato's spatial model WISE (<http://www.creatingfutures.org.nz>)

Benefits of DSS

- Generates new evidence in support of a decision
- Can help to weigh up consequences and costs for alternative decisions
- Facilitates interpersonal and inter-organisational communication
- Promotes learning or training
- Expedites problem solving (speed up the progress of problems solving in an organisation)
- Encourages exploration and discovery on the part of the decision maker
- Reveals new approaches to thinking about the problem space

Disadvantages of DSS

- DSS can require large amounts of data and information to run
- Outcomes are dependant on the assumptions used in modelling
- Significant training to run model and interpret outputs can be required

2. Land Trust

A Land Trust is an administering body which can preside over an area of interest (which would in this case be Te Arawa/Rotorua Lakes) which has specific objectives and goals to achieve. A Trust in this context could administer funding and make decisions on the best methods to achieve a set of objectives relating to nutrient reductions. A Land Trust could be set up under a Trust Deed and could be accountable to one or more Trustees (organisations). Trusts have a range of representatives on their governance group to represent community interests and skills. A trust is publically accountable for its actions.

An example of a Land Trust is the Lake Taupo Protection Trust. The Trust was set up in February 2007 to administer the \$81.5 million fund to protect Lake Taupo's water quality which is under threat from the effects of past and current land use activities. The Trust is charged with developing a program of work that will reduce the amount of manageable nitrogen leaching into the lake by 20%. The Trust will use the funds to encourage and assist land use change, to purchase land/nitrogen in the Lake Taupo catchment and to fund any other initiatives that assist landowners to reduce the nitrogen impact of their activities on Lake Taupo. The Trust reports to Central Government (Ministry for the Environment), Ngati Tuwharetoa, Environment Waikato and Taupo District Council.

Advantages/strengths:

- Multiple viewpoints and input from a range of Trustees
- Provide a holistic approach to implementation of change on a catchment basis to gain efficiencies and implement the most effective practices
- Accountable to a range of agencies
- Existence of a public entity provides transparency of the use of public money
- A Trust can have a single focus, directed by its statement of intent and is less influenced by politics once created.

Disadvantages/limitations:

- Additional governance and administrative cost with the formation of a trust
- Needs clear reporting and accountability to maintain public confidence in structure.

Lake Taupo Trust

<http://www.laketaupo.protectiontrust.org.nz>

3. Joint Venture Forestry and Forestry Rights/leases

Forestry Leases

A forestry lease is simply the agreement of the landowner to lease land to an investor who pays a rent and uses the land to plant, grow, manage and harvest forestry. The agreement can specify periods of rent reviews

Forestry Rights

Under a forestry lease, the lease agreement is detailed and secured by a “Forestry Right” encumbrance registered on the property title which binds future land owners for the term of the forestry right, typically 30+ years with agreed rights of lease renewal and replanting.

Joint Venture

A joint venture is an agreement between a landowner and investor/s to establish forestry activities in a particular area. Both the landowner and investors contribute to the establishing and operating of the area in agreed portions.

These forestry initiatives could be created through private sector investment or used as an intervention by a Land Trust funding mechanism.

Advantages/strengths:

- Certainty of significant nutrient-loss reductions for both nitrogen and phosphorus for converted pasture land
- Cost of achieving nutrient loss reductions can be relatively low
- The Forestry Right is a proven commercial structure used in many forestry joint ventures in recent decades
- A flexible mechanism which can suit different landowner objectives for the management of their land
- The rent income can be attractive to landowners in lieu of foregone pastoral income and can be indexed to CPI to minimise uncertainty. No liabilities or management issues from a landowner perspective
- If landowners wish to enter forestry but lack capital, a joint venture can be a good solution
- The potential to accumulate carbon credits under the Emissions Trading Scheme
- Represents a sharing of the risk associated with the land use change, both establishment cost and uncertainty of ETS.

