



OWL FARM

Providing knowledge.

ST PETER'S SCHOOL & LINCOLN UNIVERSITY
DEMONSTRATION DAIRY FARM



St Peter's
Cambridge
NEW ZEALAND



LINCOLN
UNIVERSITY
TE WHARE WĀNAKA O AORAKI

Effluent Management Plan

Person in Charge: Carl Hine, Farm Manager

Consent Expiry Date: N/A

Key Rules:	
Maximum application depth (volume going into soil (mm)):	25mm
Maximum application rate (mm/hour):	18mm Speed 1
Maximum nitrogen loading rate from effluent (kg N/ha/year):	150kgN/ha 3 applications/ paddock/year





Buffer Zones:	
Distance effluent must not be spread from (in metres)	m
Houses on the property:	40m Taylor House, Farm cottage
Neighbouring houses:	100m
Property boundary:	25m
Water bores and soak holes:	45m
Roads:	10m
Waterways:	15m
Farm dairy:	50m
Other (specify):	

Keep these in mind:	
Spread all liquid and solid effluent at appropriate depths and times to avoid effluent ponding or overland flows	
Apply effluent whenever possible to keep pond level low. Don't irrigate if it is raining.	
Ensure effluent is collected from all sources: dairy shed, underpasses, yards, feedpads	
Use effluent runs evenly so that nutrients are spread over the whole effluent block	
Consider odour impact during application	

Map of Owl Farm: hydrants, effluent lines, buffer zones and waterways



Key:

-  Buffer zone against roads, houses, Girls boarding
-  Drains or watercourses
-  Effluent lines
-  Effluent hydrants

Health and Safety

See separate Health and Safety plan



Hoses and wires in paddocks whilst riding/driving farm vehicles



Rotating boom on irrigator



Falling into the effluent pond



Breaking the crust on the pond releasing gas



Crush warning



Electricity at the pump



No heavy lifting





















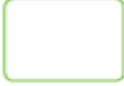
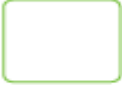

Unstable pontoons

Specific health and safety risks at Owl Farm

Keep pond gates locked

Put drag hoses against the fenceline of the next paddock when not in use

How we operate: See effluent SOP

Daily	Weekly	Annually
 Check the soil conditions are appropriate for irrigation	 Check irrigator operation and grease	 Train staff on operation and maintenance of system
 Check stormwater or wash water diversion is in the correct position	 Check effluent lines and hydrants for leaks	 Depth and rate test and calibrate irrigators
 Ensure irrigator is in the correct place for its application	 Check pond level	 Maintain irrigators, pumps, and effluent equipment
 Record effluent applications	 Check pumps are running correctly	 Clean solids out of storage
 Check for signs of ponding or overland flow	 Empty effluent stone trap	 Soil test for nutrients in effluent block
		
		

What to do if:	
<i>It is raining, or the soils are saturated:</i>	DO NOT run the irrigator, store in the pond
<i>The irrigator stalls, breaks down or blocks:</i>	Halo will stop the pump automatically, fix any issue asap after receiving the fault TXT
<i>The pump fails, or breaks down:</i>	Halo will stop the pump automatically, fix any issue asap after receiving the fault TXT
<i>No storage/storage is getting full:</i>	Apply in dry conditions unless absolutely necessary, use a higher speed if ground is wet
<i>The hydrant/pipe is leaking:</i>	Turn off the pump immediately and fix the issue asap

Recording of effluent application/irrigation:
S Drive: Demonstration farm data records\Data Records\2022-2023.xlsx

Emergency Contact Details:	
Farm contact person	Carl Hine: 027 226 9080
Effluent irrigation contact	Professional Farm Services 07 827 3591 Qubic Farm Services 07 871 6781
Electrical service contact	St Peter's On-Call Electrician 027 580 0332 Halo Helpdesk 0800 476 380
Pump service contact	Professional Farm Services 07 827 3591

	Qubic Farm Services	07 871 6781
<i>Milk supply company contact</i>	Fonterra	0800 656 508
<i>Regional council contact</i>	Waikato RC	0800 800 402
<i>St Peter's Health & Safety contact</i>	Anthonia Foster:	027 808 1934
<i>St Peter's COO</i>	Rob Campbell:	021 646 270