



### Rangitata South Irrigation

#### SCHEME COMPONENTS

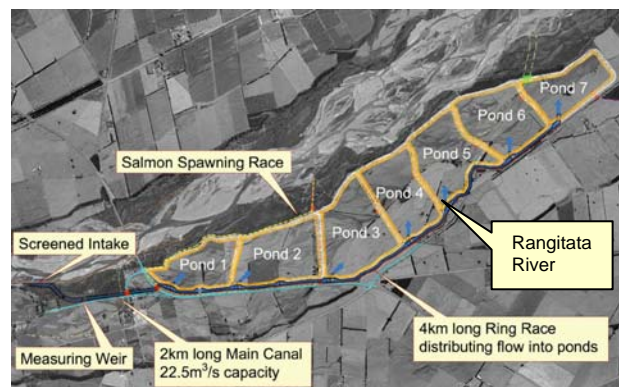
The Rangitata South Irrigation scheme will capture flood waters from the Rangitata River, in the South Island of New Zealand, and store it in the biggest storage facility for irrigation in New Zealand. The scheme comprises a screened intake, a 22.5m<sup>3</sup>/s capacity main canal, 7 off-river storage ponds with total capacity of 16.5 million cubic metres. Water can only be drawn from the river in times of flood, making scheme hydraulics a key aspect of design. The other major challenge has been developing a lining for the ponds that meets the economic requirements of the project.

#### THE SERVICE

Damwatch designed storage to enable irrigation of 12,000 hectares with flood water from the Rangitata river and storage pond capacity sufficient to regulate irrigation supply.

#### DAMWATCH SERVICES

- Specify and interpret geotechnical site investigations
- Undertake design for intake, canals and ponds
- Prepare quantities for cost estimating
- Prepare application and supporting information for Building Consent application
- Construction monitoring and design adjustments to suit site conditions



### Carew Ponds

#### SCHEME COMPONENTS

Mayfield Hinds Irrigation Ltd (MHIL) operates the Mayfield Hinds Irrigation Scheme that irrigates 32,000ha between the Rangitata River and Hinds River in mid Canterbury. Off-stream irrigation water storage is required to supplement irrigation supply when supply is restricted due to low flow in the Rangitata River. Damwatch contracted with Rooney Earthmoving Ltd to design and construct storage and associated works to enhance efficient operation of the Mayfield Hinds Irrigation scheme.

Presently Mayfield Hinds is a “run of river” scheme which is subject to restrictions under resource consent conditions. The proposed storage ponds will provide storage capacity in times when supply is greater than irrigation demand and conversely stored capacity when irrigation demand is greater than supply. The storage ponds will form an integral part of the Mayfield Hinds irrigation scheme

#### THE SERVICE

Damwatch designed storage ponds, associated inlet and outlet facilities and control system to regulate inflow and outflow.

#### DAMWATCH SERVICES

- Specify and interpret geological site investigations
- Design inlet and outlet facilities and storage ponds
- Prepare quantities for cost estimating
- Prepare application and supporting material for Building Consent

