**Developer’s Checklist for the Code of Environmental Compliance for ERA 63 Sewage Pumping Stations**

### Introduction

The “Code of environmental compliance for certain aspects of sewage treatment activities (ERA 63)” (**the Code**) applies to operating Sewage Pumping Stations (SPS) with a total design capacity of more than 40 kL/hr (11.1 L/s), if the operation of the SPS is not an essential part of the operation of a sewage treatment works to which ERA 63(1) applies.

This checklist has been prepared for developers installing SPS within Unitywater’s sewerage network to assess the design of proposed new SPS, or major upgrades to existing SPS for compliance with the Code. The shaded sections of this Checklist must be completed and the checklist must be certified by a Registered Professional Engineer in Queensland (RPEQ). The certified checklist is to be submitted to Unitywater along with the draft design for review and design acceptance.

|  |  |  |
| --- | --- | --- |
| Developer | **Sewage Pumping Station Reference No.** | Development / Project Name / Project Identifier |
|  |  |  |

### Legislation

#### Environmental Protection Act 1994

* Chapter 1, part 3 Interpretation, sections 18 and 19
* Chapter 5 Environmental authorities and environmentally relevant activities
* Chapter 5A General provisions about environmentally relevant activities
* Chapter 7, part 1 Environmental duties, sections 319-320G
* Chapter 12, part 1 Guidelines, section 549.

#### Environmental Protection Regulation 2019

* Sections 19, 170 and 191
* Schedule 2, part 13, Item 63(1)(b) and (3) – Threshold 2
* Schedule 7, part 2 item 23 Eligibility criteria and standard conditions for sewage treatment works (ERA 63) – version 2.

### Definitions

| Term | Meaning |
| --- | --- |
| Commercial place | Means a place used as an office or for business or commercial purposes. |
| Environmental nuisance | Means unreasonable interference or likely interference with an environmental value caused by:  (a) aerosols, fumes, light, noise, odour, particles or smoke  (b) an unhealthy, offensive or unsightly condition because of contamination  (c) another way prescribed by the regulation. |
| Major upgrades | Means upgrades which will involve expenditure in excess of $150,000. This value applies as of 1 January 2012 and will increase by 3% on 1 January of each subsequent year. |
| Sensitive place | Means:  (a) a dwelling (including residential allotment), mobile home or caravan park, residential marina or other residential premises, motel, hotel or hostel  (b) a library, childcare centre, kindergarten, school, university or other educational institution  (c) a medical centre, surgery or hospital  (d) a protected area  (e) a public park or garden that is open to the public (whether or not on payment of money) for use other than for sport or organised entertainment. |

**Note:** Further definitions are contained in the Code.

### Assessment Tables

Table 1 assesses whether the Code is applicable to a proposed SPS.

Table 1: Application of the Code

|  |  |  |  |
| --- | --- | --- | --- |
| Serial | Requirement | Yes/No | Comment |
|  | **General** | | |
| 1 | Will this SPS have a total design capacity of more than 40kL/hr [11.1L/s]? |  | If No, This Checklist does not apply  If Yes, Go to Serial 2 |
| 2 | Is it a new SPS? |  | If No, Go to Serial 3 If Yes, Go to Table 2, Serial 4 |
| 3 | Is it a **major upgrade** of an existing SPS? See definition of “major upgrades” above. |  | If No, This Checklist does not apply  If Yes, Go to Table 3, Serial 5 |

Table 2 contains the specific provisions relating to **new** SPS.

Table 2: New Sewage Pumping Stations

|  |  |  |  |
| --- | --- | --- | --- |
| Serial | Requirement | Yes/No | Comment |
| **4** | **New Sewage Pumping Stations** | | |
| 4a | Will the SPS be located in a low lying or flood prone area? See Note 2 for source maps for coastal hazard and flood prone areas. |  | If No, Go to Table 4, Serial 6a If Yes, Go to Serial 4b |
| 4b | Are essential operating components (in particular - switchgear) located above 1 in 100 year flood level? |  | If No, see Note 1, Go to Serial 4c If Yes, Go to Serial 4c |
| 4c | Are all openings (e.g. maintenance holes) located above 1 in 100 year flood level? |  | If No, see Note 1, Go to Table 4, Serial 6 If Yes, Go to Table 4, Serial 6 |

