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| At a glance | **1** | This document provides additional context around the information requested in the RfI Response Template E. |

CONFIDENCE GRADES

1. This RfI includes a confidence grading system which requires each Local Authority to apply a level of confidence to each request.
2. The confidence grade system has been developed to provide a reasoned basis for Local Authorities to qualify information in respect to reliability and accuracy. It is essential that proper care and a high level of application is given to the assignment of confidence grades to data requiring such annexation.
3. There are two elements to the confidence grades:

* Reliability bands (A to D); and
* Accuracy bands (1 to 6).

1. The reliability bands are assigned according to the source of the information.

| **Reliability Band** | **Description** |
| --- | --- |
| A | Sound textual records, procedures, investigations or analysis properly documented and recognised as the best method of assessment. |
| B | As A but with minor shortcomings. Examples include old assessment, some missing documentation, some reliance on unconfirmed reports, some use of extrapolation. |
| C | Extrapolation from limited sample for which Grade A or B data is available. |
| D | Unconfirmed verbal reports, cursory inspections or analysis. |

1. Accuracy bands provide the margin of error around the central estimate.

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| **Accuracy Band** | **Accuracy to or within +/-** | **but outside +/-** |
| 1 | 1% | - |
| 2 | 5% | 1% |
| 3 | 10% | 5% |
| 4 | 25% | 10% |
| 5 | 50% | 25% |
| 6 | 100% | 50% |
| X | Accuracy outside +/- 100 %, zero or small numbers or otherwise incompatible, see example below. | |

1. The X grade is generally only likely to be appropriate where a zero has been entered.
2. The overall confidence grade is a combination of the reliability and accuracy band. For example:

* A2: Data based on sound records etc. (A, highly reliable) and estimated to be within +/- 5% (accuracy band 2);
* C4: Data based on extrapolation from a limited sample (C, unreliable) and estimated to be within +/- 25% (accuracy band 4);
* AX: Data based on sound records etc. (A, highly reliable) but value too small to calculate any meaningful accuracy percentage.

1. The table below provides a list of compatible confidence grades.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Compatible Confidence Grades** | | | | |
| **Accuracy Band** | **Reliability Band** | | | |
|  | A | B | C | D |
| 1 | A1 |  |  |  |
| 2 | A2 | B2 | C2 |  |
| 3 | A3 | B3 | C3 | D3 |
| 4 | A4 | B4 | C4 | D4 |
| 5 |  |  | C5 | D5 |
| 6 |  |  |  | D6 |
| X | AX | BX | CX | DX |

1. As shown in the table above, certain reliability and accuracy band combinations are considered to be incompatible – for example, D1 or D2.
2. When selecting a confidence grade from the drop-down boxes provided in the template, it would be appreciated if each Local Authority could add explanatory comments for responses with lower confidence levels in the Comments field.

GLOSSARY

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| --- | --- |
| **BOD** | Biological Oxygen Demand |
| **COD** | Chemical Oxygen Demand |
| **DI** | Distribution Input |
| **FTE** | Full-Time Equivalent |
| **IRC** | Infrastructure Renewals Charge |
| **NH3** | Ammoniacal Nitrogen |
| **PCV** | Peak Concentration or Value (Maximum allowable level) |
| **PE** | Population Equivalent |
| **RfI** | Request for Information |
| **SS** | Suspended solids |
| **TOC** | Total Organic Carbon |
| **ttds** | Thousand Tonnes of Dry Solids |
| **TE** | Trade Effluent |
| **WWTPs** | Wastewater Treatment Plants |

SECTION E: WATER SERVICES DETAIL

Commentary

1. Forecast information should be based on internal budgets or management accounts and should be reported in nominal terms (i.e. including projected inflation). Please provide the inflation assumptions in Table E12.

TABLE E1: ACTIVITY BASED COSTING – WATER SERVICE

1. This table includes operating costs and capital maintenance costs attributable to the water service. The information in this tables is used for operating cost trends analysis and for the compilation of unit costs.

Guidance to the Local Authority

1. On completion of Table E1 the Local Authority should ensure that no input cell is left blank in any of the area columns reported on. Area columns that are not reported on can be left blank.
2. In the United Kingdom, water companies organise their operational activities into smaller sub-areas. These are used as cost centres to provide more information on the incidence of operating costs across the overall company area. This could be, for example, by district meter area, by treatment plant, by river basin. These areas are known as operational areas. If the Local Authority similarly organises its operations at a more disaggregated level for reporting costs, for several of the tables in Section E (E2, E2b, E4, E6, E7, E7b), the Local Authorities can decide whether to report the information by operational area or for the whole Local Authority.
3. If more columns are required than provided, Local Authorities can insert the necessary columns. Local Authorities should enter a zero value for unused area columns.
4. The table asks for forecasts for the financial year ending June 2021.

Direct costs

1. These are costs, which are directly attributable to each water service activity, namely Water Resources and Treatment and Water Distribution. Such costs include apportionments, where such apportionments are necessitated by operational consideration (for example where mobile gangs are used to operate both water and wastewater activities). The direct costs incurred in the provision of General and Support Activities are given in total for the water service and are also apportioned between service activities.
2. If the information is not available for the functional activity (e.g. resources and treatment and distribution), Local Authorities should allocate the direct costs and provide an explanation in the commentary.

Operating expenditure

1. The costs of subjective elements (i.e. rates, doubtful debts or exceptional items) are included only at the water service level and are not apportioned between service activities.
2. Local Authorities should ensure that all of their operating expenditure incurred is recorded in the lines below. If there is not a suitable line for an item of expenditure, please include the expenditure in the line which has the closest definition and provide a note in the commentary.
3. For the avoidance of doubt, please do not report finance costs and depreciation in rows E1.1 to E1.22 (water), E2.1 to E2.21 (wastewater) and E2b.1 to E2b.21 (stormwater).

Reactive maintenance

1. The costs of reactive maintenance expenditure on water infrastructure and non-infrastructure assets are included within operating expenditure, for each of the two service activities.

Capital maintenance

1. The capital charges for each service category for infrastructure depreciation and non-infrastructure depreciation. Other capital charges are included at the service level only and are not apportioned between service activities.

Commentaries

1. **Allocation of costs**: The Local Authority must explain the basis for allocation of operating expenditure between water, wastewater and stormwater services; and (if applicable) between service areas within the water service. The Local Authority should also clearly state any general allocation rules which have been used by themselves, their contractors or agents.
2. In the event of a joint venture of assets serving two or more Local Authorities, costs and volumes/loads should be allocated according to the contractual arrangements in place (e.g. how costs are shared). The Local Authority is expected to explain the allocation rules used to apportion costs.
3. The Local Authority should state whether costs such as leakage control have been allocated entirely to operating expenditure, or whether significant elements of expenditure have been allocated to capital maintenance or capital expenditure lines.
4. It is important for the Local Authority to explain how costs related to business activities (particularly customer services/billing) and indirect costs (general and support expenditure, restructuring provisions and other atypical items) are allocated between the water, wastewater and stormwater services.
5. It is important that the Local Authority clearly explains the allocation of indirect costs between functional activities(e.g. water distribution and water distribution and treatment).
6. **Atypical costs and provisions:** The Local Authority must reveal and explain all significant atypical costs which have occurred during the reporting year, regardless of whether or not they are declared as exceptional items. The Local Authority must also confirm the absence of any atypical costs. In the commentary to the table, the Local Authority must disclose:
7. Restructuring costs (which includes redundancy payments, superannuation contributions and consultants’ fees);
8. Compensation payments (for one-off events, but not standard GMS or customer charter payments);
9. Costs attributable to unusual weather conditions;
10. Pension holidays;
11. Rebates of environment fees or service charges
12. In addition, the Local Authority must disclose the reasons for any exceptional items, which have been declared and whether they are expenses or provisions for future costs.
13. The Local Authority must disclose the purpose and amount of any provision included in operating expenditure and disclose the amount of provision expended or released in the reporting year.

Column definitions

1. Columns are provided for each functional activity within the water service:
2. ***Col 1-7: Water resources and treatment*:** All direct costs associated with the abstraction, conveyance and treatment of raw water, including routine maintenance. Non-routine maintenance should be charged to General and support activities. Include the cost of bulk water supplies purchased but exclude the functional costs of bulk water supplied to third parties and of non-potable water. For these purposes, the latter costs should be estimated, and adjustments made to the appropriate subjective fields (including asset and infrastructure depreciation. Compensating adjustments should be made under Services provided for third parties. Where pumps serve a dual abstraction/distribution function, an assessment must be made of the costs of each function based on relative pumping head.
3. ***Col 8-14: Water distribution*:** All direct costs associated with the pumping, storage and conveyance of treated water, including the operation, control and monitoring of the distribution system, including routine maintenance. Non-routine maintenance should be charged to General and support activities. Where pumps serve a dual abstraction/distribution function, an assessment must be made of the costs of each function based on relative pumping head. The costs of distributing non-potable water should be excluded. Include here the installation, removal, and replacement of consumer meters (except where capitalised or rechargeable), but not meter reading. Where distribution employees are employed on work related to tariff matters, and charging and billing enquiries, they should be charged to Customer services.

Costs should be broken down by operational area in the Local Authority area and entered in the appropriate columns. The Local Authority should maintain a record of the boundaries of each area.

1. ***Col 15:* *Water service total*:** where entries are required in columns 1 –6 and 8-13, column 15 is calculated from those entries.

BLOCK 1: SERVICE ANALYSIS – WATER: DIRECT COSTS

|  |  |  |  |
| --- | --- | --- | --- |
| **E1.0** | **Name** | | **-** |
| *Definition:* | | Name of Area. | |
| *Processing Rules:* | | Input field. | |
| **E1.1** | **Employment costs** | | **NZ$000** |
| *Definition:* | | The sum of the total costs of "non-manual and manual manpower" which are directly attributable to each of the individually identified service activities: Water resources and treatment, Water distribution and Water service total. To be included are the gross salaries and wages of all employees within the relevant activity, including payments resulting from bonus and profit-related payment schemes, superannuation, unfunded superannuation liabilities, sick pay, sickness benefits, private health insurance, retirement awards, death in service benefits, paid leave, subsistence, travel, entertaining and conference expenses. | |
| *Processing Rules:* | | Input field. Column ‘total’ is calculated from the sum of the input columns. | |
| **E1.2** | **Power** | | **NZ$000** |
| *Definition:* | | All energy costs other than energy used for transport and energy costs associated with the provision of depots and offices - which are included in *General and support activities* - which are directly attributable to each of the individually identified service activities: *Water resources and treatment*, *Water distribution* and *Water service total*. | |
| *Processing Rules:* | | Input field. Column ‘total’ is calculated from the sum of the input columns. | |

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| **E1.3** | **Hired and contracted services** | | **NZ$000** |
| *Definition:* | | All hired and contracted equipment and services, which are directly attributable to each of the individually identified service activities, *Water resources and treatment,* *Water distribution* and *Water service total*. (Hired services excludes the hire of vehicles and plant, which is included in *General and support activities*). Contracted services include all contracted labour; professional advice (such as lawyers and consultants); computer software; and contracts for the collection of water and wastewater charges. | |
| *Processing Rules:* | | Input field. Column ‘total’ is calculated from the sum of the input columns. | |
| **E1.4** | **Estimated running costs of concession contracts** | | **NZ$000** |
| *Definition:* | | Concession contracts refer to contracts for the provision of a defined service delegated by a Local Authority to a third party private operator. This provision can be related to operating the assets (lease or ‘affermage’ agreement) or include all infrastructure investment (through a concession agreement). For example, Veolia has a contract for the provision of wastewater services at four wastewater treatment plants that serve metropolitan Wellington.  Local authorities should provide an information estimate of the direct cost of operating these plans if they have a similar arrangement in place with a third party private operator.  Please provide relevant details of such arrangements in the commentary. | |
| *Processing Rules:* | | Input field. Column ‘total’ is calculated from the sum of the input columns. | |
| **E1.5** | **Materials and consumables** | | **NZ$000** |
| *Definition:* | | All materials and consumables that are not in Hired and contracted services which are directly attributable to each of the individually identified service activities: Water resources and treatment, Water distribution and Water service total.  This category of cost includes equipment (such as small tools and clothing), provisions, tarmac and backfill materials, but excludes all items capitalised or included within infrastructure renewals expenditure. Most if not all inventory items fall into this category. | |
| *Processing Rules:* | | Input field. Column ‘total’ is calculated from the sum of the input columns. | |

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| **E1.6** | **Service charges** | | **NZ$000** |
| *Definition:* | | Total cost of service charges by environment agencies for water abstraction which are directly attributable to individually identified service activities: Water resources and treatment, Water distribution and Water service total. | |
| *Processing Rules:* | | Input field. Column ‘total’ is calculated from the sum of the input columns. | |
| **E1.7** | **Bulk supply imports** | | **NZ$000** |
| *Definition:* | | Total payments for imported bulk supplies which are directly attributable to individually identified service activities: Water resources and treatment, Water distribution and Water service total. | |
| *Processing Rules:* | | Input field. Column ‘total’ is calculated from the sum of the input columns. | |
| **E1.8** | **Other direct costs** | | **NZ$000** |
| *Definition:* | | Any other operating costs, but excluding interest and taxation, on an aggregated basis, including costs associated with the provision of depots and offices, and also include fines and penalties, which can be directly attributable to individually identified service activities: Water resources and treatment, Water distribution and Water service total. | |
| *Processing Rules:* | | Input field. Column ‘total’ is calculated from the sum of the input columns. | |
| **E1.9** | **Total direct costs** | | **NZ$000** |
| *Definition:* | | The total direct costs attributable to individually identified service activities: Water resources and treatment and Water distribution. | |
| *Processing Rules:* | | Calculated field: the sum of lines E1.1 to E1.8. | |

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| **E1.10**  **&**  **E1.11** | **General and support employment costs**  **General and support other costs** | | **NZ$000**  **NZ$000** |
| *Definition*: | | The aggregate direct cost of General and support activities is termed General and support expenditure. This is split between employment costs for general and support staff in line E1.10 and all other costs in line E1.11. Inclusions for employment costs are defined in line E1.1.  General and support activities include all centrally provided services, except for any items specifically covered under the individually identified activities. The following services should be included:   * Insurance; * Administrative; * Personnel; * Financial; * Legal and property management; * Research and development; * Policy determination, implementation and monitoring; * Audit; * Public and employee relations; * Data processing; * Planning liaison; * Vehicles and plant (including hired vehicles and plant, and leased Local Authority cars); * Electrical and mechanical maintenance; * Land and property maintenance; * Materials storage; * Operational and technical support; and * General and support buildings.   The direct costs of General and support activities must be allocated across service activities and the individually identified business activities: Water resource and treatment and Water distribution as General and support expenditure. | |
| *Processing Rules:* | | Input field. Column ‘total’ is calculated from the sum of the input columns. | |

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| **E1.12** | **Functional expenditure** | | **NZ$000** |
| *Definition:* | | The direct costs incurred in the provision of each of the individually identified service and business activities, plus in each case an allocation of direct costs incurred in the provision of General and support activities.  The functional expenditure for *Water resources and treatment* should align with the functional expenditure total reported in E4.19. | |
| *Processing Rules:* | | Calculated field: the sum of lines E1.9 to E1.11. | |

BLOCK 2: OPERATING EXPENDITURE

|  |  |  |  |
| --- | --- | --- | --- |
| **E1.13** | **Customer services** | | **NZ$000** |
| *Definition*: | | Total costs directly associated with customer services, except for depreciation.  Include customer accounting, the reading of meters, debt recovery and the costs of disconnections, customers' enquiries relating to tariff matters and charging/billing, and complaints handling. The costs incurred within Water distribution in dealing with complaints other than those related to tariff charges and charging/billing should be recorded within that activity. The cost of billing services purchased should be included but the costs of services provided for third parties excluded. For these purposes, the latter costs should be estimated, and adjustments made to the appropriate headings (and compensating adjustments made under Services provided for third parties). | |
| *Processing Rules*: | | Input field. | |
| **E1.14** | **Scientific services** | | **NZ$000** |
| *Definition:* | | Total costs directly associated with scientific services except for depreciation.  Include the costs of scientific and laboratory services, and of the monitoring of quality. The cost of such services purchased should be included but the costs of services provided for third parties excluded. For these purposes, the latter cost should be estimated, and adjustments made to the appropriate subjective lines (and compensating adjustments made under Services provided for third parties). | |
| *Processing Rules:* | | Input field. | |

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| **E1.15** | **Other business activities** | | **NZ$000** |
| *Definition*: | | Total costs directly associated with other business activities, except for depreciation. | |
| *Processing Rules:* | | Input field. | |
| **E1.16** | **Total business activities** | | **NZ$000** |
| *Definition:* | | Cost of total business activities except for depreciation. | |
| *Processing Rules:* | | Calculated field: the sum of lines E1.13 to E1.15. | |
| **E1.17** | **Local Authority rates** | | **NZ$000** |
| *Definition:* | | The cost of Local Authority rates. | |
| *Processing Rules:* | | Input field. | |
| **E1.18** | **Doubtful debts** | | **NZ$000** |
| *Definition:* | | The charge/credit to the revenue and expenditure account for bad and doubtful debts. | |
| *Processing Rules:* | | Input field. | |
| **E1.19** | **Total exceptional items** | | **NZ$000** |
| *Definition:* | | Exceptional items are defined in accounting standards which apply in New Zealand. | |
| *Processing Rules:* | | Input field. | |
| **E1.20** | **Total opex less third party services** | | **NZ$000** |
| *Definition:* | | Total operating expenditure less third party services. | |
| *Processing Rules:* | | Calculated field: the sum of lines E1.12+E1.16+E1.17+ E1.18+ E1.19. | |

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| **E1.21** | **Third party services – opex** | | **NZ$000** |
| *Definition:* | | The operating costs of providing water services to third parties, to include:   * rechargeable works * bulk supplies of raw or treated water to other agencies * non-potable water * water main diversions * repairs to customers' supply pipes | |
| *Processing Rules:* | | Input field. | |
| **E1.22** | **Total operating expenditure** | | **NZ$000** |
| *Definition:* | | Total operating expenditure | |
| *Processing Rules:* | | Calculated field: the sum of lines E1.20 and E1.21. | |

BLOCK 3: REACTIVE AND PLANNED MAINTENANCE (INCLUDED IN OPEX)

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| --- | --- | --- | --- |
| **E1.23** | **Reactive and planned maintenance infrastructure** | | **NZ$000** |
| *Definition*: | | The reactive and planned maintenance expenditure on water infrastructure assets, for each of the individually identified service activities, Water resources and treatment, Water distribution and Water service total, included in operating expenditure.  This should cover maintenance which is expensed in the year. Examples include:   * burst repairs; * flushing, scrubbing and air scouring; * leakage control activities and leak repairs; * valve, hydrant and meter maintenance/ replacement; * communication pipe and stop tap replacement; * provision of meter boxes associated with the above; and * reactive and planned maintenance on aqueducts and dams.   Renewals investment (which is capitalised) should be reported in the Section G of the RFI Tables. | |
| *Processing Rules:* | | Input field. Column ‘total’ is calculated from the sum of the input columns. | |
| **E1.24** | **Reactive and planned maintenance non-infrastructure** | | **NZ$000** |
| *Definition:* | | The reactive and planned maintenance expenditure on water non-infrastructure assets, for each of the individually identified service activities, Water resources and treatment and Water distribution included in operating expenditure.  This should cover maintenance which is expensed in the year. Examples include:   * planned routine and reactive servicing of pumping plant; * planned routine and reactive maintenance of treatment plants and instrumentation; * service reservoir dosing; * buildings and ground maintenance; and * contracts for maintenance of computer equipment.   Renewals investment (which is capitalised) should be reported in the Section G of the RFI Tables. | |
| *Processing Rules:* | | Input field. Column ‘total’ is calculated from the sum of the input columns. | |

BLOCK 4: CAPITAL MAINTENANCE

|  |  |  |  |
| --- | --- | --- | --- |
| **E1.25** | **Infrastructure depreciation charge** | | **NZ$000** |
| *Definition:* | | Infrastructure depreciation charge for each of the individually identified service activities, Water resources and treatment, Water distribution and Water service total. | |
| *Processing Rules:* | | Input /Calculated Field. Column ‘total’ is calculated from the sum of the input columns. This line to be consistent with information in Chapter F. | |
| **E1.26** | **Non-infrastructure depreciation charge** | | **NZ$000** |
| *Definition:* | | Non-infrastructure depreciation charge on tangible fixed assets, for each of the individually identified service activities, Water resources and treatment, Water distribution and Water service total.  Note that this figure is not net of the amortisation of deferred credits and intangible assets, which are shown separately on lines E1.27 and E1.28. | |
| *Processing Rules:* | | Input/Calculated Field. Column ‘total’ is calculated from the sum of the input columns. Information to be consistent with that reported in Chapter F. | |

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| **E1.27** | **Amortisation of deferred credits** | | **NZ$000** |
| *Definition:* | | The amortisation of deferred credits arising from third party contributions on non-infrastructure assets. These are amortised over the life of the related asset. | |
| *Processing Rules:* | | Input field. | |
| **E1.28** | **Amortisation of intangible assets** | | **NZ$000** |
| *Definition:* | | Any amortisation or other reduction in the balance sheet valuation of intangible assets, such as goodwill. | |
| *Processing Rules:* | | Input field. | |
| **E1.29** | **Business activities depreciation charge** | | **NZ$000** |
| *Definition:* | | The asset depreciation at the aggregate level for each service, attributable to the assets used in the business activities, i.e. customer services, scientific services and other business activities (lines E1.13- E1.15). | |
| *Processing Rules:* | | Input field. | |
| **E1.30** | **Capital maintenance less third party services** | | **NZ$000** |
| *Definition:* | | Capital maintenance less capital maintenance charges in respect of third party services. | |
| *Processing Rules:* | | Calculated field: the sum of lines E1.25 to E1.29. | |
| **E1.31** | **Third party services - depreciation** | | **NZ$000** |
| *Definition:* | | Asset depreciation on assets relating to third party services, together with any infrastructure depreciation charge for infrastructure assets relating to third party services. | |
| *Processing Rules:* | | Input field. | |
| **E1.32** | **Total capital maintenance** | | **NZ$000** |
| *Definition:* | | Total capital maintenance (including capital maintenance in respect of third party services). | |
| *Processing Rules:* | | Calculated field: the sum of lines E1.30 + E1.31. | |

BLOCK 5: CONCESSION CONTRACTS

Specific guidance

Concession contracts refer to contracts for the provision of a defined service delegated by a Local Authority to a third party private operator. This provision can be related to operating the assets (lease or ‘affermage’ agreement) or include all infrastructure investment (through a concession agreement). For example, Veolia has a contract for the provision of wastewater services at four wastewater treatment plants that serve metropolitan Wellington.