Disadvantages/limitations

- Some landowners may see a forestry right encumbrance on the title as a disadvantage particularly if selling the property
- Multiple small forestry leases will be less cost-effective than a few large leases and leave greater exposure to any volatility in the timber and carbon market at time of harvest
- Some landowners may try and intensify land use on their non-forested land negating some of the nutrient reductions
- Some sites will need “view shaft” resource consents from RDC for forestry establishment
- It is possible that landowners may convert forest lands back to pasture following the expiry of the forest lease if there is no regulatory regime in place that prevents this.

4. Land Retirement

Land retirement is a mechanism where an entire farm or a portion of a farm is retired from agricultural/pastoral use. When land is retired it may be converted to forest uses or allowed to regenerate in native scrub and forest or it may be utilised for other less intensive purposes eg: urban development.

Retirement of pastoral land may be voluntary or be undertaken with the use of incentives such as a grant (Section 10) or the purchase of nutrient credits (nutrient trading – Section 5). Some land retirement may be undertaken to allow easier management of parts of a farm in regards to steep terrain or gully systems or alternatively the entire farm may be removed from pastoral use. Retirement of land can be undertaken without long term legal protection of the retired areas or alternatively retired areas can be legally covenanted. This process can legally bind the use of these retired areas and how they are managed now and into the future.

There can be overlaps between land retirement and stewardship agreements.

Advantages/strengths:

- Land retirement does not often require any regulatory amendments or additional infrastructure
- Land retirement programs can target specific parcels of land eg: those areas which have greater nutrient loss than others
- If agricultural land is retired, the result can be both reduction in nutrient losses and can possibly improve other problems such as soil erosion, river and stream bank stability and increase biodiversity.
- Setup costs can be lower than other mechanisms. Usually all that is required is fencing costs and possibly planting and planting maintenance, and any legal cost of covenanting.

Disadvantages/limitations:

- If prime agricultural land is retired, the potential productivity of the catchment and the subsequent farm returns can be reduced. This can impact on the economic potential of the local community.
- If land is purchased in selected catchments to retire, there can be ongoing questions as to who is bound to manage the land into the future
- Land retirement may limit the ability of farmers to respond in how they use their land in changing commodity markets
- When land is retired there can often be significant weed issues which require management until scrub/forest cover is established.
- Unless legally protected, subsequent landowners after retirement establishment may choose to return retired areas to agricultural/pastoral use
- Iwi do not like to have covenant place over their land

5. Nutrient Trading (Water Quality Trading)

Nutrient trading is a market based mechanism used to reduce nutrient discharges to waterways. Generally nutrient trading is utilised to provide flexibility to sources in how they meet a regulated discharge limit and is usually used in regard to nutrients such as Nitrogen and Phosphorous.

Nutrient trading is based on the situation that the costs to reduce pollution differ among sources depending on their size, efficiency, location etc. Trading allows those with high abatement costs to purchase nutrient discharge reductions from those who have lower abatement costs. Alternatively, those with lower abatement costs can lower their pollution discharges beyond regulated or permitted levels which enables them to sell their excess reductions to those with higher costs. Trading is usually done within a regulatory framework with a fixed discharge limits (a Cap).

An example of a nutrient trading scheme currently operating in New Zealand is the Lake Taupo Nitrogen Trading program.

Nutrient trading per say will not create a reduction in nutrient loads unless the nutrients that are traded are removed from the systems permanently, such as under a Trust mechanism like in Lake Taupo. Otherwise, trading as a tool is primarily for providing flexibility to land users and encouraging resource use efficiency.

Advantages/strengths:

- A nutrient trading program can be designed to include all anthropogenic (human) sources of pollution (ie: both non-point and point source)
- Theoretically trading will reduce the overall cost of meeting a stated nutrient reduction goal as it will help to set a true market value
- Gives landowners the flexibility to meet their regulatory obligations or provide financial benefit from selling excess reductions to other program participants
- Nutrient trading can promote innovation amongst landowners in trying new techniques and management practices to help reduce nutrient losses and therefore reduce costs/increase productivity for landowners
- Nutrient trading is performance based not practice based. This rewards the reduction in nutrient losses not the implementation of practices that lead to nutrient losses. This provides incentive and flexibility for land management.

