

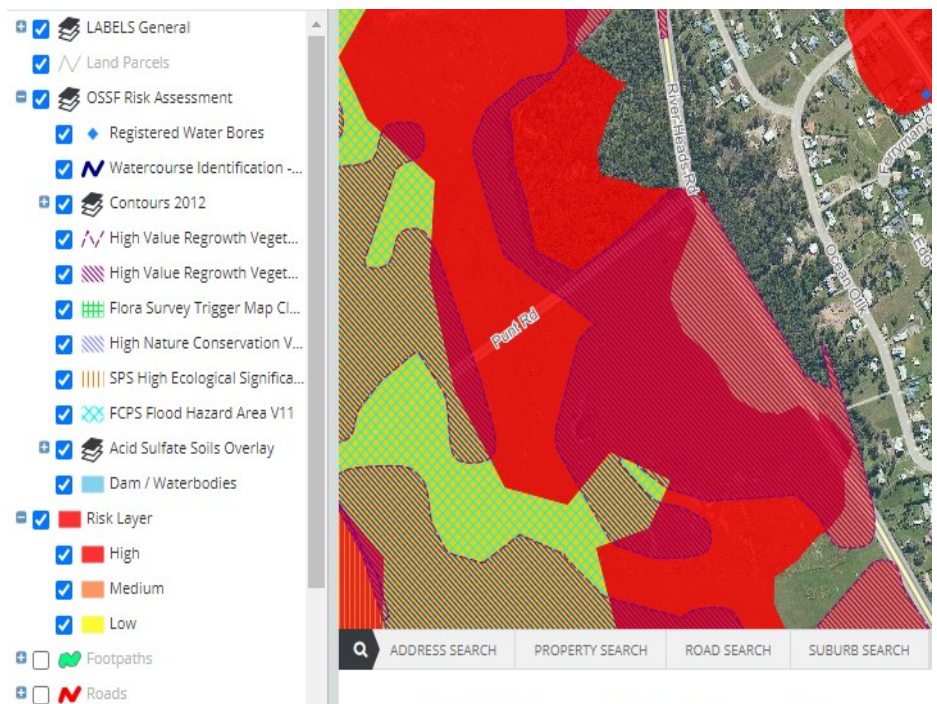


# ON-SITE SEWERAGE FACILITY RISK STRATEGY

## Reducing risk to the public in urban development

The Fraser Coast Regional Council (FCRC) engaged Taylor Environmental (Australia) Pty Ltd to develop an On-site Sewerage Facility (OSSF) strategy and Geographical Information System (GIS) risk assessment mapping tool for the assessment of Site and Soil Evaluations in the concept/development phase. This is to ensure that the opportunities and constraints are identified as early as possible and allow the OSSF to comply with Regulations and Standards.

A GIS module has been generated by FCRC based on the outcomes of the strategy to assist with identifying risks when designing and assessing OSSF in the Fraser Coast Regional Council administrative area. The GIS portal will provide council, site and soil classifiers, geotechnical and hydraulic design consultants with a comprehensive tool for minimising the environmental, health and economic risks associated with the design of wastewater treatment systems while complying with all



Standards and Regulations. The relevant statutory requirements for all on-site wastewater management applications submitted to Council are prescribed in the following legislation:

- \* Plumbing and Drainage Act 2018
- \* Plumbing and Drainage Regulation 2019
- \* Queensland Plumbing and Wastewater Code 2019
- \* AS/NZS 1547:2012
- \* Plumbing Code of Australia (PCA)

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## Cold Water Services

Australian/New Zealand Standard AS/NZS 3500.1:2018 provides the deemed to satisfy solutions to comply with the Plumbing Code of Australia.



**Section 4** provides requirements for Cross Connection Control and Backflow Prevention, this section clarifies the level of hazard and devices required for dual water supplies like mains and water tanks.

**Section 5** provides requirements on the Installation of Cold Water Services. This standard specifies separation, isolation, location, noggin, jointing, support & fixing, below ground and insulation.

Council is required to inspect above and below ground pipe work, all installations are to be under test with a gauge clearly visible. Some points of concern are clip spacing's not as per Table 5.6.4. Separation from metal straps and rods, other pipework and framework. When pipes are concealed in conduit below the floor for island benches, all pipes are to have elbows before entering and after exiting the conduit and tails have appropriate fittings fastened to floor in an approved manner.

## Heated Water Services

Australian/New Zealand Standard AS/NZS 3500.4:2018 provides the deemed to satisfy solutions to comply with the Plumbing Code of Australia.

**Section 1** provides requirements for Water Temperature Delivery and solutions for control of delivery temperature. There is still confusion on the requirements for Thermostatic Mixing Valves (TMV) especially for facilities for the disabled. If the facility is for people with a disability a TMV is to be installed and commissioned by a suitably qualified, licence endorsed plumber.

**Section 4** provides requirements on the Installation of Heated Water Piping and Controls. This standard specifies, separation, isolation, location, noggin, jointing, support & fixing, below ground and insulation.

**Section 8** provides requirements on

Energy Efficiency. Thermal insulation is of concern and appears to be an area often overlooked. Council will be enforcing the requirements of insulation lagging at the inlet and outlet of storage water heaters and relief valves. On multiple installations insulate the whole manifold. On solar installations insulate the flow and return lines and pipework between the pre-heater and the storage water heater. Heat traps are required when integral heat traps are not part of the storage water heaters. **Section 9** provides requirements for Testing and Commissioning, Flushing is an important aspect which appears to be ignored. Flushing shall be conducted prior to the connection of tempering devices, strainers and aerators. Council inspectors are attending finals and the water supply lines are full of air, indicating flushing

has not been conducted as per the requirements.



## Vermin Proofing & Separation

Penetrations into cupboards and void spaces or through walls are to be vermin proofed with cover plates. The cover plates are to be fixed/fastened to the base or sides of the cupboard. This can be achieved with a silicone product or screws.

When water supply pipes are placed in a conduit below the floor for island benches there **should not be** an electrical wire in the same conduit. The conduit is to be free of moisture and sealed at finished floor level. The conduit should be a minimal size to allow drawing the water supply pipes through only.

The hot water supply pipe within the conduit is to be insulated with the correct 13mm lagging.



## Plumbing Inspections

Council is currently processing files with outstanding plumbing and final inspections. We appreciate your co-operation in completing the required works. Regardless of the works, any application which invokes a permit has to have the required inspections and must have a final. Ignoring the requirements of requesting inspections may incur a penalty.

A **Form 7- Notification of Responsible Person** is required before the initial inspection is booked and conducted.

The responsible person is required to book a Final Inspection within 7 days of completion of work. All relevant certificates and forms relating to the responsible persons work are to be provided prior to or at the Final Inspection. A **Form 19 - Final Inspection Certificate** will be issued if the work that has been carried out is compliant and the work is operational and fit for use. **Responsible person to be present at final inspection.**

## Notifiable Work Form 4

Please refer to the QBCC website for information regarding Notifiable Work and registration details.

Council is hoping to audit notifiable work in the near future, this will be done in partnership with the QBCC.

## Questions?

We are here to help.

Council's Plumbing Department

1300 79 49 29



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