

Summary of Draft HIPT Best Practices Agreement

The Hurunui Irrigation and Power Trust has developed a draft best practices agreement, which farmers will need to sign up to if they want water from the Project.

The agreement spells out a number of obligations the water user needs to meet.

The thrust of the agreement is to ensure farming practices minimise negative environmental effects. The Project recognises that water is a key resource for the region and that a best practices agreement will ensure water taken by the Project and its shareholders is used efficiently.

The obligations to safeguard the environment include the below requirements:

1. Irrigation Systems.

Any irrigation systems are to be designed by accredited irrigation designers, taking into account the large variation of soil types in the irrigable area from stony silts to heavy loams. Efficient irrigation systems are to be installed, in particular low pressure Centre Pivot or Lateral systems, and other systems like K-line, Long line, Fixed Sprinkler and Rotorainers.

Efficient irrigation systems will ensure that:

- There is enough water for all the users on the scheme
- There is uniform application of water minimising over watering, which reduces leaching to groundwater
- Farmers get the best return for water used resulting in less pumping costs.

2. Efficient Use of Water.

The HIPT will promote education and training via courses and field days to minimise over watering, and encourage the use of new technologies like neutron probes or similar devices to supply accurate information on moisture levels in the soil profile. The benefit to farmers in using such technologies will outweigh costs by reducing pumping time.

3. Minimising and Identifying Environmental Effects.

The application of irrigation to land may potentially affect groundwater quality. The primary environmental effects of concern from land use intensification is the potential increase of nitrate-N leaching into groundwater and runoff phosphorous to surface water bodies.

The HIPT will promote a number of measures to manage and reduce the levels of nitrate leaching and phosphorous losses.

The measures which HIPT will promote include, but are not limited to, the following:

- Matching N and P fertilizer to meet plant demand;
- The use of Nitrification inhibitors which can improve the soil N cycle efficiency and reduce nitrate leaching losses.
- Use of nutrient budgets and models to guide N inputs;
- Minimising irrigation erosion and run-off thus reducing soil bound P moving off the site;
- Adopting strategies that maintain soil structure and protect the soil surface to minimize P losses;
- Adoption of the principles of the Dairying and Clean Streams Accord best practices. The five broad elements of the accord are that dairy cattle be excluded from larger streams, that regular dairy crossings are bridged or culverted, that all dairy farmers comply with resource consent or permitted activity standards, that all dairy farmers carry out nutrient budgeting, and that all regionally significant wetlands on dairy farms be fenced out. These have been formulated to promote sustainable dairying;
- Encourage the adoption of fertiliser code of practice at the individual level embracing the fertiliser quality assurance schemes Fertmark and Spreadmark.
- Take all necessary steps to minimise run-off from property back into the Scheme Supply Race or any river, contributory or waterway;
- Correctly managing the application of dairy effluent onto the land;
- Riparian – leaving a buffer of uncultivated vegetation beside streams to filter any runoff following Environment Canterbury guidelines
- Education and training in techniques to minimise nutrient losses, via courses and field days.
- Control or eliminate noxious weeds growing along supply races passing through their properties.
- Not to permit the discharge chemicals, effluent, dead stock or other toxic matter into any water race.
- Allow the HIPT staff ready access at all times to the easement or access strips.

Additionally, the agreement encourages spray irrigation only. Borderdyke irrigation is acceptable where there are existing borderdyke systems in place. When farmers sign up to the agreement, land that is not irrigated or spray irrigated, will not be allowed to be converted into borderdyke irrigation.