RABBIT ISLAND - NELSON

(Enter name of biosolids case study above)

Organisation Managing Case Study	Nelson Regional Sewerage Business Unit

Key Contact Details

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Position	General Manager
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Location of case study

Biosolids Produced at *(Location, suburb/region/ nearest town, State)*	Bells Island, Nelson/Tasman
Biosolids Used at *(Location, suburb/region/ nearest town, State)*	Rabbit Island Forests

Technical Aspects

Year Case Study Operation Commenced	**1996**
Ultimate Use of Biosolids	Land application *(eg land application, incineration, landfill capping etc)*
How were the biosolids managed before this?	**Only used oxidation pond treatment and sludge from the ponds was applied to pastures (once off)**

Quantities of biosolids produced

Dry Solids (t/yr)	Avg 400 t/yr (min 166, max 842 t/yr)
Moisture Content of Final Product (%ds)	Typically 2.5% but varies a lot

Quality and Classification *(using State Biosolids Guidelines Definitions)*

Parameter	Quality	Classification
Heavy Metals		
Zinc	**Avg 24 g/m³ (max 51g/m³)**	
Copper	**Avg 11 g/m³ (max 25g/m³)**	
Cadmium	**Avg 0.08 g/m³**	
Nickel	**Avg 1 g/m³**	
Microbial		
Viral	**Not detected**	
Faecals	**<20 MPN/100ml**	
Other/s		
Protozoa	**Not detected**	

Restrictions on Use Due to Quality

1. Monitor solid for metals accumulation
2.
3.
4.

Treatment Summary	
Stabilisation	**Autothermal Thermophillic Aerobic Digestion (ATAD)**
Dewatering	**None**
Further Processing	*(eg composting, drying, lime stabilisation etc*.) None
Cartage	*(eg how carted and distance*) Piped to storage facility on Rabbit Is
Spreading or Application	Rubber tracked vehicle with Spray Guns *(if applicable, eg type of spread used, etc)*

Costs and income from biosolids management

Components	Supplier/Processor		End User
	Cost (A$/dt)	Income (A$/dt)	Cost (A$/dt)
Processing	n/a		
Storage	n/a		
Cartage	n/a		
Spreading	$400,000/yr		
Biosolids			
Total			

Comments	*No income is derived from biosolids*

Note all Supplier/Processor components could be a cost or income. eg biosolids managed through land filled could be a cost, but biosolids applied to land might provide income to the supply and be a cost to the end user.

Environmental Management Requirements	
Environment Improvement Plan (EIP)	*(EIP required or a similar document? Comment on the EIP process)* Biosolids Application Management Plan, reviewed 3 yearly
Monitoring	*(Tests required &their frequency)* Biosolids Heavy Metal 3 monthly TKN weekly Ground water Bores 3 monthly Top and Sub-Soil samples 3 yearly
Reporting	*(What reporting was required?)* Monthly meeting minutes to consent authority Annual monitoring reports to consent authority

Key Technical Learnings from Production and Use of Biosolids

1.
2.
3.
4.
5.
6.
7.
8.

Community Engagement

Key Community Perception Issues

Issue	How Addressed
Appearance of Biosolids	Applied to forest with restricted public access
Odours	Applied to forest with restricted public access
Fear of Contamination	Applied to forest with restricted public access
Not in my Back Yard (NIMBY) Syndrome	Resource consent process (affected persons notified)
Other	
Other	
Other	

Stakeholders and Engagement Methodology

Stakeholder *(Individual or group)*	Engagement Methodology	Outcome
Federal		
State		
Regional		
Local		

Costs for Community Engagement

Period of Engagement	
Costs for Community Engagement (A$) *(Over the period above)*	

Key Learnings from Community Engagement

1.
2.
3.
4.
5.

Testimonials of Biosolids Users	
Name	
Why Used	
Testimonial	
Name	
Why Used	
Testimonial	
Name	
Why Used	
Testimonial	

Photos	
No.	**Photo Description**
1	
2	
3	
4	
5	
6	

Note: Please provide several photos of the case study. These could include the treatment process to the beneficial uses. Number photographs and insert a description for each in the matching numbers below. Digital photos are preferred using the highest quality or resolution possible

Approval to use case study on ABP website	
WWTP Authority I, the undersigned, approve the use the biosolids management system operated by _Nelson Regional Sewerage Business Unit to be used as part of a case study for the Australasian Biosolids Partnership Website (www.biosolids.com.au). I also acknowledge that I have the authority in the company inserted above to make such an approval.	
Print name: Michael Schruer	
Signature:	
Date: 10/April/2006	
Phone: +64 3 546 0309	Email michael.schruer@ncc.govt.nz
User Authority I, the undersigned, approve the use of my experience with biosolids to be used as a case study for the Australasian Biosolids Partnership Website (www.biosolids.com.au).	
Print name:	
Signature:	
Date: _____/_____/2006	
Phone:	Email: