

Water and Wastewater Capability Network



JONASSEN INDUSTRIAL PROJECTS LIMITED

Providing clients with confidence for:

design expertise and experience
small to major projects
maximum value / minimum risk

Purpose of the Network

JIPL's extensive and specialist Network delivering WwTP Projects:

- ◆ To agreed performance criteria
- ◆ Provide value for money - minimum risk / maximum value
- ◆ Delivered, commissioned and running within agreed time frames

How Do we Do this?

- Local and international WWTP plant design engineers with technical excellence, proven experience and world-wide references
- Quality, energy efficient, proven plant and equipment
- Local contractors to install, commission and for on-going support

Based on:

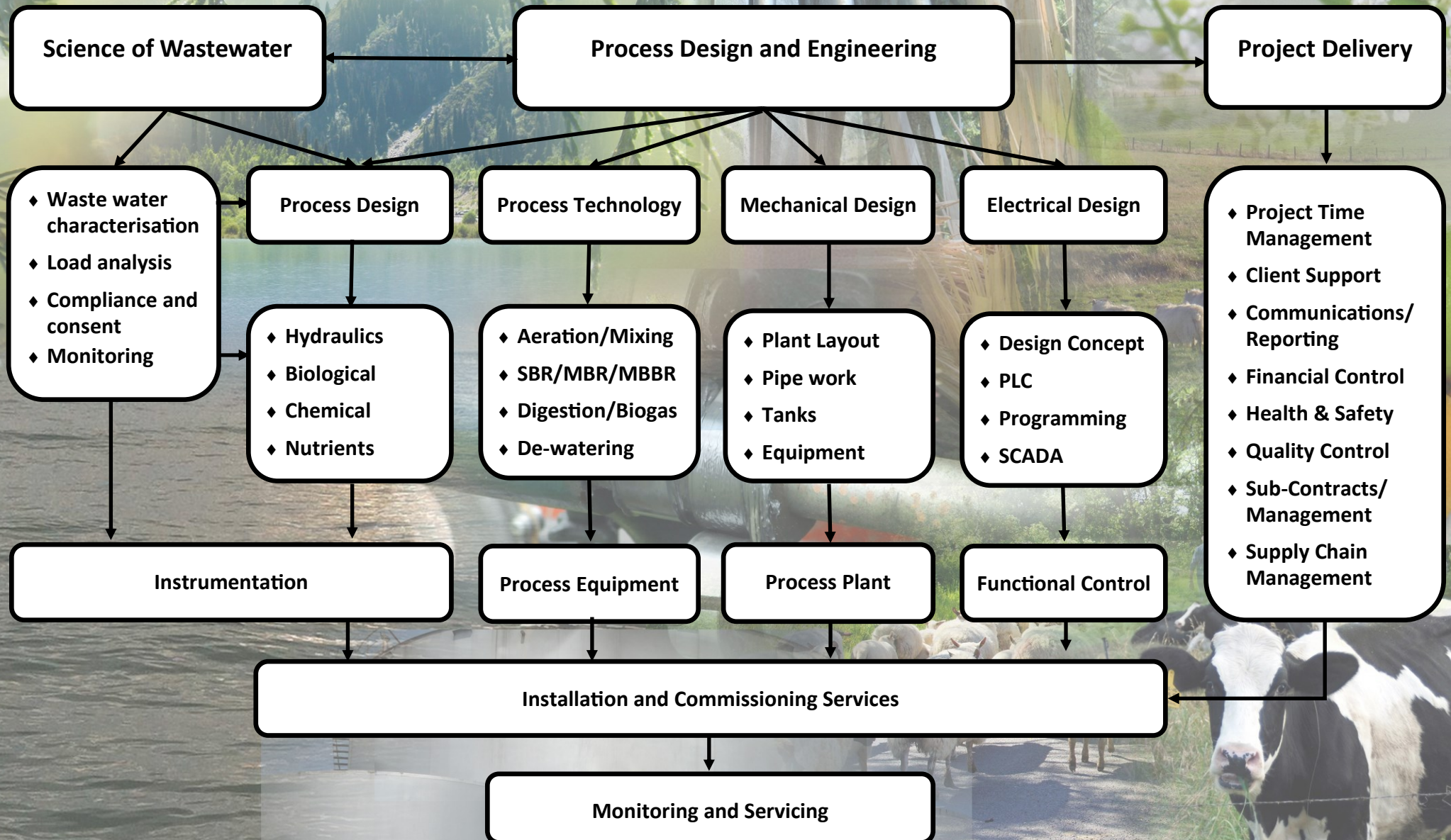
- ◆ Wastewater monitoring
- ◆ Evaluation of process options
- ◆ Detailed plant & process design
- ◆ Installation and commissioning
- ◆ Servicing program options

All supported with:

- ◆ Close and on-going client relationships and communications
- ◆ Focus on modular solutions for the long term
- ◆ Options for 'open book' contracting to support our "value for money" approach



Capability Statement



Water and Wastewater Technology Network

Project Engineering

Chris Jonassen Aidan Cumiskey Dorian Harrison Peter Huber Mark Dehnert Ian Trillo Fox Juan De Dios Trillo