Local Authorities should provide information for rows E1.33 and E1.34 in situations where the Local Authority have a similar arrangement in place with a third party private operator.

|  |  |  |  |
| --- | --- | --- | --- |
| **E1.33** | **Total annual charge for concession contracts** | | **NZ$000** |
| *Definition:* | | Total annual charge for concession contracts. These are contractual arrangements with a third party provider for the provision of a particular water service.  If the Local Authorities have equivalent arrangements, please report the charges paid to the third party and provide relevant details in the commentary. | |
| *Processing Rules:* | | Input field. | |
| **E1.34** | **Annual charge for concession contracts less estimated running costs** | | **NZ$000** |
| *Definition:* | | Annual charge for concession contracts less estimated running costs. | |
| *Processing Rules:* | | Calculated field: Line E1.33 - E1.4. | |
| **E1.35** | **Total operating costs** | | **NZ$000** |
| *Definition:* | | Total operating costs. | |
| *Processing Rules:* | | Calculated field: the sum of lines E1.22+E1.32+E1.34. | |

TABLE E2: ACTIVITY BASED COSTING – WASTEWATER SERVICE

This table includes operating costs and capital maintenance costs attributable to the wastewater service. The information in this tables is used for operating costs, trend analysis and for the compilation of unit costs.

Guidance

1. On completion of Tables E2 and E2b the Local Authority should ensure that no input cell is left blank in any of the area columns reported on.
2. The table asks for forecasts for the financial year ending 30 June 2021.
3. If the Local Authority organises its operations at a more disaggregated level for reporting costs, for several of the tables in Section E (E2, E2b, E4, E6, E7, E7b), the Local Authorities can decide whether to report the information by operational area or for the whole Local Authority.

Direct costs

1. These are costs, which are directly attributable to each service activity, namely *Wastewater, Wastewater treatment, and Sludge treatment and disposal*. Such costs include apportionments, where such apportionments are necessitated by operational considerations (for example where mobile gangs are used to operate both water and wastewater activities). The direct costs incurred in the provision of General and support activities are given in total for the wastewater service and are also apportioned between service activities.
2. If the information is not available for the functional activity, Local Authorities should allocate the direct costs and provide an explanation in the commentary.

Operating expenditure

1. The costs of subjective elements (i.e. rates, doubtful debts, or exceptional items) are included only at the wastewater service level and are not apportioned between service activities.
2. Local Authorities should ensure that all of their operating expenditure incurred is recorded in the lines below. If there is not a suitable line for an item of expenditure, please include the expenditure in the line which has the closest definition and provide a note in the commentary.
3. For the avoidance of doubt, please do not report finance costs and depreciation in rows E1.1 to E1.22 (water), E2.1 to E2.21 (wastewater) and E2b.1 to E2b.21 (stormwater).

Reactive maintenance

1. The costs of reactive maintenance expenditure on wastewater infrastructure and non-infrastructure assets, which are included within operating expenditure for each of the service activities.

Capital maintenance

1. The capital charges for each service category for infrastructure depreciation expenditure asset depreciation. Other capital charges are included at the service level only and are not apportioned between service activities.

Commentaries

1. **Allocation of costs:** The Local Authority must explain the basis for allocation of operating expenditure between water, wastewater and stormwater services; and between functional activities within the wastewater service. The Local Authority should clearly state any general allocation rules which have been used by themselves, their contractors or agents.
2. In the event of a joint venture of assets serving two or more Local Authorities, costs should be allocated according to the contractual arrangements in place. The Local Authority is expected to explain the allocation rules used to apportion costs.
3. It is important for the Local Authority to explain how costs related to business activities (particularly customer services/billing) and indirect costs (general and support expenditure, restructuring provisions and other atypical items) are allocated between the water and wastewater services.
4. It is important that the Local Authority clearly explains the allocation of indirect costs between the individual functional activities.
5. **Atypical costs and provisions:** The Local Authority must reveal and explain all significant atypical costs which have occurred during the reporting year, regardless of whether or not they are declared as exceptional items. The Local Authority must also confirm the absence of any atypical costs. In the commentary to the table the Local Authority must disclose:
   1. restructuring costs (which includes redundancy payments, superannuation contributions and consultants' fees);
   2. compensation payments (for one-off events);
   3. costs attributable to unusual weather conditions;
   4. superannuation holidays;
   5. rebates of environmental fees or other service charges, including Local authority rates.
6. In addition, the Local Authority must disclose the reasons for any exceptional items, which have been declared and whether they are expenses or provisions for future costs.
7. The Local Authority must disclose the purpose and amount of any provision included in operating expenditure, and disclose the amount of provision expended or released in the reporting year.

Column definitions

1. Columns are provided for each functional activity within the wastewater service:
2. ***Column 1-7: Wastewater:*** Include all direct costs associated with wastewater, including agency costs and routine maintenance. Non-routine maintenance should be charged to General and support activities. Exclude all costs associated with sea outfalls. Exclude terminal pumping costs (i.e. costs incurred in pumping to treatment plants).
3. ***Column 8: Wastewater treatment:*** Include all direct costs associated with wastewater treatment, including terminal pumping costs and routine maintenance. Non-routine maintenance should be charged to General and support activities. Include the costs of wastewater exports but exclude the cost of treating imported wastewater. For these purposes, the latter costs should be estimated, and adjustments made to the appropriate subjective lines (and compensating adjustments made under Services provided for third parties). Include all costs associated with sea outfalls, except the costs of sludge disposal where sea outfalls discharge treated effluent, and sludge is disposed of separately.
4. ***Column 9: Sludge treatment and disposal:*** Include all direct costs associated with sludge treatment and disposal, including routine maintenance. Non-routine maintenance should be charged to General and support activities. Include the cost of sludge exported but exclude the cost of treating and disposing of imported sludge. For these purposes, the latter cost should be estimated, and adjustments made to the appropriate subjective lines (and compensating adjustment made under Services provided for third parties).
5. ***Column 10: Wastewater service total:*** Where entries are required in columns 1-8, 10 and 11, column 12 is calculated from those entries

BLOCK 1: SERVICE ANALYSIS – WASTEWATER DIRECT COSTS

|  |  |  |  |
| --- | --- | --- | --- |
| **E2.0** | **Name** | |  |
| *Definition:* | | Name of Area | |
| *Processing Rules:* | | Input field. | |

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| --- | --- | --- | --- |
| **E2.1** | **Employment costs** | | **NZ$000** |
| *Definition:* | | The sum of the total costs of "non-manual and manual manpower" which are directly attributable to each of the individually identified service activities: *Wastewater, Wastewater treatment and Sludge treatment and disposa*l. To be included are the gross salaries and wages of all employees within the relevant activity, including payments resulting from bonus and profit-related payment schemes, superannuation, unfunded superannuation liabilities, sick pay, sickness benefits, retirement awards, death in service benefits, paid leave, subsistence, travel, entertaining and conference expenses. | |
| *Processing Rules:* | | Input field. Column ‘total’ is calculated from the sum of the input columns. | |
| **E2.2** | **Power** | | **NZ$000** |
| *Definition:* | | All energy costs other than energy used for transport and energy costs associated with the provision of depots and offices - which are included in *General and support activities* - which are directly attributable to each of the individually identified service activities: *Wastewater, Wastewater treatment and Sludge treatment and disposal.* | |
| *Processing Rules:* | | Input field. Column ‘total’ is calculated from the sum of the input columns. | |
| **E2.3** | **Hired and contracted services** | | **NZ$000** |
| *Definition:* | | All hired and contracted equipment and services, which are directly attributable to each of the individually identified service activities: *Wastewater,* Wastewater treatment and Sludge treatment and disposal. (Hired services exclude the hire of vehicles and plant, which is included in *General and support activities*). Contracted services include all contracted labour; professional advice (such as lawyers and consultants); computer software; and contracts for the collection of water and wastewater charges. | |
| *Processing Rules:* | | Input field. Column ‘total’ is calculated from the sum of the input columns. | |

|  |  |  |  |
| --- | --- | --- | --- |
| **E2.4** | **Estimated running costs of concession contracts** | | **NZ$000** |
| *Definition:* | | Concession contracts refer to contracts for the provision of a defined service delegated by a Local Authority to a third party private operator. This provision can be related to operating the assets (lease or ‘affermage’ agreement) or include all infrastructure investment (through a concession agreement). For example, Veolia has a contract for the provision of wastewater services at four wastewater treatment plants that serve metropolitan Wellington.  Local authorities should provide information an estimate of the direct cost of operating these plans if they have a similar arrangement in place with a third party private operator.  Please provide relevant details of such arrangements in the commentary. | |
| *Processing Rules:* | | Input field. Column ‘total’ is calculated from the sum of the input columns. | |
| **E2.5** | **Materials and consumables** | | **NZ$000** |
| *Definition:* | | All materials and consumables that are not in *Hired and contracted services* which are directly attributable to each of the individually identified service activities: *Wastewater, Wastewater treatment and Sludge treatment and disposal.*  This category of cost includes equipment (such as small tools and clothing), provisions, tarmac and backfill materials, but excludes all items capitalised or included within infrastructure renewals expenditure. Most if not all inventory items fall into this category. | |
| *Processing Rules:* | | Input field. Column ‘total’ is calculated from the sum of the input columns. | |
| **E2.6** | **Service charges** | | **NZ$000** |
| *Definition:* | | Total cost of service charges by the environment agencies for wastewater treatment and disposal which are directly attributable to individually identified service activities: *Wastewater, Wastewater treatment and Sludge treatment and disposal.* | |
| *Processing Rules:* | | Input field. Column ‘total’ is calculated from the sum of the input columns. | |

|  |  |  |  |
| --- | --- | --- | --- |
| **E2.7** | **Other direct costs** | | **NZ$000** |
| *Definition:* | | Any other operating costs, but excluding interest, on an aggregated basis, including costs associated with the provision of depots and offices, and also include fines and penalties, which can be directly attributable to individually identified service activities: *Wastewater, Wastewater treatment and Sludge treatment and disposal.* | |
| *Processing Rules:* | | Input field. Column ‘total’ is calculated from the sum of the input columns. | |
| **E2.8** | **Total direct costs** | | **NZ$000** |
| *Definition:* | | The total direct costs attributable to individually identified service activities: *Wastewater, Wastewater treatment and Sludge treatment and disposal.* | |
| *Processing Rules:* | | Calculated field: the sum of lines E2.1 to E2.7. | |

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| --- | --- | --- | --- |
| **E2.9**  **&**  **E2.10** | **General and support employment costs**  **General and support other costs** | | **NZ$000**  **NZ$000** |
| *Definition:* | | The aggregate direct cost of *General and support activities* is termed *General and support expenditure*. This is split between employment costs for general and support staff in line E2.9 and all other costs in line E2.10. Inclusions for Employment costs are defined in Line E2.1.  *General and support activities* include all centrally provided services, except for any items specifically covered under the individually identified activities. The following services should be included:   * Insurance; * Administrative; * Personnel; * Financial; * Legal and property management; * Research and development; * Policy determination, implementation and monitoring; * Audit; * Public and employee relations; * Data processing; * Planning liaison; * Vehicles and plant (including hired vehicles and plant, and leased Local Authority cars); * Electrical and mechanical maintenance; * Land and property maintenance; * Materials storage; * Operational and technical support; and * General and support buildings.   The direct costs of *General and support activities* must be allocated across and the individually identified service activities: *Wastewater,* wastewater treatment and Sludge treatment and disposal as *General and support expenditure*. | |
| *Processing Rules:* | | Input field. Column ‘total’ is calculated from the sum of the input columns. | |

|  |  |  |  |
| --- | --- | --- | --- |
| **E2.11** | **Functional expenditure** | | **NZ$000** |
| *Definition:* | | The direct costs incurred in the provision of each of the individually identified service and business activities, plus in each case an allocation of direct costs incurred in the provision of *General and support activities*.  The functional expenditure in the *Wastewater Treatment* column should reconcile to the functional expenditure reported in Table E8, line E8.40. The functional expenditure in the *Sludge Treatment and Disposal* column should reconcile to the functional expenditure reported in Table E10, line E10.11. | |
| *Processing Rules:* | | Calculated field: the sum of lines E2.8 to E2.10. | |

BLOCK 2: OPERATING EXPENDITURE

|  |  |  |  |
| --- | --- | --- | --- |
| **E2.12** | **Customer services** | | **NZ$000** |
| *Definition:* | | Total costs directly associated with customer services, except for depreciation.  Include customer accounting, the reading of meters, debt recovery and the costs of disconnections, customers' enquiries relating to tariff matters and charging/billing, and complaints handling. The costs incurred within the *wastewater activities* in dealing with complaints other than those related to tariff charges and charging/billing should be recorded within that activity. The cost of billing services purchased should be included but the costs of services provided for third parties excluded. For these purposes, the latter costs should be estimated, and adjustments made to the appropriate headings (and compensating adjustments made under *Services provided for third parties*). | |
| *Processing Rules:* | | Input field. | |
| **E2.13** | **Scientific Services** | | **NZ$000** |
| *Definition:* | | Total costs directly associated with scientific services except for depreciation.  Include the costs of scientific and laboratory services, and of the monitoring of quality. The cost of such services purchased should be included but the costs of services provided for third parties excluded. For these purposes, the latter cost should be estimated, and adjustments made to the appropriate subjective lines (and compensating adjustments made under *Services provided for third parties*). | |
| *Processing Rules:* | | Input field. | |

|  |  |  |  |
| --- | --- | --- | --- |
| **E2.14** | **Other business activities** | | **NZ$000** |
| *Definition:* | | Total costs directly associated with other business activities, except for depreciation. | |
| *Processing Rules:* | | Input field. | |
| **E2.15** | **Total business activities** | | **NZ$000** |
| *Definition:* | | Cost of total business activities except for depreciation. | |
| *Processing Rules:* | | Calculated field: the sum of lines E2.12 to E2.14. | |
| **E2.16** | **Local Authority rates** | | **NZ$000** |
| *Definition:* | | The cost of Local Authority rates. | |
| *Processing Rules:* | | Input field. | |
| **E2.17** | **Doubtful debts** | | **NZ$000** |
| *Definition:* | | The charge/credit to the revenue and expenditure account for bad and doubtful debts. | |
| *Processing Rules:* | | Input field. | |
| **E2.18** | **Total exceptional items** | | **NZ$000** |
| *Definition:* | | *Exceptional items* are defined in accounting standards which apply in New Zealand. | |
| *Processing Rules:* | | Input field. | |
| **E2.19** | **Total opex less third party services** | | **NZ$000** |
| *Definition:* | | Total operating expenditure less third party services. | |
| *Processing Rules:* | | Calculated field: the sum of lines E2.11 + E2.15 + E2.16 + E2.17 + E2.18 | |

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| --- | --- | --- | --- |
| **E2.20** | **Third party services – opex** | | **NZ$000** |
| *Definition:* | | The operating costs of providing water services to third parties, to include:  rechargeable works;  treatment and disposal of imported wastewater and sludge;  sewer diversions;  repairs to customers' connecting drains. | |
| *Processing Rules:* | | Input field. | |
| **E2.21** | **Total operating expenditure** | | **NZ$000** |
| *Definition:* | | Total operating expenditure. | |
| *Processing Rules:* | | Calculated field: the sum of lines E2.19 and E2.20. | |

BLOCK 3: REACTIVE AND PLANNED MAINTENANCE (INCLUDED IN OPEX)

|  |  |  |  |
| --- | --- | --- | --- |
| **E2.22** | **Reactive and planned maintenance infrastructure** | | **NZ$000** |
| *Definition:* | | The reactive and planned maintenance expenditure on wastewater infrastructure assets, for each of the individually identified service activities, *Wastewater, Wastewater treatment and Sludge treatment and disposal* included in operating expenditure.  This should cover maintenance which is expensed in the year. Examples include:   * Sewer only repairs which are not capitalised; * Sewer only collapses and blockage repairs; * Routine sewer flushing and cleaning; and * Planned routine and reactive maintenance of pumping plant.   Renewals investment (which is capitalised) should be reported in the Section G of the RfI Tables. | |
| *Processing Rules:* | | Input field. Column ‘total’ is calculated from the sum of the input columns. | |

|  |  |  |  |
| --- | --- | --- | --- |
| **E2.23** | **Reactive and planned maintenance non-infrastructure** | | **NZ$000** |
| *Definition:* | | The reactive and planned maintenance expenditure on wastewater non-infrastructure assets, for each of the individually identified service activities, *Wastewater, Wastewater treatment and Sludge treatment and disposal* included in operating expenditure.  This should cover maintenance which is expensed in the year. Examples include:   * Planned routine and reactive servicing of pumping plant; * Planned routine and reactive maintenance of treatment plants and instrumentation; * Service reservoir dosing; * Buildings and ground maintenance; and * Contracts for maintenance of computer equipment.   Renewals investment (which is capitalised) should be reported in the Section G of the RfI Tables. | |
| *Processing Rules:* | | Input field. Column ‘total’ is calculated from the sum of the input columns. | |

BLOCK 4: CAPITAL MAINTENANCE

|  |  |  |  |
| --- | --- | --- | --- |
| **E2.24** | **Infrastructure depreciation charge** | | **NZ$000** |
| *Definition:* | | Infrastructure depreciation charge for each of the individually identified service activities: *Wastewater, Wastewater treatment* and *Sludge treatment and disposal.* | |
| *Processing Rules:* | | Input /Calculated Field. Column ‘total’ is calculated from the sum of the input columns. This line to be consistent with information in Chapter F. | |
| **E2.25** | **Non-infrastructure depreciation charge** | | **NZ$000** |
| *Definition:* | | Non-infrastructure depreciation charge on tangible fixed assets, for each of the individually identified service activities: *Wastewater, Wastewater treatment* and *Sludge treatment and disposal.*  Note that this figure is not net of the amortisation of deferred credits and intangible assets, which are shown separately on lines E2.26 and E2.27. | |
| *Processing Rules:* | | Input/Calculated Field. Column ‘total’ is calculated from the sum of the input columns. Information to be consistent with that reported in Chapter F. | |

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| --- | --- | --- | --- |
| **E2.26** | **Amortisation of deferred credits** | | **NZ$000** |
| *Definition:* | | The amortisation of deferred credits arising from third party contributions on non-infrastructure assets. These are amortised over the life of the related asset*.* | |
| *Processing Rules:* | | Input field. | |
| **E2.27** | **Amortisation of intangible assets** | | **NZ$000** |
| *Definition:* | | Any amortisation or other reduction in the balance sheet valuation of intangible assets, such as goodwill. | |
| *Processing Rules:* | | Input field. | |
| **E2.28** | **Business activities depreciation charge** | | **NZ$000** |
| *Definition:* | | The asset depreciation at the aggregate level for each service, attributable to the assets used in the business activities, i.e. customer services, scientific services and other business activities. | |
| *Processing Rules:* | | Input field. | |
| **E2.29** | **Capital maintenance less third party services** | | **NZ$000** |
| *Definition:* | | Capital maintenance less capital maintenance charges in respect of third party services. | |
| *Processing Rules:* | | Calculated field: the sum of lines E2.24 to E2.28. | |
| **E2.30** | **Third party services - depreciation** | | **NZ$000** |
| *Definition:* | | Asset depreciation on assets relating to third party services, together with any infrastructure depreciation charge for infrastructure assets relating to third party services. | |
| *Processing Rules:* | | Input field. | |
| **E2.31** | **Total capital maintenance** | | **NZ$000** |
| *Definition:* | | Total capital maintenance (including capital maintenance in respect of third party services). | |
| *Processing Rules:* | | Calculated field: the sum of lines E2.29 + E2.30. | |

BLOCK 5: CONCESSION CONTRACTS

Specific guidance

1. Concession contracts refer to contracts for the provision of a defined service delegated by a Local Authority to a third party private operator. This provision can be related to operating the assets (lease or ‘affermage’ agreement) or include all infrastructure investment (through a concession agreement). For example, Veolia has a contract for the provision of wastewater services at four wastewater treatment plants that serve metropolitan Wellington.
2. Local authorities should provide information for rows E2.32 and E2.33 in situations where the Local Authority have a similar arrangement in place with a third party private operator.

|  |  |  |  |
| --- | --- | --- | --- |
| **E2.32** | **Total annual charge for concession contracts** | | **NZ$000** |
| *Definition:* | | Total annual charge for concession contracts. These are contractual arrangements with a third party provider for the provision of a particular water or wastewater service.  If the Local Authorities have equivalent arrangements, please report the charges paid to the third party and provide relevant details in the commentary. | |
| *Processing Rules:* | | Input field. | |
| **E2.33** | **Annual charge for concession contracts less estimated running costs** | | **NZ$000** |
| *Definition:* | | Annual charge for concession contracts less estimated running costs. | |
| *Processing Rules:* | | Calculated field: Line E2.32 less line E2.4 | |
| **E2.34** | **Total operating costs** | | **NZ$000** |
| *Definition:* | | Total operating costs. | |
| *Processing Rules:* | | Calculated field: the sum of lines E2.21+E2.31+E2.33. | |

TABLE E2b: ACTIVITY BASED COSTING – STORMWATER SERVICE

1. This table includes operating costs and capital maintenance costs attributable to the stormwater service. The information in this table is used for operating costs, trends analysis and for the compilation of unit costs.
2. If the Local Authority organises its operations at a more disaggregated level for reporting costs, for several of the tables in Section E (E2, E2b, E4, E6, E7, E7b), the Local Authorities can decide whether to report the information by operational area or for the whole Local Authority.

Guidance to the Local Authority

1. On completion of Tables E2a and E2b the Local Authority should ensure that no input cell is left blank in any of the area columns reported on.
2. The table asks for forecasts for the financial year ending 30 June 2021.

Direct costs

1. These are costs, which are directly attributable to each service activity. Such costs include apportionments, where such apportionments are necessitated by operational considerations. The direct costs incurred in the provision of General and support activities are given in total for the stormwater service and are also apportioned between service activities.
2. If the information is not available for the functional activity, Local Authorities should allocate the direct costs and provide an explanation in the commentary.

Operating expenditure

1. The costs of subjective elements (i.e. rates, doubtful debts, or exceptional items) are only included at the stormwater service level and are not apportioned between service activities.
2. Local Authorities should ensure that all of their operating expenditure incurred is recorded in the lines below. If there is not a suitable line for an item of expenditure, please include the expenditure in the line which has the closest definition and provide a note in the commentary.
3. For the avoidance of doubt, please do not report finance costs and depreciation in rows E1.1 to E1.22 (water), E2.1 to E2.21 (wastewater) and E2b.1 to E2b.21 (stormwater).

Reactive maintenance

1. The costs of reactive maintenance expenditure on stormwater infrastructure and non-infrastructure assets, which are included within operating expenditure for each of the service activities.