Table 3: Major Upgrades to Existing Sewage Pumping Stations

|  |  |  |  |
| --- | --- | --- | --- |
| Serial | Requirement | Yes/No | Comment |
| **5** | **Upgraded Sewage Pumping Stations** | | |
| 5a | Is the SPS located in a low lying or flood prone area? See Note 2 for source maps for coastal hazard and flood prone areas. |  | If No, Go to Table 4, Serial 6 If Yes, Go to Serial 5b |
| 5b | Are essential operating components (in particular - switchgear) located above 1 in 100 year flood level? |  | If No, Go to Serial 5c If Yes, Go to Serial 5d |
| 5c | Can essential operating components (in particular - switchgear) be relocated practically to be above the 1 in 100 year flood level at reasonable cost? |  | If No, attach to this checklist a summary explaining why this can't be done. See Note 6, Go to Serial 5d If Yes, Modify design to show all essential components above the 1 in 100 year flood level and attach to this checklist, Go to Serial 5d |
| 5d | Are all openings (e.g. maintenance holes) located above 1 in 100 year flood level? |  | If No, Go to Serial 5e If Yes, Go to Table 4, Serial 6 |
| 5e | (1) Can all openings (e.g. maintenance holes) be relocated practically to above the 1 in 100 year flood level at reasonable cost? |  | If No, Attach to this checklist a summary explaining why these can't be done. See Note 6, Go to Table 4, Serial 6 If Yes, Modify design to show either all openings above the 1 in 100 year flood level or the alternative solution and attach the modified design to this checklist, Go to Table 4, Serial 6 |
| (2) If not, can an alternative solution to minimise inflows be put in place? |  |

Table 4 contains general provisions relating both to **new** SPS and to **major upgrades** of existing SPS.

