**Wet Weather Flow**

**PROTEUS** is a high-rate media filtration system. Using proprietary floating media, it effectively removes suspended solids and soluble organics through physical filtration and biological treatment.

The **PROTEUS** system can be used to treat wet weather flows to primary or secondary standards. With continuous aeration capabilities and no settling required, the system can manage high peaking factors and variable flow rates, simplifying the treatment of dilute flows.

**Combine Filtration With Biological Treatment**

- **Short HRT, Small Footprint**
- **Maximum Peak Flow Flexibility (up to 4x)**
- **Reduced Disinfectant Demand**

**HIGH RATE SOLIDS REMOVAL**

- **IN LOWER (ANOXIC) FILTER LAYER**
  - Rapid Startup (reduces EQ required)
  - Consistent TSS output
    - Reduces chlorine demand & contact time
    - Less chlorine dosing swings, less violations
  - Higher TSS removal than primaries
    - Less Aeration & HRT
    - More biogas production

**RAPID BIOLOGICAL TREATMENT**

- **IN AERATED UPPER BED**
  1. Short HRT, Small footprint:
    - As low as 15min aerobic EBCT
  2. Maximum peak flow flexibility:
    - Peaks of 4x design flow can still be filtered to achieve TSS & total BOD removal
  3. No chemicals
  4. No recycle streams
    - Eliminates intermediate pumping

**SECONDARY-TREATED EFFLUENT TO DISINFECTION**

- **Fixed Film Aerobic Oxidation**
  - Removes ~70% of Soluble BOD

- **Media Filtration**
  - Removes 80-90% of TSS

**WET WEATHER INFLUENT**

- **BOD**
- **TSS**
The information provided in this brochure contains merely general descriptions or characteristics of performance which in actual case of use do not always apply as described or which may change as a result of further development of the products. An obligation to provide the respective characteristics shall only exist if expressly agreed in the terms of contract.

Reference Sites

SEONAM WWTP  |  190 MGD  
Under Construction

JUNGNANG WWTP  |  132 MGD  
April 2018

HADO WWTP  |  16.4 MGD  
February 2017

PROTEUS WWF Performance at 15 mins Aerobic EBCT

<table>
<thead>
<tr>
<th></th>
<th>INFLUENT</th>
<th>EFFLUENT</th>
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<tbody>
<tr>
<td>SOLUBLE BOD REMOVAL</td>
<td>72%</td>
<td>306%</td>
</tr>
<tr>
<td>TSS REMOVAL (DILUTE FLOW)</td>
<td>150%</td>
<td>13%</td>
</tr>
<tr>
<td>TSS REMOVAL (FIRST FLUSH)</td>
<td>1192%</td>
<td>136%</td>
</tr>
</tbody>
</table>

If you’d like to learn more, please contact JL@BKT21.COM or call (714) 578-0676 x112.

www.tomorrowwater.com