

Damwatch Engineering Newsletter, December 2015

Welcome to Damwatch News

Damwatch has had another busy and challenging year in 2015. 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:

- Instrumentation team update – Waitaki Dam
- Greater Wellington Regional Council Hutt River Floodplain Management Plan
- Announcement by Prime Minister (Rt Hon John Key) of the Five year Dam Safety Project in Viet Nam
- Mekong River Commission Dam Safety presentation in Laos
- Dam Safety Course in Wellington

Instrumentation Update – Waitaki Dam

Damwatch instrumentation specialists have been busy installing vibrating wire piezometers at Meridian Energy's Waitaki Dam to enhance the monitoring of uplift pressures below the structure. Damwatch have been working for the main contractor, March Construction Ltd, installing the piezometers in drillholes up to 20m deep and drilled in challenging conditions from the galleries running through the dam. Our instrumentation team has developed a smart tool capable of installing the piezometer and surrounding filter pack at the target depth in a single operation.

If you would like more information on Instrumentation at Damwatch, contact [Tony Harker](#).



Hutt River Floodplain Management Plan Hutt River City Centre Upgrade, River Corridor options

Damwatch has had the opportunity to be involved in investigating river improvement and corridor options for the City Centre reach of the Hutt River flood protection scheme.

Damwatch assisted with the development of feasibility options and their integration with city redevelopment, roading, bridging, transport and the river environment.

Following refinement two integrated improvement options were endorsed by The Hutt Valley Flood Management Subcommittee, Hutt City Council and NZ Transport Agency. The two options were approved by Greater Wellington to take to community consultation.

Option A was strongly supported by the community and was formally recommended by the submissions hearing panel to the next stage. Option A comprises an improvement that will be completed as one project and provide a long term hedge against climate change. Option B comprised a staged implementation with a window where the impacts of climate change would be monitored. Both options involve significant land purchase. The deferred property impact arising from Option B influenced the recommendation for Option A.

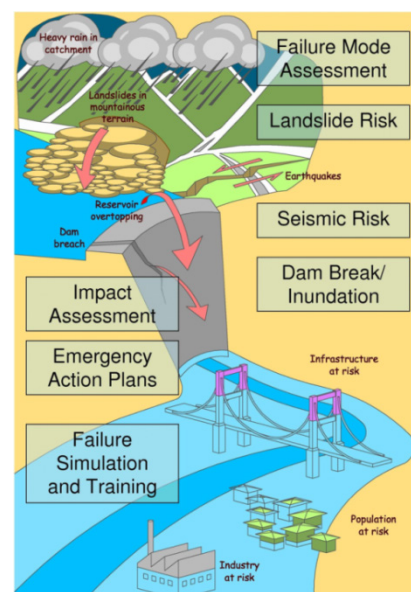


Failure of the current City Centre reach during a 1-in-440-year flood could cause up to \$1.1b in damages if the bank burst on the city side of the river, with 2111 houses and 462 commercial properties likely to be flooded. Similar damage would occur during a breach on the right bank. See www.gw.govt.nz/hutt-cbd-flood-protection-scheme-takes-a-step-closer/ for more detail on the project.

For more information on River Engineering, contact [Brendan Paul](#).

Five year Dam Safety Pilot Expansion Project in Viet Nam

During his recent visit to Viet Nam, Prime Minister John Key announced that NZAid would fund the five year Dam Safety project to protect communities and the environment from dam failure or catastrophic releases in the third largest river basin system in Vietnam. This is an extension of the pilot project conducted over the last three years with GNS Science and the Water Resources University in Ha Noi.



To read more about the announcement and other development initiatives discussed, see our website, www.damwatch.co.nz.

Mekong River Commission Dam Safety presentation

Damwatch and GNS Science, presented at the Sustainable Hydropower Planning Forum of the Mekong River Commission in Vientiane Laos in November.

Their presentation covered Dam Safety, and the whole of river basin approach developed in Viet Nam. The two day meeting was attended by officials from Thailand, Laos, Viet Nam, and Cambodia, with observers from China and Myanmar, as well as international Consultants.