Table 4: General Provisions

| Serial | Requirement | Yes/No | Comment |
| --- | --- | --- | --- |
| **6** | **Contingency Plan** | | |
| 6a | Does the design provide standard connections for emergency by-pass pumping? |  | If No, see Note 1, Go to Serial 6b If Yes, Go to Serial 6b |
| 6b | Does the design provide standard connections for mobile generators, or a back-up power source that automatically starts in the event of a power failure? |  | If No, attach to this checklist a summary explaining why one of these control measures is not provided and outline any alternate method for dealing with a power failure, see Note 1 and Note 6, Go to Serial 6c If Yes to either, Go to Serial 6c |
| 6c | Does the design provide for stand-by pumping equipment and associated controls? |  | If No, see Note 1, Go to Serial 6d If Yes, Go to Serial 6d |
| 6d | Have critical components and a system to ensure adequate and timely access to spare parts been identified and documented in the Contingency Plan? |  | If No, prepare Contingency Plan and document critical components and then attach to this checklist, Go to Serial 6e  If Yes, Go to Serial 6e |
| 6e | Does the design provide for access for maintenance and emergency activities? |  | If No, see Note 1, Go to Serial 6f If Yes, Go to Serial 6f |
| 6f | Does the design provide facilities for testing and validation of any relevant equipment used or related to the contingency plan? |  | If No, see Note 1, Go to Serial 7a If Yes, Go to Serial 7a |
| **7** | **Other** | | |
| 7a | Does the design identify where a sewage release will discharge to and where the release may impact on the environment? |  | If No, see Note 1, Go to Serial 7b  If Yes, Go to Serial 7b  Note: Discuss the sewage release location Unitywater’s Development Services Team and Approvals / Environment Team to ensure that environmental aspects and potential impacts are identified and addressed under the Integrated Environmental Management System. |
| 7b | Would a release from this site impact on a **sensitive place**? See definition of “sensitive place” above. |  | If No, Go to Serial 7c If Yes, attach to this checklist a plan showing the release site and any sensitive places near the site, see Note 6, Go to Serial 7c. |
| 7c | Does the design provide for control measures to minimise the potential for environmental harm, including: (1) emergency storage - see Note 3, and |  | If No to one or both, attach to this checklist a summary explaining why the control measure/s are not provided, see Note 1 and Note 6, Go to Serial 7d. If Yes to both, Go to Serial 7d. |
| (2) physical systems to warn of potential releases, such as an alarm system using pump-failure alarms or level alarms for sewage contained in the pump well and SCADA equipment? |  |
| 7d | (1) Is there an expectation that the SPS will generate odours? An odour impact assessment is required, see Note 4. |  | If No to (1 ), Go to Serial 7e If Yes to (1) and (2) and No to (3), attach to this checklist a summary explaining why the odour management measures are not provided, see Note 1 and Note 6, Go to Serial 7e If Yes to (1), (2) and (3), attach to this checklist a summary of the proposed odour management measures, see Note 6, Go to Serial 7e. |
| (2) Is the SPS located near a **sensitive place** or **commercial place**, such that the odours may cause an **environmental nuisance**? See definitions of “sensitive place”, “commercial place” and “environmental nuisance” above. |  |
| (3) Have odour management measures been installed? See Note 4.  When it is unclear whether or not odours from the SPS may cause an environmental nuisance, designers should allow sufficient space for retro-fitting odour control equipment. |  |
| 7e | (1) Is there an expectation that SPS will generate noise? See Note 5. |  | If No to (1 ), Go to Serial 7f If Yes to (1) and (2) and No to (3), attach to this checklist a summary explaining why measures to mitigate potential noise issues are not provided, see Note 1 and Note 6, Go to Serial 7f If Yes to (1), (2) and (3), attach to this checklist a summary of the proposed measures to mitigate potential noise issues, see Note 6, Go to Serial 7f. |
| (2) Is the SPS located near a **sensitive place** or **commercial place**, such that the noise may cause an **environmental nuisance**? See definitions of “sensitive place”, “commercial place” and “environmental nuisance” above. |  |
| (3) Does the SPS location and design include appropriate measures to mitigate any potential noise issues? See Note 5. |  |
| 7f | Does Unitywater have an Integrated Environmental Management System, Contingency Plan, Emergency Response Plan, Sewage Overflow Abatement Plan and other appropriate procedures and systems to enable compliance with the other requirements of the Code including: monitoring, maintenance, trained/experienced operators, equipment calibration, record keeping, responding to complaints and the notification and reporting of releases? | Yes – see Note 7. | Note: If the sewage pumping station design is accepted by Unitywater, that Unitywater’s Environment Team, Network Operations and Asset Management sections need to be notified of the new SPS (including any site specific issues for example see Serials 7a & 7b) so that it can be included in the integrated environmental management system, emergency response plan, contingency plan and sewage overflow abatement plan.  Go to Serial 8. |
| **8** | **Preliminary Self-Assessment** | | |
| 8a | Are all relevant items addressed and are all requirements satisfied? |  | If No, see Note 1 If Yes, Concept design complies with the conditions of the Code (other than condition 10) see Note 8.  Provide a copy of this completed Checklist and any required attachments to Unitywater. |

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### Notes applicable to the Tables

1. If any response results in a non-compliance with the requirement, review design to see if it can be modified to be compliant with the standard conditions of the Code. Where the standard conditions of the Code cannot be met seek acceptance of alternative solutions from the Department of Environment, Tourism, Science and Innovation (DETSI). To obtain formal approval for a SPS that does not comply with the standard conditions of the Code, Unitywater will need to make a variation application for an environmental authority to DETSI.
2. For coastal hazard areas, refer to the Coastal Hazard Areas Maps on the DETSI website.  
   For flood prone areas refer to the overlay maps in the relevant planning scheme, or to the river and storm tide flood maps on the relevant Council website.
3. The SPS design should provide for emergency storage in accordance with clause 5.6.2 of the ‘Sewerage Pumping Station Code of Australia, WSA 04 – 2005, SEQ Design & Construction Code’ and Table 10 of the ‘SEQ Water Supply and Sewerage Design & Construction Code – Design Criteria’ dated 1 July 2013.
4. An odour impact assessment should be undertaken in accordance with clauses 2.5 and 2.9 of the ‘Sewerage Pumping Station Code of Australia, WSA 04 – 2005, SEQ Design & Construction Code’ and the ‘Guideline – Odour Impact Assessment from Developments’ published by DETSI. Odour management measures are to be determined as part of the odour impact assessment referred to above – see ‘SEQ Water Supply and Sewerage Design & Construction Code – Design Criteria’ dated 1 July 2013. The odour management measures should also be consistent with any relevant provisions of an applicable Planning Scheme.
5. A noise assessment should be undertaken and (if necessary) noise mitigation measures should be adopted in accordance with the ‘Sewerage Pumping Station Code of Australia, WSA 04 – 2005, SEQ Design & Construction Code’, including: clauses 2.2, 2.5, 2.10 and 5.2.3.
6. Attach to this checklist:

