Reed Bed Treatment System

Wetland Treatment Center of Advanced Materials Changshu Industrial Park

Owner:
Changshu Industrial Park Administration, Jiangsu province, China

Industrial wastewater treatment; reuse of treated wastewater; protection of the Yangtze river

Planning, tendering and construction supervision:
Blumberg Engineers, Germany and two German partners with DeHua Eco Tech, China

Daily wastewater volume: 4000 m³/d

Planning: 2010/2011
Construction: 2013/2014

Total constructed wetlands area: 6 ha

Treatment Cascade:

1.step:
Vertical subsurface flow constructed wetlands: 20,000 m²

2.step:
Pond cascade:
- Deep pond with floating islands: 2,652 m²
- Rocky creek: 1,064 m²
- Shallow surface flow wetland: 4,019 m²

3.step:
Horizontal subsurface flow constructed wetlands: 10,062 m²

Special features:
- Pretreated wastewater from Industrial Park (chemical companies)
- Reuse of effluent as process water within the industrial park.
- High salinity and fluoride content of the wastewater.
Our spray nozzles in action

Arundo donax, Operations and demonstration centre in the background

Advanced Materials Industrial Park (AMIP) Changshu
Treatment performance:

<table>
<thead>
<tr>
<th>Year</th>
<th>Influent</th>
<th>Effluent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>pH</td>
<td>COD</td>
</tr>
<tr>
<td>2015</td>
<td>7,4</td>
<td>52,3</td>
</tr>
<tr>
<td>2016</td>
<td>7,6</td>
<td>48,3</td>
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