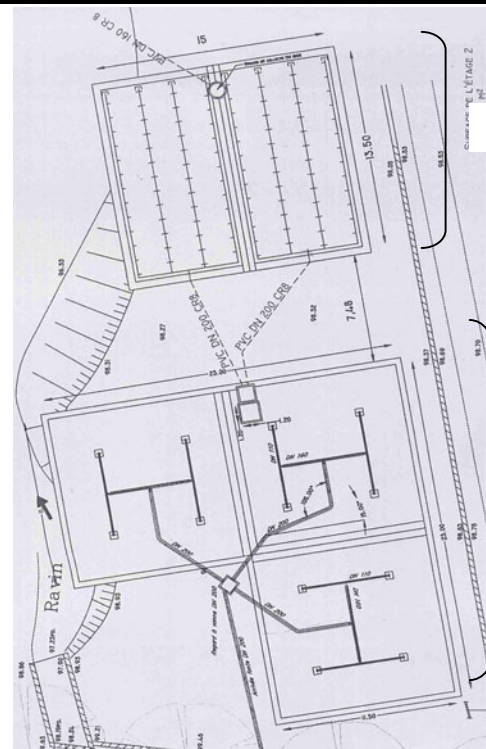


**- 9th International Conference on Wetland Systems -  
- 29th of September 2004 -**



Feeding system of the first stage



Stage 2

Stage 1

## PHRAGMIFILTRE® PLANT OF SAINT THOMÉ

**400 PE**

Owner: ..... Municipality of Saint Thomé  
 Consultant Engineers: ..... Beture Cerec  
 Design: ..... SINT  
 Year of construction and Investment costs: ..... 2000 - 85 317 € HT  
 Contractors: ..... Epur Nature

### Treatment system:

This reed bed filter treatment plant is designed for an average wastewater flow of 60m<sup>3</sup>/day. Flow measurements have not been done up to now. After screening, water is sent by a siphon to the first stage of filters, which consists of 3 beds in parallel. The effective average flow of the siphon when working is 95m<sup>3</sup>/h. The bed in operation is changed twice a week.

The water is collected at the bottom of the 1<sup>st</sup> stage filters by a common drainage system, then passes through a second siphon feeding to one of the 2 beds of the second stage. Feeding of these beds is changed once a week. The outflow goes mainly to the alluvial soil underneath however a part of the bottom of the bed is made watertight by a membrane so that some of the effluent can be retrieved and the quality of the effluent measured before it flows into a stream.

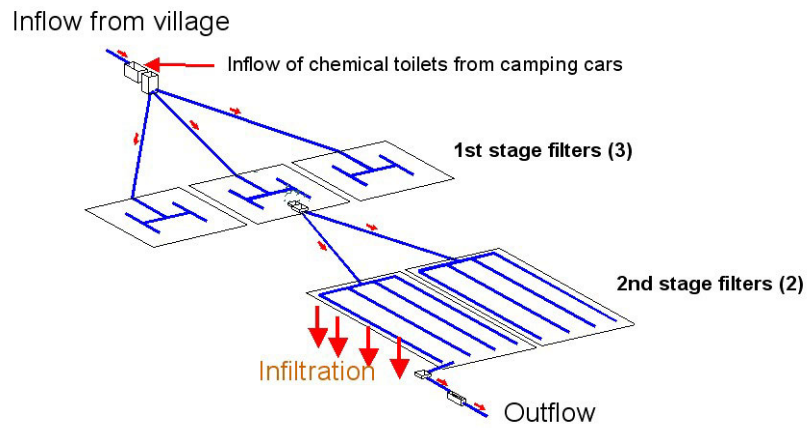
	Stage 1	Stage 2
<b>Percolation</b>	Vertical	Vertical
<b>Feeding</b>	Siphon	Siphon
<b>Sizing</b>	3 beds of 134 m <sup>2</sup>	2 beds of 102 m <sup>2</sup>

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 Tél. : 04 79 34 05 66  
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**Siège social**  
 Le Bourg  
 69 610 MONTROMANT  
 Tél. : 04 74 26 24 04  
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 Email : sint@sint.fr

## Layout:



## Performance of Saint Thomé Reed bed filters:

	Number of analyses	Inflow			Outflow			Discharge Limits	Performance %
		mean	min.	max.	mean.	min.	max.		
COD (mg O <sub>2</sub> /l)	4	<b>933</b>	319	1675	<b>36</b>	<b>22</b>	<b>46</b>	<b>125</b>	94.9
BOD <sub>5</sub> (mgO <sub>2</sub> /l)	4	<b>135</b>	870	1102	<b>6</b>	<b>3</b>	<b>11</b>	<b>25</b>	98.4
TSS (mg/l)	4	<b>99</b>	858	1072	<b>6</b>	<b>2</b>	<b>10</b>	<b>35</b>	98,3
TKN (mgN/l)	4	<b>64</b>	-	-	<b>4</b>	<b>2</b>	<b>6</b>	<b>40</b>	93,2

Analytical results from grab samples (inflow-outflow measurements), between 2000 and 2003



Chemical toilet emptying facility for camping cars



Self-priming siphon