

| Metabolite                                    |               | initial concentration | PAC dose | after PAC | after coagulation and sedimentation | Chlorine CT | after chlorination | Final* | PAC         |
|-----------------------------------------------|---------------|-----------------------|----------|-----------|-------------------------------------|-------------|--------------------|--------|-------------|
| MIB                                           | dissolved     | 10                    | 15       | 3         | 3                                   |             | 5                  | 5      | PAC PS1000F |
|                                               | intracellular | 24                    |          | 24        | 1                                   |             | 0                  | 0      |             |
| TOTALS                                        |               | 34                    |          | 27        | 5                                   |             | 5                  | 5      |             |
| geosmin                                       | dissolved     | 50                    | 20       | 2         | 2                                   |             | 5                  | 5      | PAC PS1000F |
|                                               | intracellular | 60                    |          | 60        | 3                                   |             | 0                  | 0      |             |
| TOTALS                                        |               | 110                   |          | 62        | 5                                   |             | 5                  | 5      |             |
| STXeq                                         | dissolved     | 25                    | 15       | 13.1      | 13.1                                | 15          | 5.3                | 5.3    | PAC PS1000  |
|                                               | intracellular | 15                    |          | 15.0      | 0.8                                 |             | 0.0                | 0.0    |             |
| TOTALS                                        |               | 40                    |          | 28.1      | 13.8                                |             | 5.3                | 5.3    |             |
| cylindrospermopsin                            | dissolved     | 25                    | 11       | 2.0       | 2.0                                 | 15          | 0.7                | 0.7    | PAC PS1000  |
|                                               | intracellular | 11                    |          | 11.0      | 0.6                                 |             | 0.0                | 0.0    |             |
| TOTALS                                        |               | 36                    |          | 13.0      | 2.5                                 |             | 0.7                | 0.7    |             |
| mLR                                           | dissolved     | 13                    | 12       | 2.5       | 2.5                                 | 25          | 1.0                | 1.0    | PAC PS1000  |
|                                               | intracellular | 14                    |          | 14.0      | 0.7                                 |             | 0.0                | 0.0    |             |
| TOTALS                                        |               | 27                    |          | 16.5      | 3.2                                 |             | 1.0                | 1.0    |             |
| mLA                                           | dissolved     | 9                     | 9        | 4.8       | 4.8                                 | 100         | 0.1                | 0.1    | PAC PS1000  |
|                                               | intracellular | 9                     |          | 9.0       | 0.5                                 |             | 0.0                | 0.0    |             |
| TOTALS                                        |               | 18                    |          | 13.8      | 5.3                                 |             | 0.1                | 0.1    |             |
| <b>assumptions*</b>                           |               |                       |          |           |                                     |             |                    |        |             |
| PAC, 30 min contact time                      |               |                       |          |           |                                     |             |                    |        |             |
| removal of cells by coagulation = 95%         |               |                       |          |           |                                     |             |                    |        |             |
| no removal through the filters                |               |                       |          |           |                                     |             |                    |        |             |
| no allowance for sludge supernatant recycling |               |                       |          |           |                                     |             |                    |        |             |

Figure SI-1. Generic cyanobacteria and metabolite removal tool [21].

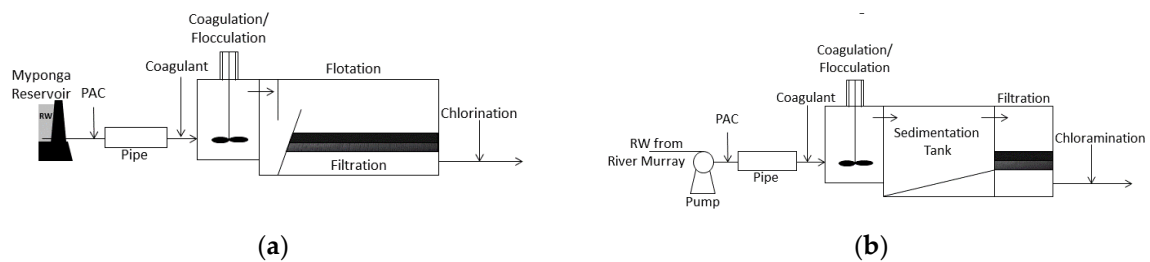


Figure SI-2. Treatment processes at (a) WTP-A and (b) WTP-B. For further details on all studied plants refer to Newcombe et al. [21].