* The draft design for the sewage pumping station
* any supporting document required by a Yes to Serial 5c, 5e, 6b, 6d, 7b, 7d or 7e
* any supporting document required by a No response to Serial 5c, 5e, 6b, 7c, 7d, or 7e, and
* any advice from DETSI agreeing to an alternative solution.

1. This Checklist assumes that Unitywater has a compliant set of plans, systems and procedures to address the ongoing operational requirements of the Code.
2. Attachment 1 to this Checklist shows the relationship between this Checklist and the Code. This checklist does not address condition 10 of the Code, which states: “The operator must ensure that contaminants are not released to land or waters… as a result of the activity”. This is because this condition is considered to be impractical in wet weather. DETSI have foreshadowed that condition 10 will be amended to “the operator must take all reasonable and practical measures to ensure that contaminants are not released to land or waters … as a result of the activity”.

**Certification**

As a Registered Professional Engineer in Queensland and an authorised officer or agent of:

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(Name of Developer of the Sewage Pumping Station)

I certify that the answers in this checklist and the attachments accurately represent the assessment of the design for the sewage pumping station – Reference Number: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ against the “Code of environmental compliance for certain aspects of sewage treatment activities (ERA 63)”.

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Signed: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Certifier’s RPEQ No: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

### Attachment 1 - Relationship between this Checklist and the Code

This attachment sets out the relationship between this Checklist and the Standard Conditions in the Code.

Items 1-3 of the Checklist determine whether the proposed new SPS or the proposed upgrade of the existing SPS is subject to the Code.

Items 4-7(e) and 8 of the Checklist determine whether the design of the proposed new SPS or the proposed upgrade of the existing SPS will be compliant with the Code.

Item 7f of the Checklist relates to the Standard Conditions in the Code regarding the ongoing operation of SPSs. The Checklist does not address these requirements individually, as it is assumed that the current Unitywater systems will be reviewed and amended to be compliant with the Code.

**SPS Checklist:**

|  |  |
| --- | --- |
| Code Standard Condition | Checklist Provision |
| 1 Flooding | 4a, 4b, 5a, 5b, 5c |
| 2 Flooding | 4a, 4c, 5a, 5d, 5e |
| 3 Maintenance | 7f |
| 4 Integrated Environmental Management System  Condition 4(a)  Condition 4(d)  Condition 4(f) | 7f  7a, 7b, 7d, 7e  7c, 7d, 7e  7c |
| 5 Contingency Plan  Condition 5(a)  Condition 5(b)  Condition 5(c)  Condition 5(d)  Condition 5(e)  Condition 5(f) | 7f  6a  6b  6c  6d  6e  6f |
| 6 Emergency response plan  Condition 6c | 7f  4a,7a, 7b |
| 7 Sewage overflow abatement plan | 7a, 7b, 7f |
| 8-9 Records | 7f |
| 10 Release to land and waters | Not addressed by Checklist |
| 11-13 Notifiable release | 7f |
| 14-15 General release reporting | 7f |
| 16 Monitoring | 7f |
| 17 Trained/experienced operator(s) | 7f |
| 18 Equipment calibration | 7f |
| 19 Complaint response | 7f |
| 20 Air nuisance | 7d |
| 21-23 Noise monitoring | 7e |
| 24-25 Responding to potential releases | 7c, 7d |
| 26 Responding to potential releases | Operational requirement - not addressed by this Checklist |