

Warren  
Smith

Consulting Engineers

# WATER SMART SOLUTIONS EXPERTISE STATEMENT

HYDRAULIC

FIRE

CIVIL

UTILITY INFRASTRUCTURE

# BUSINESS AND GOALS



BARANGAROO HEADLAND

Warren Smith Consulting Engineers was founded on the 10th August, 1981. We continue to offer the highest level of service as Consulting Engineers in Hydraulic, Fire, Civil and Utility Infrastructure design.

We have been involved with over 6,000 projects of all development classifications and scale.

Our vast project experience extends to not only NSW, ACT and VIC, but throughout Australia and abroad.

## Company Core Values:

- Partnerships and collaborations with our delivery partners
- Commitment to innovation and excellence
- Advancement of our staff through training and development
- Treat others as we would want to be treated

## Our objectives are to:

- Produce and deliver excellent, best value for money design
- Provide dependable professional service with unquestionable integrity
- Provide a differing approach to solving a problem
- Better the industry by feeding our design innovation back into legislation and design standards
- Continually research and develop new design techniques
- Maintain our position as leaders in our profession
- Be friendly and approachable
- Co-operate and actively participate as a key player within a team



# THE TEAM

**Our key personnel and directors have comprehensive industry experience and knowledge.**  
 Our managers, without exception are all long-term employees of the firm. Our key personnel are:



**Michael Cahalane**  
*Director*  
 Civil & Water Engineering  
 Years in Industry: 20  
 Years with WS+P: 12



**David Bolt**  
*Director*  
 Fire & Hydraulic  
 Years in Industry: 26  
 Years with WSCE: 25



**Tom Wise**  
*Technical Manager*  
 Years in Industry: 10  
 Years with WS+P: 9



**Preneshin Govender**  
*Partner*  
 Civil & Water Engineering  
 Years in Industry: 15  
 Years with WS+P: 3



**Cristina Nugpo**  
*Team Leader –*  
*Utility Infrastructure –*  
 Civil & Water Engineering  
 Years in Industry: 12  
 Years with WSCE: 1

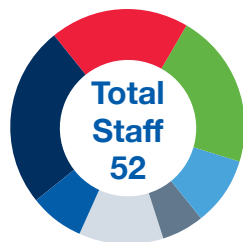


**Grahame Barnes**  
*Design Manager*  
 Hydraulic  
 Years in Industry: 38  
 Years with WS+P: 33



**Ian Stone**  
*Expertise Leader*  
 Fire  
 Years in Industry: 39  
 Years with WS+P: 31

Currently, Warren Smith Consulting Engineers consists of the following directly employed staff:



- Engineers, Technologists & Designers, Hydraulic
- Engineers, Technologists & Designers, Fire
- Engineers, Technologists & Designers, Civil
- Utility infrastructure, Water Servicing Coordinators, Water & Sewer
- Drawing Technicians
- Support Staff
- Directors

Our engineers, technologists and designers are qualified profession members of the following organisations:-



# WHAT WE DELIVER

Warren Smith Consulting Engineers offer skilled professionals, who are effective communicators and valued members of any team. Our team is supported by our progressive design and quality assurance systems.

With access to decades of design and engineering experience, matched by our young innovative staff, we present a dynamic team capable of delivering significant projects.

Our team has a thorough understanding of both common and unique engineering design challenges. Through our experience, we have developed design knowledge and strategies to maximise the usable space and minimise the cost of the development.

Our team applies our design skills to ensure that the documentation we produce, and the advice we provide, is tailored to meet individual project goals and challenges.

We focus on the delivery of a premium product to our clients, which in the long term, is proven to be the most cost effective, aesthetically pleasing and space efficient. We also recognise that it is not only engineering that makes for an effective outcome. Engineering needs to be backed up by astute management and understanding of the project timeline and deliverables.

## Warren Smith Consulting Engineers provide specialist engineering services:

- Due diligence, compliance, condition and investigation reporting
- Master planning, concept, and schematic design
- Design development and contract documentation
- Sustainable and strategic system capex and opex analysis
- Construction administration
- Project management
- Feasibility studies
- Risk management
- Safety in design analysis
- Fit for purpose analysis

***We hope you enjoy the open, friendly, yet professional and skilled culture of our team, when embarking on your next project.***



SYDNEY OPERA HOUSE



# THE WATER SMART SOLUTIONS PRACTICE

A water smart solution involves local schemes which integrate recycled water and stormwater into water and waste water services. The benefits of doing this are numerous; it unlocks development potential, is more sustainable, and increases property value.

## Development potential is unlocked by:

- removing water and wastewater constraints, **enabling early land release.**
- staging construction, **lowering investment risk and deferring cash flow.**
- **reducing lead times** by eliminating the need for large infrastructure upgrades.
- **reduce developer costs** through cost sharing arrangements with the water authority.
- small systems being more flexible and hence more **responsive to changes in demand.**

## Customers are attracted to these sustainable solutions that:

- conserve (scarce) drinking water supplies.
- reduce wastewater pollution of waterways.
- preserve health of creeks and waterways.
- are resilient to change.



