



STEP UP OR STEP OUT

One morning, I was having a discussion with a younger engineer whose office was near mine. He was equipped with all of the needed skill sets for success, except that over time, he had become a disengaged employee, someone that did enough to “get by”. He had lost the motivation to be a valued contributor and was no longer driven to excel.

The employee’s manager was initially reluctant for me to talk with him, but relented when no ground was gained in energizing his considerable potential. I met with him first thing in the morning. The day’s distractions had yet to arrive and quiet conversation seems to flow more smoothly early in the day.

When possible, I find it good to work towards self-correcting scenarios. Conversation started with discussion of his considerable talents, and how he could leverage those talents to be both more satisfied with his work and be more valued by the company. Discussion moved towards attitudes towards work and Schnabel’s base line expectation of engaged employees; people that focus not on meeting minimum job requirements, but excelling by contributing to the betterment of our clients, our company and our profession. If he expressed a willingness to step up his workplace commitment, I committed to work with him to create opportunities that connected with his talents and interests. As an aside, I added that if he really didn’t want to reconnect with his engaged self, it’s easier to find a job when you have one.

I closed the discussion with chorus lyrics from a recent CD my daughter had given me: *“Do you care to be the layers of the bricks that seal your fate, or would you rather be the architects of what we might create.”*¹ I added that I hoped he’d elect to be a fellow “architect”. About a month later, he told us he had found another job. It wasn’t the outcome I would have preferred, but it was self-correcting. Given the opportunity to step up, he made the decision to step out.

In a broader perspective, according to Gallup polling, the U.S. has one of the most engaged work forces worldwide. For US workers, about 30% of all employees are ‘engaged’, with 50% ‘disengaged’ and 20% ‘actively disengaged’. Actively disengaged means doing enough to get by, but also seeking opportunities to actively undermine their employer. I know that Schnabel does far better than these averages, and I believe this is also true of the vast majority of our

readers’ organizations. Gallup notes that most people begin new jobs as engaged employees. Some of them have a natural tendency to slip towards disengagement over time, but disengagement is also a reflection of the workplace environment.

Not surprisingly, engagement is a two-way street, with employers and employees both responsible for developing and maintaining a quality workplace. It is vital for employers to create a workplace that supports engagement through positive personal interactions, regular contact, appreciation, and active listening. As employees, we need to tangibly support and enrich our workplaces by making them more friendly, focused, creative and cooperative. Many studies conclude that happier and more collaborative workplaces reduce stress, increase production, and open more paths to opportunity. Engaged employees are the primary source of success for an organization and, with a critical mass of engaged staff, many disengaged employees will be enticed to shed their detachment and join the party. I believe Schnabel has attained a critical mass of engaged employees, and it’s awesome.

Engaged employees are integral to any organization’s success. The disengaged are relatively neutral but, given a supportive environment, they may be guided into engagement. Actively disengaged employees are harmful and have no place in our workplaces! All of our organizations need to support elevated levels of encouragement for both the engaged and the disengaged. In doing so, we reinforce regard for our engaged employees, and we attract some of the disengaged to be inspired to “step up”, and be provided with the support to get engaged. If, when encouraged to engage, they choose not to step up, by definition, they aren’t tangibly contributing to your organization’s success. Also, they are taking the seat of a potentially engaged employee. Finding a solid, engaged candidate and exchanging positivity for resolute disengagement shouldn’t be too difficult of a decision.

***It pays to treat employees well –
To succeed, we need them engaged.
Staff usually endorse sincere support,
At times, it’s best to turn the page.***

¹Architects, Endgame, Rise Against ©2011

KEEPING YOUR GATES ABOVE WATER

Paint peels. Steel rusts. Concrete cracks.

Deterioration of spillway gates at dams is inevitable. As gates age, the need for inspection, maintenance, and repairs increases. These types of activities are usually best performed when the gate bays are dewatered. Gate maintenance, inspection, and repairs are typically better performed in the dry due to reduced cost, improved quality, and enhanced safety.

As the new \$900 million auxiliary spillway at Folsom Dam in California is set for initial filling in Fall 2016, it was the 1995 Folsom Dam tainter gate failure that serves as a reminder of the importance of gate maintenance. The gate failed as it was being opened due to corrosion induced friction in the trunnion hub, adding bending moment that, in turn, triggered a cascade of structural element overstressing, leading to gate failure. This caused an uncontrolled release of 40,000 cfs of water and loss of 40% of the reservoir. [Click for video.](#)



Photo by Bureau of Reclamation



Many older dams, especially ones with large spillway gates, were not constructed with provisions for dewatering single gate bays to perform inspections and maintenance. Increased need for gate inspection and maintenance along with lost profits from extended reservoir drawdowns has owners looking to alternative methods to do necessary work in the dry.

