

Section 3.5.15 *Integrated Planning Act 1997*

EPA Permit[1] number: IPDE00579807

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Assessment Manager reference:	as above
Date application received by EPA:	26 March 2007
Permit[1] Type:	Development Approval for a MCU involving an ERA
Date of Decision:	10 July 2007
Decision:	Granted in full with conditions
Relevant Laws and Policies:	*Environmental Protection Act 1994* and any subordinate legislation

Development Description

Property	Lot/Plan	Aspect of Development
Kinchant Dam Road, KINCHANT DAM QLD 4741	Lot 2 Plan SP104473	ERA 15(a) Sewage treatment - operating a standard sewage treatment works having a peak design capacity to treat sewage of 21 or more equivalent persons but less than 100 equivalent persons.

Additional information for applicants

The standard currency periods stated in section 3.5.21 of the Integrated Planning Act 1997 or the nominated currency period, apply to each aspect of development in this permit1. For information on when this permit1 takes effect and the relevant currency periods, please see point 3 in the Notice of Decision.

Contaminated Land

It is a requirement of the *Environmental Protection Act 1994* that if an owner or occupier of land becomes aware a Notifiable Activity (as defined by Schedule 2 of the *Environmental Protection Act 1994*) is being carried out on the land or that the land has been affected by a hazardous contaminant, they must, within 30 days after becoming so aware, give notice to the Environmental Protection Agency.

Environmentally Relevant Activities

The aforementioned description of any environmentally relevant activity (ERA) for which this permit is issued is simply a restatement of the ERA as prescribed in the legislation at the time of issuing this permit. Where there is any conflict between the abovementioned description of the ERA for which this permit is issued and the conditions specified herein as to the scale, intensity or manner of carrying out of the ERA, then such conditions prevai to the extent of the inconsistency.

This permit authorises the ERA. It does not authorise environmental harm unless a condition within this permit explicitly authorises that harm. Where there is no such condition, or the permit is silent on a matter, the lack of

[1] Permit includes licences, approvals, permits, authorisations, certificates, sanctions or equivalent/similar as required by legislation administered by the Environmental Protection Agency and the Queensland Parks and Wildlife Service

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a condition or silence shall not be construed as authorising harm.

In addition to this permit, the person to carry out the ERA must be a registered operator under the Environmental Protection Act 1994. For the person to become a registered operator, they must apply for a registration certificate under section 13F of the Environmental Protection Act 1994.

Ricci Churchill 10/7/07
Delegate
Environmental Protection Agency

CONDITIONS OF APPROVAL

Activity: ERA 15(a) Sewage treatment – operating – a standard sewage treatment works having a peak design capacity to treat sewage of 21 or more equivalent persons but less than 100 equivalent persons.

Agency Interest: General

Prevent and /or minimise likelihood of environmental harm

(G1) In carrying out the environmentally relevant activities, the holder of this approval must take all reasonable and practicable measures to prevent and / or to minimise the likelihood of environmental harm being caused. Any environmentally relevant activity, that, if carried out incompetently, or negligently, may cause environmental harm, in a manner that could have be prevented, shall be carried out in a proper manner in accordance with the conditions of this approval.

Maintenance Of Measures, Plant and Equipment.

(G2) The operator of an ERA to which this approval relates must:

(a) install all measures, plant and equipment necessary to ensure compliance with the conditions of this approval; and

(b) maintain such measures, plant and equipment in a proper and efficient condition; and

(c) operate such measures, plant and equipment in a proper and efficient manner.

Site Based Management Plan.

(G3) From commencement of an ERA to which this approval relates, a site based management plan (SBMP) must be implemented. The SBMP must identify all sources of environmental harm, including but not limited to the actual and potential release of all contaminants, the potential impact of these sources and what actions will be taken to prevent the likelihood of environmental harm being caused. The SBMP must also provide for the review and 'continual improvement' in the overall environmental performance of all ERAs that are carried out.