## Neighbourhoods with water smart solutions are more appealing to live in and increase property value with:

- a reliable and maintenance-free alternative water supply to meet BASIX.
- attractive open space, with water features and a well irrigated green landscape.
- a cooler neighbourhood offsetting the 'heat island' effect of urbanised areas.
- the disruption of amplifying major water infrastructure avoided.



The local solution may need to be temporary, but often it is best nested within a permanent solution within a regional system run by the water authority. Warren Smith would develop a solution that maximises the value of the site and then assist to negotiate a suitable agreement with the water authority.

## To do this the Water Smart Solutions team have the capability to:

- Utilise the latest technology and control systems.
- Draw on knowledge of what works in practice.
- Obtain approval from regulators and government approval agencies.
- Negotiate appropriate cost allocations with the water authority.

Warren Smith and partners would implement it either the clients representative contracting to suppliers, or offer a consortium to design, build, and operate the system.

# THE WATER SMART SOLUTIONS TEAM

The Water Smart Solutions service is part of the Civil and Water Engineering practice, headed up by Michael Cahalane.



Michael Cahalane has been with the firm for over 12 years. Michael has a proven track record in delivering major Civil and Water projects. Michael managed the design team for the delivery of the Barangaroo Headland Park between 2012 to 2015. This included the design of a seepage and stormwater reuse system for irrigation, bio-retention swales, stormwater and sewerage management. Michael has an excellent track record in the successful delivery of this and other significant projects on time and within budget.



Robert Keessen leads the Water Smart Solutions practice. Robert has thirty years' experience in the industry, and joined the company from Sydney Water where he was the Project Director of the Water Smart Communities project.

Robert comes with a wealth of experience as a strategic planner in the water industry, with

- experience working with the development industry;
- connections and credibility with government agency planners and policy makers;
- the commercial acumen to negotiate suitable financial agreements.



Preneshin Govender is an experienced Water and Civil Infrastructure Designer, and is valued for his innovative solutions to technical challenges. Preneshan has 11 years' experience in feasibility, preliminary design and detailed design of water supply, wastewater and stormwater networks.



Neal brings a wide range of civil engineering experience from his previous work in civil infrastructure and the energy industry. His pragmatic approach to water solutions, communication and business acumen, ensures completion of high quality designs on time and to budget.



Niall is an experienced Civil and Water Engineer who brings experience from both the contracting and consulting industry. His proactive approach, creative thinking and good communication skills ensure high quality designs are delivered within the required timeframe.

# KEY PROJECTS



## Barangaroo Masterplan (2010-Ongoing)

**Client:**  
Barangaroo Delivery Authority (BDA)

**Project Value:**  
\$22M

**Contact:**  
Peter Funder (BDA)  
Project Director  
0437 689 915

### Scope of Works:

- Design of upgrade road works to Hickson Road.
- Sydney Water sewer and water masterplanning to address the additional loading resulting from Barangaroo South, Central, Crown Casino and Barangaroo Point.
- Advice on the construction of new buildings in Central adjacent to and over the existing sewerage pump station SPS1129.
- Concept design for the relocation of SPS1129.



## University of Sydney (UoS)

**Client:**  
The University of Sydney

**Project Value:**  
\$20M

**Contact:**  
Martin Ayers (UoS)  
Services Manager  
0401 719 579

### Scope of Works:

#### Masterplan (2013 ongoing)

- Capacity assessment and infrastructure upgrade requirements to accommodate the proposed \$1.4B 2020 Campus Improvement Plan.
- Sewer and Water upgrade plans and staging.
- Construction documentation for sewer, water gas and stormwater.

#### Integrated Water Management Plan (2017)

- Setting water management goals for the Camperdown and Darlington campuses.
- Review of existing water use and landscape irrigation practices.
- Site water balance analysis.
- Cost and value analysis of recycled water, stormwater and rainwater harvesting, water conservation.
- Recommend a water management strategy.
- An action plan to progress towards the long term goals.



## Kapooka Army Base ELF Expansion (2008 – 2012)

**Client:**  
Department of Defence (DoD)

**Project Value:**  
\$220M

**Contact:**  
Nathan Szymanski (DoD)  
Project Manager  
0428 963 276

### Scope of Works:

- New base sewage treatment plant for irrigation and toilet flushing reuse.
- 10km of effluent distribution pipelines, including 2km of rising main.
- A 1.0ML effluent reservoir, telemetry and chlorination system.
- All road and stormwater drainage works for the above facilities.



# Warren Smith

Consulting Engineers

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Warren Smith Consulting Engineers would like to acknowledge and pay respect to the traditional owners of the lands on which we live and work across Australia. We pay our respects to elders past, present and emerging, and all Aboriginal and Torres Strait Islander people. In particular, we acknowledge the Gadigal people of the Eora nation as the traditional owners of the lands and waters where our Sydney office is located. Also, the Bunurong Boon Wurrang and Wurundjeri peoples of the Eastern Kulin nation as the traditional owners of the lands and waters where our Melbourne office is located.