

KBR is a leading provider of engineering, construction and project management services, with a global reputation for reliability and technical excellence, and an unswerving commitment to workplace safety.

As engineering designers we are at the forefront in helping to improve the communities we serve, incorporating safety and sustainability factors into the planning, design and construction of our work.

Our aim is to build a healthier and safer world—meeting the needs of today's communities in a way that considers the needs of tomorrow.



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- Acceptance of process risk
- Biosolids management and biogas cogeneration
- Desalination and other membrane technologies
- Detailed engineering design
- Energy optimisation and recovery
- Engineering management
- Industrial water and wastewater management
- Odour modelling and control
- Operations support and training
- Optioneering, business case studies, concept design
- Process and hydraulic design

Project management, procurement, construction management and commissioning

Statutory and environmental approvals, stakeholder consultation

Strategic asset management and asset optimisation

Sustainability and decision support frameworks

Wastewater collection and treatment, biological nutrient removal/membrane bioreactor processes

Wastewater system modelling and design

Water reclamation and reuse

Facilities
Minerals
Transport
Water



Whole-of-project delivery

KBR is well known throughout Australia for its wastewater process design capability: experienced designers using the latest commercial (BioWin) and in-house (Optioneer®, Pipeline Design Module) software tools to produce the best value process solutions. Additionally KBR provides the multidisciplinary teams, skills and leadership in pursuit of success throughout the entire project.

From master planning studies and early project optioneering, KBR draws on stakeholder and community engagement skills, sustainability and decision support tools, and multidisciplinary practitioners to meet clients' needs. We continue to deliver throughout the project life, from detailed design development, contract formulation and tendering to construction and commissioning.

Especially experienced in EPCM and alliancing, the proof of our 'best for project' culture is not just a successful project but often an award winning one.



Upgrade of tertiary treatment, Eastern Treatment Plant, Victoria

KBR is part of a design and upgrade team that will make Melbourne's Eastern Treatment Plant one of the largest advanced tertiary treatment plants in the world. The team has undertaken pilot testing and evaluation of advanced tertiary treatment options, and concept design for the upgrade to treat the entire plant flow. On completion of the detailed design by the design team, KBR will provide construction and commissioning support as part of the alliance delivery team.



Coombah Waterfuture Alliance, Queensland

In alliance with Gold Coast Water, KBR designed and constructed an upgrade of the Coombabah wastewater treatment plant, comprising a new bioreactor and clarifier, additional chlorination facilities, upgraded dissolved air flotation units, storm flow bypass facilities and associated ancillaries. KBR's innovative concept design resulted in capital cost savings of approximately \$4 million. The plant upgrade (from 60 ML/d to 75 ML/d) was configured to allow for conversion to a biological nutrient removal process in the future, and was commissioned close to schedule despite major variations in scope.



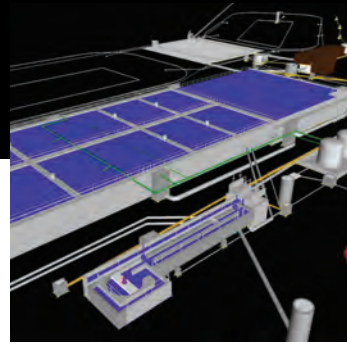
Christies Beach plant upgrade, South Australia

Delivered under an engineering, procurement and construction management (EPCM) delivery model by KBR and United Water International, this \$272 million state government project will increase the wastewater treatment plant's capacity by adding a 22.5 ML/d membrane bioreactor process train as well as UV disinfection. The upgrade also includes sludge dewatering, thickening and digestion facilities; an upgraded power supply; and an outfall and diffuser into Gulf St Vincent. The project will increase local use of recycled water and greatly improve the quality of effluent discharged to the gulf. This project was national and South Australian Project of the Year in the 2010 Australian Institute of Project Management (AIPM) Achievement Awards as well as winner of the Sustainability category in the South Australian awards.



Sunset Coast Alliance, Western Australia

KBR was part of a program delivery alliance that managed upgrades to four WA wastewater treatment plants and a major pumping station. As one of two designers, KBR led the community consultation and environmental approvals, and was responsible for half of the plant design. KBR also undertook the controls and SCADA design and process commissioning. The Alliance achieved significant cost savings for the client.



Cowra wastewater treatment plant, New South Wales

Cowra Shire Council planned to augment its wastewater treatment capacity with a new intermittent decant extended aeration (IDEA) wastewater treatment plant of nominal 15,000 EP capacity but early concept design work highlighted potential conflicts with services. KBR's full Optioneer® model of the proposed IDEA layout removed conflicts, revised the inlet work and relocated settling lagoons. Councillors were able to easily appreciate the conflict resolution by viewing the 3D fly-through.