- Advanced Digestion
- Enzyme Hydrolysis
- Digester Mixing
- Food Waste-to-Energy
- WwTP Plant Operations
- Alphameter Control

- Full WwTP Design
- SBR / MBR Design
- Major Projects
- Process Engineering
- Mixing Design
- Control Systems

Process / Plant Design

Mike Smith Johan Eriksson Phil Woollen Fulvio Boaglio



- Aeration Design
- Commissioning
- Training and Servicing
- Commissioning and Training

- DAF Plant Design
- DAF Engineering
- Belt Press Technology
- Thickeners—Rotary and Gravity Belts

Treatment Technologies

Gennaro Pieralisi Giorgio Cumin Peter Latham Shiono Buntaro
Matt Bunting Darren Eastwood



- Filter Press Design
- Centrifuge Design
- Poly-Dosing Plant Design
- Plant Commissioning
- Staff Training

- Plate Screw Press Design
- Grit & Rag Removal
- Road Sweepings
- Tanker Wastes
- Digester Wastes
- Commissioning / Training

Project Engineering and Delivery

Chris Jonassen Blair Lees Nicholas Chang



- ◆ Project Management Services
- ◆ Solutions Provider
- ◆ Design / Engineering
- ◆ Technology Facilitator

Science and Servicing

Tara Oken Paul Cheshire Paul Hennessey



- ◆ Science and Monitoring Service
- ◆ Environmental Research
- ◆ Waste Stream Monitoring
- ◆ Controls Specialist

Installation & Commissioning

Paul Cheshire Blair Lees Paul Hennessey Braden Port



- Mechanical Design
- Mechanical Installation
- Plant layout
- Plant Commissioning
- PLC/SCADA
- Electrical Installation
- Plant Commissioning
- Nutrients & Metals Removal

Treatment Technology Network — proven experience

Aeration Systems Design

Peter Huber Johan Eriksson Mike Smith Trevor Lohman



- ◆ Fine Bubble
- ◆ Coarse Bubble
- ◆ Disc Diffusers
- ◆ Membrane Diffusers
- ◆ Flotation Diffusers
- ◆ Mixer Aerators

Blowers / Compressors

- ◆ Heat Exchanges
- ◆ Positive Displacement
- ◆ High Speed Turbo
- ◆ Hybrid PD Units
- ◆ Gas Mixing

Mixing Systems Design

Peter Huber Mike Smith Mark Dehnert



Fluid Mechanics / CFD / Simulations

- ◆ Hyper Classic Mixers (V 7)
- ◆ Hyper Dive Mixers
- ◆ Hyper Flash Mixers
- ◆ Cyber Flow Horizontal Mixers
- ◆ Cyber Pitch Mixers

Advanced Digestion Design

Aidan Cuminsky Nicolas Capon Dorian Harrison



Enzyme Hydrolysis Digestion

- ◆ Major Infrastructure Projects
- ◆ Food Waste-to-Energy Plants
- ◆ Digester loading to 10%
- ◆ High VS% conversion
- ◆ High biogas yields

WwTP / SBR / MBR Design

Mark Dehnert Peter Huber Dorian Harrison Ian Trillo Fox



Process Design Requirements

- ◆ Grit and Rag Removal
- ◆ Aeration and Mixing
- ◆ Settling and Decanting
- ◆ Sludge Discharge
- ◆ Sludge De-watering

Dewatering Plant Design

Phil Wooton Giorgio Cumin Shiono Buntaro Peter Latham



Grit and Rag Separation Design

Mathew Bunting

- ◆ Inlet grit ◇ Road sweepings
- ◆ Gully waste ◇ Digester waste



De-watering Technologies

| | | | |
|---|--------------|---------------------------------------|-----------------------|
| Dissolved Air Floatation Plants—Horizontal and Vertical | | Centrifuges (Two & Three Phase Types) | |
| Rotary Drum Thickeners | Clarifiers | Gravity Belt Thickeners | Centrifuge Thickeners |
| Moving Plate Screw Presses | Belt Presses | Plate Filter Presses | Sand Filters |

Water and Wastewater Capability Network

Aims:

To enable every client to have confidence in the delivery of WwTP's projects that work, based on:

- ◆ Competency - experienced international and local WwTP plant design engineers
- ◆ Quality - provision of proven, quality, energy efficient plant and equipment
- ◆ Local - NZ contractors to install, commission and provide backup services

Methodology:

- ◆ Wastewater Monitoring
- ◆ Evaluation of Process Options
- ◆ Detailed Plant and Process Design
- ◆ Installation and Commissioning Programme
- ◆ Servicing Programme (Options)

Summary:

- ◆ Design Experience and Expertise
- ◆ Quality Plant and Equipment
- ◆ Local Project Delivery
- ◆ Maximum Value / Minimum Risk

Delivery:

- ◆ Close and on-going relationship with clients
- ◆ Options for "open book" project delivery
- ◆ Track record and references
- ◆ Technical excellence

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Project and Design Engineers
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