The SBMP must address the following matters:

(a) Environmental commitments – a commitment by senior management to achieve specified and relevant environmental goals.

(b) Identification of environmental issues and potential impacts.

(c) Control measures for routine operations to minimise likelihood of environmental harm.

(d) Contingency plans and emergency procedures for non-routine situations.

(e) Organisational structure and responsibility.

(f) Effective communication.

(g) Monitoring of contaminant releases.

(h) Conducting environmental impact assessments,

(i) Staff training.

(j) Record keeping.

(k) Periodic review of environmental performance and continual improvement.

(G4) The site based management plan must not be implemented or amended in a way that contravenes any condition of this approval.

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Annual Monitoring Report.

(G5) An annual monitoring report must be prepared each year and presented to the administering authority with the annual return. This report shall include but not be limited to:

(a) a summary of the previous twelve (12) months monitoring results obtained under any monitoring programs required under this approval and, in graphical form showing relevant limits, a comparison of the previous twelve (12) months monitoring results to both this approvals limits and to relevant prior results;

(b) an evaluation/explanation of the data from any monitoring programs;

(c) a summary of any record of quantities of releases required to be kept under this approval;

(d) a summary of the record of equipment failures or events recorded for any site under this approval; and

(e) an outline of actions taken or proposed to minimise the environmental risk from any deficiency identified by the monitoring or recording programs.

Trained / Experienced Operator(s).

(G6) The daily operation of the waste water treatment system and pollution control equipment must be carried out by a person(s) with appropriate experience and/or qualifications to ensure the effective operation of that treatment system and control equipment.

Equipment Calibration.

(G7) All instruments, equipment and measuring devices used for measuring or monitoring in accordance with any condition of this approval must be calibrated, and appropriately operated and maintained.

Records.

(G8) Record, compile and keep all monitoring results required by this approval and present this information to the administering authority when requested.

(G9) All records required by this approval must be kept for 5 years.

Notification.

(G10) Telephone the EPA's Pollution Hotline or local office as soon as practicable after becoming aware of any release of contaminants not in accordance with the conditions of this approval.

Information About Spills

(G11) A written notice detailing the following information must be provided to the EPA within 14 days of any advice provided in accordance with condition G10:

(a) the name of the operator, including their approval / registration number;

(b) the name and telephone number of a designated contact person;

(c) quantity and substance released;

(d) vehicle and registration details;

(e) person/s involved (driver and any others);

(f) the location and time of the release;

(g) the suspected cause of the release;

(h) a description of the effects of the release;

(i) the results of any sampling performed in relation to the release,

(j) actions taken to mitigate any environmental harm caused by the release; and

(k) proposed actions to prevent a recurrence of the release.

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Spill Kit

(G12) An appropriate spill kit, personal protective equipment and relevant operator instructions/emergency procedure guides for the management of wastes and chemicals associated with the ERA must be kept at the site, and in each vehicle used if the activity is a mobile ERA.

Spill Kit Training

(G13) Anyone operating under this approval must be trained in the use of the spill kit.

Alterations.

(G14) No change, replacement or operation of any plant or equipment is permitted if the change, replacement or operation of the plant or equipment increases, or is likely to substantially increase, the risk of environmental harm above that expressly provided for by this approval.

Agency Interest: Air

Nuisance.

(A1) The release of noxious or offensive odours or any other noxious or offensive airborne contaminants resulting from the activity must not cause a nuisance at any nuisance sensitive or commercial place.

Agency Interest: Land

Land Disposal.

(L1) The only contaminants permitted to be released to land are treated sewage effluent to the areas defined in Attachment 1– Figure 1 of this development approval, drawing titled "Figure 2 – hydraulic services treatment system" in compliance with the limits stated in Table 1.