Capital maintenance

1. The capital charges for each service category for infrastructure depreciation expenditure asset depreciation. Other capital charges are included at the service level only and are not apportioned between service activities.

Commentaries

1. **Allocation of costs:** The Local Authority must explain the basis for allocation of operating expenditure between water, wastewater, and stormwater services; and between service areas within the stormwater service. The Local Authority should clearly state any general allocation rules which have been used by themselves, their contractors or agents.
2. In the event of a joint venture of assets serving two or more Local Authorities, costs should be allocated according to the contractual arrangements in place. The Local Authority is expected to explain the allocation rules used to apportion costs.
3. It is important for the Local Authority to explain how costs related to business activities (particularly customer services/billing) and indirect costs (general and support expenditure, restructuring provisions and other atypical items) are allocated between the water, wastewater and stormwater services.
4. It is important that the Local Authority clearly explains the allocation of indirect costs between the individual functional activities.
5. **Atypical costs and provisions:** The Local Authority must reveal and explain all significant atypical costs which have occurred during the reporting year, regardless of whether or not they are declared as exceptional items. The Local Authority must also confirm the absence of any atypical costs. In the commentary to the table the Local Authority must disclose:
   1. restructuring costs (which includes redundancy payments, superannuation contributions and consultants' fees);
   2. compensation payments (for one-off events);
   3. costs attributable to unusual weather conditions;
   4. superannuation holidays;
   5. rebates of environmental or other service charges, including Local authority rates.
6. In addition, the Local Authority must disclose the reasons for any exceptional items, which have been declared and whether they are expenses or provisions for future costs.
7. The Local Authority must disclose the purpose and amount of any provision included in operating expenditure and disclose the amount of provision expended or released in the reporting year.

Column definitions

1. There are columns for each functional activity within the stormwater service:
2. ***Column 1-7: Stormwater collection:*** Include all direct costs associated with stormwater collection, including agency costs and routine maintenance. Non-routine maintenance should be charged to General and support activities. Exclude all costs associated with sea outfalls. Exclude terminal pumping costs (i.e. costs incurred in pumping to treatment plants).
3. ***Column 8: Stormwater treatment and disposal:*** Include all direct costs associated with Stormwater treatment, including terminal pumping costs and routine maintenance. Non-routine maintenance should be charged to General and support activities. Include the costs of stormwater exports, but exclude the cost of treating imported stormwater. For these purposes, the latter costs should be estimated, and adjustments made to the appropriate subjective lines (and compensating adjustments made under Services provided for third parties). Include all costs associated with sea outfalls, except the costs of sludge disposal where sea outfalls discharge treated effluent, and sludge is disposed of separately.
4. In the event that this applies to stormwater, also include all direct costs associated with sludge treatment and disposal, including routine maintenance. Non-routine maintenance should be charged to General and support activities. Otherwise the column should be left blank.
5. Include the cost of sludge exported but exclude the cost of treating and disposing of imported sludge. For these purposes, the latter cost should be estimated, and adjustments made to the appropriate subjective lines (and compensating adjustment made under Services provided for third parties).
6. ***Column 9: Stormwater service total:*** where entries are required in columns 1-7and 8, column 9 is calculated from those entries.

BLOCK 1: SERVICE ANALYSIS – STORMWATER DIRECT COSTS

|  |  |  |  |
| --- | --- | --- | --- |
| **E2b.0** | **Name** | |  |
| *Definition:* | | Name of Area. | |
| *Processing Rules:* | | Input field. | |
| **E2b.1** | **Employment costs** | | **NZ$000** |
| *Definition:* | | The sum of the total costs of "non-manual and manual manpower" which are directly attributable to each of the individually identified service activities: *Stormwater collection and Stormwater treatment and disposal (if applicable).* To be included are the gross salaries and wages of all employees within the relevant activity, including payments resulting from bonus and profit-related payment schemes, superannuation, unfunded superannuation liabilities, sick pay, sickness benefits, retirement awards, death in service benefits, paid leave, subsistence, travel, entertaining and conference expenses. | |
| *Processing Rules:* | | Input field. Column ‘total’ is calculated from the sum of the input columns. | |
| **E2b.2** | **Power** | | **NZ$000** |
| *Definition:* | | All energy costs other than energy used for transport and energy costs associated with the provision of depots and offices - which are included in *General and support activities* - which are directly attributable to each of the individually identified service activities: *Stormwater collection and Stormwater treatment and disposal (if applicable).* | |
| *Processing Rules:* | | Input field. Column ‘total’ is calculated from the sum of the input columns. | |
| **E2b.3** | **Hired and contracted services** | | **NZ$000** |
| *Definition:* | | All hired and contracted equipment and services, which are directly attributable to each of the individually identified service activities: *Stormwater collection and Stormwater treatment and disposal (if applicable).* Hired services exclude the hire of vehicles and plant, which is included in *General and support activities*. Contracted services include all contracted labour; professional advice (such as lawyers and consultants); computer software; and contracts for the collection of water and wastewater charges. | |
| *Processing Rules:* | | Input field. Column ‘total’ is calculated from the sum of the input columns. | |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **E2b.4** | **Estimated running costs of concession contracts** | | | | **NZ$000** |
| *Definition:* | | | Concession contracts refer to contracts for the provision of a defined service delegated by a Local Authority to a third party private operator. This provision can be related to operating the assets (lease or ‘affermage’ agreement) or include all infrastructure investment (through a concession agreement). For example, Veolia has a contract for the provision of wastewater services at four wastewater treatment plants that serve metropolitan Wellington.  Local authorities should provide information an estimate of the direct cost of operating these plans if they have a similar arrangement in place with a third party private operator - which are directly attributable to each of the individually identified service activities: Stormwater collection and Stormwater treatment and disposal (if applicable).  Please provide relevant details of such arrangements in the commentary. | | |
| *Processing Rules:* | | | Input field. Column ‘total’ is calculated from the sum of the input columns. | | |
| **E2b.5** | **Materials and consumables** | | | **NZ$000** | |
| *Definition:* | | All materials and consumables that are not in *Hired and contracted services* which are directly attributable to each of the individually identified service activities: *Stormwater collection and Stormwater treatment and disposal (if applicable).*  This category of cost includes equipment (such as small tools and clothing), provisions, tarmac and backfill materials, but excludes all items capitalised or included within infrastructure renewals expenditure. Most if not all inventory items fall into this category. | | | |
| *Processing Rules:* | | Input field. Column ‘total’ is calculated from the sum of the input columns. | | | |
| **E2b.6** | **Service charges** | | | **NZ$000** | |
| *Definition:* | | Total cost of service charges by the environment agencies for stormwater discharge and disposal (if applicable)*.* | | | |
| *Processing Rules:* | | Input field. Column ‘total’ is calculated from the sum of the input columns. | | | |

|  |  |  |  |
| --- | --- | --- | --- |
| **E2b.7** | **Other direct costs** | | **NZ$000** |
| *Definition:* | | Any other operating costs, but excluding interest, on an aggregated basis, including costs associated with the provision of depots and offices, and also include fines and penalties, which can be directly attributable to individually identified service activities: *Stormwater collection and Stormwater treatment and disposal (if applicable).* | |
| *Processing Rules:* | | Input field. Column ‘total’ is calculated from the sum of the input columns. | |
| **E2b.8** | **Total direct costs** | | **NZ$000** |
| *Definition:* | | The total direct costs attributable to individually identified service activities: *Stormwater collection and Stormwater treatment and disposal (if applicable).* | |
| *Processing Rules:* | | Calculated field: the sum of lines E2b.1 to E2b.7. | |

|  |  |  |  |
| --- | --- | --- | --- |
| **E2b.9**  **&**  **E2b.10** | **General and support employment costs**  **General and support other costs** | | **NZ$000**  **NZ$000** |
| *Definition:* | | The aggregate direct cost of *General and support activities* is termed *General and support expenditure*. This is split between employment costs for general and support staff in line E2b.9 and all other costs in line E2b.10. Inclusions for Employment costs are defined in Line E2b.1.  *General and support activities* include all centrally provided services, except for any items specifically covered under the individually identified activities. The following services should be included:   * Insurance; * Administrative; * Personnel; * Financial; * Legal and property management; * Research and development; * Policy determination, implementation and monitoring; * Audit; * Public and employee relations; * Data processing; * Planning liaison; * Vehicles and plant (including hired vehicles and plant, and leased Local Authority cars); * Electrical and mechanical maintenance; * Land and property maintenance; * Materials storage; * Operational and technical support; and * General and support buildings.   The direct costs of *General and support activities* must be allocated across and the individually identified service activities: *Stormwater collection and Stormwater treatment and disposal* (if applicable) as *General and support expenditure*. | |
| *Processing Rules:* | | Input field. Column ‘total’ is calculated from the sum of the input columns. | |

|  |  |  |  |
| --- | --- | --- | --- |
| **E2b.11** | **Functional expenditure** | | **NZ$000** |
| *Definition:* | | The direct costs incurred in the provision of each of the individually identified service and business activities, plus in each case an allocation of direct costs incurred in the provision of *General and support activities*. | |
| *Processing Rules:* | | Calculated field: the sum of lines E2b.8 to E2b.10. | |

BLOCK 2: OPERATING EXPENDITURE

|  |  |  |  |
| --- | --- | --- | --- |
| **E2b.12** | **Customer services** | | **NZ$000** |
| *Definition:* | | Total costs directly associated with customer services, except for depreciation.  Include customer accounting, the reading of meters, debt recovery and the costs of disconnections, customers' enquiries relating to tariff matters and charging/billing, and complaints handling. The costs incurred within the *stormwater activities* in dealing with complaints other than those related to tariff charges and charging/billing should be recorded within that activity. The cost of billing services purchased should be included but the costs of services provided for third parties excluded. For these purposes, the latter costs should be estimated, and adjustments made to the appropriate headings (and compensating adjustments made under *Services provided for third parties*). | |
| *Processing Rules:* | | Input field. | |
| **E2b.13** | **Scientific Services** | | **NZ$000** |
| *Definition:* | | Total costs directly associated with scientific services except for depreciation.  Include the costs of scientific and laboratory services, and of the monitoring of quality. The cost of such services purchased should be included but the costs of services provided for third parties excluded. For these purposes, the latter cost should be estimated, and adjustments made to the appropriate subjective lines (and compensating adjustments made under *Services provided for third parties*). | |
| *Processing Rules:* | | Input field. | |

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| --- | --- | --- | --- |
| **E2b.14** | **Other business activities** | | **NZ$000** |
| *Definition:* | | Total costs directly associated with other business activities, except for depreciation.  This should include the cost of regulation, including all incremental managerial costs of regulation, licence fees payable in respect of regulation; and staff and associated costs incurred in the preparation of submissions to, and liaison with, regulators. Note: Service charges are included under the operational activities. | |
| *Processing Rules:* | | Input field. | |
| **E2b.15** | **Total business activities** | | **NZ$000** |
| *Definition:* | | Cost of total business activities except for depreciation. | |
| *Processing Rules:* | | Calculated field: the sum of lines E2b.12 to E2b.14. | |
| **E2b.16** | **Local Authority rates** | | **NZ$000** |
| *Definition:* | | The cost of Local Authority rates. | |
| *Processing Rules:* | | Input field. | |
| **E2b.17** | **Doubtful debts** | | **NZ$000** |
| *Definition:* | | The charge/credit to the revenue and expenditure account for bad and doubtful debts. | |
| *Processing Rules:* | | Input field. | |
| **E2b.18** | **Total exceptional items** | | **NZ$000** |
| *Definition:* | | *Exceptional items* are defined in accounting standards which apply in New Zealand. | |
| *Processing Rules:* | | Input field. | |
| **E2b.19** | **Total opex less third party services** | | **NZ$000** |
| *Definition:* | | Total operating expenditure less third party services. | |
| *Processing Rules:* | | Calculated field: the sum of lines E2b.11+E2b.15+E2b.16+ E2b.17+ E2b.18. | |

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| --- | --- | --- | --- |
| **E2b.20** | **Third party services – opex** | | **NZ$000** |
| *Definition:* | | The operating costs of providing water services to third parties, to include:   * rechargeable works; * treatment and disposal of imported stormwater and sludge; * stormwater only sewer diversions; * repairs to customers' connecting drains. | |
| *Processing Rules:* | | Input field. | |
| **E2b.21** | **Total operating expenditure** | | **NZ$000** |
| *Definition:* | | Total operating expenditure. | |
| *Processing Rules:* | | Calculated field: the sum of lines E2b.19 and E2b.20. | |

BLOCK 3: REACTIVE AND PLANNED MAINTENANCE (INCLUDED IN OPEX)

|  |  |  |  |
| --- | --- | --- | --- |
| **E2b.22** | **Reactive and planned maintenance infrastructure** | | **NZ$000** |
| *Definition:* | | The reactive and planned maintenance expenditure on stormwater infrastructure assets, for each of the individually identified service activities included in operating expenditure.  This should cover maintenance which is expensed in the year. Examples include:   * Stormwater only sewer repairs which are not capitalised; * Stormwater only sewer collapses and blockage repairs; * Routine stormwater only sewer flushing and cleaning; and * Planned routine and reactive maintenance of pumping plant.   Renewals investment (which is capitalised) should be reported in the Section G of the RFI Tables. | |
| *Processing Rules:* | | Input field. Column ‘total’ is calculated from the sum of the input columns. | |

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| **E2b.23** | **Reactive and planned maintenance non-infrastructure** | | **NZ$000** |
| *Definition:* | | The reactive and planned maintenance expenditure on stormwater non-infrastructure assets, for each of the individually identified service activities included in operating expenditure.  This should include expenditure on:   * planned routine and reactive servicing of pumping plant; * planned routine and reactive maintenance of treatment plants and instrumentation; * service reservoir dosing; * buildings and ground maintenance; and * contracts for maintenance of computer equipment. | |
| *Processing Rules:* | | Input field. Column ‘total’ is calculated from the sum of the input columns. | |

BLOCK 4: CAPITAL MAINTENANCE

|  |  |  |  |
| --- | --- | --- | --- |
| **E2b.24** | **Infrastructure depreciation charge** | | **NZ$000** |
| *Definition:* | | Infrastructure depreciation charge for each of the individually identified service activities: *Stormwater Collection and Stormwater treatment* and *disposal (if applicable).* | |
| *Processing Rules:* | | Input /Calculated Field. Column ‘total’ is calculated from the sum of the input columns. This line to be consistent with information in Chapter F. | |
| **E2b.25** | **Non-infrastructure depreciation charge** | | **NZ$000** |
| *Definition:* | | Non infrastructure depreciation charge on tangible fixed assets, for each of the individually identified service activities: *Stormwater Collection and Stormwater treatment* and *disposal (if applicable).*  Note that this figure is not net of the amortisation of deferred credits and intangible assets, which are shown separately on lines E2b.26 and E2b.27. | |
| *Processing Rules:* | | Input/Calculated Field. Column ‘total’ is calculated from the sum of the input columns. Information to be consistent with that reported in Chapter F | |

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| **E2b.26** | **Amortisation of deferred credits** | | **NZ$000** |
| *Definition:* | | The amortisation of deferred credits arising from third party contributions on non-infrastructure assets. These are amortised over the life of the related asset*.* | |
| *Processing Rules:* | | Input field. | |
| **E2b.27** | **Amortisation of intangible assets** | | **NZ$000** |
| *Definition:* | | Any amortisation or other reduction in the balance sheet valuation of intangible assets, such as goodwill. | |
| *Processing Rules:* | | Input field. | |
| **E2b.28** | **Business activities depreciation charge** | | **NZ$000** |
| *Definition:* | | The asset depreciation at the aggregate level for each service, attributable to the assets used in the business activities, i.e. customer services, scientific services and other business activities. | |
| *Processing Rules:* | | Input field. | |
| **E2b.29** | **Capital maintenance less third party services** | | **NZ$000** |
| *Definition:* | | Capital maintenance less capital maintenance charges in respect of third party services. | |
| *Processing Rules:* | | Calculated field: the sum of lines E2b.24 to E2b.28 | |
| **E2b.30** | **Third party services - depreciation** | | **NZ$000** |
| *Definition:* | | Asset depreciation on assets relating to third party services, together with any infrastructure depreciation charge for infrastructure assets relating to third party services. | |
| *Processing Rules:* | | Input field. | |
| **E2b.31** | **Total capital maintenance** | | **NZ$000** |
| *Definition:* | | Total capital maintenance (including capital maintenance in respect of third party services). | |
| *Processing Rules:* | | Calculated field: the sum of lines E2b.29 + E2b.30. | |

BLOCK 5: CONCESSION CONTRACTS

Specific guidance

1. Concession contracts refer to contracts for the provision of a defined service delegated by a Local Authority to a third party private operator. This provision can be related to operating the assets (lease or ‘affermage’ agreement) or include all infrastructure investment (through a concession agreement). For example, Veolia has a contract for the provision of wastewater services at four wastewater treatment plants that serve metropolitan Wellington.
2. Local authorities should provide information for rows E2b.32 and E2b.33 in situations where the Local authority have a similar arrangement in place with a third party private operator.

|  |  |  |  |
| --- | --- | --- | --- |
| **E2b.32** | **Total annual charge for concession contracts** | | **NZ$000** |
| *Definition:* | | Total annual charge for concession contracts. These are contractual arrangements with a third party provider for the provision of a particular water or wastewater service.  If the Local Authorities have equivalent arrangements, please report the charges paid to the third party and provide relevant details in the commentary. | |
| *Processing Rules:* | | Input field. | |
| **E2b.33** | **Annual charge for concession contracts less estimated running costs** | | **NZ$000** |
| *Definition:* | | Annual charge for concession contracts less estimated running costs. | |
| *Processing Rules:* | | Calculated field: Line E2b.32 less line E2b.4. | |
| **E2b.34** | **Total operating costs** | | **NZ$000** |
| *Definition:* | | Total operating costs. | |
| *Processing Rules:* | | Calculated field: the sum of lines E2b.21+E2b.31+E2b.33. | |

TABLE E4: WATER RESOURCES AND TREATMENT

Specific guidance

1. Local Authorities should provide information in rows E4.0 to E4.4 for their own resources only. This table should capture all water resources provided by the Local Authority including instances where a Local Authority provides a stock water supply to a household or non-household customer, even if it is raw or partially treated water. If the stock water supply is completely discrete (i.e. supplying no household or non-household customers), then this should not be included.
2. In certain conditions, where resources are provided by one Local Authority to another, then this should be recorded in Row E4.6. Similarly, if one Local Authority receives resources from another, then this should be recorded in Row E4.7.
3. For instance, the Greater Wellington Regional Council (GWRC) provides a bulk supply transfer to the Lower Hutt City Council (LHCC). GWRC would record this as a bulk water export in row E4.6, whereas LHCC would record this as a bulk water import in row E4.7.
4. In addition, GWRC would also be required to record the source of the bulk water export in rows E4.0 to E4.5, whereas LHCC would not be required to report the source of the bulk supply water import in these rows.
5. In the event of a joint venture of assets serving two or more Local Authorities, Local Authorities should split out information associated with the asset – such as operating expenditure and capital expenditure – in relation to the proportions set out in the contract. For example, if energy costs are paid centrally, then these costs should be shared between the Local Authorities on the basis of contractual arrangements in place. The Local Authority is expected to explain the allocation rules used in the commentary cells. Each Local Authority is requested to provide an estimate of its share of the asset stock and to use confidence grades to reflect the underlying uncertainty in the estimate.
6. Furthermore, Local Authorities should report their own share of the volumes supplied. If allocated, the Local Authority is expected to explain the allocation method used in the commentary cells.
7. For example, the Seaview Joint Venture in Wellington region provides wastewater treatment services to both Lower Hutt City and Upper Hutt City. Consequently, Wellington Water was asked to report the Seaview Treatment Plant in both Lower Hutt and Upper Hutt RfI tables. In each Local Authority’s table, only the loads and costs specific to that Local Authority were reported. This ensured no double counting occurred.
8. If the Local Authority organises its operations at a more disaggregated level for reporting costs, for several of the tables in Section E (E2, E2b, E4, E6, E7, E7b), the Local Authorities can decide whether to report the information by operational area or for the whole Local Authority.