Solution: Maintenance Closure Structures (MCS)

MCS are a means to dewater (isolate from the reservoir) a portion of a water retaining structure, typically a gate. MCS are usually bulkheads, cofferdams, stoplogs or similar closure devices that enhance access for personnel and equipment to improve the quality of inspections, maintenance and/or repairs.

Common factors to consider when selecting a MCS: Enhanced Personnel and Project Safety / Reduced Activity Time and Recurrence Frequency / Improved Work Quality / Reduced Life Cycle Costs

The following are examples of some types of MCS:



Bulkheads

Bulkheads are fabricated and deployed as single, full-size steel structures, lifted by large cranes and typically bear in slots in the concrete piers and may be installed within a few hours as a single unit. (Photo by Reclamation/USACE)



Rolling Bulkheads

Similar to barn doors or hanging partitions, rolling bulkheads are one-piece steel structures that are mounted on rails and, at the push of a button, can be deployed to any bay along the length of the spillway. [Click for video.](#) (Photo by USACE Little Rock District)



Segmented Floating Bulkhead

Segmented floating bulkheads operate like an overhead garage door, rolling up and down as operators change the buoyancy of individual segments.



Floating Needle Beam Bulkhead

Narrow, vertical "needle" beams are floated in and attached to horizontal header beam. [Click for paper.](#)



Inflatable Gates

Inflatable rubber dams inflate with both water and air at preset flood levels, then deflate when flood waters recede.



Stackable Concrete Blocks

Concrete blocks are stacked on steel center posts and are lifted by crane into place as a full-height single stack. (Photo by USACE Louisville District)



Needle & Infill

A series of steel panels as infill between vertical H-beam needles are floated in. This design accommodates variations in reservoir elevation once installed, as the header beam supports the entire weight of the bulkhead. This concept works well for relatively small-to medium-sized bays. [Click for paper.](#)



Stoplogs

Full-length stop logs, originally wooden logs and now more commonly steel or concrete, are stackable horizontal spanning members that extend the full distance between spillway piers or canal sidewalls.

For more types of maintenance closure structures, details, and case studies, check out the following links:

- [State-of-the-Practice Review of Maintenance Closure Structures for Large Spillway Gates](#)
- [ERDC/GSL TR-10-44 Emergency Gap Closures](#)
- [ERDC/CHL TR-12-8 Emergency Closure of Uncontrolled Flow at Locks and Dams](#)
- [REMR-CS-63 Rehabilitation of Dams: Case Studies](#)



Announcements

Contact

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SCHNABEL WELCOMES...

Jonathan Harris

Jonathan joins the firm as National Practice Leader for Risk Services. Jonathan's early career was with the U.S. Bureau of Reclamation. He recently spent several years with Damwatch Engineering Limited in Wellington, New Zealand. Jonathan brings expertise in dam and levee engineering, geotechnical and seismic engineering, risk-based decision making, potential failure modes analysis, and instrumentation logistics & performance. Jonathan will work out of our Greensboro, NC office.

John Logigian

John joins the firm as a Senior Associate in our Morristown, NJ office. He has proven experience managing large levee, flood risk reduction, and civil works projects for the U.S. Army Corps of Engineers and other federal agencies. John was Civil Works Project Manager for a \$50M flood risk reduction program for the New Orleans District following Hurricane Katrina.



Cobbs Creek Regional
Water Supply Reservoir Project

To be advertised for construction bid process in October 2016

- Embankment dam approximately 5,000 ft long and up to 160 ft high
- 150 mgd intake, diversion pumping station and pipeline from James River

UPCOMING CONFERENCES

If you will be attending, look for us there!



3rd European Conference on Flood Risk Management: Oct. 17-21, 2016 | Lyon, France

Explore research advances in flood risk analysis and innovations in flood risk management practice – consider all aspects of flood risk and will cover the causes of floods, their impacts on people, property and the environment, and portfolios of risk management measures



ICOLD National Committees of the Americas (INCA) 2016 Conference: Oct. 26-28, 2016 | Mexico City

Recognized leaders in dam safety will present and lead discussions on Dam Safety Regulation and Legislation, Overtopping, Earth and Rockfill Dam Safety, Hydraulic and Hydrologic Design, Seismic Design, and Risk-informed Dam Safety

RECENT CONFERENCE SUMMARIES

ISHS 2016 – 6th International Symposium on Hydraulic Structures: June 27-30, 2016 | Portland, OR

ISHS was a valuable learning and networking event for practitioners and researchers, co-sponsored by IAHR and the U.S. Society on Dams. It attracted 136 participants from 18 countries (five continents). Click [here](#) for symposium details and publication downloads.

Protections 2016 – 2nd International Seminar on Dam Protection Against Overtopping: Sept. 7-9, 2016 | Fort Collins, CO

This seminar brought together leading experts from practice, research, development, and implementation for two days of knowledge exchange followed by a technical tour of the Colorado State University Hydraulic Laboratory with overtopping flume and wave simulator. Click [here](#) for more information.