Table 1 - Contaminant release limits to land

		Release Limit		
Quality characteristics	**Units**	**Minimum**	**Maximum**	**Monitoring frequency**
5-day Biological Oxygen Demand (inhibited)	mg/L		20	Quarterly
pH	scale	6.5	8.5	Quarterly
Total Nitrogen	kg/day		0.972	Quarterly
Total Phosphorus	mg/L		15	Quarterly
Total Suspended Solids	mg/L		30	Quarterly
Thermotolerant coliforms	Colony forming units/100mL		200	Quarterly

(L2) Notwithstanding the quality characteristics limits specified in Table 1 – Contaminant release limits to land, releases of treated sewage effluent must not have any properties nor contain any organisms or other contaminants in concentrations that are capable of causing environmental harm.

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(L3) Monitoring must be undertaken and records kept of contaminant releases to land for the parameters and not less frequently than specified in Table 1 – Contaminant release limits to land. All determinations of the quality of contaminants released must be:

(a) made in accordance with methods prescribed in the latest edition of the Environment Protection Agency Water Quality Sampling Manual; and

(a) carried out on samples that are representative of the discharge.

Sampling and *In Situ* Monitoring Point Details

(L4) Determinations of the quality of contaminants released to check compliance with the release limits specified in Table 1 – Contaminant release limits to land, of this development approval, must be undertaken at the sampling and *in-situ* measurement point described as the outlet of the disinfection contact tank/s for all parameters.

Quantity of Contaminants Released from the Sewage Treatment Plant

(L5) The flow from the sewage treatment plant to the wet weather storage tanks must be determined by an appropriate method, for example a flow meter, and records kept of such determinations and estimates.

Effluent Irrigation

(L6) A minimum of 5,000m^2 of land, excluding any necessary buffers, must be provided for the irrigation of treated effluent to land.

(L7) The daily volume of contaminants released to land must be determined or estimated by an appropriate method, for example a flow meter, and records kept of such determinations and estimates.

(L8) The daily volume of contaminants released must not exceed 19520 litres in any one day.

(L9) All grass/vegetation clippings must be removed from the contaminant release area upon harvesting.

(L10) Notices must be prominently displayed on any effluent irrigation area warning the public that the area is irrigated with effluent and that the public should not drink or use the waste water. These notices must be maintained in a visible and legible condition.

(L11) The irrigation of effluent must be carried out in a manner such that:

(a) vegetation is not damaged;

(b) soil erosion and soil structure damage is avoided;

(c) there is no surface ponding of effluent;

(d) percolation of effluent beyond the plant root zone is minimised;

(e) the capacity of the land to assimilate nitrogen, phosphorus, salts, organic matter as measured by biochemical oxygen demand and water is not exceeded;

(f) the quality of ground water is not adversely affected; and

(g) there is no spray drift or overspray outside the effluent disposal area approved under this schedule.

(L12) When conditions prevent the irrigation of effluent to land (such as during or following rain events), the effluent must be directed to a wet-weather storage, or alternative measures must be taken to store or lawfully dispose of effluent (such as wet weather storage or tanking off-site to another treatment plant or sewer).

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(L13) A minimum wet weather storage capacity of 45 000 litres must be provided.

(L14) Excess effluent beyond the wet weather storage capacity must be removed from site by a licensed liquid waste contractor.

(L15) Records must be kept of all liquid waste removal events associated with condition (L14). Records are to include details regarding the dates, volumes, destination and transporter.

Preventing contaminant release to land

(L16) Spillage of all chemicals and fuels must be contained within an on-site containment system and controlled in a manner that prevents environmental harm.