BLOCK 1: SOURCE TYPES

|  |  |  |  |
| --- | --- | --- | --- |
| **E4.0** | **Area Name** | |  |
| *Definition:* | | Name of Area. | |
| *Processing Rules:* | | |  | | --- | | Input field. | | |
| **E4.1** | **Impounding reservoirs** | | **Nr,**  **000 m3/d** |
| *Definition:* | | Number of sources and distribution input derived from impounding reservoirs. | |
| *Processing Rules:* | | |  | | --- | | Input field. Column 'Total sources' is the sum of the number of sources and column 'Total source outputs' is the sum of all source outputs (Ml/d). | | |
| **E4.2** | **Lakes** | | **Nr,**  **000 m3/d** |
| *Definition:* | | Number of sources and distribution input derived from lakes. | |
| *Processing Rules:* | | |  | | --- | | Input field. Column 'Total sources' is the sum of the number of sources and column 'Total source outputs' is the sum of all source outputs (Ml/d). | | |
| **E4.3** | **River and stream abstractions** | | **Nr,**  **000 m3/d** |
| *Definition:* | | Number of sources and distribution input derived from river and stream (including via bankside storage) abstractions. | |
| *Processing Rules:* | | |  | | --- | | Input field. Column 'Total sources' is the sum of the number of sources and column 'Total source outputs' is the sum of all source outputs (Ml/d). | | |
| **E4.4** | **Boreholes** | | **Nr,**  **000 m3/d** |
| *Definition:* | | Number of sources and distribution input derived from boreholes (including springs). | |
| *Processing Rules:* | | |  | | --- | | Input field. Column 'Total sources' is the sum of the number of sources and column 'Total source outputs' is the sum of all source outputs (Ml/d). | | |
| **E4.5** | **Total** | | **Nr,**  **000 m3/d** |
| *Definition:* | | Total number of sources and distribution input. | |
| *Processing Rules:* | | |  | | --- | | Sum of E4.1 to E4.4. | | |
| **E4.6** | **Bulk water exports** | | **Nr,**  **000 m3/d** |
| *Definition:* | | The number and volume of raw water exports provided by the Local Authority from its own sources out with the Local Authority’s service area. | |
| *Processing Rules:* | | |  | | --- | | Input field. Column 'Total sources' is the sum of the number of sources and column 'Total source outputs' is the sum of all source outputs (Ml/d). | | |
| **E4.7** | **Bulk water imports** | | **Nr,**  **000 m3/d** |
| *Definition:* | | The number and volume of raw water imports imported from resource areas out with those of the Local Authority. | |
| *Processing Rules:* | | |  | | --- | | Input field. Column 'Total sources' is the sum of the number of sources and column 'Total source outputs' is the sum of all source outputs (Ml/d). | | |
| **E4.8** | **Impounding reservoirs** | | **Nr** |
| *Definition:* | | The proportion of Distribution Input derived from impounding reservoirs for each area. | |
| *Processing Rules:* | | |  | | --- | | Daily output per area (line E4.1) divided by the total daily output of all areas and own sources. | | |
| **E4.9** | **Lakes** | | **Nr** |
| *Definition:* | | The proportion of Distribution Input derived from lakes for each area. | |
| *Processing Rules:* | | |  | | --- | | Daily output per area (line E4.2) divided by the total daily output of all areas and own sources. | | |
| **E4.10** | **River and stream abstractions** | | **Nr** |
| *Definition:* | | The proportion of Distribution Input derived from River and Stream Abstractions (including via bankside storage) for each area. | |
| *Processing Rules:* | | |  | | --- | | Daily output per area (line E4.3) divided by the total daily output of all areas and own sources. | | |
| **E4.11** | **Boreholes** | | **Nr** |
| *Definition:* | | The proportion of Distribution Input derived from boreholes (including springs) for each area. | |
| *Processing Rules:* | | |  | | --- | | Daily output per area (line E4.4) divided by the total daily output of all areas and own sources. | | |

|  |  |  |  |
| --- | --- | --- | --- |
| **E4.12** | **Total** | | **Nr** |
| *Definition:* | | The proportion of Total Distribution Input produced in each area. | |
| *Processing Rules:* | | |  | | --- | | Sum of E4.8 to E4.11. | | |

BLOCK 2: PEAK DEMAND AND PUMPING HEAD

|  |  |  |  |
| --- | --- | --- | --- |
| **E4.13** | **Peak demand - peak to average ratio** | | **Nr** |
| *Definition:* | | Average daily volume put into supply in peak seven day period in year (peak year of preceding five years)/average daily volume of water put into supply in that year. | |
| *Processing Rules:* | | |  | | --- | | Input field. | | |
| **E4.14** | **Average pumping head - resources and treatment** | | **m** |
| *Definition:* | | Average pumping head for resource and treatment. See guidance on how pumping head is calculated. | |
| *Processing Rules:* | | |  | | --- | | Input field. | | |

BLOCK 3: RESOURCES AND TREATMENT OPERATING COSTS (OPERATIONAL AREA)

|  |  |  |  |
| --- | --- | --- | --- |
| **E4.15** | **Power** | | **NZ$000** |
| *Definition:* | | Energy costs as defined in E1.2 but only including 'Resources and Treatment' and split by operational areas. | |
| *Processing Rules:* | | |  | | --- | | Input field. Column 'Total' is the sum of all inputs. | | |
| **E4.16** | **Service charges** | | **NZ$000** |
| *Definition:* | | Service charges as defined in E1.6 but only including 'Resources and Treatment' and split by operational areas. | |
| *Processing Rules:* | | |  | | --- | | Input field. Column 'Total' is the sum of all inputs. | | |
| **E4.17** | **Total direct costs** | | **NZ$000** |
| *Definition:* | | Direct costs as defined in E1.9 but only including 'Resources and Treatment' and split by operational areas. | |
| *Processing Rules:* | | |  | | --- | | Input field. Column 'Total' is the sum of all inputs. | | |
| **E4.18** | **General and support costs** | | **NZ$000** |
| *Definition:* | | General and Support costs as defined in E1.10 and E1.11 but only including 'Resources and Treatment' and split by operational areas. | |
| *Processing Rules:* | | |  | | --- | | Input field. Column 'Total' is the sum of all inputs. | | |
| **E4.19** | **Functional expenditure** | | **NZ$000** |
| *Definition:* | | Functional expenditure as described in E1.12 but only including 'Resources and Treatment' and split by operational areas. | |
| *Processing Rules:* | | |  | | --- | | Sum of E4.17 and E4.18. | | |

BLOCK 4: WATER TREATMENT PLANTS BY PROCESS TYPE

|  |  |  |  |
| --- | --- | --- | --- |
| **E4.20** | **Simple Disinfection** | | **Nr, Ml/d, NZ$000** |
| *Definition:* | | Number of treatment plants, average distribution input and direct costs derived from plants with simple disinfection. | |
| *Processing Rules:* | | Input field. Column 'Tot. prop'n of D.I.' divides distribution input from 'simple treatment' plants by the total distribution input (calculated in E4.26). | |
| **E4.21** | **W1: Simple disinfection and filtration** | | **Nr, Ml/d, NZ$000** |
| *Definition:* | | Number of plants, average distribution input and operating costs (direct and general & support) for plants in category W1. | |
| *Processing Rules:* | | Input field. Column 'Tot. prop'n of D.I.' divides distribution input from W1 treatment plants by the total distribution input (calculated in E4.26). | |
| **E4.22** | **W2: Single stage physical or chemical treatment** | | **Nr, Ml/d, NZ$000** |
| *Definition:* | | Number of plants, average distribution input and operating costs (direct and general & support) for plants in category W2. | |
| *Processing Rules:* | | Input field. Column 'Tot. prop'n of D.I.' divides distribution input from W2 treatment plants by the total distribution input (calculated in E4.26). | |
| **E4.23** | **W3: More than one stage of treatment excluding W4** | | **Nr, Ml/d, NZ$000** |
| *Definition:* | | Number of plants and average distribution input and operating costs (direct and general & support) for plants in category W3. | |
| *Processing Rules:* | | Input field. Column 'Tot. prop'n of D.I.' divides distribution input from W3 treatment plants by the total distribution input (calculated in E4.26). | |
| **E4.24** | **W4: Complex treatment including micro-filtration** | | **Nr, Ml/d, NZ$000** |
| *Definition:* | | Number of plants and average distribution input and operating costs (direct and general & support) for plants in category W4. | |
| *Processing Rules:* | | Input field. Column 'Tot. prop'n of D.I.' divides distribution input from W4 treatment plants by the total distribution input (calculated in E4.26). | |
| **E4.25** | **Total numbers of plants** | | **Nr** |
| *Definition:* | | Total numbers of plants. | |
| *Processing Rules:* | | Sum of E4.20 to E4.24. | |
| **E4.26** | **Total distribution input** | | **Ml/d** |
| *Definition:* | | The distribution input for all treatment categories. | |
| *Processing Rules:* | | Sum of E4.20 to E4.24. | |
| **E4.27** | **Total Operating costs** | | **NZ$000** |
| *Definition:* | | Total operating costs (direct and general & support) associated with water treatment plants. | |
| *Processing Rules:* | | Sum of E4.20 to E4.24. | |

BLOCK 5: WATER TREATMENT PLANTS BY SIZE BAND

|  |  |  |  |
| --- | --- | --- | --- |
| **E4.28** | **Size band <=1 Ml/d** | | **Nr, 0-1, NZ$000** |
| *Definition:* | | Total number of plants and proportion of distribution input derived from plants falling into size band <=1 Ml/d. The total direct costs and general and support costs, as defined in Section E1, for treatment plants falling into size band <=1 Ml/d. | |
| *Processing Rules:* | | Input field. | |
| **E4.29** | **Size band >1 - <=2.5 Ml/d** | | **Nr, 0-1, NZ$000** |
| *Definition:* | | Total number of plants and proportion of distribution input derived from plants falling into size band >1 Ml/d to <=2.5 Ml/d. The total direct costs and general and support costs, as defined in Section E1, for treatment plants size band >1 Ml/d to <= 2.5 Ml/d. | |
| *Processing Rules:* | | Input field. | |
| **E4.30** | **Size band >2.5 - <=5 Ml/d** | | **Nr, 0-1, NZ$000** |
| *Definition:* | | Total number of plants and proportion of distribution input derived from plants falling into size band >2.5 Ml/d to <= 5 Ml/d. The total direct costs and general and support costs, as defined in Section E1, for treatment plants size band >2.5 Ml/d to <= 5 Ml/d. | |
| *Processing Rules:* | | Input field. | |

|  |  |  |  |
| --- | --- | --- | --- |
| **E4.31** | **Size band >5 - <=10 Ml/d** | | **Nr, 0-1, NZ$000** |
| *Definition:* | | Total number of plants and proportion of distribution input derived from plants falling into size band >5 Ml/d to <= 10 Ml/d. The total direct costs and general and support costs, as defined in Section E1, for treatment plants size band 5 Ml/d to <= 10 Ml/d. | |
| *Processing Rules:* | | Input field. | |
| **E4.32** | **Size band >10 - <=25 Ml/d** | | **Nr, 0-1, NZ$000** |
| *Definition:* | | Total number of plants and proportion of distribution input derived from plants falling into size band >10 Ml/d to <=25 Ml/d. The total direct costs and general and support costs, as defined in Section E1, for treatment plants size band >10 Ml/d to <= 25 Ml/d. | |
| *Processing Rules:* | | Input field. | |
| **E4.33** | **Size band >25 - <=50 Ml/d** | | **Nr, 0-1, NZ$000** |
| *Definition:* | | Total number of plants and proportion of distribution input derived from plants falling into size band >25 Ml/d to <=50 Ml/d. The total direct costs and general and support costs, as defined in Section E1, for treatment plants size band >25 Ml/d to <= 50 Ml/d. | |
| *Processing Rules:* | | Input field. | |
| **E4.34** | **Size band >50 - <=100 Ml/d** | | **Nr, 0-1, NZ$000** |
| *Definition:* | | Total number of plants and proportion of distribution input derived from plants falling into size band >50 Ml/d to <=100 Ml/d. The total direct costs and general and support costs, as defined in Section E1, for treatment plants size band >50 Ml/d to <= 100 Ml/d. | |
| *Processing Rules:* | | Input field. | |
| **E4.35** | **Size band >100 - <=175 Ml/d** | | **Nr, 0-1, NZ$000** |
| *Definition:* | | Total number of plants and proportion of distribution input derived from plants falling into size band >100 Ml/d to <=175 Ml/d. The total direct costs and general and support costs, as defined in Section E1, for treatment plants size band >100 Ml/d to <= 175 Ml/d. | |
| *Processing Rules:* | | Input field. | |
| **E4.36** | **Size band > 175 Ml/d** | | **Nr, 0-1, NZ$000** |
| *Definition:* | | Total number of plants and proportion of distribution input derived from plants falling into size band > 175 Ml/d. The total direct costs and general and support costs, as defined in Section E1, for treatment plants size band >175 Ml/d. | |
| *Processing Rules:* | | Input field. | |
| **E4.37** | **Total number of plants** | | **Nr** |
| *Definition:* | | Total number of treatment plants for all size bands. | |
| *Processing Rules:* | | The sum of lines E4.28 to E4.36. | |
| **E4.38** | **Proportion of distribution input - total** | | **Nr** |
| *Definition:* | | Total proportion of distribution input by all size bands. | |
| *Processing Rules:* | | The sum of lines E4.28 to E4.36. | |
| **E4.39** | **Total operating costs** | | **NZ$000** |
| *Definition:* | | The total direct costs and general and support costs, as defined in Section E1, for treatment plants. | |
| *Processing Rules:* | | The sum of lines E4.28 to E4.36. | |

TABLE E5: LARGE WATER TREATMENT PLANTS INFORMATION DATA BASE

1. Large water treatment plants are defined as those with a design capacity exceeding 25 Ml/d. The Local Authority should complete a column of this table for each large plant. The total number of plants shall be consistent with table E4 (there is available space for a maximum of 50 plants). Where there is not enough large treatment plants to complete the 50 columns, the extra columns should be left blank.
2. When reporting key parameters (parameters a & b in the table) for lines E5.10 to E5.13 inclusive, the Local Authority should select them on an individual plant basis and tabulate in the commentary which parameters are being reported for which plants.
3. The Local Authority should explain how the costings have been obtained, reveal any assumptions made and comment on any areas of uncertainty. The costs reported in this table shall be consistent with the water treatment costs reported in Table E1. There is a maximum of 50 columns available for 50 works.
4. In the event of a joint venture of assets serving two or more Local Authorities, information relating to these assets – such as operating expenditure and capital expenditure - should be allocated to each Local Authority according to the contractual arrangements in place (e.g. how costs are shared). The Local Authority is expected to explain the allocation rules used in the commentary cells.
5. Furthermore, Local Authorities should report their own share of the volumes supplied. If allocated, the Local Authority is expected to explain the allocation method used in the commentary cells.
6. For example, the Seaview Joint Venture in Wellington region provides wastewater treatment services to both Lower Hutt City and Upper Hutt City. Consequently, Wellington Water was asked to report the Seaview Treatment Plant in both Lower Hutt and Upper Hutt RfI tables. In each Local Authority’s table, only the loads and costs specific to that Local Authority were reported. This ensured no double counting occurred.

BLOCK 1: PLANT SIZE

|  |  |  |  |
| --- | --- | --- | --- |
| **E5.0** | **Name** | |  |
| *Definition:* | | Name of water treatment plant. | |
| *Processing Rules:* | | Input field. | |
| **E5.1** | **Average Day Demand** | | **Ml/d** |
| *Definition:* | | The average daily volume of water delivered by the treatment plants during the report year. This is the volume of water as measured on the output meter. Exclude plant losses. | |
| *Processing Rules:* | | Input field. | |
| **E5.2** | **Peak Day Demand** | | **Ml/d** |
| *Definition:* | | The peak day volume of water delivered by the treatment plants during the report year. This is the volume of water as measured on the output meter. Exclude plant losses. | |
| *Processing Rules:* | | Input field. | |
| **E5.3** | **Works Capacity** | | **Ml/d** |
| *Definition:* | | The process capacity of the treatment plants as defined by design criteria. | |
| *Processing Rules:* | | Input field. | |
| **E5.4** | **Headroom** | | **Ml/d** |
| *Definition:* | | The difference between plant capacity and peak day demand. | |
| *Processing Rules:* | | Calculated field, E5.3 – E5.2. | |

BLOCK 2: RAW WATER SOURCE

|  |  |  |  |
| --- | --- | --- | --- |
| **E5.5** | **Source Type** | | **Type** |
| *Definition:* | | Source type as one of the following only:   * Impounding Reservoirs; * Lakes; * River or stream abstractions; * Boreholes.   Where more than one source type is used, the predominant source is to be reported with other sources mentioned in the commentary. | |
| *Processing Rules:* | | Input field. | |
| **E5.6** | **Average Turbidity** | | **ntu** |
| *Definition:* | | The average turbidity of the raw water source as measured at the plant input. Report the average of the operational sample values taken over the report year. | |
| *Processing Rules:* | | Input field. | |
| **E5.7** | **Peak Turbidity** | | **ntu** |
| *Definition:* | | The peak turbidity of the raw water source as measured at the plant input. Report the peak of the operational sample values taken over the report year. | |
| *Processing Rules:* | | Input field. | |
| **E5.8** | **Average Colour** | | **hazen** |
| *Definition:* | | The average colour of the raw water source as measured at the plant input. Report the average of the operational sample values taken over the report year. | |
| *Processing Rules:* | | Input field. | |
| **E5.9** | **Peak Colour** | | **hazen** |
| *Definition:* | | The peak colour of the raw water source as measured at the plant input. Report the peak of the operational sample values taken over the report year. | |
| *Processing Rules:* | | Input field. | |
| **E5.10** | **Average parameter ‘a’** | | **mg/l** |
| *Definition:* | | The average value of the parameter having greatest impact on the performance of the plant as measured at the plant input. Report the average of the operational sample values taken over the report year. | |
| *Processing Rules:* | | Input field (optional). | |
| **E5.11** | **Peak parameter ‘a’** | | **mg/l** |
| *Definition:* | | The peak value of the parameter having greatest impact on the performance of the plant as measured at the plant input. Report the peak of the operational sample values taken over the report year.  Refer to text at start of the chapter. | |
| *Processing Rules:* | | Input field (optional). | |

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| --- | --- | --- | --- |
| **E5.12** | **Average parameter ‘b’** | | **mg/l** |
| *Definition:* | | The average value of the parameter having second greatest impact on the performance of the plant as measured at the plant input. Report the average of the operational sample values taken over the report year.  Refer to text at start of the chapter. | |
| *Processing Rules:* | | Input field (optional). | |
| **E5.13** | **Peak parameter ‘b’** | | **mg/l** |
| *Definition:* | | The peak value of the parameter having second greatest impact on the performance of the plant as measured at the plant input. Report the peak of the operational sample values taken over the report year.  Refer to text at start of the chapter. | |
| *Processing Rules:* | | Input field (optional). | |
| **E5.14** | **Cryptosporidium risk assessment** | | **High/ med/low** |
| *Definition:* | | Report on the result of risk assessment for cryptosporidium.  *Enter one of: high, med or low in lower case letters.* | |
| *Processing Rules:* | | Input field. | |

BLOCK 3: COMPLIANCE AND PERFORMANCE

|  |  |  |  |
| --- | --- | --- | --- |
| **E5.15** | **Coliform: samples exceeding compliance value** | | **%** |
| *Definition:* | | The percentage of samples exceeding the pcv for coliform in the report year. | |
| *Processing Rules:* | | Input field. | |
| **E5.16** | **Turbidity: samples exceeding threshold value** | | **%** |
| *Definition:* | | The percentage of samples exceeding the pcv for turbidity in the report year. | |
| *Processing Rules:* | | Input field. | |
| **E5.17** | **THM: samples exceeding threshold value** | | **%** |
| *Definition:* | | The percentage of samples exceeding the standard for trihalomethane in the report year. | |
| *Processing Rules:* | | Input field. | |

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| --- | --- | --- | --- |
| **E5.18** | **Aluminium: samples exceeding threshold value** | | **%** |
| *Definition:* | | The percentage of samples exceeding the pcv for aluminum the report year. | |
| *Processing Rules:* | | Input field. | |
| **E5.19** | **Iron: samples exceeding threshold value** | | **%** |
| *Definition:* | | The percentage of samples exceeding the pcv for iron in the report year. | |
| *Processing Rules:* | | Input field. | |
| **E5.20** | **Manganese: samples exceeding threshold value** | | **%** |
| *Definition:* | | The percentage of samples exceeding the pcv for manganese in the report year. | |
| *Processing Rules:* | | Input field. | |

BLOCK 4: PROCESSES

|  |  |  |  |
| --- | --- | --- | --- |
| **E5.21** | **Simple disinfection only** | | **1/0** |
| *Definition:* | | Plant comprises simple disinfection only. | |
| *Processing Rules:* | | Input field. Indicate the presence of process by entering ‘1’ or otherwise ‘0’. | |

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| --- | --- | --- | --- |
| **E5.22** | **Simple disinfection and filtration (W1)** | | **1/0** |
| *Definition:* | | Plant comprises simple disinfection and filtration only, compatible with plant process category W1 as defined in E4. | |
| *Processing Rules:* | | Input field. Indicate the presence of process by entering ‘1’ or otherwise ‘0’. | |
| **E5.23** | **Single stage physical or chemical treatment (W2)** | | **1/0** |
| *Definition:* | | Plant comprises single stage physical or chemical filtration only, compatible with plant process category W2 as defined in E4. | |
| *Processing Rules:* | | Input field. Indicate the presence of process by entering ‘1’ or otherwise ‘0’. | |
| **E5.24** | **More than one stage of treatment excluding W4 (W3)** | | **1/0** |
| *Definition:* | | Plant comprises more than one stage of treatment only, excluding processes in W4, compatible with plant process category W3 as defined in E4. | |
| *Processing Rules:* | | Input field. Indicate the presence of process by entering ‘1’ or otherwise ‘0’. | |
| **E5.25** | **Complex treatment including micro-filtration (W4)** | | **1/0** |
| *Definition:* | | Plant comprises more than one stage of treatment only, including process such as microfiltration, pesticide treatment or nitrate removal, compatible with plant process category W4 as defined in E4. | |
| *Processing Rules:* | | Input field. Indicate the presence of process by entering ‘1’ or otherwise ‘0’ | |

BLOCK 5: MISCELLANEOUS DATA

|  |  |  |  |
| --- | --- | --- | --- |
| **E5.26** | **Intake plant on site** | | **1/0** |
| *Definition:* | | Confirmation that the intake plant is located on site and costs included within the treatment plants cost code. | |
| *Processing Rules:* | | Input field. Indicate the presence of process by entering ‘1’ or otherwise ‘0’. | |
| **E5.27** | **Raw water pumping station on site** | | **1/0** |
| *Definition:* | | Confirmation that the raw water pumping station is located on site and costs included within the treatment plants cost code. | |
| *Processing Rules:* | | Input field. Indicate the presence of process by entering ‘1’ or otherwise ‘0’. | |

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| --- | --- | --- | --- |
| **E5.28** | **Treated water pumping station on site** | | **1/0** |
| *Definition:* | | Confirmation that the treated water pumping station is located on site and costs included within the treatment plants cost code. | |
| *Processing Rules:* | | Input field. Indicate the presence of process by entering ‘1’ or otherwise ‘0’. | |
| **E5.29** | **Water treatment plant own sludge treated on site** | | **1/0** |
| *Definition:* | | Confirmation that the treatment plant’s own sludge is treated on site and supernatant returned to the head of the plant, and costs of sludge treatment and disposal are included within the treatment plants cost code. | |
| *Processing Rules:* | | Input field. Indicate the presence of process by entering ‘1’ or otherwise ‘0’. | |

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| --- | --- | --- | --- |
| **E5.30** | **Water treatment plant with sludge discharged off site** | | **1/0** |
| *Definition:* | | Confirmation that the treatment plant’s own sludge is discharged off site, and costs of sludge treatment and disposal are included within the treatment plants cost code. | |
| *Processing Rules:* | | Input field. Indicate the presence of process by entering ‘1’ or otherwise ‘0’. | |

