Application to install new Irrigation Systems

Company Name: **Lower Waitaki Irrigation Company Ltd**
PO Box 327
Oamaru 9444

Includes – Conversion from border-dyke to spray, new irrigation, upgrading of existing systems.

Applicant **MUST** contact and discuss the application with the Race Manager **BEFORE completing** this form.

Please complete this application form and return to LWIC for approval, make sure all sections are completed and relevant design documentation attached. Any incomplete applications will not be accepted and will delay the approval process.

Date of Application _____

Applicant Details:

LANDOWNERS NAME _____.

PHYSICAL ADDRESS _____.

POSTAL ADDRESS _____.

TELEPHONE HOME _____. MOBILE _____.

EMAIL _____

Application Type	Tick (Type)	Area Ha	No Shares
Conversion BDK – spray	□		
Upgrade system	□		
New irrigation system	□		

LWIC's policy on spray irrigation requires that all new irrigation systems are designed and installed according to the "Irrigation Code of Practice and Irrigation Design Standards". Systems must also comply with LWIC allocation limits.

- **Before construction starts:** Approval of system design. A 'design approval certificate' must be obtained from LWIC.

LWIC will carry out a design audit and may appoint an independent consultant to review the design if deemed necessary.

Irrigator Information

Please ensure that your designer is aware that LWIC may have your design checked by an independent consultant prior to approval.

Please ensure any newly irrigated land meets national environmental standard rules, talk to LWIC staff if you are unsure.

Design Audit

The design audit covers allocation, irrigation efficiency and environmental impacts. It does not involve an independent review of cost, durability, reliability, and maintenance requirements. The cost of this Audit will be covered by the landowner.

Designer Information

Water allocation and flow meters
LWIC shares are allocated on a per hectare basis, where 1 share corresponds to 1 ha of irrigation. Irrigators cannot irrigate more hectares than the number of shares they hold. The flow allocation per share depends on whether the land is new irrigation development or is being converted from border dyke to spray.
LWIC has 2 classes of share 'A' shares and 'B' shares. All new irrigation shares are 'B'class shares. Maximum instantaneous allocation rates can vary depending on location and soil types of individual properties as set out in the Aqualinc allocation guidelines for LWIC.

Table 1: Instantaneous flow allocation rate.

Description	Allocation L/sec/ha		
New irrigation 'B' shares	0.40		
Spray conversion from 16-day return border –dykes (A shares)	0.45	.50	.55

Designers should be aware of the number of shares that farmers hold and ensure that the irrigated area and the maximum instantaneous flow rate comply with LWIC requirements.

All systems require ECAN compliant electronic flow meters be installed at the point of supply from LWIC's distribution. This measures the rate and volume of water delivered to the property. The installation and cost of flow meters will be the shareholders responsibility. Flow meters will remain

the property of the landowner and will require calibration checks every 5 years at the cost of the owner.

LWIC will supply and install Telemetry data loggers on pump flow meters, these units will remain the property of LWIC all maintenance and running costs will be covered by the Company. Individuals will be given a personalised login and username to access pump flow data and place water orders.

LWIC Requirements

- Backflow preventors must be installed for any effluent application
- Effluent application no closer than 20m from an irrigation race and 50m from a waterway

Design Audit

Designers are required to submit the design information set out in table 2 to LWIC for review. LWIC may engage Aqualinc to review the information supplied, a 'design approval certificate will be issued once LWIC are satisfied that the system meets all the Company requirements.

Designers are also responsible for ensuring the system complies with any necessary land use/ or discharge consents and meets any other legal requirements such as permitted activity rules.

Designers must complete and return the LWIC Irrigation System Design Details spreadsheet which should include all of the information in the information checklist below.

Table 2: Design audit information checklist

Description	Included (tick)	N/A (tick)
Designer contact details	□	□
Location plan of farm	□	□
Plan(s) of irrigation system	□	□
Effluent/Fertigation/ chemigation - system	□	□
	Write value	
Instantaneous maximum water supply rate (l/s)		
Daily power requirements(kW-hr)		

Table 3: Design requirements checklist

Description	**Complies (tick)**
Irrigated area (ha) ≤ Number of LWIC shares	□
Maximum flow rate from LWIC distribution ≤ Table 1 allocation	□
magFlow meter included	□
Irrigation efficiency ≥ 80 %	□

Plan(s) of irrigation system should include:

(1) The point of supply from the LWIC distribution (generally located at the pump).
(2) Irrigated area clearly marked and total calculated.
(3) Location of mainline pipes and pumps.
(4) For centre pivots, pivot circles/ part circles/ extendable corner arms
(5) For travelling irrigators, hydrant locations and irrigator runs.
(6) K-lines, long laterals, solid set, and fixed grid hydrant locations.
(7) If applicable: - detailed map showing application area of effluent/chemigation /fertigation.

Ideally, irrigation plan(s) should be overlaid over an aerial photograph or topographic map.

General Conditions:

1. **The point of take and engineering for such has been approved by the LWIC Race Manager.**

2. **The Company will carry out a health and safety evaluation on the proximity of pump intakes to irrigation structures prior to work being undertaken.**

3. **The operator of the spray irrigation system will be required to place water orders online in regard to starting and stopping of spray irrigation so as to enable race operators to distribute water effectively and efficiently when and where as required. Spray irrigation is only more efficient if we do not run excess water past your turn out that cannot be captured and is lost to the sea.**

4. **It is a compulsory requirement that all spray irrigation systems that incorporate the application of fertiliser's, chemical or effluent have a back-flow prevention valve installed to avoid contamination of company races. All technical data on back flow prevention valves must be supplied to LWIC with the application form.**

5. **A farm Environmental plan will be required. (This will be a mandatory requirement for all shareholders from 2015).**

I _____ of _____Agree too and accept the above general conditions of this application.

Signature _____ Date / /

Please contact LWIC's Race Manager, Michael Lane on 027 220 2172
or email racemanager@lowerwaitakiirrigation.co.nz if you have any questions or require help to complete this application form .