The Mekong River Commission (MRC) is an inter-governmental agency that works with governments from Cambodia, Lao PDR, Thailand, and Viet Nam on joint management of shared water resources and sustainable development of the Mekong River. Established in 1995, the MRC aims to ensure that the Mekong water is developed in the most efficient manner that mutually benefits all Member Countries and minimises harmful effects on people and the environment in the Lower Mekong Basin. Damwatch started working with the MRC in 2014, and looks forward to developing our working relationship.

For more information on the work Damwatch does with the Mekong River Commission or the Dam Safety whole river basin approach that was developed in Viet Nam, contact [Rebecca Knott](mailto:Rebecca.Knott@damwatch.co.nz).

Dam Safety Course – October 2015

Damwatch Engineering ran our biennial Dam Safety Course in mid-October. We were pleased to host attendees from numerous organisations including assets owners, city councils, electricity generators, water suppliers and consultants. We were pleased to host an attendee from Australia.

The 16 presenters covered a wide range of topics over the two days, including legislative requirements, the new NZ Dam Safety Guidelines, developing and implementing Dam Safety Management Systems, and managing dam safety issues and risks.

We run customised courses on demand, if you are interested, contact [Rebecca Knott](mailto:Rebecca.Knott@damwatch.co.nz) on +64 4 381 1300.

We expect the next public course to be in 2017 in Wellington, to receive early notification emails contact [Rebecca Knott](mailto:Rebecca.Knott@damwatch.co.nz).



Technical Paper Presentation at the 6th International Conference on Earthquake Geotechnical Engineering

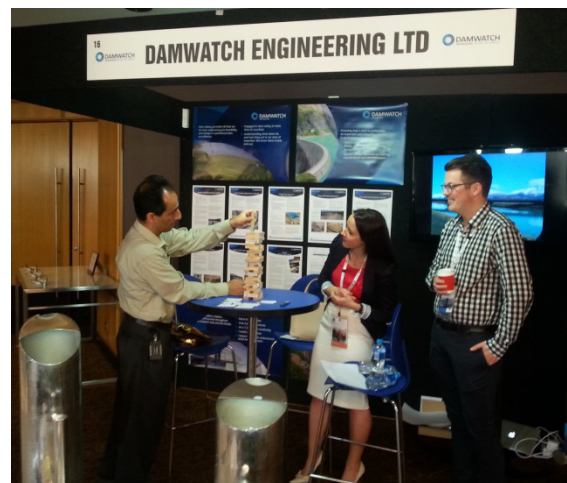
Jonathan Harris presented a paper based on his experience in seismic dam design and construction. This paper was co-authored with Dick Davidson of AECOM, Denver, USA.

If you would like more information regarding seismic risk reduction methods for dams or a copy of the full paper, contact [Jonathan Harris](mailto:Jonathan.Harris@damwatch.co.nz), on +64 4 381 1300.

ANCOLD Conference, Brisbane, November 2015

Damwatch had a visible presence at the annual ANCOLD conference in Brisbane Australia. Damwatch invited attendees to stop by our trade stand and battle it out over games of Dam Jenga tower building. The conference was of high quality with a number of thought-provoking presentations and papers.

The team enjoyed meeting a number of people for the first time and catching up with long-time friends of Damwatch.



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.

One focus in 2015 was succession planning and team expansion. We have been thrilled to introduce several new staff, at a variety of career levels, to our team as we continue our succession planning and team diversification. Our new staff have hit the ground running and slotted in to the Damwatch family really well. If you haven't already spoken to or met Rick Scott (ex-USBR), Malcolm Dow (from Coffey Geotechnical), Alex Duwell and Erin Poirot (formerly of Sunwater), I'm sure you will soon.

The team have been kept busy with the new Health and Safety at Work Act being finalised in New Zealand. The new Act will include Safety in Design requirements which we are already preparing for.

We wish you and your family a safe and relaxing end to 2015. We look forward to working with you again in 2016.

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

Peter Amos
Managing Director.