BLOCK 6: WATER TREATMENT PLANT COSTS

|  |  |  |  |
| --- | --- | --- | --- |
| **E5.31** | **Employment direct costs** | | **NZ$000** |
| *Definition:* | | All employment direct costs as defined in table E1 line 1. | |
| *Processing Rules:* | | Input field. | |
| **E5.32** | **Power direct costs** | | **NZ$000** |
| *Definition:* | | All power direct costs as defined in table E1 line 2. | |
| *Processing Rules:* | | Input field. | |
| **E5.33** | **Hired and Contract Services direct costs** | | **NZ$000** |
| *Definition:* | | All hired and contract direct costs as defined in table E1 line 3. | |
| *Processing Rules:* | | Input field. | |
| **E5.34** | **Materials and Consumables direct costs** | | **NZ$000** |
| *Definition:* | | All materials and consumables direct costs as defined in table E1 line 5. | |
| *Processing Rules:* | | Input field. | |
| **E5.35** | **Service Charges direct costs** | | **NZ$000** |
| *Definition:* | | All service charges direct costs as defined in table E1 line 6. | |
| *Processing Rules:* | | Input field. | |
| **E5.36** | **Other direct costs** | | **NZ$000** |
| *Definition:* | | All other direct costs as defined in table E1.8. | |
| *Processing Rules:* | | Input field. | |
| **E5.37** | **Total direct costs** | | **NZ$000** |
| *Definition:* | | Total direct costs. | |
| *Processing Rules:* | | Calculated field, the sum of lines E5.31 to E5.36. | |

|  |  |  |  |
| --- | --- | --- | --- |
| **E5.38** | **General and Support Expenditure** | | **NZ$000** |
| *Definition:* | | All general and support costs as defined in table E1 lines 10 and E11. | |
| *Processing Rules:* | | Input field. | |
| **E5.39** | **Functional expenditure** | | **NZ$000** |
| *Definition:* | | Total expenditure comprising the sum of all direct costs and general and support expenditure. | |
| *Processing Rules:* | | Calculated field, the sum of lines E5.37 + E5.38. | |
| **E5.40** | **Estimated intake and raw water pumping direct costs** | | **NZ$000** |
| *Definition:* | | The total estimated intake and raw water direct costs included in total plant costs. | |
| *Processing Rules:* | | Input field. | |
| **E5.41** | **Estimated treated water pumping direct costs** | | **NZ$000** |
| *Definition:* | | The total estimated treated water direct costs included in total plant costs. | |
| *Processing Rules:* | | Input field. | |
| **E5.42** | **Estimated water treatment plant sludge direct costs** | | **NZ$000** |
| *Definition:* | | The total estimated water treatment plant sludge direct costs included in total plant costs. | |
| *Processing Rules:* | | Input field. | |

TABLE E6: WATER EXPLANATORY FACTORS - DISTRIBUTION

1. The purpose of this table is to collect information on the Local Authority’s water distribution service to enable the regulator to develop its water distribution service models. This information will be used to assess the comparative efficiency of the Local Authority. Disaggregated information is required below the Local Authority regional level because of the relatively small number of water distribution comparators. This is intended to improve the reliability and robustness of the models.
2. This table should capture all water distribution activities carried out by the Local Authority. Instances where a Local Authority provides a stock water supply to a household or non-household, even if it is raw or partially treated water, should be reported on. Therefore, lines asking for population and properties should include an estimate for customers supplied from a stock water supply. Details of such stock water supply arrangements should be provided in the commentary cells. If the stock water supply is completely discrete (i.e. supplying no household or non-household customers), then this should not be included.
3. This table requests information on a sub-regional basis for a number of areas following the criteria set out below. If possible, data should be broken down by operational areas, and entered in the appropriate columns.
4. Areas must be based on the operating units by which the Local Authority is managed;
5. Each area should form a single geographical unit with a contiguous boundary, preferably geographically separate areas should not be combined for reporting purposes although this might not be possible in some island areas;
6. The areas must cover the whole of an authority’s region to ensure that the totals calculated in the final column of the table reconcile with information reported elsewhere in the RfI.
7. Local Authorities can decide whether to report the information by operational area or for the whole Local Authority.
8. The Local Authority must explain the methods used to report costs for the areas (if applicable), setting out clearly any allocation rules used. The Local Authority should reveal any assumptions made in arriving at costs or explanatory factor information.
9. In the event of a joint venture of assets serving two or more Local Authorities, Local Authorities should split out information associated with the asset – such as operating expenditure and capital expenditure – in relation to the proportions set out in the contract. For example, if energy costs are paid centrally, then these costs should be shared between the Local Authorities on the basis of contractual arrangements in place. The Local Authority is expected to explain the allocation rules used in the commentary cells. Local Authorities are requested to provide an estimate of its share of the asset stock and to use confidence grades to reflect the underlying uncertainty in the estimate.
10. Furthermore, Local Authorities should report their own share of the volumes supplied. If allocated, the Local Authority is expected to explain the allocation method used in the commentary cells.

Guidance to the Local Authority

1. On completion of Table E6 the Local Authority should ensure that no input cell is left blank in any of the reported area columns.

BLOCK 1: AREA DATA

|  |  |  |  |
| --- | --- | --- | --- |
| **E6.0** | **Name** | |  |
| *Definition:* | | Name of treatment plant. | |
| *Processing Rules:* | | Input field. | |

|  |  |  |  |
| --- | --- | --- | --- |
| **E6.1** | **Annual average resident connected population** | | **000** |
| *Definition:* | | Total winter population supplied at the financial year end (30 June) in the Local Authority’s area of supply. This should include billed customers supplied with unmeasured and measured water.  Local Authorities should include an estimate of the population in receipt of a stock water supply and detail this in the commentary cells.  The value in the ‘total’ column should be consistent with those reported in line A1.43 for the same year. | |
| *Processing Rules:* | | Input Field. Column ‘total’ is calculated from the sum of the input columns. | |
| **E6.2** | **Total Connected Properties** | | **000** |
| *Definition:* | | The total number of connected properties in each area as at 30 June of the reporting year. The value in the ‘total’ column should be consistent with those reported in line A1.39 for the same year.  Local Authorities should include an estimate of the properties in receipt of a stock water supply. Please also provide this estimate in the commentary cells. | |
| *Processing Rules:* | | Input Field. Column ‘total’ is calculated from the sum of the input columns. | |
| **E6.3** | **Volume of Water Delivered to Households** | | **Ml/d** |
| *Definition:* | | The average daily volume of water delivered to households in the report year expressed as Ml/d (equivalent to 1000m3 a day). The value in the ‘total’ column should be consistent with the sum of lines A2.1 and A2.5 for the relevant year.  Local Authorities should include an estimate of the water volume delivered to households through a stock water supply. Please also provide this estimate in the commentary cells. | |
| *Processing Rules:* | | Input Field. Column ‘total’ is calculated from the sum of the input columns. | |
| **E6.4** | **Volume of Water Delivered to non-Households** | | **Ml/d** |
| *Definition:* | | The average daily volume of water delivered to non-households in the report year expressed as Ml/d (equivalent to 1000m3 a day). The value in the ‘total’ column should be consistent with the sum of lines A2.8a and A2.15a  Local Authorities should include an estimate of the water volume delivered to households through a stock water supply. Please also provide this estimate in the commentary cells. | |
| *Processing Rules:* | | Input Field. Column ‘total’ is calculated from the sum of the input columns. | |
| **E6.5** | **Area** | | **km2** |
| *Definition:* | | The total land area of the distribution area. | |
| *Processing Rules:* | | Input Field. Column ‘total’ is calculated from the sum of the input columns. | |
| **E6.6** | **Number of Supply Zones** | | **nr** |
| *Definition:* | | The number of supply zones, as defined in the water quality regulations, contained within each distribution area. | |
| *Processing Rules:* | | Input Field. Column ‘total’ is calculated from the sum of the input columns. | |

BLOCK 2: WATER MAIN DATA

|  |  |  |  |
| --- | --- | --- | --- |
| **E6.7** | **Total length of mains** | | **km** |
| *Definition:* | | The total length of water mains in each distribution area at the end of the Report Year. | |
| *Processing Rules:* | | Input Field. Column ‘total’ is calculated from the sum of the input columns. | |
| **E6.8** | **Total length of unlined iron mains** | | **km** |
| *Definition:* | | The total length of unlined iron water mains in each distribution area at the end of the Report Year. | |
| *Processing Rules:* | | Input Field. Column ‘total’ is calculated from the sum of the input columns. | |
| **E6.9** | **Total length of mains >300mm diameter** | | **km** |
| *Definition:* | | The total length of potable mains greater than 300mm nominal bore – exclude mains with a nominal bore of 300mm. | |
| *Processing Rules:* | | Input Field. Column ‘total’ is calculated from the sum of the input columns. | |
| **E6.10** | **Water mains bursts** | | **nr** |
| *Definition:* | | The number of water mains bursts in each distribution area during the Report Year. A burst is defined in Section B. | |
| *Processing Rules:* | | Input Field. Column ‘total’ is calculated from the sum of the input columns. | |
| **E6.11** | **Leakage level** | | **Ml/d** |
| *Definition:* | | The estimated level of distribution leakage within each distribution area expressed as Ml/d (equivalent to 1000m3 a day). Leakage is defined in Section A. | |
| *Processing Rules:* | | Input Field. Column ‘total’ is calculated from the sum of the input columns. | |
| **E6.12** | **Properties reported for low pressure** | | **nr** |
| *Definition:* | | The number of properties experiencing low pressure as defined in Section B at the end of the Report Year. The value in the ‘total’ column should be consistent with those reported in line B2.9. | |
| *Processing Rules:* | | Input Field. Column ‘total’ is calculated from the sum of the input columns. | |

BLOCK 3: PUMPING STATIONS

|  |  |  |  |
| --- | --- | --- | --- |
| **E6.13** | **Total number of pumping stations** | | **nr** |
| *Definition:* | | The total number of water pumping stations in operation during the report year for each distribution area. Include plants terminal pumping stations and booster stations but exclude intake and borehole pumps. | |
| *Processing Rules:* | | Input Field. Column ‘total’ is calculated from the sum of the input columns. | |

BLOCK 4: SERVICE RESERVOIRS

|  |  |  |  |
| --- | --- | --- | --- |
| **E6.17** | **Total number of service reservoirs** | | **nr** |
| *Definition:* | | The total number of water service reservoirs in operation during the report year for each distribution area. Include treated water service reservoirs at treatment plants. | |
| *Processing Rules:* | | Input Field. Column ‘total’ is calculated from the sum of the input columns. | |
| **E6.18** | **Total capacity of service reservoirs** | | **Ml** |
| *Definition:* | | The total capacity of water service reservoirs in Ml (equivalent to 1000m3) in operation during the report year for each distribution area. Include treated water service reservoirs at treatment plants. | |
| *Processing Rules:* | | Input Field. Column ‘total’ is calculated from the sum of the input columns. | |

BLOCK 5: PUMPING STATIONS

|  |  |  |  |
| --- | --- | --- | --- |
| **E6.14** | **Total capacity of pumping stations** | | **m3/day** |
| *Definition:* | | The total capacity of water pumping stations in operation during the report year for each distribution area. Include works terminal pumping stations and booster stations but exclude intake and borehole pumps. | |
| *Processing Rules:* | | Input Field. Column ‘total’ is calculated from the sum of the input columns. | |
| **E6.15** | **Total capacity of booster pumping stations** | | **kw** |
| *Definition:* | | The total capacity of booster pumping stations (including standby pumps) in operation during the report year for each distribution area. | |
| *Processing Rules:* | | Input Field. Column ‘total’ is calculated from the sum of the input columns. | |
| **E6.16** | **Average pumping head for distribution** | | **m** |
| *Definition:* | | Average pumping head for distribution. The calculation for average pumping head is set out in the definitions for E4.  The total should be calculated based on a weighted average of water supplied in each area. | |
| *Processing Rules:* | | Input Field. Column ‘total’ is calculated based on a weighted average of the input columns. | |

BLOCK 6: WATER TOWERS

|  |  |  |  |
| --- | --- | --- | --- |
| **E6.19** | **Total number of water towers** | | **nr** |
| *Definition:* | | The total number of water towers in operation during the report year for each distribution area. | |
| *Processing Rules:* | | Input Field. Column ‘total’ is calculated from the sum of the input columns. | |
| **E6.20** | **Total capacity of water towers** | | **Ml** |
| *Definition:* | | The total capacity of water towers in Ml (equivalent to 1000m3) in operation during the report year for each distribution area. | |
| *Processing Rules:* | | Input Field. Column ‘total’ is calculated from the sum of the input columns. | |

TABLE E7: WASTEWATER EXPLANATORY FACTORS - WASTEWATER

1. The purpose of this table is to collect information on the Local Authority’s wastewater services (both costs and explanatory factors) to enable the regulator to update its wastewater service models.
2. The information will be used to assess the comparative efficiency of the Local Authority. Disaggregated information is required below the Local Authority regional level because of the relatively small number of wastewater comparators. This is intended to improve the reliability and robustness of the models.
3. The table requests information on a sub-regional basis for a number of areas (according to their size) following the criteria set out below:
4. Areas must be based on the operating units by which a Local Authority’s region is managed;
5. Each area should form a single geographical unit with a contiguous boundary (i.e. geographically separated areas should not be combined for reporting purposes);
6. The areas must together cover the whole of an authority’s region (to ensure that the totals calculated in the final column of table E7 reconcile with information elsewhere in the RfI;
7. Local Authorities can decide whether to report the information by operational area or for the whole Local Authority.
8. The Local Authority must explain the methods used to report costs for the areas (if applicable), setting out clearly any allocation rules used. The Local Authority must reveal any assumptions made in arriving at costs or explanatory factor information.
9. In the event of a joint venture of assets serving two or more Local Authorities, Local Authorities should split out information associated with the asset – such as operating expenditure and capital expenditure – in relation to the proportions set out in the contract. For example, if energy costs are paid centrally, then these costs should be shared between the Local Authorities on the basis of contractual arrangements in place. The Local Authority is expected to explain the allocation rules used in the commentary cells. The Local Authority is requested to provide an estimate of its share of the asset stock and to use confidence grades to reflect the underlying uncertainty in the estimate.
10. Furthermore, Local Authorities should report their own share of the loads and volumes received. If allocated, the Local Authority is expected to explain the allocation method used in the commentary cells.
11. As clarified at the DIA clinic held on 3 November, Local Authorities should include household and non-household properties and populations that receive a stock water supply and are connected to the wastewater system when reporting billed and/or connected properties and populations in the relevant lines of the tables. In addition, please provide an estimate of the number of properties or the population where this applies in the commentary cells.

Guidance to the Local Authority

1. The Local Authority should ensure that no input cell is left blank in any of the reported area columns.

BLOCK 1: AREA DATA

|  |  |  |  |
| --- | --- | --- | --- |
| **E7.0** | **Name** | |  |
| *Definition:* | | Name of sub-area. | |
| *Processing Rules:* | | Input field. | |
| **E7.1** | **Annual average resident connected population** | | **000** |
| *Definition:* | | Total winter population connected to the wastewater service at the financial year end (30 June). | |
| *Processing Rules:* | | Input Field. Column ‘total’ is calculated as the sum of the input columns. Total column should be consistent with line A3.58. | |
| **E7.2** | **Annual average non-resident connected population** | | **000** |
| *Definition:* | | Include the holiday and tourist population connected to the wastewater system in each area. Do not include any allowance for daily commuters. | |
| *Processing Rules:* | | Input Field. Column ‘total’ is calculated as the sum of the input columns. | |
| **E7.3** | **Volume of wastewater collected (daily average)** | | **Ml/d** |
| *Definition:* | | Average daily volume of wastewater collected in each area. | |
| *Processing Rules:* | | Input Field columns 1 to 8. Column ‘total’ calculated as the sum of the input columns. | |
| **E7.4** | **Total connected properties** | | **nr** |
| *Definition:* | | Number of connected properties in each area at 30 June of the reporting year. | |
| *Processing Rules:* | | Input Field. Column ‘total’ is calculated as the sum of the input columns. | |
| **E7.5** | **Area of wastewater district** | | **km2** |
| *Definition:* | | Area of wastewater district. | |
| *Processing Rules:* | | Input Field. Column ‘total’ is calculated as the sum of the input columns. | |
| **E7.6** | **Drained area** | | **km2** |
| *Definition:* | | The area within each wastewater district that is drained via a separate foul or combined sewer. Include within the total any area within 50 metres of an existing sewer. | |
| *Processing Rules:* | | Input Field. Column ‘total’ is calculated as the sum of the input columns. | |
| **E7.7** | **Annual precipitation** | | **mm** |
| *Definition:* | | Estimated annual total precipitation for the report year. This should be the mean figure for the area drained. Estimates should be consistent with precipitation measured at official rain - gauges. | |
| *Processing Rules:* | | Input Field. | |

BLOCK 2: WASTEWATER DATA

|  |  |  |  |
| --- | --- | --- | --- |
| **E7.8** | **Total length of sewer (excluding lateral sewers)** | | **km** |
| *Definition:* | | The length of sewer in each area, including gravity sewers, rising mains, and combined sewers. Exclude lateral sewers. | |
| *Processing Rules:* | | Input Field. Column ‘total’ is calculated as the sum of the input columns. | |
| **E7.9** | **Total length of lateral sewer** | | **km** |
| *Definition:* | | The length of lateral sewer in each area. Local Authorities should explain in the commentary whether they:   * own the lateral sewer; * do not own, but maintain the lateral sewer on behalf of the homeowner (e.g. Local Authorities maintain the laterals as a goodwill gesture); or * do not own or maintain the lateral sewer (i.e. this is the responsibility of the homeowner). | |
| *Processing Rules:* | | Input Field. Column ‘total’ is calculated as the sum of the input columns. | |
| **E7.10** | **Length of Combined Sewer** | | **km** |
| *Definition:* | | The total length of combined sewer in each wastewater area. Combined sewers are those designed to convey foul and surface water flows. | |
| *Processing Rules:* | | Input Field. Column ‘total’ is calculated as the sum of the input columns. | |

|  |  |  |  |
| --- | --- | --- | --- |
| **E7.12** | **Length of sewer > 1000mm diameter** | | **km** |
| *Definition:* | | Length of sewer in each area with an internal diameter > 1000mm. | |
| *Processing Rules:* | | Input Field. Column ‘total’ is calculated as the sum of the input columns. | |
| **E7.13** | **Length of critical sewer** | | **km** |
| *Definition:* | | Length of critical sewer in each area. "Critical sewers" are those, whose collapse repairs will be expensive or disruptive or those, which are considered to be strategically important. The principal criterion is that if a sewer should fail, the subsequent costs would be significantly higher than if rehabilitated before failure | |
| *Processing Rules:* | | Input Field. Column ‘total’ is calculated as the sum of the input columns. | |
| **E7.14** | **Sewer collapses** | | **nr** |
| *Definition:* | | Total number of sewer collapses in the report year in each area. | |
| *Processing Rules:* | | Input Field. Column ‘total’ is calculated as the sum of the input columns. | |

BLOCK 3: PUMPING STATIONS

|  |  |  |  |
| --- | --- | --- | --- |
| **E7.15** | **Total number of pumping stations** | | **nr** |
| *Definition:* | | For these purposes a pumping station is defined, as an individual site (i.e. not an individual pump). Include both foul, combined and stormwater pumping stations situated at treatment plants (and exclude inter-stage pumping). | |
| *Processing Rules:* | | Input Field. Column ‘total’ is calculated as the sum of the input columns. | |
| **E7.16** | **Total capacity of pumping stations (m3/d)** | | **m3/d** |
| *Definition:* | | Total peak hydraulic pumping capacity of pumping stations (as defined in E7.15). | |
| *Processing Rules:* | | Input Field. Column ‘total’ is calculated as the sum of the input columns. | |
| **E7.16a** | **Total capacity of pumping stations (kw)** | | **kw** |
| *Definition:* | | The total capacity of pumping stations (including standby pumps) in operation during the report year for each distribution area. Include foul, combined, stormwater and terminal pumping stations. Exclude capacity of pumps delivering flows to or from off-line storm tanks and of inter-stage pumping within a wastewater treatment plants or sludge treatment centre. Report capacity of all installed pumps (irrespective of the number that may be working at any one time). | |
| *Processing Rules:* | | Report Local Authority total. | |
| **E7.17** | **Average pumping head** | | **m** |
| *Definition:* | | This is the average pumping head (in metres) required in each area to transfer wastewater to a treatment plant. The figure reported in the ‘total’ column is the average pumping head required in the whole of the undertaker’s region.  The Local Authority should report the dynamic pumping head (i.e. including friction losses) in the table.  The total should be calculated based on a weighted average of wastewater collected in each area. | |
| *Processing Rules:* | | Input Field. Column ‘total’ is calculated based on a weighted average of the input columns. | |

|  |  |  |  |
| --- | --- | --- | --- |
| **E7.18** | **Total number of Combined Pumping Stations** | | **nr** |
| *Definition:* | | As for line E7.15 but include only pumping stations receiving combined wastewater. | |
| *Processing Rules:* | | Input Field. Column ‘total’ is calculated as the sum of the input columns. | |
| **E7.19** | **Total capacity of Combined Pumping Stations** | | **m3/d** |
| *Definition:* | | As for line E7.16 but include only pumping stations receiving combined wastewater. | |
| *Processing Rules:* | | Input Field. Column ‘total’ is calculated as the sum of the input columns. | |
| **E7.22** | **Number of combined sewer overflows** | | **nr** |
| *Definition:* | | The total number of combined sewer overflows on the wastewater system. Those at wastewater treatment plants should be excluded, as should emergency overflows. | |
| *Processing Rules:* | | Input Field. Column ‘total’ is calculated as the sum of the input columns. | |
| **E7.23** | **Number of combined sewer overflows (screened)** | | **nr** |
| *Definition:* | | The total number of combined sewer overflows on the sewer system, which are screened. | |
| *Processing Rules:* | | Input Field. Column ‘total’ is calculated as the sum of the input columns. | |

TABLE E7b: STORMWATER EXPLANATORY FACTORS

1. The purpose of this table is to collect information on the Local Authority’s stormwater services (both costs and explanatory factors) to enable the regulator to update its stormwater service models.
2. The information will be used to assess the comparative efficiency of the Local Authority. Disaggregated information is required below the Local Authority regional level because of the relatively small number of wastewater comparators. This is intended to improve the reliability and robustness of the models.
3. The table requests information on a sub-regional basis for a number of areas (according to their size) following the criteria set out below:
4. Areas must be based on the operating units by which an authority’s region is managed;
5. Each area should form a single geographical unit with a contiguous boundary (i.e. geographically separated areas should not be combined for reporting purposes);
6. The areas must together cover the whole of an authority’s region (to ensure that the totals calculated in the final column of table E7b reconcile with information elsewhere in the RfI;
7. Local Authorities can decide whether to report the information by operational area or for the whole Local Authority.
8. The Local Authority must explain the methods used to report costs for the areas (if applicable), setting out clearly any allocation rules used. The Local Authority must reveal any assumptions made in arriving at costs or explanatory factor information.
9. In the event of a joint venture of assets serving two or more Local Authorities, Local Authorities should split out information associated with the asset – such as operating expenditure and capital expenditure – in relation to the proportions set out in the contract. For example, if energy costs are paid centrally, then these costs should be shared between the Local Authorities on the basis of contractual arrangements in place. The Local Authority is expected to explain the allocation rules used in the commentary cells. Each Local Authority is requested to provide an estimate of its share of the asset stock and to use confidence grades to reflect the underlying uncertainty in the estimate.
10. Furthermore, Local Authorities should report their own share of the stormwater volumes received. If allocated, the Local Authority is expected to explain the allocation method used in the commentary cells.
11. As clarified at the DIA clinic held on 3 November, Local Authorities should include household and non-household properties and populations that receive a stock water supply and are connected to the stormwater system when reporting billed and/or connected properties and populations in the relevant lines of the tables. In addition, please provide an estimate of the number of properties or the population where this applies in the commentary cells.

