

LAKELAND FARM: "IF YOU'RE AWARE, YOU CARE"



The Hayes' farm encircles Lake Kaituna which was once almost completely covered in willow. Photo: Monica Peters

THE HAYES' 88 HA DAIRY FARM LIES IN THE HEART OF THE WAIKATO PEAT LANDS AND BORDERS 2 PEAT LAKES. RESTORING THE WETLANDS SURROUNDING THE LAKES HAS BEEN A MAJOR FOCUS OF THE HAYES. AS THE RESTORATION HAS EVOLVED OVER THE LAST DECADE, SO HAS THE HAYES' MANAGEMENT OF THEIR FARM. PRACTICAL ON FARM CHANGES THE HAYES' HAVE MADE ALLOW THEM MORE RESOURCES FOR THE RESTORATION, THE RESULTS OF WHICH BENEFIT BOTH THE FARM AND THE ENVIRONMENT.

LAKE STATS

Lake Kaituna ("B") 22ha and Lake Komakorau ("C") 8ha

Status: Horsham Downs Government Purpose Reserve - Wildlife Management (DOC administered)

Recreational uses: duck shooting and koi carp hunting (widespread pest fish). Walkway around both lakes (access from Bankier Rd)

WAIKATO PEAT LAKES: UNIQUE, BUT TROUBLED

Waikato peat lakes – of which there are more than 30, are a unique feature of the region. In their original condition, they provided habitat for specialised plants, animals and insects adapted to very low nutrient and acidic conditions. Today, the majority of the lakes are severely degraded – Lakes Komakorau and Kaituna were good examples. By 1981, both lakes were choked with dense stands of grey and crack willow. During downpours, surface water ran straight through the willows and into the lake. There was little undergrowth and what remained was trampled by stock. As well as pugging the soft peaty soil, wandering stock risked getting stuck – and when they did, rescue meant using a block and tackle to haul them out. Ducks

browsed on the paddocks for lack of food inside the willow stands. Native wetland vegetation was sparse only surviving in small pockets. Seeing the lake deteriorating spurred the Hayes family into action.

RESTORATION – THE BEGINNINGS

A care group made up of the Hayes, Department of Conservation and Environment Waikato staff, duck shooters and friends was one of the starting points for on ground action. Members have carried out considerable voluntary work including fencing, pest control as well as clearing 16ha of willow and a host of other weeds such as blackberry. Lake restoration takes persistence and dedication: the willow alone took 7 years and over a thousand chainsaw hours. The total cost of restoration (estimated at \$60,000) was made up of contributions from landowners, the Department of Conservation and Environment Waikato.



Like the majority of Waikato peat lakes, Lake Kaituna is situated in a farmed catchment. The willow partially covering Lake Komakorau (left hand side) has now been removed. Photo: Environment Waikato

RESTORATION – THE BENEFITS

The fenced and restored wetland areas provide food and shelter for nesting to increasing numbers of native and game birds. Enhancing the sponge-like function of the wetland area (by allowing native sedges, rushes and shrubs to naturally regenerate) has resulted in higher soil moisture levels in the adjacent paddocks over summer which has led to higher productivity. By contrast in the winter, the paddocks are less wet due to the water retention abilities of the wetland vegetation.

BEST MANAGEMENT PRACTICES

“Farming to the lake.”

The Hayes approach to farming incorporates a range of best practices to maximise production while taking care of the lakes. The stocking rate of 300-320 dairy cows has remained the same despite retiring 5ha for wetland regeneration and restoration. Milk solids: 1100-1200 kg/ha. A run off was recently purchased.

With the willows removed, natural regeneration of native plants has been surprisingly rapid. Photo: Environment Waikato



NUTRIENT MANAGEMENT

The Hayes' have reduced nutrient inputs (and consequently nutrient loss): Nitrogen fertiliser use has dropped from 150kg/ha N (2004) to 0-30kg/ha (2007) and Serpentine super phosphate use has dropped from 900kg/ha (2004) to 650kg/ha (2007). The latter is applied in December for better utilisation of nutrients and less run off.

- Nutrient budgeting is carried out annually to balance inputs and outputs
- Soil testing is carried out annually to maintain optimum nutrient levels
- Nitrogen leaching is minimised through irrigating effluent over the whole farm instead of 12ha, and keeping wide margins on drains and the lake. Effluent application depth is monitored

“COMMON SENSE” FENCING

All drains and the lakes are fenced. Andrew strongly disagrees that boggy areas are good for summer grazing as these areas often produce low quality and weedy feed. Fencing off wet areas means no more bogged down stock and no nutrients wasted in areas of low productivity e.g. under willows. With areas of low productivity retired, nutrients are targeted on higher productivity areas.

DRAIN AND PEAT MANAGEMENT

- Drains are shallow and wide as opposed to narrow and deep to slow down rates of peat shrinkage
- A grass sward enables capture of nutrients and sediments before entering the drains
- Planting along drains shades the water, preventing nuisance aquatic weed growth
- Drains are cleared only when necessary - mostly with herbicide and only occasionally mechanically
- All drains have sediment traps and pass through vegetation “filters” (e.g. sedges) before entering the lakes
- Stocking rates are moderate to avoid compaction and pugging

Some drain margins are grassed while others incorporate walking tracks and native plantings. Photo: Monica Peters

Further reading:

Guidelines for Landowners in Peat Lake Catchments. To order a copy, contact 0800 LANDCARE or download one from the website: www.landcare.org.nz