Irrigation monitoring program

(L17) Implement and maintain an irrigation monitoring program (IMP) for the release of contaminants to the designated effluent irrigation areas. As a minimum, the IMP must include:

(a) soil and sub-soil analysis, including assessment of the soils with respect to types, structure, phosphorus adsorption capacity, total nitrogen status, salinity and sodicity, cation exchange capacity, pH and exchangeable sodium percentage of the effluent being irrigated, to be carried out at no less than three representative sites on a biennial basis (every two years);

(b) the ongoing determination of the quantity and quality of contaminants applied to the designated effluent irrigation areas;

(c) periodic re-assessment of the designated effluent irrigation areas to ensure that irrigation is occurring in a sustainable manner, involving (at the very least) modelling of water, nutrient and salt balances and irrigation rate; and

(d) reporting of monitoring results and an assessment of any impact of effluent irrigation on the designated effluent irrigation areas.

(L18) The IMP referred to in condition (L17) must commence within one year from the date that this approval takes effect.

(L19) A copy of the IMP must be kept at the premises to which this development approval relates and be available to an officer authorised under the *Environmental Protection Act 1994* upon request.

Soil Impact Monitoring

(L20) The operator of the ERA must monitor and keep records of the soil characteristics and at the frequency specified in Table 2 – Soil impact monitoring. Monitoring is to include the taking of top-soil and sub-soil samples from monitoring sites as identified in Attachment 1 – Figure 1 of this development approval, drawing titled "Figure 2 – hydraulic services treatment system".

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Table 2 - Soil impact monitoring

Quality Characteristics	Units	Monitoring Frequency
pH (1:5)	pH scale	On commencement, then annually for the first 2 years and biennially thereafter
Specific Conductance or electrical conductivity (1:5)	µS/cm	On commencement, then annually for the first 2 years and biennially thereafter
Cation Exchange capacity	meq/100g	On commencement, then annually for the first 2 years and biennially thereafter
Exchangeable Sodium Percentage	%	On commencement, then annually for the first 2 years and biennially thereafter
Total Nitrogen as N.	mg/kg	On commencement, then annually for the first 2 years and biennially thereafter
Extractable Phosphorus	mg/kg	On commencement, then annually for the first 2 years and biennially thereafter

Agency Interest: Noise

(N1) Noise from the ERA must not cause an environmental nuisance at any nuisance sensitive place or commercial place.

Noise Monitoring

(N2) When requested by the administering authority, noise monitoring must be undertaken to investigate any complaint of noise nuisance, and the results notified within 14 days to the administering authority. Monitoring must include:

- LA 10, adj, 10 mins
- LA 1, adj, 10 mins
- the level and frequency of occurrence of impulsive or tonal noise;
- atmospheric conditions including wind speed and direction;
- effects due to extraneous factors such as traffic noise; and
- location, date and time of recording.

(N3) The method of measurement and reporting of noise levels must comply with the latest edition of the Environmental Protection Agency's Noise Measurement Manual.

Agency Interest: Social

Complaint Response.

(S1) The operator of the ERA must record the following details for all complaints received and provide this information to the administering authority on request:

(a) Time, date, name and contact details of the complainant;
(b) reasons for the complaint;
(c) any investigations undertaken;
(d) conclusions formed; and
(e) any actions taken.

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Agency Interest: Waste

Waste handling.

(WA1) All regulated waste removal from the site must be removed by a person who holds a current approval to transport such waste under the provisions of the *Environmental Protection Act 1994.*

Off site movement of waste.

(WA2) A record of all regulated waste, excluding trackable waste, must be kept detailing the following information:

(a) date of pickup of waste;

(b) description of waste;

(c) quantity of waste;

(d) origin of the waste; and

(e) destination of the waste.

Agency Interest: Water

Release to waters

(W1) Contaminants must not be released from the site to any waters or the bed and banks of any waters.

Stormwater management

(W2) Except as otherwise provided by the conditions of this development approval, the ERA must be carried out by such reasonable and practicable means necessary to prevent the contact of incident rainfall and stormwater runoff with waste or other contaminants.

(W3) Where it is not practical to prevent contact as required by condition "Water 2", the ERA must be carried out by such reasonable and practicable means necessary to minimise such contact.