Disadvantages/limitations:

- Nutrient trading operates best under a regulatory regime and where an existing cap for nutrient loss is in place
- By limiting nutrient application or loss there is likely to be an economic cost to landowners in regards to lost opportunity for land intensification and a potential reduction in the capital value of a property
- Establishing a trading program is likely to require changes to plans in a regulatory context. Most approaches are likely to take significant amounts of time and resource to establish and are likely to progress to Environment Court.
- A nutrient trading program also is likely to need resources in terms of setting up processes, staff and infrastructure to enable implementation
- Ongoing compliance costs to meet a regulatory regime such as resource consent processing and monitoring costs.

6. Tenders/Reverse Auctions/Procurement Auctions

For use in this discussion paper the term “Tender/Auctions” will be used to cover the three mechanisms referred to above.

Tender/Auctions are a mechanism to allocate funding cost effectively between sources particularly within a constrained budget.

They are a type of performance-based funding allocation strategy and are competitive bidding systems with a single buyer and multiple sellers. This is the reverse of a normal auction situation where there are multiple buyers and one seller.

The theory of the bidding process in a reverse auction is that it gives sellers (in this case landowners) the incentive to reveal the minimum compensation they are willing to accept to adopt or change management practices. By making selection competitive, the landowner has an incentive not to inflate their bid price much beyond the minimum price they are willing to accept as this may lead to not being selected into the program at all. This results in the funds being awarded on the cost-effectiveness of addressing a specific environmental concern relative to all other bidders. Funding is usually allocated to the most cost-effective sellers until either the program has reached its funding allocation limit or a break-point in the cost-effectiveness of bids is reached.

Advantages/strengths

- Allows the allocation of agency funding cost-effectively where a budget constraint exists
- Tenders/Auctions can engage a high number of potential participants because of the flexibility in the amount of funding a seller can receive. The amount awarded to a seller can depend on how cost-effectively they can implement a practice or achieve a reduction compared to others participating.
- There are no regulatory amendments required to use a Tenders/Auction mechanism

Disadvantages/limitations

- An external source of funds is required to operate the program
- Tenders/Auctions are likely to require an increase in skills for staff within regional or local council as it is unlikely a similar process has been run before
- Tenders/Auctions are generally performance based and the nutrient reductions associated with various actions need to be estimated. Robust methodologies must be available to provide this key information
- Tender/Auctions are a relatively new concept for agricultural landowners and communicating the concept is key to acceptance and participation

7. Carbon Initiatives

Carbon initiatives relate to a range of mechanisms where landowners can gain potential additional financial benefits from creating and/or maintaining forest on their land. The initiatives require further investigation on how and if initiatives would be applicable in various scenarios in the context of the Te Arawa/Rotorua Lakes.

These carbon initiatives are supportive mechanisms that can make land use change and reduction of nutrients more financially attractive when used in combination with other tools (nutrient trading, grants, forestry leases)

Emissions Trading Scheme (ETS) – Forestry

The ETS is the price based mechanism established by Parliament to:

- Reduce net greenhouse gas emissions below business-as-usual levels
- Comply with international obligations including Kyoto Protocol

The ETS is a key part of overall climate change policy and involves all sectors including forestry, agriculture, industry, energy, waste and liquid fossil fuels.

The forest estate is already a significant store of carbon and there is potential for this to grow further with farm and larger-scale plantings of both exotic and indigenous forest species. Forestry was the first sector to enter the ETS in 2008. For forest land owners, the ETS offers opportunities for land development and economic growth.

New Forest plantings can be eligible for carbon credits from carbon markets. This can make a significant difference to the economics of land use change to forestry, particularly when taken in conjunction with nutrient trading.

<http://www.maf.govt.nz/sustainable-forestry/ets/>

Afforestation Grant Scheme (AGS)

The Afforestation Grants Scheme (AGS) is a contestable fund designed to encourage the establishment of new forests. It is part of the Government's package of climate change initiatives and offers an alternative to the Emissions Trading Scheme (Forestry) as a way to encourage greater levels of greenhouse gas absorption by increasing the area of Kyoto-compliant new forest in New Zealand.