Guidance to the Local Authority

1. The Local Authority should ensure that no input cell is left blank in any of the reported area columns.

BLOCK 1: AREA DATA

|  |  |  |  |
| --- | --- | --- | --- |
| **E7b.0** | **Name** | |  |
| *Definition:* | | Name of sub-area | |
| *Processing Rules:* | | Input field | |
| **E7b.1** | **Annual average resident connected population** | | **000** |
| *Definition:* | | Total winter population supplied at the financial year end (30 June) in the Local Authority’s area of supply. This should include billed customers supplied with stormwater. | |
| *Processing Rules:* | | Input Field. Column ‘total’ is calculated as the sum of the input columns. Total column should be consistent with line A3b.55. | |
| **E7b.2** | **Annual average non- resident connected population** | | **000** |
| *Definition:* | | Include the holiday and tourist population connected to the stormwater system in each arear. Do not include any allowance for daily commuters. | |
| *Processing Rules:* | | Input Field. Column ‘total’ is calculated as the sum of the input columns. | |
| **E7b.4** | **Total connected properties** | | **nr** |
| *Definition:* | | Number of connected properties in each area at 30 June of the reporting year. | |
| *Processing Rules:* | | Input Field. Column ‘total’ is calculated as the sum of the input columns. | |
| **E7b.5** | **Area of stormwater district** | | **Km2** |
| *Definition:* | | Area of stormwater district. | |
| *Processing Rules:* | | Input Field. Column ‘total’ is calculated as the sum of the input columns. | |
| **E7b.6** | **Drained area** | | **Km2** |
| *Definition:* | | The area within each stormwater district that is drained via a separate foul or combined stormwater only sewer. Include within the total any area within 50 metres of an existing stormwater sewer. | |
| *Processing Rules:* | | Input Field. Column ‘total’ is calculated as the sum of the input columns. | |

|  |  |  |  |
| --- | --- | --- | --- |
| **E7b.7** | **Annual precipitation** | | **mm** |
| *Definition:* | | Estimated annual total precipitation for the report year. This should be the mean figure for the area drained. Estimates should be consistent with precipitation measured at official rain - gauges. | |
| *Processing Rules:* | | Input Field. | |

BLOCK 2: STORMWATER DATA

|  |  |  |  |
| --- | --- | --- | --- |
| **E7b.8** | **Total length of stormwater only sewer** | | **km** |
| *Definition:* | | The length of stormwater only sewer in each area. | |
| *Processing Rules:* | | Input Field. Column ‘total’ is calculated as the sum of the input columns. | |
| **E7b.12** | **Length of stormwater only sewer > 1000mm diameter** | | **km** |
| *Definition:* | | Length of stormwater only sewer in each area with an internal diameter > 1000mm. | |
| *Processing Rules:* | | Input Field. Column ‘total’ is calculated as the sum of the input columns. | |
| **E7b.14** | **Stormwater only sewer collapses** | | **nr** |
| *Definition:* | | Total number of stormwater only sewer collapses in the report year in each area. | |
| *Processing Rules:* | | Input Field. Column ‘total’ is calculated as the sum of the input columns. | |

BLOCK 3: PUMPING STATIONS

|  |  |  |  |
| --- | --- | --- | --- |
| **E7b.15** | **Total number of stormwater pumping stations** | | **nr** |
| *Definition:* | | For these purposes a pumping station is defined, as an individual site (i.e. not an individual pump). Include both foul, combined and stormwater pumping stations situated at treatment plants (and exclude inter-stage pumping). | |
| *Processing Rules:* | | Input Field. Column ‘total’ is calculated as the sum of the input columns. | |
| **E7b.16** | **Total capacity of stormwater pumping stations** | | **m3/d** |
| *Definition:* | | Total peak hydraulic pumping capacity of pumping stations (as defined in E7b.15). | |
| *Processing Rules:* | | Input Field. Column ‘total’ is calculated as the sum of the input columns. | |
| **E7b.17** | **Average pumping head** | | **m** |
| *Definition:* | | This is the average pumping head (in metres) required in each area to transfer stormwater to a treatment plant. The figure reported in the ‘total’ column is the average pumping head required in the whole of the undertaker’s region.  The Local Authority should report the dynamic pumping head (i.e. including friction losses) in the table. | |
| *Processing Rules:* | | Input Field. | |

TABLE E8: WASTEWATER EXPLANATORY FACTORS – WASTEWATER TREATMENT PLANTS

1. The purpose of this table is to classify the Local Authority’s wastewater treatment plants (WWTPs) by size and by method of treatment.
2. For this table, the size bands are defined as:

**Small treatment plants**

1. Size band 0: <=6kg BOD5/day (population equivalent: 0 – 1)
2. Size band 1: >6 but <=15kg BOD5/day (population equivalent: 100 – 250)
3. Size band 2: >15 but <=30kg BOD5/day (population equivalent: 250 – 500)
4. Size band 3: >30 but <=120kg BOD5/day (population equivalent: 500 – 2000)
5. Size band 4: >120 but <=600kg BOD5/day (population equivalent: 2000 – 10000)
6. Size band 5: >600 but <=1500kg BOD5/day (population equivalent: 10000 – 25000)

**Large treatment plants**

1. Size band 6: >1500kg BOD5/day
2. These bands may be abbreviated to 15 –30 kg BOD5/day (etc.).
3. In calculating the size of each WWTP for this table the Local Authority should assume a load of 60g/head/day arising from the resident connected population and add any trade effluent load using a factor of 2:1 for converting COD:BOD. No allowance should be made for non-resident population (tourists, commuters), but the Local Authority may wish to comment if this is significant and would affect the banding of a works.
4. Companies should comment on any treatment plants where there is doubt about which band or treatment type applies.

Guidance to the Local Authority

1. The Local Authority should ensure that no input cell is left blank.
2. In the event of a joint venture of assets serving two or more Local Authorities, Local Authorities should split out information associated with the asset – such as operating expenditure and capital expenditure – in relation to the proportions set out in the contract. For example, if energy costs are paid centrally, then these costs should be shared between the Local Authorities on the basis of contractual arrangements in place. The Local Authority is expected to explain the allocation rules used in the commentary cells. Each Local Authority is requested to provide an estimate of its share of the asset stock and to use confidence grades to reflect the underlying uncertainty in the estimate.
3. Furthermore, Local Authorities should report their own share of the loads or volumes received. If allocated, the Local Authority is expected to explain the allocation method used in the commentary cells.
4. For example, the Seaview Joint Venture in Wellington region provides wastewater treatment services to both Lower Hutt City and Upper Hutt City. Consequently, Wellington Water was asked to report the Seaview Treatment Plant in both Lower Hutt and Upper Hutt RfI tables. In each Local Authority’s table, only the loads and costs specific to that Local Authority were reported. This ensured no double counting occurred.

Column definitions

1. The columns in this table permit the classification of wastewater treatment methods. Innovative processes are to be classified according to equivalence of effluent quality.
2. ***Column 0: Septic Tanks:*** Include septic tanks owned by the Local Authority. Sludge from septic tanks to be included in loading to more complex treatment plants.
3. ***Column 1: Primary:*** Include plants whose treatment methods are restricted to preliminary and primary treatment (screening, comminution, maceration, grit and detritus removal, pre-aeration and grease removal, storm tanks, plus primary sedimentation, including where assisted by the addition of chemicals e.g. Clariflow). It is expressed as a percentage to 2 decimal places.
4. ***Column 2: Secondary activated sludge:*** As primary plus treatment plant whose treatment methods include activated sludge (including diffused air aeration, coarse bubble aeration, mechanical aeration, oxygen injection, submerged filters) and other equivalent techniques including deep shaft process, extended aeration (single, double and triple ditches) and biological aerated filters as secondary treatment.
5. ***Column 3: Secondary biological:*** As primary, plus treatment plant whose treatment methods include rotating biological contactors and biological filtration (including conventional filtration, high rate filtration, alternating double filtration and double filtration), root zone treatment (where used as a secondary treatment stage).
6. Works with ***Tertiary treatment stages*** are divided into four categories:
7. ***Column 4: Tertiary A1:*** Treatment plants with a secondary activated sludge process whose treatment methods also include prolonged settlement in conventional lagoons or raft lagoons, irrigation over grassland, constructed wetlands, root zone treatment (where used as a tertiary stage), drum filters, microstrainers, slow sand filters, tertiary nitrifying filters, wedge wire clarifiers or Clariflow installed in humus tanks, where used as a tertiary treatment stage.
8. ***Column 5: Tertiary A2:*** Treatment plants with a secondary activated sludge process whose treatment methods also include rapid-gravity sand filters, moving bed filters, pressure filters, nutrient control using physico-chemical and biological methods, disinfection, hard COD and colour removal, where used as a tertiary treatment stage.
9. ***Column 6: Tertiary B1:*** Treatment plants with a secondary stage biological process whose treatment methods also include prolonged settlement in conventional lagoons or raft lagoons, irrigation over grassland, constructed wetlands, root zone treatment (where used as a tertiary stage), drum filters, microstrainers, slow sand filters, tertiary nitrifying filters, wedge wire clarifiers or Clariflow installed in humus tanks, where used as a tertiary treatment stage.
10. ***Column 7: Tertiary B2:*** Treatment plants with a secondary biological process whose treatment methods also include rapid gravity sand filters, moving bed filters, pressure filters, nutrient control using physico-chemical and biological methods, disinfection, hard COD and colour removal, where used as a tertiary treatment stage.
11. ***Column 8: Preliminary via sea outfall:*** The load being discharged via sea outfall which receives preliminary treatment. It is expressed as a percentage to 2 decimal places.
12. ***Column 9: Screened via sea outfall:*** The load being discharged via sea outfall which receives simple screening. It is expressed as a percentage to 2 decimal places.
13. ***Column 10: Unscreened via sea outfall:*** The load being discharged via sea outfall which receives no treatment. It is expressed as a percentage to 2 decimal places.
14. ***Column 11:*** Total

BLOCK 1: NUMBERS

|  |  |  |  |
| --- | --- | --- | --- |
| **E8.1** | **Size Band 0** | | **nr** |
| *Definition:* | | The number of treatment plants in each category should be entered in the appropriate column.  Sea outfalls should be classified in the relevant column according to whether preliminary treatment or simple screening is provided. | |
| *Processing Rules:* | | |  | | --- | | Input Field. Column ‘total’ is calculated as the sum of the input columns. Confidence Grade following every field. | | |
| **E8.2** | **Size Band 1** | | **nr** |
| *Definition:* | | The number of treatment plants in each category should be entered in the appropriate column.  Sea outfalls should be classified in the relevant column according to whether preliminary treatment or simple screening is provided. | |
| *Processing Rules:* | | |  | | --- | | Input Field. Column ‘total’ is calculated as the sum of the input columns. Confidence Grade following every field. | | |

|  |  |  |  |
| --- | --- | --- | --- |
| **E8.3** | **Size Band 2** | | **nr** |
| *Definition:* | | The number of treatment plants in each category should be entered in the appropriate column.  Sea outfalls should be classified in the relevant column according to whether preliminary treatment or simple screening is provided. | |
| *Processing Rules:* | | |  | | --- | | Input Field. Column ‘total’ is calculated as the sum of the input columns. Confidence Grade following every field. | | |
| **E8.4** | **Size Band 3** | | **nr** |
| *Definition:* | | The number of treatment plants in each category should be entered in the appropriate column.  Sea outfalls should be classified in the relevant column according to whether preliminary treatment or simple screening is provided. | |
| *Processing Rules:* | | |  | | --- | | Input Field. Column ‘total’ is calculated as the sum of the input columns. Confidence Grade following every field. | | |

|  |  |  |  |
| --- | --- | --- | --- |
| **E8.5** | **Size Band 4** | | **nr** |
| *Definition:* | | The number of treatment plants in each category should be entered in the appropriate column.  Sea outfalls should be classified in the relevant column according to whether preliminary treatment or simple screening is provided. | |
| *Processing Rules:* | | |  | | --- | | Input Field. Column ‘total’ is calculated as the sum of the input columns. Confidence Grade following every field. | | |
| **E8.6** | **Size Band 5** | | **nr** |
| *Definition:* | | The number of treatment plants in each category should be entered in the appropriate column.  Sea outfalls should be classified in the relevant column according to whether preliminary treatment or simple screening is provided. | |
| *Processing Rules:* | | |  | | --- | | Input Field. Column ‘total’ is calculated as the sum of the input columns. Confidence Grade following every field. | | |
| **E8.7** | **Size Band 6 (Large Plants)** | | **nr** |
| *Definition:* | | The number of treatment plants in each category should be entered in the appropriate column.  Sea outfalls should be classified in the relevant column according to whether preliminary treatment or simple screening is provided. | |
| *Processing Rules:* | | |  | | --- | | Input Field. Column ‘total’ is calculated as the sum of the input columns. Confidence Grade following every field. | | |
| **E8.8** | **Total Wastewater Treatment Plants** | | **nr** |
| *Definition:* | | The total numbers of wastewater treatment plants and sea outfalls (all sizes) providing each category of treatment. | |
| *Processing Rules:* | | |  | | --- | | Calculated field: the sum of lines E8.1 to E8.7.  Confidence Grade following every field. | | |
| **E8.9** | **Small Wastewater Treatment Plants with ammonia consent 5-10mg/l** | | **nr** |
| *Definition:* | | The number of small wastewater treatment plants with ammonia consents of between 5 and 10mg/l (including 10mg/l). Note that these works must also be included in the appropriate categories in lines 1-5 above, to ensure that the total numbers of works are correct. | |
| *Processing Rules:* | | |  | | --- | | Input Field. Column ‘total’ is calculated as the sum of the input columns. Confidence Grade following every field. | | |

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| --- | --- | --- | --- |
| **E8.10** | **Small Wastewater Treatment Plants with ammonia consents <=5mg/l** | | **nr** |
| *Definition:* | | The number of small wastewater treatment plants with ammonia consents of 5mg/l or less. Note that these works must also be included in the appropriate categories in lines 1-5 above, to ensure that the total numbers of plants are correct. | |
| *Processing Rules:* | | |  | | --- | | Input Field. Column ‘total’ is calculated as the sum of the input columns. Confidence Grade following every field. | | |

BLOCK 2: LOADING – AVERAGE DAILY LOAD

1. The purpose of this part of the table is to collect information on the wastewater loads received by the various types and sizes of treatment plants in the Local Authority.
2. This model will be used to provide assessments of the Local Authority’s relative operating efficiency.
3. The figures the Local Authority must report are the average daily loads received (in kg BOD5/day) by treatment and sea outfalls in each of the various categories for plant size and treatment method. The average daily load for each WWTP should be calculated as the total annual load received (in kg BOD5/day) by the WWTP, divided by 365. The figure to be reported in the table is the sum of the loads received by each WWTP or outfall in each particular category.
4. The WWTP size banding used is the same as described in the commentary to block 1 of table E8 guidance. The classification of WWTPs by treatment method is described in the general guidance.
5. The Local Authority should comment briefly on this table where there have been significant changes in the distribution of loads to various types or sizes of treatment plants since this information was last reported; for example, where several small treatment plants have been replaced with a single treatment plant or where treatment methods have been upgraded. The Local Authority must also comment on any significant changes which will occur in the near future; for example, closure of existing treatment plants and diversion of wastewater load elsewhere or forecasts of significant increase in effluent loads.
6. In the event of a joint venture of assets serving two or more Local Authorities, Local Authorities should report their own share of the loads received and the asset stock. If allocated, the Local Authority is expected to explain the allocation method used in the commentary cells.

|  |  |  |  |
| --- | --- | --- | --- |
| **E8.11** | **Size Band 0** | | **kg BOD5/day** |
| *Definition:* | | The average daily load received (in kg of BOD5/day) by WWTPs of size band 0 (<=6kg BOD5/day) for each treatment category. The convention outlined under the common definitions should be used to calculate the load for each WWTP. | |
| *Processing Rules:* | | |  | | --- | | Input Field. Column ‘total’ is calculated as the sum of the input columns. Confidence Grade following every field. | | |

|  |  |  |  |
| --- | --- | --- | --- |
| **E8.12** | **Size Band 1** | | **kg BOD5/day** |
| *Definition:* | | The average daily load received (in kg of BOD5/day) by WWTPs of size band 1 (6 -15kg BOD5/day) for each treatment category. The convention outlined under the common definitions should be used to calculate the load for each WWTP. | |
| *Processing Rules:* | | |  | | --- | | Input Field. Column ‘total’ is calculated as the sum of the input columns. Confidence Grade following every field. | | |
| **E8.13** | **Size Band 2** | | **kg BOD5/day** |
| *Definition:* | | The average daily load received (in kg of BOD5/day) by WWTPs of size band 2 (15-30kg BOD5/day) for each treatment category. The convention outlined under the common definitions should be used to calculate the load for each WWTP. | |
| *Processing Rules:* | | |  | | --- | | Input Field. Column ‘total’ is calculated as the sum of the input columns. Confidence Grade following every field. | | |
| **E8.14** | **Size Band 3** | | **kg BOD5/day** |
| *Definition:* | | The average daily load received (in kg of BOD5/day) by WWTPs of size band 3 (30-120kg BOD5/day) for each treatment category. The convention outlined under the common definitions should be used to calculate the load for each WWTP. | |
| *Processing Rules:* | | |  | | --- | | Input Field. Column ‘total’ is calculated as the sum of the input columns. Confidence Grade following every field. | | |
| **E8.15** | **Size Band 4** | | **kg BOD5/day** |
| *Definition:* | | The average daily load received (in kg of BOD5/day) by WWTPs of size band 4 (120-600kg BOD5/day) for each treatment category. The convention outlined under the common definitions should be used to calculate the load for each WWTP. | |
| *Processing Rules:* | | |  | | --- | | Input Field. Column ‘total’ is calculated as the sum of the input columns. Confidence Grade following every field. | | |
| **E8.16** | **Size Band 5** | | **kg BOD5/day** |
| *Definition:* | | The average daily load received (in kg of BOD5/day) by WWTPs of size band 5 (600-1500kg BOD5/day) for each treatment category. The convention outlined under the common definitions should be used to calculate the load for each WWTP. | |
| *Processing Rules:* | | |  | | --- | | Input Field. Column ‘total’ is calculated as the sum of the input columns. Confidence Grade following every field. | | |

|  |  |  |  |
| --- | --- | --- | --- |
| **E8.17** | **Size Band 6 (Large Plants)** | | **kg BOD5/day** |
| *Definition:* | | The average daily load received (in kg of BOD5/day) by WWTPs of size band 6 (>1500kg BOD5/day) for each treatment category. The convention outlined under the common definitions should be used to calculate the load for each WWTP. | |
| *Processing Rules:* | | |  | | --- | | Input Field. Column ‘total’ is calculated as the sum of the input columns. Confidence Grade following every field. | | |
| **E8.18** | **Total load received** | | **kg BOD5/day** |
| *Definition:* | | The total of the average daily load received (in kg of BOD5/day) by each type of wastewater treatment plant (for all sizes). The figures reported here should be consistent with those reported in line A4.29, X 1000/365, for the report year (366 if report year is a leap year). | |
| *Processing Rules:* | | |  | | --- | | Calculated fields: the sum of lines E8.11 to E8.17.  Confidence Grade following every field. | | |
| **E8.19** | **Small wastewater treatment plants with ammonia consent 5-10mg/l** | | **kg BOD5/day** |
| *Definition:* | | The average daily load (in kg BOD5/day) received by small wastewater treatment plants (those receiving <=1500 kg BOD5/day) with ammonia consents which are less than (or equal to) 10mg/l but greater than 5mg/l. | |
| *Processing Rules:* | | |  | | --- | | Input Field. Column ‘total’ is calculated as the sum of the input columns. Confidence Grade following every field. | | |
| **E8.20** | **Small wastewater treatment plants with ammonia consent <=5mg/l** | | **kg BOD5/day** |
| *Definition:* | | The average daily load (in kg BOD5/day) received by small (those receiving <=1500 kg BOD5/day) with ammonia consents of 5mg/l or less. | |
| *Processing Rules:* | | |  | | --- | | Input Field. Column ‘total’ is calculated as the sum of the input columns. Confidence Grade following every field. | | |

BLOCK 3: COMPLIANCE

1. The purpose of this part of the table is to collect information on treatment plant compliance by treatment type and size.
2. The compliance figures reported in the table must be an unweighted average of the compliance figures for the WWTP in each of the various size/treatment type categories.
3. The Local Authority must calculate the percentage compliance figure for individual wastewater treatment plants as:

WWTP compliance = 1 – number of failures for sanitary determinands x 100% Total number of sanitary determinands tested

|  |  |  |  |
| --- | --- | --- | --- |
| **E8.21** | **Size Band 0** | | **%** |
| *Definition:* | | The average percentage of compliance with discharge consents for WWTPs of size band 1 (<=6kg BOD5/day) for each treatment category. This should be calculated as the unweighted mean for plants in each particular treatment category. The convention outlined under the common definitions should be used to calculate the WWTP size. Sea outfalls should include those discharging untreated wastewater and wastewater subject to preliminary treatment in the relevant column. | |
| *Processing Rules:* | | |  | | --- | | Input Field. Confidence Grade following every field. | | |
| **E8.22** | **Size Band 1** | | **%** |
| *Definition:* | | The average percentage of compliance with discharge consents for WWTPs of size band 1 (6-15kg BOD5/day) for each treatment category. This should be calculated as the unweighted mean for plants in each particular treatment category. The convention outlined under the common definitions should be used to calculate the WWTP size. Sea outfalls should include those discharging untreated wastewater and wastewater subject to preliminary treatment in the relevant column. | |
| *Processing Rules:* | | |  | | --- | | Input Field. Confidence Grade following every field. | | |

|  |  |  |  |
| --- | --- | --- | --- |
| **E8.23** | **Size Band 2** | | **%** |
| *Definition:* | | The average percentage of compliance with discharge consents for WWTPs of size band 2 (15-30kg BOD5/day) for each treatment category. This should be calculated as the unweighted mean for plants in each particular treatment category. The convention outlined under the common definitions should be used to calculate the WWTP size. Sea outfalls should include those discharging untreated wastewater and wastewater subject to preliminary treatment in the relevant column. | |
| *Processing Rules:* | | |  | | --- | | Input Field. Confidence Grade following every field. | | |
| **E8.24** | **Size Band 3** | | **%** |
| *Definition:* | | The average percentage of compliance with discharge consents for WWTPs of size band 3 (30-120kg BOD5/day) for each treatment category. This should be calculated as the unweighted mean for plants in each particular treatment category. The convention outlined under the common definitions should be used to calculate the WWTP size. Sea outfalls should include those discharging untreated wastewater and wastewater subject to preliminary treatment in the relevant column. | |
| *Processing Rules:* | | |  | | --- | | Input Field. Confidence Grade following every field. | | |
| **E8.25** | **Size Band 4** | | **%** |
| *Definition:* | | The average percentage of compliance with discharge consents for WWTPs of size band 4 (120-600kg BOD5/day) for each treatment category. This should be calculated as the unweighted mean for plants in each particular treatment category. The convention outlined under the common definitions should be used to calculate the WWTP size. Sea outfalls should include those discharging untreated wastewater and wastewater subject to preliminary treatment in the relevant column. | |
| *Processing Rules:* | | |  | | --- | | Input Field. Confidence Grade following every field. | | |

|  |  |  |  |
| --- | --- | --- | --- |
| **E8.26** | **Size Band 5** | | **%** |
| *Definition:* | | The average percentage of compliance with discharge consents for WWTPs of size band 5 (600-1500kg BOD5/day) for each treatment category. This should be calculated as the unweighted mean for plants in each particular treatment category. The convention outlined under the common definitions should be used to calculate the WWTP size. Sea outfalls should include those discharging untreated wastewater and wastewater subject to preliminary treatment in the relevant column. | |
| *Processing Rules:* | | |  | | --- | | Input Field. Confidence Grade following every field. | | |
| **E8.27** | **Size Band 6 (Large Plants)** | | **%** |
| *Definition:* | | The average percentage of compliance with discharge consents for WWTPs of size band 6 (>1500kg BOD5/day) for each treatment category. This should be calculated as the unweighted mean for plants in each particular treatment category. The convention outlined under the common definitions should be used to calculate the WWTP size. Sea outfalls should include those discharging untreated wastewater and wastewater subject to preliminary treatment in the relevant column. | |
| *Processing Rules:* | | |  | | --- | | Input Field. Confidence Grade following every field. | | |
| **E8.28** | **Average compliance by treatment plant – all sizes** | | **%** |
| *Definition:* | | The total weighted average percentage of compliance with discharge consents for all WWTPs in each treatment category. This line calculates the weighted mean of percentage compliance for all sizes of plants of each particular treatment type. The average calculation is weighted by the average daily load received by each size of plant.  Sea outfalls should include those discharging untreated wastewater and wastewater subject to preliminary treatment in the relevant column. | |
| *Processing Rules:* | | |  | | --- | | Calculated Field: ((E8.11\*E8.21)+(E8.12\*E8.22)+(E8.13\*E8.23)+(E8.14\*E8.24)+(E8.15\*E8.25)+(E8.16\*E8.26)+(E8.17\*E8.27)) / SUM(E8.11:E8.17)  Confidence Grade following every field. | | |

|  |  |  |  |
| --- | --- | --- | --- |
| **E8.29** | **Small wastewater treatment plants with ammonia consent 5-10mg/l** | | **%** |
| *Definition:* | | The average percentage of compliance with discharge consents for all types of small WWTPs (receiving <=1500kg by BOD5/day load) with ammonia (NH3) consents which are less than (or equal to) 10mg/l but greater than 5mg/l.  This should be calculated as the unweighted mean of percentage compliance for all sizes of plants of each particular treatment type. | |
| *Processing Rules:* | | |  | | --- | | Input Field. Confidence Grade following every field. | | |
| **E8.30** | **Small wastewater treatment plants with ammonia consent <=5mg/l** | | **%** |
| *Definition:* | | The average percentage of compliance with discharge consents for all types of small WWTPs (receiving <=1500kg by BOD5/day load) with ammonia (NH3) consents, which are less than (or equal to) 5mg/l.  This should be calculated as the unweighted mean of percentage compliance for all sizes of plants of each particular treatment type. | |
| *Processing Rules:* | | |  | | --- | | Input Field. Confidence Grade following every field. | | |

BLOCK 4: COSTS

1. The purpose of this part of the table is to collect information on works costs by treatment type and size.

|  |  |  |  |
| --- | --- | --- | --- |
| **E8.31** | **Direct costs for plants in size band 0** | | **NZ$000** |
| *Definition:* | | The direct costs for plants in size band 0. Direct costs are defined in Table E2. | |
| *Processing Rules:* | | Input Field. Column ‘total’ is calculated as the sum of the input columns. Confidence Grade following every field. | |
| **E8.32** | **Direct costs for plants in size band 1** | | **NZ$000** |
| *Definition:* | | The direct costs for plants in size band 1. Direct costs are defined in Table E2. | |
| *Processing Rules:* | | Input Field. Column ‘total’ is calculated as the sum of the input columns. Confidence Grade following every field. | |

|  |  |  |  |
| --- | --- | --- | --- |
| **E8.33** | **Direct costs for plants in size band 2** | | **NZ$000** |
| *Definition:* | | The direct costs for plants in size band 2. Direct costs are defined in Table E2. | |
| *Processing Rules:* | | Input Field. Column ‘total’ is calculated as the sum of the input columns. Confidence Grade following every field. | |
| **E8.34** | **Direct costs for plants in size band 3** | | **NZ$000** |
| *Definition:* | | The direct costs for plants in size band 3. Direct costs are defined in Table E2. | |
| *Processing Rules:* | | Input Field. Column ‘total’ is calculated as the sum of the input columns. Confidence Grade following every field. | |
| **E8.35** | **Direct costs for plants in size band 4** | | **NZ$000** |
| *Definition:* | | The direct costs for plants in size band 4. Direct costs are defined in Table E2. | |
| *Processing Rules:* | | Input Field. Column ‘total’ is calculated as the sum of the input columns. Confidence Grade following every field. | |
| **E8.36** | **Direct costs for plants in size band 5** | | **NZ$000** |
| *Definition:* | | The direct costs for plants in size band 5. Direct costs are defined in Table E2. | |
| *Processing Rules:* | | Input Field. Column ‘total’ is calculated as the sum of the input columns. Confidence Grade following every field. | |
| **E8.37** | **Direct costs for plants in size band 6 (large plants)** | | **NZ$000** |
| *Definition:* | | The direct costs for plants in size band 6. Direct costs are defined in Table E2. | |
| *Processing Rules:* | | Input Field. Column ‘total’ is calculated as the sum of the input columns. Confidence Grade following every field. | |
| **E8.38** | **Direct costs for all Wastewater Treatment Plants** | | **NZ$000** |
| *Definition:* | | The direct costs for all wastewater treatment plants. Direct costs are defined in Table E2. | |
| *Processing Rules:* | | Calculated field: SUM[E8.31; E8.37] | |
| **E8.39** | **General and support expenditure** | | **NZ$000** |
| *Definition:* | | The general and support expenditure allocated for all wastewater treatment plants (as defined in section E2). Where possible, such expenditure should be attributed on a causal basis; otherwise it should be apportioned in proportion to direct costs. | |
| *Processing Rules:* | | Input Field. Column ‘total’ is calculated as the sum of the input columns. Confidence Grade following every field. | |
| **E8.40** | **Functional expenditure** | | **NZ$000** |
| *Definition:* | | The sum of direct costs and general support expenditure for all wastewater treatment plants.  This should reconcile with the functional expenditure reported in the *Wastewater Treatment* column of Table E2, line E2.11 | |
| *Processing Rules:* | | Calculated field: E8.38+E8.39. | |
| **E8.41** | **Power costs** | | **NZ$000** |
| *Definition:* | | The total power cost for the WWTP included in the direct costs above.  The power costs of terminal pumping may only be included if the costs of a terminal pumping station at the WWTP are included in Table E2b, line E2b.2 in the wastewater treatment column.  The Local Authority must clearly indicate whether or not such costs are included. | |
| *Processing Rules:* | | Input Field. Column ‘total’ is calculated as the sum of the input columns. Confidence Grade following every field. | |
| **E8.42** | **Service charges** | | **NZ$000** |
| *Definition:* | | The total environmental service charges for the WWTP included in the direct costs above. | |
| *Processing Rules:* | | Input Field. Column ‘total’ is calculated as the sum of the input columns. Confidence Grade following every field. | |

TABLE E9: LARGE WASTEWATER TREATMENT PLANTS INFORMATION DATABASE

1. Large WWTPs are defined as those which receive an average loading in excess of 1500kg BOD5/day (including effluent from both domestic and trade sources, but excluding any allowance for non-resident population). This is roughly equivalent to a population of 25,000.
2. The Local Authority must complete a copy of this table for each large wastewater treatment plant but should not complete it for individual sea outfalls.
3. The total number of large wastewater treatment plants reported in this table must equal the sum of columns 1 to 7 of Table E8. (There is available space for a maximum of 50 plants).
4. The Local Authority should also explain how the costings have been obtained, reveal any assumptions made, and comment on any areas of uncertainty.
5. The costs reported in this table should be consistent with the wastewater treatment costs reported in table E2.

Guidance to the Local Authority

1. The Local Authority should ensure that no input cell is left blank in any of the reported large treatment plant columns.
2. In the event of a joint venture of assets serving two or more Local Authorities, Local Authorities should split out information associated with the asset – such as operating expenditure and capital expenditure – in relation to the proportions set out in the contract. For example, if energy costs are paid centrally, then these costs should be shared between the Local Authorities on the basis of contractual arrangements in place. The Local Authority is expected to explain the allocation rules used in the commentary cells. Each Local Authority is requested to provide an estimate of its share of the asset stock and to use confidence grades to reflect the underlying uncertainty in the estimate.
3. Furthermore, Local Authorities should report their own share of the loads and volumes received and the asset stock. If allocated, the Local Authority is expected to explain the allocation method used in the commentary cells.
4. For example, the Seaview Joint Venture in Wellington region provides wastewater treatment services to both Lower Hutt City and Upper Hutt City. Consequently, Wellington Water was asked to report the Seaview Treatment Plant in both Lower Hutt and Upper Hutt RfI tables. In each Local Authority’s table, only the loads and costs specific to that Local Authority were reported. This ensured no double counting occurred.

BLOCK 1: PLANT SIZE

|  |  |  |  |
| --- | --- | --- | --- |
| **E9.0** | **Name** | |  |
| *Definition:* | | Name of treatment plant. | |
| *Processing Rules:* | | |  | | --- | | Input Field. | | |
| **E9.1** | **Annual average resident connected population** | | **000** |
| *Definition:* | | The annual average resident population connected to the wastewater system draining to the wastewater treatment plants. | |
| *Processing Rules:* | | |  | | --- | | Input Field. | | |
| **E9.2** | **Annual average non-resident connected population** | | **000** |
| *Definition:* | | Include the holiday and tourist population connected to the wastewater system in each area, average over the year. Do not include allowance for daily commuters. | |
| *Processing Rules:* | | |  | | --- | | Input Field. | | |
| **E9.3** | **Trade waste load received by plant** | | **Kg/COD/day** |
| *Definition:* | | The average daily trade waste load received via the wastewater system in kg COD/day. | |
| *Processing Rules:* | | |  | | --- | | Input Field. | | |
| **E9.4** | **Tanker load received by plant** | | **Kg/COD/day** |
| *Definition:* | | The average daily load in (kg COD/day) received from other sources, including trade effluent (TE), septic tank and cesspit discharges delivered via this route, and any waste received as part of the non-regulated business.  The Local Authority should ensure that trade effluent tanker load is not double counted. If it is included in line 3, it may not be reported in line 4. The Local Authority must state clearly where it is reported and comment if the amount of TE received by tanker is significant (>1% of TE load), and ensure that figures for all wastewater treatment plants are consistent. | |
| *Processing Rules:* | | |  | | --- | | Input Field. | | |
| **E9.5** | **Population equivalent of total load received** | | **000** |
| *Definition:* | | The average equivalent population of the total load received by the treatment plants during the year. | |
| *Processing Rules:* | | |  | | --- | | Input Field. | | |

BLOCK 2: TREATABILITY

|  |  |  |  |
| --- | --- | --- | --- |
| **E9.6** | **Biological Oxygen Demand (****BOD5) of influent** | | **mg/l** |
| *Definition:* | | The average biochemical oxygen demand (BOD5) of the influent wastewater discharged into the plant, prior to screening. | |
| *Processing Rules:* | | |  | | --- | | Input Field. | | |
| **E9.7** | **Chemical Oxygen Demand (COD) of influent** | | **mg/l** |
| *Definition:* | | The average chemical oxygen demand (COD) of the influent wastewater discharged into the plant, prior to screening. | |
| *Processing Rules:* | | |  | | --- | | Input Field. | | |
| **E9.8** | **Total Organic Carbon (TOC) of influent** | | **mg/l** |
| *Definition:* | | The Total Organic Carbon demand of the influent wastewater discharged into the plant, prior to screening. | |
| *Processing Rules:* | | |  | | --- | | Input Field. | | |
| **E9.9** | **Suspended Solids (SS) of influent** | | **mg/l** |
| *Definition:* | | The total suspended solids of the influent wastewater discharged into the plants, after the wastewater has been screened. | |
| *Processing Rules:* | | |  | | --- | | Input Field. | | |
| **E9.10** | **Ammoniacal Nitrogen (NH3) of influent** | | **mg/l** |
| *Definition:* | | The total ammoniacal nitrogen of the influent wastewater discharged to the plant, prior to screening. | |
| *Processing Rules:* | | |  | | --- | | Input Field. | | |

BLOCK 3: COMPLIANCE

|  |  |  |  |
| --- | --- | --- | --- |
| **E9.11** | **Suspended Solids consent** | | **mg/l** |
| *Definition:* | | The value of the effluent consent standard with respect to suspended solids. | |
| *Processing Rules:* | | |  | | --- | | Input Field. | | |
| **E9.12** | **BOD consent** | | **mg/l** |
| *Definition:* | | The value of the effluent consent standard with respect to the Biochemical Oxygen Demand. | |
| *Processing Rules:* | | |  | | --- | | Input Field. | | |
| **E9.13** | **COD consent** | | **mg/l** |
| *Definition:* | | The value of the effluent consent standard with respect to the Chemical Oxygen Demand, if applicable at the plant in question. | |
| *Processing Rules:* | | |  | | --- | | Input Field. | | |
| **E9.14** | **Ammonia consent** | | **mg/l** |
| *Definition:* | | The value of the effluent consent standard with respect to ammonia, if applicable at the plant in question. | |
| *Processing Rules:* | | |  | | --- | | Input Field. | | |

|  |  |  |  |
| --- | --- | --- | --- |
| **E9.15** | **Phosphate consent** | | **mg/l** |
| *Definition:* | | The value of the effluent consent standard with respect to phosphorous, if applicable at the plant in question. | |
| *Processing Rules:* | | |  | | --- | | Input Field. | | |
| **E9.16** | **Compliance with effluent consent standard** | | **%** |
| *Definition:* | | The percentage compliance with the number of sanitary determinants tested from the effluent discharge. This should be calculated as follows:  WWTP compliance =  1- number of failures for sanitary determinands  total number of sanitary determinands tested | |
| *Processing Rules:* | | |  | | --- | | Input Field. | | |

BLOCK 4: FLOW

|  |  |  |  |
| --- | --- | --- | --- |
| **E9.17** | **Average daily flow in dry weather** | | **Ml/d** |
| *Definition:* | | The average daily flow discharged to the wastewater treatment plants in dry weather. (The average daily flow during seven consecutive days without rain following seven days during which rainfall did not exceed 0.25mm on any one day). | |
| *Processing Rules:* | | |  | | --- | | Input Field. | | |
| **E9.18** | **Ratio of daily maximum to minimum flow** | | **nr** |
| *Definition:* | | The ratio of the maximum to the minimum flow rate occurring on an average day in dry weather. This should be calculated as the peak hourly flow (dry weather average) divided by the minimum hourly flow (dry weather average). | |
| *Processing Rules:* | | |  | | --- | | Input Field. | | |

BLOCK 5: TREATMENT PLANT CATEGORY

|  |  |  |  |
| --- | --- | --- | --- |
| **E9.19** | **Primary** | | **1/0** |
| *Definition:* | | The presence of primary treatment at the plant in question, as defined under the common definitions. | |
| *Processing Rules:* | | |  | | --- | | Indicate the presence of such treatment facilities by entering ‘1’ or otherwise ‘0’. | | |

|  |  |  |  |
| --- | --- | --- | --- |
| **E9.20** | **Secondary activated sludge** | | **1/0** |
| *Definition:* | | The presence of secondary activated sludge treatment at the plant in question, as defined under the common definitions. | |
| *Processing Rules:* | | |  | | --- | | Indicate the presence of such treatment facilities by entering ‘1’ or otherwise ‘0’. | | |

|  |  |  |  |
| --- | --- | --- | --- |
| **E9.21** | **Secondary biological** | | **1/0** |
| *Definition:* | | The presence of secondary biological treatment at the plant in question, as defined under the common definitions. | |
| *Processing Rules:* | | |  | | --- | | Indicate the presence of such treatment facilities by entering ‘1’ or otherwise ‘0’. | | |
| **E9.22** | **Tertiary A1** | | **1/0** |
| *Definition:* | | The presence of tertiary A1 treatment at the plant in question, as defined under the common definitions (Table E8). | |
| *Processing Rules:* | | |  | | --- | | Indicate the presence of such treatment facilities by entering ‘1’ or otherwise ‘0’. | | |
| **E9.23** | **Tertiary A2** | | **1/0** |
| *Definition:* | | The presence of tertiary A2 treatment at the plant in question, as defined under the common definitions (Table E8). | |
| *Processing Rules:* | | |  | | --- | | Indicate the presence of such treatment facilities by entering ‘1’ or otherwise ‘0’. | | |
| **E9.24** | **Tertiary B1** | | **1/0** |
| *Definition:* | | The presence of tertiary B1 treatment at the plant in question, as defined under the common definitions (Table E8). | |
| *Processing Rules:* | | |  | | --- | | Indicate the presence of such treatment facilities by entering ‘1’ or otherwise ‘0’. | | |
| **E9.25** | **Tertiary B2** | | **1/0** |
| *Definition:* | | The presence of tertiary B2 treatment at the plant in question, as defined under the common definitions (Table E8). | |
| *Processing Rules:* | | |  | | --- | | Indicate the presence of such treatment facilities by entering ‘1’ or otherwise ‘0’. | | |

BLOCK 6: MISCELLANEOUS DATA

|  |  |  |  |
| --- | --- | --- | --- |
| **E9.27** | **Sea outfalls at plant** | | **1/0** |
| *Definition:* | | Plants which include a sea outfall. | |
| *Processing Rules:* | | |  | | --- | | Enter ‘1’ to indicate the presence of a sea outfall, otherwise ‘0’. | | |
| **E9.28** | **Terminal Pumping costs** | | **1/0** |
| *Definition:* | | To indicate the presence of a terminal pumping station discharging to the wastewater treatment plants whose costs cannot be separated from those of the WWTP. | |
| *Processing Rules:* | | |  | | --- | | If terminal pumping station costs are included in the cost of the plant (E9.39-E9.41 below), enter ‘1’, otherwise enter ’0’. | | |
| **E9.29** | **Own sludge** | | **1/0** |
| *Definition:* | | The presence of facilities for the treatment of sludge, but where such sludge is only derived from the plant in question, i.e. the plant does not receive sludge from elsewhere. | |
| *Processing Rules:* | | |  | | --- | | Indicate the presence of such treatment facilities by entering ‘1’ or otherwise ‘0’. | | |
| **E9.30** | **Own sludge costs** | | **1/0** |
| *Definition:* | | The presence of facilities as detailed in E9.29, where the total costs for the plant included the costs of sludge treatment. | |
| *Processing Rules:* | | |  | | --- | | Indicate the presence of such treatment facilities by entering ‘1’ or otherwise ‘0’. | | |

|  |  |  |  |
| --- | --- | --- | --- |
| **E9.31** | **Sludge centre** | | **1/0** |
| *Definition:* | | The presence of facilities for treatment of sludge, where such sludge is derived from plants in addition to the plant in question. | |
| *Processing Rules:* | | |  | | --- | | Indicate the presence of such treatment facilities by entering ‘1’ or otherwise ‘0’. | | |
| **E9.32** | **Sludge centre costs** | | **1/0** |
| *Definition:* | | The presence of facilities as detailed in line E9.31, where the total costs for the plant includes the costs of sludge treatment. | |
| *Processing Rules:* | | |  | | --- | | Indicate the presence of such treatment facilities by entering ‘1’ or otherwise ‘0’. | | |

BLOCK 7: PLANT COSTS

|  |  |  |  |
| --- | --- | --- | --- |
| **E9.33** | **Employment costs** | | **NZ$000** |
| *Definition:* | | The sum of the total costs of "non-manual and manual manpower" which are directly attributable to each of the plants. Definitions are given in Line E2.1 | |
| *Processing Rules:* | | |  | | --- | | Input field. | | |
| **E9.34** | **Power costs** | | **NZ$000** |
| *Definition:* | | The total power cost for the WWTP included in the direct costs above. The power costs for large WWTPs should be consistent with those reported in table E2.  The power costs of terminal pumping may only be included if the costs of a terminal pumping station at the WWTP are included in E9.39 and E9.40.  The Local Authority must clearly indicate whether or not such costs are included. | |
| *Processing Rules:* | | |  | | --- | | Input field. | | |
| **E9.35** | **Hired and contracted services** | | **NZ$000** |
| *Definition:* | | All hired and contracted equipment and services, which are directly attributable to each of the individual treatment plants. | |
| *Processing Rules:* | | |  | | --- | | Input field. | | |

|  |  |  |  |
| --- | --- | --- | --- |
| **E9.36** | **Materials and consumables** | | **NZ$000** |
| *Definition:* | | All materials and consumables that are not in Hired and contracted services which are directly attributable to each of the individual plants. | |
| *Processing Rules:* | | |  | | --- | | Input field. | | |
| **E9.37** | **Service charges** | | **NZ$000** |
| *Definition:* | | The total service charges for the WWTP included in the direct costs above. | |
| *Processing Rules:* | | |  | | --- | | Input field. | | |
| **E9.38** | **Other direct costs** | | **NZ$000** |
| *Definition:* | | Any other operating costs, but excluding interest, on an aggregated basis, including costs associated with the provision of depots and offices. | |
| *Processing Rules:* | | |  | | --- | | Input field. | | |
| **E9.39** | **Total direct costs** | | **NZ$000** |
| *Definition:* | | The total direct cost of wastewater treatment (as defined in Section E2) at the plant in question (i.e. excluding services provided to third parties).  Where the plant also undertakes sludge treatment, it may not be possible to exclude the costs associated with sludge in a meaningful way at the plant level. If any sludge costs are included here, this should be indicated in E9.29 to E9.32 and estimate of the costs should be made in E9.43.  If terminal pumping costs are included here this should be indicated in E9.28 and the costs should be estimated in E9.42. | |
| *Processing Rules:* | | |  | | --- | | Calculated field: Sum of lines E9.33 to E9.38. | | |
| **E9.40** | **General and support expenditure** | | **NZ$000** |
| *Definition:* | | The general and support expenditure allocated to each wastewater treatment plant (as defined in Section E2). Where possible, such expenditure should be attributed on a causal basis; otherwise it should be apportioned in proportion to direct costs. This should include insurance attributed to large wastewater treatment works. | |
| *Processing Rules:* | | |  | | --- | | Input field. | | |

|  |  |  |  |
| --- | --- | --- | --- |
| **E9.41** | **Functional expenditure** | | **NZ$000** |
| *Definition:* | | The sum of direct costs and general support expenditure for each wastewater treatment plant (as defined in Section E2). | |
| *Processing Rules:* | | |  | | --- | | Calculated field: the sum of E9.39 and E9.40. | | |
| **E9.42** | **Estimated terminal pumping station costs** | | **NZ$000** |
| *Definition:* | | The estimated direct cost of terminal pumping stations (as defined in Section E2) pumping to the treatment plant in question, for which costs are included in E9.39 to E9.41. | |
| *Processing Rules:* | | |  | | --- | | Input field. | | |
| **E9.43** | **Estimated sludge costs** | | **NZ$000** |
| *Definition:* | | If the cost of sludge treatment is included in E9.39 to E9.41 above, the Local Authority must enter an estimate of the costs involved (otherwise, zero). If sludge costs are included, the Local Authority must comment in their Return on the basis of their estimate of the costs. | |
| *Processing Rules:* | | |  | | --- | | Input field. | | |