(W4) Any spillage of waste, contaminants or other materials must be cleaned up as quickly as practicable. Such spillages must not be cleaned up by hosing, sweeping or otherwise releasing such wastes, contaminants or material to any stormwater drainage system, roadside gutter or waters.

(W5) All stormwater treatment devices used to treat stormwater from the site must be maintained in proper and efficient working condition.

Sewage Pump Station

(W6) Sewage pump stations must be fitted with stand-by pumps and pump-failure alarms as well as high level alarms to warn of imminent pump station overflow. All alarms must be able to operate without mains power.

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Treated Effluent

(W8) Pipelines and fittings associated with the effluent irrigation system must be clearly identified. Lockable valves or removable handles must be fitted to all release pipes situated in public access areas.

Contaminant Releases Caused by Rainfall

(W9) Erosion and sediment controls that minimise off-site removal of sediments and divert other stormwater from entering the site, must be provided and maintained during site construction works. Such measures must include, but not be limited to, diversion drainage works, siltation fences and temporary sediment traps.

DEFINITIONS

Words and phrases used throughout this permit[1] are defined below. Where a definition for a term used in this permit[1] is sought and the term is not defined within this permit[1] the definitions provided in the relevant legislation shall be used.

"administering authority" means the Environmental Protection Agency or its successor.

"annual return" means the return required by the annual notice (under section 316 of the *Environment Protection Act 1994*) for the section 73F registration certificate that applies to the development approval.

"approval" means 'notice of development application decision' or 'notice of concurrence agency response' under the *Integrated Planning Act 1997*.

"approved plans" means the plans and documents listed in the approved plans section in the notice attached to this development approval.

"artificial waterway" means an artificial channel, lake or other body of water. Artificial waterway includes –

- an artificial channel that is formed because the land has been reclaimed from tidal water and is intended to allow boating access to allotments on subdivided land;
- other artificial channels subject to the ebb and flow of the tide; and
- any additions or alterations to an artificial waterway.

"authorised place" means the place authorised under this development approval for the carrying out of the specified environmentally relevant activities.

"canal" means an artificial waterway surrendered to the State. A canal is an artificial waterway connected, or intended to be connected, to tidal water; and from which boating access to the tidal water is not hindered by a lock, weir or similar structure.

"clinical waste" means waste that has the potential to cause disease including, for example, the following:

- animal waste;
- discarded sharps;
- human tissue waste;
- laboratory waste.

"coastal dune" means a ridge or hillock of sand or other material on the coast and built up by the wind.

"commercial place" means a place used as an office or for business or commercial purposes.

"dredge spoil" means material taken from the bed or banks of waters by using dredging equipment or other equipment designed for use in extraction of earthen material.

"dwelling" means any of the following structures or vehicles that is principally used as a residence –

- a house, unit, motel, nursing home or other building or part of a building;
- a caravan, mobile home or other vehicle or structure on land;
- a water craft in a marina.

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"Environmental Protection Agency" means the department or agency (whatever called) administering the *Coastal Protection and Management Act 1995* or the *Environmental Protection Act 1994*.

"erosion prone area" means an area declared to be an erosion prone area under section 70(1) of the *Coastal Protection and Management Act 1995*.

"high water mark" means the ordinary high water mark at spring tides.

"infectious waste" means waste containing viable micro-organisms or their toxins which are known or suspected to cause disease in animals or humans.

"intrusive noise" means noise that, because of its frequency, duration, level, tonal characteristics, impulsiveness or vibration –

- is clearly audible to, or can be felt by, an individual; and
- annoys the individual.
- In determining whether a noise annoys an individual and is unreasonably intrusive, regard must be given to Australian Standard 1055.2 – 1997 Acoustics – Description and Measurement of Environmental Noise Part 2 – Application to Specific Situations.