There are two funding pools in the AGS. Half of the funding is available via a Regional Council pool to help them meet their sustainable land management objectives. The other half is available to the general public via a public tender pool administered by MAF. The majority of the public funding pool is allocated to species with high carbon sequestration rates. These include the usual exotic plantation species such as radiata pine and Douglas fir.

The remaining 30 percent of the public pool is reserved for species with low sequestration rates. This is as a result of public interest in planting indigenous species, which have low carbon sequestration rates.

<http://www.maf.govt.nz/climatechange/forestry/initiatives/ags/>

Permanent Forest Sink Initiative (PFSI)

The Permanent Forest Sink Initiative (PFSI) promotes the establishment of permanent forests on previously unforested land. It offers land owners the opportunity to earn Kyoto Protocol compliant emission units (Assigned Amount Units or AAUs) for carbon sequestered in permanent forests established after 1 January 1990. To be eligible the forest must be "direct human induced through planting, seeding and/or the human-induced promotion of natural seed sources". PFSI participants will have a covenant registered against their land titles for a minimum of 50 years. Limited harvesting is allowed, on a continuous forest canopy cover basis. Forest owners will meet all costs of administration, monitoring, auditing and compliance and also carry the liability for maintaining the carbon stocks.

<http://www.maf.govt.nz/forestry/pfsi/>

8. Cost Share

Cost share payments cover some or all of the start-up and/or installation costs of implementing a less polluting practice. Cost share is often used to encourage individual nutrient sources to adopt pollution control practices requiring initial capital investments.

With cost-share, the cost of a nutrient-reducing management practice is shared between a nutrient source (eg: a farm or sewage treatment plant) and another entity (usually a local or central government agency). Cost-share is typically based on the cost of implementing a practice, and does not consider any resulting impacts on farm profitability.

What has been previously referred to as Grants for erosion control or riparian planting activities could also be considered as a Cost Share intervention.

Advantages/strengths:

- Provides a lower risk option for landowners to install or implement nutrient reducing practices or infrastructure – it is essentially a subsidy for undertaking an action
- Requires no regulatory amendments or additional infrastructure
- Provides external funding for high cost projects that local government or individuals may not be able to fully fund alone
- Provides incentives for the individual receiving cost share to actually implement and maintain the practice in question.

Disadvantages/limitations:

- Cost-share is typically practice – not performance based. A set of practices are identified by the administering body where they are willing to share implementation costs. This set of practices requires constant updating to ensure they remain relevant and appropriately costed.
- Cost-share requires an external source of funds from central or local government
- How a cost-share is implemented governs how flexible this tool is for implementing the most appropriate practices are for a given situation. There is a possibility that it may not target the areas where the greatest nutrient reductions can be made for the lowest cost
- Effectiveness of cost-share will depend on how many farmers participate and what nutrient reducing actions the funding is used for. Low adoption may mean that few nutrient reductions are achieved.
- For high cost mitigation options (eg: feed pad), cost-share may not cover a large enough portion of the total cost of the option to make it affordable for a source (ie: farmer) to implement.
- Cost-share can be expensive and may not necessarily target the implementation/installation of the most cost-effective practices and it may be difficult to identify and administer the relevant mitigation options to solve a particular water quality problem.
- There is no legal protection for investment of new practices and subsequent landowners may not be inclined to continue practices that have been implemented to meet nutrient reductions and previous reduction gains could be lost.

9. Grants

Grants have been used extensively in the past by regional council (and their predecessors catchment boards) as well as central government to encourage catchment management activities such as erosion control and riparian protection.

Although the use of the term “grants” is common language for many involved in land management, the concept is actually represented by a number of the other initiatives described within this paper. A grant can generally be defined as a financial contribution to an activity to assist with its implementation with the aim of achieving a specific outcome.

The previous use of grants for erosion control and riparian protection are examples of the Cost Share intervention described in Section 9 above.

Also the activities a Land Trust purchasing nutrient credits can be seen as providing funding (a Grant) for an environmental outcome.

