

3 What concerns about any option do you have that need to be addressed (e.g., through further information and/or taken into account in the design)

The option	Concerns	What might be useful to investigate
Spray	- drift - contamination - odour - noise - us getting sprayed as we walk along the road.	- drip - areas around our walnut trees going into buffer zones
Design of pond	- visual, odour, size - path works, insects, - seismic events.	- smaller ponds * rainfall monitored * wind speed monitored.
Farmland (Pompeys)	- contamination, land stability - design - withholding	- removal of hormones etc. - best practice treatment. - our pets and animals wandering into buffer zones.
Proposed system - archaic	- old technology	more up to date environmentally friendly.
The by-pass of untreated sewage in to pond.	→ Virus, pathogens, heavy metals → Hormone levels for irrigation to farmland	Look at similar communities in NZ + world
Whole system	- sustainability - inconsistencies in info - property values - Clean green 100% Pure NZ - tourism - contaminated bay for swimming - food etc. - climate change - ground water levels - sea levels	- Reed beds, - organica treatment plant - Sites for small man made lakes or ponds? around Alcares community.

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The option	Concerns	Storage size what might be useful to investigate for all areas
Storage ponds or tanks or reeds	natural	disasters
Provision for extra volume in extremes of weather → people. tsunami		
Step terrain loose soils High rainfall.		
Contaminated water ways/beach/swell/mosquitoes/streams contaminated		
Industrialization of the valley/pumps/tractors/workers		
Saturated ground / 11" - 80" variation in rainfall - Rob. Bay Larger buffer zones		

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The option

Concerns

What might be useful to investigate

Trucking water to chkl.

discharge to land
(Idansous Bay / Takamatua)

If land discharge is followed up

If Discharge to land

If discharged to land

Pompeii pillar

road upgrade (transit 12) / container footprint.
not a local solution.

Banks Peninsula soils do not appear to be able
- to absorb the effluent in the long term.
- the effect on the residents / land values of surrounding property.

What restrictions are going to be put in place that inhibit choices / options for use of land eg building, where boutique agriculture, Organic Farming, high end products

What happens if there is a major earthquake, storm events (climate chg.)

Sewerage Ponds - here usual impact lake fly, safety in disaster, impact on gate way to tourist area

Compensation for any withholding periods

Crane ship safety on virus / discharge to water in worst case scenarios - especially if there are major associated storm waste water isn't treated + discharged within 5m of shores.

The fact that there is a 'withholding' period is a concern - alludes to potential risks / dangers

How much consultation has occurred on the peninsula to find out who might want / need water / irrigation

← see this

← see this

← see this

← discharge to land close to houses + water in worst case scenario.

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Drip irrigation Tatamutua Valley	Maintenance - weed control etc vermin limits limits future land use options Floodings Negative impact on lives/income Protecting waterways/stream life/ecology Perhaps more expensive but favoured option.	
Pompey Pillar		
Marked Land on maps	areas are marked that are not suitable because of 25m buffer which is very stressful for all concerned	identity proper buffer zones around structures/houses/streams/springs
Lack of resilience "closed system" e.g. - loss of land to slip - Very wet yr - Plant failure, incl electricity - Quake/tsunami risk. - unexpected inputs (treatment, fuel tank.	Option = All - Raw/untreated/contaminated material in ponds/on land - Capacity is exceeded and sewage dumped (into Gretna str) or land over-irrigated.	- Sufficient (ie more than enough, allows very low load rate and standby capability) - Conservatively designed plant + Backups e.g. generators - Parallel membranes etc - Site ponds well away from residences so they don't pose a risk

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Option = ALL but especially Robins Bay / Takamatua	Mosquitoes / midges Smell (most likely from bypass flows)	- Appropriate pond design (planting, landscaping, covering, Tanks) - how could it be mitigated or made an asset? - Avoid bypass flows e.g. increase buffer tanks at treatment plant
Harbour discharge	- Quality of effluent - location, distribution - emergency management - Quality assurance / monitoring - effect of cruise ships (churn)	- Transparent monitoring - Backup systems (no untreated discharge to ocean) - Sea life sampling - Clear knowledge of effect on harbor bottom, feeds into siting of the outfall.
All options on land	Opportunity Cost - risks falling on residents - Property values lowering - alternate land use loss (horticulture, residential) because the land has been used for wastewater discharge	- acknowledge the issues in Consultation and consider in deliberations. Is the perception reality? - Include all potential solutions identified and score on the issues (economic, social, technical)

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Harbour outfall - best option. Rob Bay + Tak disposal Akaroa town re-use - water shortages is now.	Too much emphasis on "Cultural Values". for contaminants - head of Harbour, further, to go = Cost above people - Budget driven - Rob Bay - Wastewater ^{Wastewater} water. - Widdly's resolve: - What are the options ??? - pond sizes, we don't know - untreated sewage in odd occasion being discharged. - reduced land values for affected properties & neighbour - all options are not getting Akaroa residents not directly effected from discharge problems involved - general community needs to be made to be involved / see what happens - how to get Akaroa township ownership - pay for new plant = Flooding, Tsunami, = Deep ripping to land. = Power cuts! = Takaroa residents wishes ignored	- larger buffer tank - On land survey rather than desktop establish what is 15° or less = Monitor rainfall !! Jan 2002 275mm in summer = Monitor windspeed !! - if fine. • reuse of water - parallel system for reuse of non potable water. = Accurate soil test. (resite bore hole where no readings). - Social Impact. - RMA 'sustainability' for options.
Harbour Outfall TREATMENT LEVEL - ALL OPTIONS LAND STABILITY	- Health issue long term	

meetings scheduled to all Akaroa