"$L_{A\ 10,\ adj,\ 10\ mins}$" means the A-weighted sound pressure level, (adjusted for tonal character and impulsiveness of the sound) exceeded for 10% of any 10 minute measurement period, using Fast response.

"$L_{A\ 1,\ adj,\ 10\ mins}$" means the A-weighted sound pressure level, (adjusted for tonal character and impulsiveness of the sound) exceeded for 1% of any 10 minute measurement period, using Fast response.

"$L_{A,\ max\ adj,\ T}$" means the average maximum A-weighted sound pressure level, adjusted for noise character and measured over any 10 minute period, using Fast response.

"land" in the "land schedule" of this document means land excluding waters and the atmosphere.

"mg/L" means milligrams per litre.

"noxious" means harmful or injurious to health or physical well being.

"NTU" means nephelometric turbidity units.

"nuisance sensitive place" includes –

- a dwelling, residential allotment, mobile home or caravan park, residential marina or other residential premises; or
- a motel, hotel or hostel; or
- a kindergarten, school, university or other educational institution; or
- a medical centre or hospital; or
- a protected area under the *Nature Conservation Act 1992*, the *Marine Parks Act 1992* or a World Heritage Area; or
- a public thoroughfare, park or gardens; or
- a place used as a workplace, an office or for business or commercial purposes and includes a place within the curtilage of such a place reasonably used by persons at that place.

"offensive" means causing offence or displeasure; is disagreeable to the sense; disgusting, nauseous or repulsive.

"ponded pasture" means a permanent or periodic pondage of water in which the dominant plant species are pasture species used for grazing or harvesting.

"protected area" means –

- a protected area under the *Nature Conservation Act 1992*; or
- a marine park under the *Marine Parks Act 1992*; or
- a World Heritage Area.

"quarry material" means material on State coastal land, other than a mineral within the meaning of any Act relating to mining. Material includes for example stone, gravel, sand, rock, clay, mud, silt and soil, unless it is removed from a culvert, stormwater drain or other drainage infrastructure as waste material.

"regulated waste" means non-domestic waste mentioned in Schedule 7 of the *Environmental Protection Regulation 1998* (whether or not it has been treated or immobilised), and includes -

- for an element - any chemical compound containing the element; and
- anything that has contained the waste.

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"site" means land or tidal waters on or in which it is proposed to carry out the development approved under this development approval.

"tidal water" means the sea and any part of a harbour or watercourse ordinarily within the ebb and flow of the tide at spring tides.

"watercourse" means a river, creek or stream in which water flows permanently or intermittently-

- in a natural channel, whether artificially improved or not; or
- in an artificial channel that has changed the course of the watercourse.

"waters" includes river, stream, lake, lagoon, pond, swamp, wetland, unconfined surface water, unconfined water natural or artificial watercourse, bed and bank of any waters, dams, non-tidal or tidal waters (including the sea), stormwater channel, stormwater drain, roadside gutter, stormwater run-off, and groundwater and any part-thereof.

"works" or "operation" means the development approved under this development approval.

"you" means the holder of this development approval or owner / occupier of the land which is the subject of this development approval.

"50th percentile" means not more than three (3) of the measured values of the quality characteristic are to exceed the stated release limit for any six (6) consecutive samples for a release/monitoring point at any time during the environmental activity(ies) works..