10. Stewardship Approaches

Stewardship approaches are voluntary approaches where two or more parties agree to undertake a certain set of actions. They are typically agreements made between organisations and can also be used with industrial or municipal point sources (eg: sewage treatment plants). They tend not to be used as agreements with individual farmers although in the context of this document the advantages and disadvantages will focus on agricultural nutrient sources which is within the scope of this paper.

There are generally three types of Stewardship approaches and these are outlined below:

Memorandum of Understanding (MoU)

An MoU is a document describing a bilateral or multilateral agreement between parties. An MoU represents an agreed objective and an intended common line of action to achieve this objective. Most often this mechanism is used when parties who are entering into the agreement do not want a legal commitment or alternatively when there is no opportunity to create a legally enforceable agreement.

Memorandum of Encumbrance (MoE)

A memorandum of encumbrance is agreement 'to be bound' to certain conditions or terms. An MoE can be lodged on a property title and cannot be removed unless all the named parties agree. In the context of the Te Arawa/Rotorua Lakes project, an MoE could be an agreement between two parties where one party agrees to restrict uses on their land.

Accord

A formal agreement between parties that outlines a series of actions and/or goals that all parties to the Accord agree to undertake

Advantages/strengths

- Typically stewardship agreements are voluntary so from the signatories point of view the goals of the agreement may be less stringent than regulatory or legislative measures that could be employed.
- Stewardship agreements require no regulatory amendments or additional infrastructure.

Disadvantages/limitations:

- The voluntary nature of stewardship agreements means there are no legal repercussions for those that do not meet the goals outlined in the agreement. The ability to influence nutrient management under these circumstances is likely to be minimal
- Any stewardship agreement should cover all protagonists. To obtain agreement from this faction, the agreed goals of an agreement may be weaker due to compromise than those necessary to achieve real water quality improvements
- Success of stewardship agreements is based on the adoption of specified management practices rather than the performance of management practices so there is great difficulty in estimating the nutrient reductions which have been achieved
- Stewardship agreements generally specify the adoption of particular management techniques and are generally not flexible enough to allow individual sources to implement mitigation options that offer them the greatest reductions, are cost effective and concur with their business operations.

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Agenda item 7 - Overview of Acres land use decision support tool (presentation by James Turner and Jeremy Snook, Scion)

Acres takes long-term view to farm planning

Researchers at Crown Research Institute, Scion, in Rotorua have teamed up with scientists at AgResearch to develop a comprehensive web-based decision support tool for land managers. The 'Acres' system will be free to use when completed in 2011.

Dr James Turner, the Scion forest economist who has spear-headed the project for the past two years, says it's extremely gratifying to show an early working version of Acres to the public.

"A wide range of land users stand to benefit from the tool and the expectation is that it will be widely used," he says.

The collaboration also includes the Ministry of Agriculture and Forestry (MAF), forestry owners, farmers, iwi, environmental authorities and local councils.

"Acres will assist those making long-term, strategic management decisions. Since it is web-based, anyone can test it out on their own property," Dr Turner explains.

A mapping function similar to Google Maps (but with much greater detail) lets users locate their property and easily select their own farm or individual paddocks.

Underlying information including soil type, terrain and climate is built into the program, so the only new information users add is current land use, including type of livestock, trees or crops, as well as stocking rate and productivity.

"Rather than re-inventing the wheel, Acres is filling a gap for tools that support strategic decision making for both forestry and agriculture," Dr Turner says.

"It allows multiple land-use options to be evaluated for a single paddock. For example, when converting a section of hard hill country to forestry, the financial and environmental outcomes of various different forestry scenarios, such as species, planting densities, harvesting dates, can be viewed."

Outcomes, like carbon credits under ETS, cashflow and debt levels will be evaluated for any scenario, as well as environmental parameters such as carbon sequestration and nutrient runoff. Users will get a measure of how well-off (or not) they will be under the emissions trading scheme.

In the final version, each user will have the ability to create a secure account so that all sensitive information (such as farm financials) will be kept private.

The development of Acres is funded by MAF so when fully available to the public in June 2011 it will be free for all users.