

13. CPMO Risk Management System Innovation

Situation

In order to deliver recognisable benefits through the management of risk and contingency budgets NI Water developed an innovative Risk Management System in a digital platform. This system was necessary to manage risk and contingency budgets across NI Water's Capital Works Programme and regulatory Price Control Periods as well as efficiencies and long-term capital savings. It was recognised in the Risk Industry as a best in class Risk Management System at the Continuity Insurance & Risk (CIR) November 2019 Awards for best in Public Sector Risk Management.

Action

During PC15, NI Water CPMO, CPMR Systems Team and partners Turner & Townsend pioneered the innovative use of technology and industry best practice when developing the Capital, Procurement, Monitoring and Reporting (CPMR) Risk Management System. The resulting (CPMR) Risk Management System uses technology to standardise the management of risk and contingency budgets at NI Water.

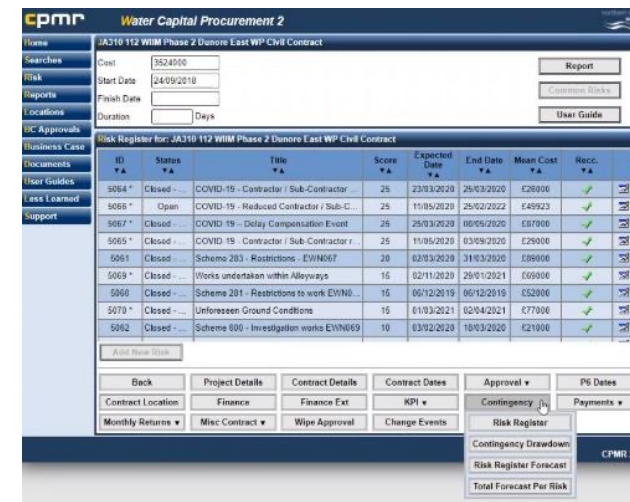
The Risk Management System is designed to support the following:

- A common tool for identifying, analysing, evaluating, treating and reporting on project risks
- A proven methodology for setting appropriate levels of risk contingency within projects
- A method of controlling contingency budgets
- The ability to forecast contingency spend against current risk exposure
- The ability to monitor contingency spend to maximise volume of work that can be undertaken by reallocating any unspent contingency into future projects.

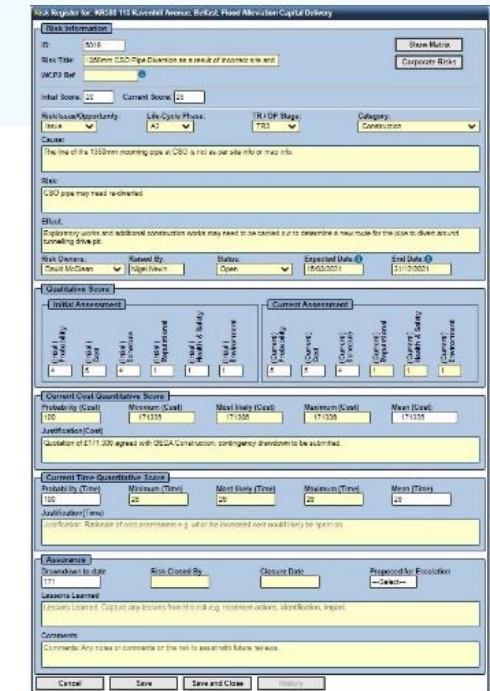
Results

The digital platform met all the challenges listed above and it has yielded impressive cost savings that have been allocated in the development of new projects. The benefits realised from the direct implementation of the system are:

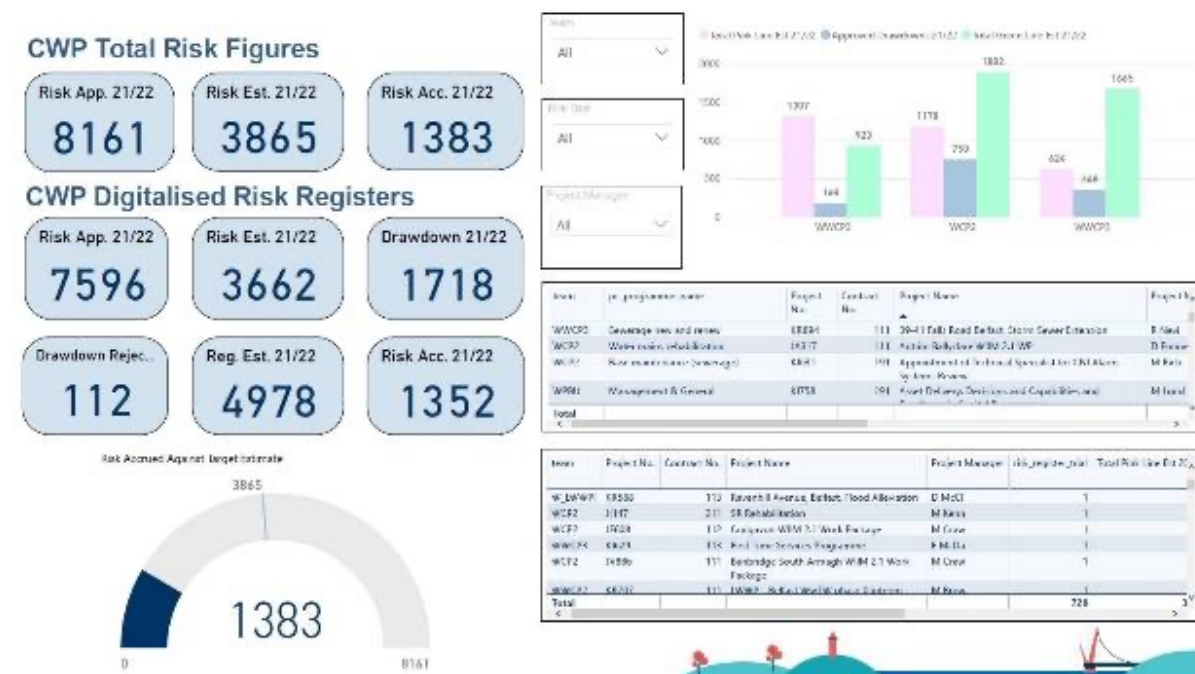
- The implementation of a contingency drawdown process has generated savings of £808k in 19/20, which is based on contingency requests that have been rejected as they do not link directly with risk events.
- Managed Covid pandemic liabilities through risk management from potential of £13M to outturn at £6M;
- Capital savings of £358k and an annual operational saving of £39k - efficiency achieved by utilising internal NI Water software developers and digital systems when compared against the cost of purchasing an off the shelf equivalent from an external software provider (costs based on quotes from 2 external suppliers).
- £5.2M risk efficiencies achieved since 2018 and is on track to deliver a further £3M in this financial year.
- Live for PC21 projects - Full adoption of the new processes since 2019, anticipating further ongoing efficiency contributions from risk management implementation.
- Improved reporting and live data analytics.
- An NEC CPMR Change Event Register that records and tracks the lifecycle of an Early Warning change event through to Compensation Event completion and final outturn costs.
- An Oracle Primavera P6 scheduling tool to enable the NI Water Risk & Value team to undertake Quantitative Risk Assessments, from a cost and schedule perspective, on major capital projects.



Example - Risk Register Section in CPMR



Example - Completed Risk Form



Example - Risk Management Dashboard