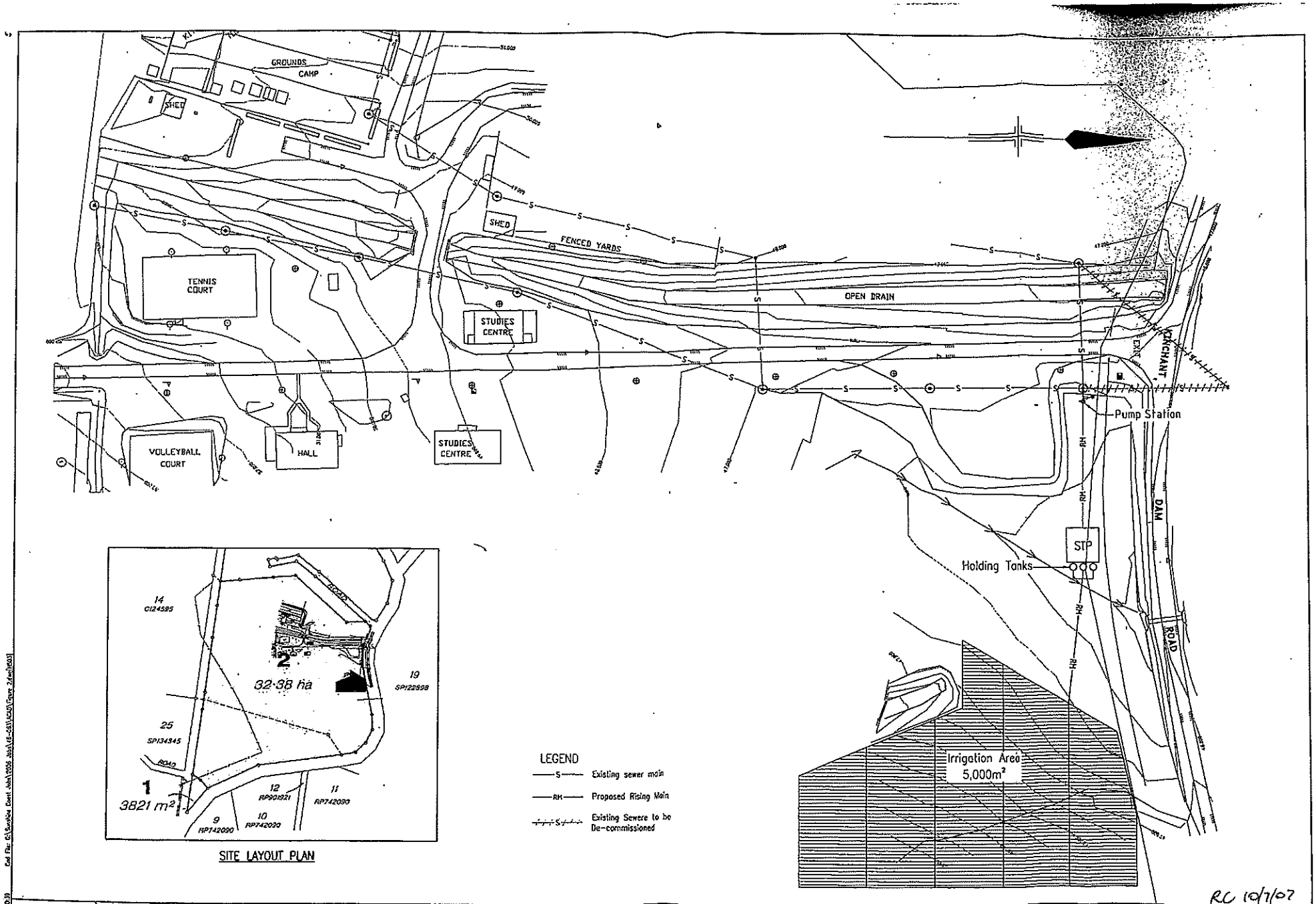
"80th percentile" means not more than one (1) of the measured values of the quality characteristic is to exceed the stated release limit for any five (5) consecutive samples for a sampling point at any time during the environmental activity(ies) works

END OF CONDITIONS

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ATTACHMENT 1 – FIGURE 1 - Site layout showing proposed treatment plant and irrigation area.



SITE LAYOUT PLAN

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SCALES	DRAWN CDS	leddy sergiacomi & associates pty ltd	CLIENT SUNCOAST WASTEWATER MGMT	LOCATION KINCHANT DAM ROAD, KINCHANT	DRAWING NO. Figure 2
	CHECKED PV				

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