<table>
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<th>What to Report</th>
<th>Summary Statistics Needed for ICIS</th>
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</table>
| Continuous           | Effluent Flow | Flow limits are rare. They are sometimes used in the case of a release to a drain field, or to reduce impacts to a river with low flows. | Daily totals  
Monthly max  
Monthly average  
Monthly min  
Monthly total  
Other statistics may be needed if there is a flow limit, and would be based on the need for a limit. | Statistics needed for ICIS will vary depending on the need for the limit.  
The following are provided as examples.  
Monthly max  
Monthly average  
Monthly total |
| Continuous           | pH         | May not be outside the range of XX to XX for more than a total of 7 hours and 26 minutes in any calendar month, and no individual excursion from this range may exceed 60 minutes.  
*Note: though continuous monitoring may be required, compliance can still be established with respect to grab samples. If it is, the permit limits and reporting should correspond to the grab sample frequency.* | Daily Max  
Daily Min  
Monthly Max  
Monthly Min  
Number of excursions longer than 60 minutes  
Sum of all excursion(s) | Number of excursions longer than 60 minutes  
Sum of all excursion(s) |

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1 The monthly total is used to calculate seasonal average flows, and these in turn are used to evaluate I/I problems.
2 This is equivalent to 1% of a 31 day month.
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|                      | Temperature expressed as °F or °C (no limit) | Max daily value | Daily max  
Monthly max  
Monthly average | Monthly max  
Monthly average |
|                      | Temperature (°F or °C), for limit or when used to calculate ETL (Excess Thermal Load) | Max 7 day rolling average  
ETL and/or  
Daily Max ETL  
*Note that the permit limit may actually be a formula from a TMDL report that takes into account river flow and temperature and varies over the year.* | Base statistics on the need for the temperature limit or ETL limit (such as TMDL). Willamette TMDL is used as example.  
Daily max  
Average of daily maximums as a rolling seven-day average  
Monthly max  
Monthly average | Statistics will vary based on the need for the temperature limit or ETL limit (such as TMDL).  
Willamette TMDL is used as example.  
Average of daily maximums as a rolling seven-day average  
Monthly max  
Monthly average |
|                      | ETL (Excess Thermal Load) | Max 7 day rolling average  
ETL and/or  
Daily Max ETL  
*Note that the permit limit may actually be a formula from a TMDL report that takes into account river flow and temperature and varies over the year.* | Base statistics on the need for the ETL limit. Willamette TMDL is used as example.  
Daily values as a rolling seven-day average  
ETL limit, daily when using ETL Limit Option B or C  
Stream Flow, daily average when using ETL Limit Option B or C  
Stream Flow, 7-day rolling average of daily averages when using ETL Limit Option B or C  
Stream temperature average, daily when using ETL Limit Option C  
Stream temperature max, daily when using ETL Limit Option C  
Count of days over calculated limit | Base statistics on the need for the ETL limit. Willamette TMDL is used as example.  
Count of days over calculated limit |
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<tr>
<td></td>
<td>Total Chlorine Residual&lt;sup&gt;3&lt;/sup&gt;</td>
<td>Monthly average Daily max</td>
<td>Daily values (these are averages calculated for each day of the month) Max daily value Monthly average</td>
<td>Max daily value Monthly average</td>
</tr>
<tr>
<td>Daily</td>
<td>Flow</td>
<td>Flow limits are rare. If established, The type of monitoring would be determined by the need for the limit.</td>
<td>See above under Continuous.</td>
<td>See above under Continuous.</td>
</tr>
<tr>
<td></td>
<td>pH</td>
<td>May not be outside the range of XX to XX</td>
<td>Daily values Max daily value Monthly min</td>
<td>Max daily value Monthly min</td>
</tr>
<tr>
<td></td>
<td>Total Chlorine Residual</td>
<td>Monthly average Daily</td>
<td>Daily values Max daily value Monthly average</td>
<td>Max daily value Monthly average</td>
</tr>
<tr>
<td></td>
<td>Quantity Chlorine Used</td>
<td>Quantity Used (lbs)</td>
<td>Quantity used</td>
<td>Quantity used</td>
</tr>
<tr>
<td></td>
<td>UV dose, intensity, percent UV transmittance</td>
<td>Monitoring only</td>
<td>Daily average Monthly min Monthly average Max daily value</td>
<td>Daily average Monthly min Monthly average Max daily value</td>
</tr>
</tbody>
</table>

<sup>3</sup> For the purposes of establishing compliance, grab samples are preferable to continuous monitoring results. Continuous monitoring of chlorine is primarily useful for process control.
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| 2/week Or 3/week    | BOD, TSS    | Concentration:  
  - Max daily value  
  - Weekly average  | Daily values  
  Monthly average  
  Weekly averages  
  Max weekly average  
  Max daily value | Monthly average  
  Weekly averages  
  Max weekly average  
  Max daily value |
|                     |             | Mass load:  
  - Max daily value  
  - Weekly average  
  - Daily max  | Daily values  
  Monthly average  
  Weekly averages  
  Max weekly average  
  Max daily value | Monthly average  
  Weekly averages  
  Max weekly average  
  Max daily value |
|                     |             | % Removal  
  Note: though BOD is measured more than once a month, calc. is performed only once a month.       | Monthly average percent calculated as follows:  
  \[100\times(\text{BOD}_{\text{in}} - \text{BOD}_{\text{out}})/\text{BOD}_{\text{in}}\]  
  where \(\text{BOD}_{\text{in}}\) and \(\text{BOD}_{\text{out}}\) are monthly averages. | Monthly average percent calculated as shown at left |
|                     | pH          | May not be outside the range of XX to XX                                                               | Daily values  
  Max daily value  
  Min daily value | Max daily value  
  Min daily value |
|                     | E. coli Bacteria (for freshwater) | Max geometric mean  
  Max single sample  
  Max geometric mean of re-samples | Daily values  
  Max daily value  
  Monthly geometric mean  
  Geometric mean of re-samples | Max daily value  
  Monthly geometric mean |
|                     | Fecal coliform Bacteria (for shellfishing areas) | Monthly median  
  Percent samples exceeding 43 organisms | Daily values  
  Monthly median  
  Percent samples exceeding 43 organisms | Monthly median  
  Percent samples exceeding 43 organisms |
|                     | Enterococcus (for coastal recreation areas) | Monthly geometric mean | Daily values  
  Monthly geometric mean | Monthly geometric mean |
<p>|                     | Temperature | See above under Continuous | See above under Continuous | See above under Continuous |
|                     | Excess Thermal Load | See above under Continuous | See above under Continuous | See above under Continuous |</p>
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<tr>
<td>1/week to once a month</td>
<td>Bacteria</td>
<td>See above</td>
<td>See above</td>
<td>See above</td>
</tr>
<tr>
<td></td>
<td>Nutrients incl. ammonia</td>
<td>Concentration: Max daily value, weekly max</td>
<td>Daily values</td>
<td>Monthly average</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Monthly average</td>
<td>Max daily value</td>
</tr>
<tr>
<td></td>
<td>Table 40 Toxics incl. ammonia</td>
<td>Concentration: daily average, monthly average</td>
<td>Daily values</td>
<td>Monthly average</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Monthly average</td>
<td>Max daily value</td>
</tr>
<tr>
<td>Quarterly, Semi-annually, and Annually</td>
<td>Flow meter calibration</td>
<td>None</td>
<td>Completed or not completed</td>
<td>Completed or not completed</td>
</tr>
<tr>
<td></td>
<td>Pretreatment monitoring</td>
<td>None</td>
<td>N/A</td>
<td>N/A</td>
</tr>
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