TABLE E10: WASTEWATER EXPLANATORY FACTORS - SLUDGE TREATMENT AND DISPOSAL

1. The purpose of this table is to collect information about sludge disposal routes, and the costs of sludge treatment and disposal associated with each of these routes.
2. The information will be used to enable assessment of the comparative operating efficiency of authority’s sludge services.
3. The disposal routes are classified as:
4. **Farmland untreated:** Untreated sludge will have received no form of treatment designed to reduce its pathogen content. The sludge may be thickened and/or de-watered to facilitate transportation.
5. **Farmland conventional:** “Conventionally treated” sludge is that which has undergone processes designed to reduce the amount of E. Coli present by no less than 99% (a 2-log reduction).
6. **Farmland advanced:** “Advanced” treated sludge is that which has undergone processes designed to reduce the amount of E. Coli present by no less than 99.9999% (a 6-log reduction).
7. **Landfill:** Sludge disposed to landfill.
8. **Incineration:** Sludge disposed of by incineration.
9. **Composted:** Sludge disposed of by means of composting.
10. **Land reclamation:** Sludge disposed of to land reclamation.
11. **Other:** Any other form of Sludge disposal.
12. The Local Authority should clearly explain any significant changes in sludge disposal routes, which have occurred since this information was last collected. The Local Authority must provide a clear explanation of any sludge disposal methods, which are classified as ‘other’ and the percentage disposed of by each method.
13. The Local Authority should also comment on the reasons for any significant increases in the costs associated with a particular disposal route. For the purpose of this table, significant changes are those, which amount to more than 5% of total sludge treatment and disposal costs, or more than 10% of any individual category.
14. In the event of a joint venture of assets serving two or more Local Authorities, Local Authorities should split out information associated with the asset – such as operating expenditure and capital expenditure – in relation to the proportions set out in the contract. For example, if energy costs are paid centrally, then these costs should be shared between the Local Authorities on the basis of contractual arrangements in place. The Local Authority is expected to explain the allocation rules used in the commentary cells. Each Local Authority is requested to provide an estimate of its share of the asset stock and to use confidence grades to reflect the underlying uncertainty in the estimate.
15. Furthermore, Local Authorities should report their own share of the loads and the asset stock. If allocated, the Local Authority is expected to explain the allocation method used in the commentary cells.

Guidance to the Local Authority

1. The Local Authority should ensure that no input cell is left blank

BLOCK 1: SLUDGE VOLUMES

|  |  |  |  |
| --- | --- | --- | --- |
| **E10.1** | **Resident population served** | | **000** |
| *Definition:* | | The resident population contributing to the particular sludge disposal route as classified in the first section of this chapter. | |
| *Processing Rules:* | | |  | | --- | | Input fields: Farmland untreated, Farmland conventional, Farmland advanced, Landfill, Incineration, Composted, Land reclamation, Other.  Calculated fields: Total (sum of Farmland untreated, Farmland conventional, Farmland advanced, Landfill, Incineration, Composted, Land reclamation, Other). | | |
| **E10.2** | **Amount of wastewater sludge** | | **ttds** |
| *Definition:* | | The amount of wastewater sludge in thousands of tonnes of dry solids (ttds) which is disposed of through each of the routes listed. The total for this line should agree with table A4. Further definitions for the disposal routes are provided in lines A4.45 to A4.51. | |
| *Processing Rules:* | | |  | | --- | | Input fields: Farmland untreated, Farmland conventional, Farmland advanced, Landfill, Incineration, Composted, Land reclamation, Other.  Calculated fields: Total (sum of Farmland untreated, Farmland conventional, Farmland advanced, Landfill, Incineration, Composted, Land reclamation, Other). | | |

BLOCK 2: SLUDGE TREATMENT AND DISPOSAL COSTS

|  |  |  |  |
| --- | --- | --- | --- |
| **E10.3** | **Employment costs** | | **NZ$000** |
| *Definition:* | | The sum of the total costs of "non-manual and manual manpower" which are directly attributable to sludge treatment and disposal. Definitions are given in Line E2.1. | |
| *Processing Rules:* | | |  | | --- | | Input fields: Farmland untreated, Farmland conventional, Farmland advanced, Landfill, Incineration, Composted, Land reclamation, Other.  Calculated fields: Total (sum of Farmland untreated, Farmland conventional, Farmland advanced, Landfill, Incineration, Composted, Land reclamation, Other). | | |

|  |  |  |  |
| --- | --- | --- | --- |
| **E10.4** | **Power costs** | | **NZ$000** |
| *Definition:* | | The sludge treatment and disposal power costs for each of the disposal routes.  The total power cost for sludge treatment and disposal for all disposal routes should reconcile with E2.2. | |
| *Processing Rules:* | | |  | | --- | | Input fields: Farmland untreated, Farmland conventional, Farmland advanced, Landfill, Incineration, Composted, Land reclamation, Other.  Calculated fields: Total (sum of Farmland untreated, Farmland conventional, Farmland advanced, Landfill, Incineration, Composted, Land reclamation, Other). | | |
| **E10.5** | **Hired and contracted services** | | **NZ$000** |
| *Definition:* | | All hired and contracted equipment and services, which are directly attributable to each of the sludge treatment and disposal routes. | |
| *Processing Rules:* | | |  | | --- | | Input fields: Farmland untreated, Farmland conventional, Farmland advanced, Landfill, Incineration, Composted, Land reclamation, Other.  Calculated fields: Total (sum of Farmland untreated, Farmland conventional, Farmland advanced, Landfill, Incineration, Composted, Land reclamation, Other). | | |
| **E10.6** | **Materials and consumables** | | **NZ$000** |
| *Definition:* | | All materials and consumables that are not in Hired and contracted services which are directly attributable to each of the sludge treatment and disposal routes. | |
| *Processing Rules:* | | |  | | --- | | Input fields: Farmland untreated, Farmland conventional, Farmland advanced, Landfill, Incineration, Composted, Land reclamation, Other.  Calculated fields: Total (sum of Farmland untreated, Farmland conventional, Farmland advanced, Landfill, Incineration, Composted, Land reclamation, Other). | | |
| **E10.7** | **Service charges** | | **NZ$000** |
| *Definition:* | | The total service charges for sludge treatment included in the direct costs above. | |
| *Processing Rules:* | | |  | | --- | | Input fields: Farmland untreated, Farmland conventional, Farmland advanced, Landfill, Incineration, Composted, Land reclamation, Other.  Calculated fields: Total (sum of Farmland untreated, Farmland conventional, Farmland advanced, Landfill, Incineration, Composted, Land reclamation, Other). | | |

|  |  |  |  |
| --- | --- | --- | --- |
| **E10.8** | **Other direct costs** | | **NZ$000** |
| *Definition:* | | Any other operating costs, but excluding interest, on an aggregated basis, including costs associated with the provision of depots and offices. | |
| *Processing Rules:* | | |  | | --- | | Input fields: Farmland untreated, Farmland conventional, Farmland advanced, Landfill, Incineration, Composted, Land reclamation, Other.  Calculated fields: Total (sum of Farmland untreated, Farmland conventional, Farmland advanced, Landfill, Incineration, Composted, Land reclamation, Other). | | |
| **E10.9** | **Total direct costs** | | **NZ$000** |
| *Definition:* | | The direct costs attributable to sludge treatment and disposal for each of the disposal routes.  The total direct cost of sludge treatment for all routes should reconcile with E2.8 column 9. | |
| *Processing Rules:* | | |  | | --- | | Calculated field: the sum of lines E10.3 to E10.8. | | |
| **E10.10** | **General and support expenditure** | | **NZ$000** |
| *Definition:* | | The general and support expenditure for sludge treatment and disposal allocated to each of the disposal routes. This should include any insurance attributed to sludge treatment and disposal.  The total general and support expenditure for all disposal routes should reconcile with E2.9 plus E2.10 column 9. | |
| *Processing Rules:* | | |  | | --- | | Input fields: Farmland untreated, Farmland conventional, Farmland advanced, Landfill, Incineration, Composted, Land reclamation, Other.  Calculated fields: Total (sum of Farmland untreated, Farmland conventional, Farmland advanced, Landfill, Incineration, Composted, Land reclamation, Other). | | |
| **E10.11** | **Functional expenditure** | | **NZ$000** |
| *Definition:* | | The sum of direct costs and general support expenditure for sludge treatment and disposal. The total for this line should reconcile with E2.11. | |
| *Processing Rules:* | | |  | | --- | | Calculated field: the sum of E10.9+E10.10. | | |

BLOCK 3: SLUDGE TREATMENT TYPE

|  |  |  |  |
| --- | --- | --- | --- |
| **E10.12** | **In treatment plants size band 0** | | **nr** |
| *Definition:* | | The number of treatment plants in size band 0 in each category of no sludge treatment, own treatment on site, sludge treated at sludge centre. | |
| *Processing Rules:* | | |  | | --- | | Input field. | | |
| **E10.13** | **In treatment plants size band 1** | | **nr** |
| *Definition:* | | The number of treatment plants in size band 1 in each category of no sludge treatment, own treatment on site, sludge treated at sludge centre. | |
| *Processing Rules:* | | |  | | --- | | Input field. | | |
| **E10.14** | **In treatment plants size band 2** | | **nr** |
| *Definition:* | | The number of treatment plants in size band 2 in each category of no sludge treatment, own treatment on site, sludge treated at sludge centre. | |
| *Processing Rules:* | | |  | | --- | | Input field. | | |
| **E10.15** | **In treatment plants size band 3** | | **nr** |
| *Definition:* | | The number of treatment plants in size band 3 in each category of no sludge treatment, own treatment on site, sludge treated at sludge centre. | |
| *Processing Rules:* | | |  | | --- | | Input field. | | |
| **E10.16** | **In treatment plants size band 4** | | **nr** |
| *Definition:* | | The number of treatment plants in size band 4 in each category of no sludge treatment, own treatment on site, sludge treated at sludge centre. | |
| *Processing Rules:* | | |  | | --- | | Input field. | | |
| **E10.17** | **In treatment plants size band 5** | | **nr** |
| *Definition:* | | The number of treatment plants in size band 5 in each category of no sludge treatment, own treatment on site, sludge treated at sludge centre. | |
| *Processing Rules:* | | |  | | --- | | Input field. | | |
| **E10.18** | **In treatment plants size band 6** | | **nr** |
| *Definition:* | | The number of treatment plants in size band 6 in each category of no sludge treatment, own treatment on site, sludge treated at sludge centre. | |
| *Processing Rules:* | | |  | | --- | | Input field. | | |

BLOCK 4: WASTEWATER COSTS

|  |  |  |  |
| --- | --- | --- | --- |
| **E10.19** | **Concession contracts** | | **nr** |
| *Definition:* | | Concession contracts refer to contracts for the provision of a defined service delegated by a Local Authority to a third party private operator. This provision can be related to operating the assets (lease or ‘affermage’ agreement) or include all infrastructure investment (through a concession agreement). For example, Veolia has a contract for the provision of wastewater services at four wastewater treatment plants that serve metropolitan Wellington.  Local authorities should provide the number of concession contract treatment plants in each category of no sludge treatment, own treatment on site, sludge treated at sludge centre if they have a similar arrangement in place with a third party private operator.  Please provide relevant details of such arrangements in the commentary. | |
| *Processing Rules:* | | |  | | --- | | Input field. | | |

TABLE E11: MANAGEMENT AND GENERAL

1. The purpose of this table is to collect management and general information for the Local Authority by water, wastewater and stormwater service (Three Waters).

Guidance to the Local Authority

1. If the information is not available for the measure requested, Local Authorities should provide their best informed guess based on the information available and reflect the uncertainty in selecting the appropriate confidence grade.
2. The Local Authority should ensure that no input cell is left blank.

BLOCK 1: FULL-TIME EQUIVALENT (FTE) - EMPLOYEE NUMBERS

|  |  |  |  |
| --- | --- | --- | --- |
| **E11.1** | **FTE - Direct operations** | | nr |
| *Definition:* | | The number of FTE employees in direct operations for water, wastewater and stormwater services (Three Waters). This should be consistent with the employment costs reported in lines E1.1, E2.1 and E2b.1. | |
| *Processing Rules:* | | |  | | --- | | Input field. | | |
| **E11.2** | **FTE - Indirect operations (General and Support)** | | nr |
| *Definition:* | | The number of FTE employees in indirect operations for water, wastewater and stormwater services (Three Waters). This should be consistent with the employment costs reported in Lines E1.10, E2.9 and E2b.9.  These are likely to be estimates, based on high-level allocations. Please reflect this in selecting the appropriate confidence grade. | |
| *Processing Rules:* | | |  | | --- | | Input field. | | |
| **E11.3** | **FTE - Other (incl. hired and contracted)** | | nr |
| *Definition:* | | The number of FTE employees in customer service, scientific services and other business activities for water, wastewater and stormwater services (Three Waters). This should be consistent with the employment costs included in Lines E1.13 to E1.15, E2.12 to E2.14 and E2b.12 to E2b.14.  These are likely to be estimates, based on high-level allocations. Please reflect this in selecting the appropriate confidence grade | |
| *Processing Rules:* | | |  | | --- | | Input field. | | |

|  |  |  |  |
| --- | --- | --- | --- |
| **E11.4** | **Total FTE - employee numbers** | | nr |
| *Definition:* | | The total number of FTE employees in the Local Authority by water, wastewater and stormwater services (Three Waters). | |
| *Processing Rules:* | | |  | | --- | | Calculated field: The sum of lines E11.1 to E11.3. | | |

BLOCK 2: MANAGEMENT AND GENERAL ASSETS

|  |  |  |  |
| --- | --- | --- | --- |
| **E11.5** | **Number of Offices** | | **Nr** |
| *Definition:* | | The total number of offices utilised only for the water, wastewater and stormwater services (Three Waters). When counting the number of offices for the water service include those offices that are also used for the wastewater and stormwater service. Double counting is expected. Likewise, when counting the number of offices for the wastewater service include those offices that are also used for the water and stormwater service. Double counting is expected. | |
| *Processing Rules:* | | |  | | --- | | Input field. | | |
| **E11.6** | **Area of Offices** | | **m2** |
| *Definition:* | | The total area of offices utilised only for the water, wastewater and stormwater services (Three Waters). Where offices are used for the water, wastewater and stormwater services (Three Waters), allocate the area between the services before completing this line. For example, a building of 100m2 may have 60m2 allocated to water and 40m2 to wastewater. | |
| *Processing Rules:* | | |  | | --- | | Input field. | | |

|  |  |  |  |
| --- | --- | --- | --- |
| **E11.7** | **Number of Laboratories** | | **Nr** |
| *Definition:* | | The total number of laboratories utilised only for the water, wastewater and stormwater services (Three Waters). When counting the number of laboratories for the water service include those laboratories that are also used for the wastewater and stormwater service. Double counting is expected. Likewise, when counting the number of laboratories for the wastewater service include those laboratories that are also used for the water and stormwater service. Double counting is expected. | |
| *Processing Rules:* | | |  | | --- | | Input field. | | |
| **E11.8** | **Area of Laboratories** | | **m2** |
| *Definition:* | | The total area of laboratories utilised only for the water, wastewater and stormwater services (Three Waters).  Where laboratories are used for the water, wastewater and stormwater services (Three Waters), allocate the area between the services before completing this line. For example, a laboratory of 100m2 may have 60m2 allocated to water and 40m2 to wastewater. | |
| *Processing Rules:* | | |  | | --- | | Input field. | | |
| **E11.9** | **Number of Depots** | | **Nr** |
| *Definition:* | | The total number of depots utilised only for the water, wastewater and stormwater services (Three Waters). When counting the number of depots for the water service include those depots that are also used for the wastewater and stormwater service. Double counting is expected. Likewise, when counting the number of depots for the wastewater service include those depots that are also used for the water and stormwater service. Double counting is expected. | |
| *Processing Rules:* | | |  | | --- | | Input field. | | |

|  |  |  |  |
| --- | --- | --- | --- |
| **E11.10** | **Area of Depots** | | **m2** |
| *Definition:* | | The total area of depots utilised only for the water, wastewater and stormwater services (Three Waters). Where depots are used for the water, wastewater and stormwater services (Three Waters), allocate the area between the services before completing this line. For example, a depot of 100m2 may have 60m2 allocated to water and 40m2 to wastewater. | |
| *Processing Rules:* | | |  | | --- | | Input field. | | |
| **E11.11** | **Number of Workshops** | | **Nr** |
| *Definition:* | | The total number of workshops utilised only for the water, wastewater and stormwater services (Three Waters). When counting the number of workshops for the water service include those workshops that are also used for the wastewater and stormwater service. Double counting is expected. Likewise, when counting the number of workshops for the wastewater service include those workshops that are also used for the water and stormwater service. Double counting is expected. | |
| *Processing Rules:* | | |  | | --- | | Input field. | | |
| **E11.12** | **Area of Workshops** | | **m2** |
| *Definition:* | | The total area of workshops utilised only for the water, wastewater and stormwater services (Three Waters). Where workshops are used for the water, wastewater and stormwater services (Three Waters), allocate the area between the services before completing this line. For example, workshops of 100m2 may have 60m2 allocated to water and 40m2 to wastewater. | |
| *Processing Rules:* | | |  | | --- | | Input field. | | |
| **E11.13** | **Number of Control Centres** | | **Nr** |
| *Definition:* | | The total number of control centres utilised only for the water, wastewater and stormwater services (Three Waters). When counting the number of control centres for the water service, include those control centres that are also used for the wastewater and stormwater service. Double counting is expected. Likewise, when counting the number of control centres for the wastewater service include those control centres that are also used for the water and stormwater service. Double counting is expected. | |
| *Processing Rules:* | | |  | | --- | | Input field. | | |

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| --- | --- | --- | --- |
| **E11.14** | **Area of Control Centres** | | **m2** |
| *Definition:* | | The total area of control centres utilised only for the water, wastewater and stormwater services (Three Waters). Where control centres are used for the water, wastewater and stormwater services (Three Waters), allocate the area between the services before completing this line. For example, a centre of 100m2 may have 60m2 allocated to water and 40m2 to wastewater. | |
| *Processing Rules:* | | |  | | --- | | Input field. | | |
| **E11.15** | **Vehicles & Plant** | | **NZ$000** |
| *Definition:* | | The Optimised Replacement Cost of vehicles and plant used only for the water, wastewater and stormwater services (Three Waters). | |
| *Processing Rules:* | | |  | | --- | | Input field. | | |
| **E11.16** | **% Coverage of Telemetry Systems** | | **%** |
| *Definition:* | | The percentage of operational sites for the water, wastewater and stormwater services (Three Waters) covered by telemetry systems. | |
| *Processing Rules:* | | |  | | --- | | Input field. | | |
| **E11.17** | **Number of Telemetry Outstations** | | **Nr** |
| *Definition:* | | The number of telemetry outstations installed at operational sites for the water, wastewater and stormwater services (Three Waters).  When counting the number of telemetry outstations for the water service include those outstations that are also used for the wastewater and stormwater service. Double counting is expected. Likewise, when counting the number of telemetry outstations for the wastewater service include those outstations that are also used for the water and stormwater service. Double counting is expected. | |
| *Processing Rules:* | | |  | | --- | | Input field. | | |

|  |  |  |  |
| --- | --- | --- | --- |
| **E11.18** | **Information Systems: Personal Computers** | | **Nr** |
| *Definition:* | | The total number of personal computers utilised to support only the water, wastewater and stormwater services (Three Waters). When counting the number of personal computers for the water service include those that are also used for the wastewater and stormwater service. Double counting is expected. Likewise, when counting the number of personal computers for the wastewater service include those personal computers that are also used for the water and stormwater service. Double counting is expected. | |
| *Processing Rules:* | | |  | | --- | | Input field. | | |
| **E11.19** | **Information Systems: Workstations** | | **Nr** |
| *Definition:* | | The total number of workstations utilised to support only the water, wastewater and stormwater services (Three Waters). When counting the number of workstations for the water service include those that are also used for the wastewater and stormwater service. Double counting is expected. Likewise, when counting the number of workstations for the wastewater service include those workstations that are also used for the water and stormwater service. Double counting is expected. | |
| *Processing Rules:* | | |  | | --- | | Input field. | | |
| **E11.20** | **Information Systems: Mainframes** | | **Nr** |
| *Definition:* | | The total number of mainframes utilised to support only the water, wastewater and stormwater services (Three Waters). When counting the number of mainframes for the water service include those that are also used for the wastewater and stormwater service. Double counting is expected. Likewise, when counting the number of mainframes for the wastewater service include those mainframes that are also used for the water and stormwater service. Double counting is expected. | |
| *Processing Rules:* | | |  | | --- | | Input field. | | |

TABLE E12: INFLATION ASSUMPTIONS

1. Local authorities are asked to provide the numbers in nominal terms and state the inflation assumptions in this table.

Guidance to the Local Authority

1. The Local Authority should provide the inflation assumptions for all relevant lines in the E tables. This should be provided for each year (report year minus 1, report year and report year plus 1). Please add a new line for each assumption as required.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **E12.1** | **Is forecast information in section E provided in real or nominal terms?** | | **%/General** | |
| Definition: | | For the forecast information inputted throughout Section E, please state whether these values are ‘real’ (excluding inflation) or ‘nominal’ (including inflation). If the inputted values are ‘real’, no further input is required in E12. If the inputted values are ‘nominal’, please provide details of each of the underlying assumptions applied and the worksheet reference that they relate to. Please add as many additional rows as required. Please provide an assumption for each forecast year. | |
| Processing rules: | | Input field and/or drop-down selection. | |