



Damwatch Engineering Newsletter, May 2016

Clyde Dam

Welcome to Damwatch News

Damwatch has had another busy and challenging period in the first few months of 2016. We are delighted to bring you this update of interesting projects that we have been helping our clients with in the last few months. However, some of the projects we have worked on are sensitive and we are unable to include in our newsletter at this time.

Highlights of this newsletter include:

- Clyde Dam CSR
- Carew Ponds Dam Safety Inspection
- USSD Conference – Denver, USA
- Irrigation Conference – Oamaru
- Brooklyn Wind Turbine

Carew Ponds Annual Inspection

The Carew Storage Ponds designed by Damwatch on the Mayfield Hinds Irrigation Scheme had their first annual inspection this year, and are performing well. The storage provided surety of irrigation supply this first year which was a dry one. There was no restriction on supply to farmers this first season of operation which never happened prior to operation of the Ponds.

The ponds were completed under a design-build contract led by Rooney Earthmoving Ltd, with dam design provided by Damwatch, and NIWA for design and installation of the control system. On the 1st of October 2015, management of the ponds was formally handed over to Mayfield Hinds Irrigation Limited.

For more information on irrigation contact Steve.McInerney@damwatch.co.nz.

Clyde Dam Comprehensive Dam Safety Review (CSR)

Damwatch staff Peter Amos and Jonathan Harris recently completed the Clyde Dam 5 yearly Comprehensive Safety Review (CSR). The dam on the Clutha River, near the town of Clyde, in the South Island, New Zealand is a 105m high concrete dam impounding Lake Dunstan. It is New Zealand's largest concrete dam and well known in the dam community for its unique vertical joint above a fault in the dam foundation.

Several Damwatch staff have a long history with the Clyde Dam, including the design of the dam, in particular spillway, dewatering sluice, seismic joint and investigation and design of the reservoir landslide remediation.



Above: Nigel Connell at Carew Ponds opening ceremony



Left: Carew Ponds
Photo credit to Rooney Earthmoving Ltd.

USSD Conference – Denver, USA

Damwatch's Brian Benson presented a technical paper "Don't Judge a Rockfill Dam by its Name Alone" at the USSD Conference in Denver in April. The USSD conference gathers leading dam engineers from the USA and internationally to share knowledge and new developments in dam engineering.

The paper describes an interesting project where a dam that for its entire life has been presumed to be a rockfill dam, once investigated, had to be recharacterised as an embankment dam. The paper explains how expected performance of the re-characterised dam has changed dramatically.

If you need dam safety or engineering advice about an embankment dam, or want a copy of the paper, contact Brian.Benson@Damwatch.co.nz.

Dam Safety Course – 2016

We're taking expressions of interest for our Dam Safety Course in Wellington. Traditionally we hold this course every two years, however there has been a lot of interest so we're looking at holding a course between July and December 2016.

The course is held over two days with over 10 specialist presenters. Topics covered include NZSOLD Guidelines and Health and Safety at Work Act duty of care, Dam Safety Management Systems, Dam safety governance and support. If you are interested in attending or would like more information, contact

Laessa.Robson@damwatch.co.nz.



Brooklyn Wind Turbine

Congratulations to Meridian Energy on the successful replacement of the iconic Brooklyn wind turbine on Polhill in Wellington.

Damwatch were involved in providing construction advice and supervision during the construction of the turbine foundation. The existing anchored foundation was replaced with a new 12.5m diameter gravity foundation to support the impressive Enercon turbine which is already filling the void in Wellingtonian's lives since the previous turbine was removed late last year.

We have team members who were involved in the construction of the Te Apiti, West Wind and Mill Creek wind farms and are still involved in the ongoing asset management of these and Meridian's other wind farm assets.

For more information about wind farm construction or asset management, contact Damon.Simmons@damwatch.co.nz.

For more information about the Damwatch Engineering Team's capabilities, contact Steve.McInerney@damwatch.co.nz.

Irrigation Conference Oamaru – April

Brendan Paul and Nigel Connell attended the Irrigation conference in Oamaru in April. The conference was well attended by a wide range of people involved in the irrigation sector. Brendan and Nigel enjoyed catching up with some friends of Damwatch and meeting new potential clients and partners.

Staff Update

Damon Simmons has returned to Damwatch after 5 years away. Damon has more than 20 years' experience in civil engineering infrastructure delivery (including 6 years previously at Damwatch). He returns to our Engineering team as a Principal Civil Engineer.



Katarína Šebánová has taken 12 months off to spend time with her family in Slovakia. We look forward to Katarína returning in March 2017.



Peter Campbell after 17 years at Damwatch has retired.



Peter started with Damwatch at inception in 1999 when we were formed from the split of ECNZ. Peter was part of our Dam Safety and Surveillance Team. We wish him well with his future endeavours – a lot of gardening in Khandallah!

If you have any general enquiries about any of your projects or services we offer please contact **Malcolm Young** on +64 4 381 1300 or Malcolm.Young@damwatch.co.nz.

Thank you for your on-going support this year
Kind regards,

Peter Amos
Managing Director.



DAMWATCH
ENGINEERING BEYOND THE SURFACE