

Wastewater Design and Costing at your fingertips...

Software for the preliminary design and costing of wastewater treatment systems



CapdetWorks is a planning level tool to help you rapidly design and cost a new plant.

CapdetWorks calculates all the costs - capital, operating and maintenance for each treatment alternative.

Simply drag-and-drop unit processes to build a wastewater treatment plant schematic. CapdetWorks will then calculate a design and estimate the cost to build, operate and maintain the facility.

Using CapdetWorks, your planning level design and costing productivity improves dramatically leading to better engineering decisions.

CapdetWorks helps you work more efficiently because you can quickly build numerous treatment alternatives and compare their relative costs.

CapdetWorks is accurate. Well accepted design algorithms are used to derive the required unit process designs. Unit cost estimation techniques are used for a majority of the treatment processes.

Details for Activated Sludge

Unit	Quantity	Unit Cost	Total Cost	Operating Cost	Maintenance Cost
Primary Treatment	1	\$134,000	\$134,000	\$20,300	\$13,400
Primary Clarification	1	\$172,000	\$172,000	\$19,600	\$7,120
Secondary Treatment	1	\$3,443,000	\$3,443,000	\$120,000	\$147,000
Secondary Clarifier	1	\$917,000	\$917,000	\$24,000	\$9,000

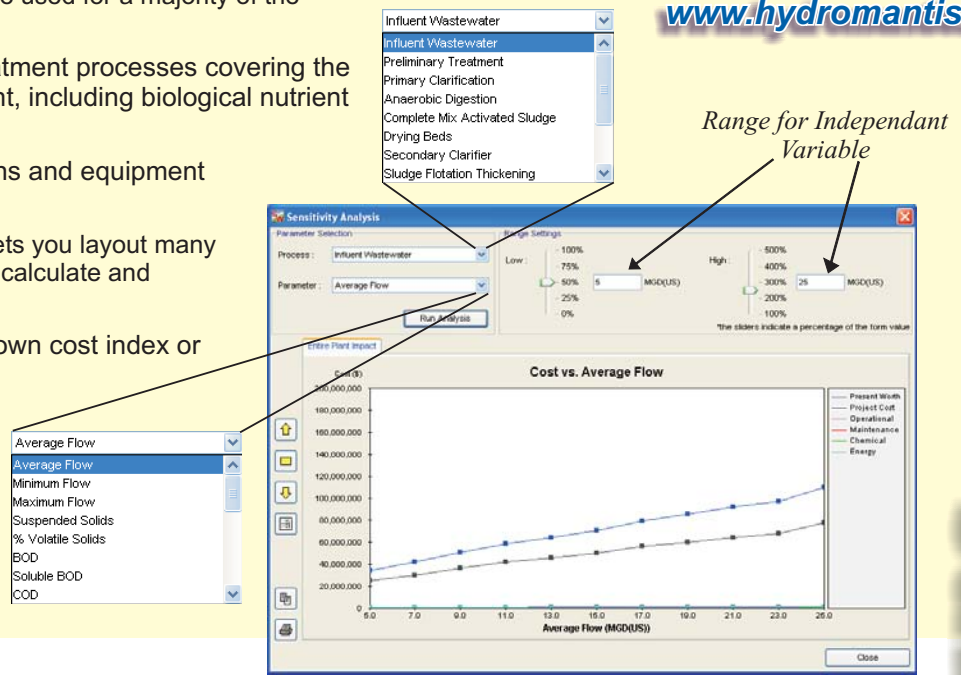
Parameter	Value	Unit
Design QRT for design at winter temperature	4	h
Design QRT	4000	mg/L
Calculated VSS	3710	mg/L
Calculated VSS TSS ratio	0.826	mg VSS/mg TSS
Length of parallel train	24	m
Width of parallel train	10	m

Parameter	Value	Unit
Minimum flow	10	MGD(US)
Maximum flow	10	MGD(US)
Average flow	10	MGD(US)
Suspended solids	100	mg/L
BOD	75.0	mg/L
5-day BOD	100	mg/L
5-day BOD	20.0	mg/L
COO	300	mg/L
5-day COO	300	mg/L
TSS	40.7	mg/L

- **CapdetWorks** is based on well accepted design algorithms. Unit cost estimation techniques are used for a majority of the treatment processes.

Free demo can be downloaded from:
www.hydrumantis.com

- There is a choice of over 60 treatment processes covering the entire wastewater treatment plant, including biological nutrient removal.
- Required unit process dimensions and equipment are calculated automatically.
- A scenario management feature lets you layout many treatment alternatives and rapidly calculate and compare costs between them.
- Localized costing. Create your own cost index or apply published indices.
- Supports multiple units of measurement.
- Detailed printed and exportable reports.



How It Works....

Simply drag-and-drops unit processes to build a wastewater treatment plant schematic.

Define the influent and the desired effluent quality, CapdetWorks will then automatically calculate a plant design and estimate the cost to build, operate and maintain the facility. Numerous treatment alternatives and their costs can be evaluated very quickly.

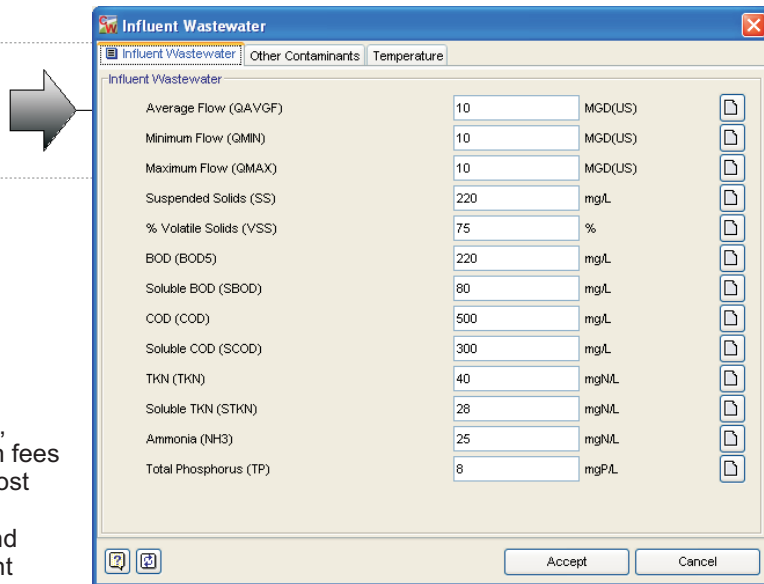
The designs are based on many characteristics of the wastewater being treated, not just one parameter such as wastewater flow. You can override many of the calculated designs if you wish.

CapdetWorks calculates all the costs - capital, operating and maintenance for each treatment alternative.

An equipment cost database is provided that you can customize to reflect different geographic locations. You can have multiple databases.

Costs such as labor, amortization, land, concrete, pumps, pipes, power, haulage, chemicals, design fees are all included. You can also create your own cost index or apply published industry cost indices. Interactive sensitivity analysis helps you focus and work on parameters that most effect the treatment cost.

Interactive sensitivity analysis helps you focus and work on parameters that most effect the treatment cost.



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